WAYNE STATE UNIVERSITY
Undergraduate Bulletin
2011-2013

CONTENTS

CONTENTS

Academic Calendar 2011-2013

Spring/Summer Term, 2011

Term Begins. . . . . Wed., May 4, 2011
Spring and Spring/Summer Classes Begin . . . . . Mon., May 9
Spring Session Late Registration . . . . . .Mon., May 9 - Sat., May 14
Spring/Summer Session Late Registration . . .Mon., May 9 - Sat., May 21
Holiday: University Closed. . . . . Mon., May 30
Degree Applications Due. . . . . Fri., June 10
Day Scheduled as a Monday[1] . . . . . Fri., June 3
Spring Session Classes End . . . . . Fri., June 24
Spring Session Study Day . . . . . Sat., June 25
Spring Session Final Exams . . . . . Mon., June 27 - Tue June 28
Summer Session Classes Begin . . . . . Wed., June 29
Summer Session Late Registration . . . . . Wed., June 29 - Wed., July 6
Holiday: University Closed. . . . . .Mon., July 4
Census Date . . . . . Wed., July 6
Day Scheduled as a Monday for Summer Session . . . . . Fri., July 8
Spring/Summer Session Classes End . . . . . .Fri., July 29
Spring/Summer Session Study Day . . . . . Sat., July 30
Spring/Summer Session Final Exams . . . . . Mon., Aug 1- Thu., Aug 4
Summer Session Classes End . . . . . Tue Aug 16
Summer Session Study Day . . . . . Wed., Aug 17
Summer Session Final Exams . . . . . Thu., Aug 18 - Fri., Aug 19
Spring/SummerTerm Ends . . . . . Sat., Aug. 27, 2011

Fall Term, 2011

University Year Appointments Begin[2] . . . . . .Thu., Aug. 18, 2011
Priority Registration . . . . . .Mon., Mar 28 - Sat., Aug. 20
Term Begins. . . . . Sun., Aug. 28
Open Registration . . . . . Mon., Aug. 22 - Tue., Aug. 30
Classes Begin . . . . . Wed., Aug. 31
Late Registration . . . . . Wed., Aug. 31 - Wed., Sep. 14
Holiday: University Closed . . . . . Mon., Sep. 5
Census Date . . . . . Wed., Sep. 14
Degree Applications Due. . . . . Fri., Sep. 30
Holiday - No Classes. . . . . Wed., Nov. 23
Holiday: University Closed. . . . . Thu., Nov. 24 - Sat., Nov. 26
Commencement . . . . . Sat., Dec. 10, Sun., Dec 11
Classes End . . . . . Mon., Dec. 12
Study Day . . . . . Tue., Dec. 13
Final Exams. . . . . .Wed., Dec. 14 - Tue., Dec. 20
Holiday: University Closed . . . . . .Mon., Dec. 26 - Fri., Dec. 30
Term Ends . . . . . Sat., Dec. 31, 2011

Winter Term, 2012

Priority Registration . . . . . Mon., Nov. 7, 2011 - Sat., Dec. 31, 2011
Term Begins. . . . . .Sun., Jan. 1, 2012
Open Registration . . . . . .Mon., Jan. 2 - Sat., Jan. 7
Late Registration . . . . . .Mon., Jan. 9 - Mon., Jan. 23
Classes Begin . . . . . Mon., Jan. 9
Holiday: University Closed. . . . . Mon., Jan. 16
Census Date . . . . . Mon., Jan. 23
Degree Applications Due. . . . . .Fri., Feb. 10
Spring Break: No Classes . . . . . .Mon., Mar. 12 - Sat., Mar 17
Classes End . . . . . Mon., April 23
Study Day . . . . . .Tue., April 24
Final Exams. . . . . .Wed., April 25 - Tue., May 1
Term Ends . . . . . .Tue., May 1
Commencement Ceremony . . . . . Thu., May 3, Fri., May 4
University Year Appointments End [2] . . . . . .Tue., May 15, 2012

Spring/Summer Term, 2012

Priority Registration . . . . . .Mon., Feb. 6 - Sat., April 28
Open Registration . . . . . .Mon., April 30 - Sat., May 5
Term Begins . . . . . .Wed., May 2
Spring and Spring/Summer Classes Begin . . . . . Mon., May 7
Spring Session Late Registration . . . . . Mon., May 7 - Sat., May 12
Spring/Summer Session Late Registration . . Mon., May 7 - Sat., May 19
Holiday: University Closed . . . . . Mon., May 28
Degree Applications Due . . . . . .Fri., June 8
Day Scheduled as a Monday [1]. . . . . .Fri., June 1
Spring Session Classes End . . . . . Fri., June 22
Spring Session Study Day . . . . . Sat., June 23
Spring Session Final Exams . . . . . .Mon., June 25 - Tue June 26
Summer Session Classes Begin . . . . . Wed., June 27
Summer Session Late Registration . . . . . Wed., June 27 - Tue July 3
Holiday: University Closed . . . . . Wed., July 4
Census Date . . . . . Tue., July 3
Day Scheduled as a Wednes day for Summer Session . . . . . Fri., July 6
Spring/Summer Session Classes End . . . . . .Fri., July 27
Spring/Summer Session Study Day . . . . . .Sat., July 28
Spring/Summer Session Final Exams . . . . . .Mon., July 30- Thu., Aug 2
Summer Session Classes End . . . . . .Tue Aug 14
Summer Session Study Day . . . . . Wed., Aug 15
Summer Session Final Exams . . . . . .Thu., Aug 16 - Fri., Aug 17
Spring/SummerTerm Ends . . . . . Sat., Aug. 25, 2012

*Fall Term, 2012**

University Year Appointments Begin [2] . . . . . Fri., Aug. 17, 2012
Priority Registration . . . . . Mon., Mar 26 - Sat., Aug. 18
Term Begins . . . . . Sun., Aug. 26
Open Registration . . . . . Mon., Aug. 20 - Tue., Aug. 28
Late Registration . . . . . .Wed., Aug. 29 - Wed., Sep. 12
Classes Begin . . . . . .Wed., Aug. 29
Holiday: University Closed . . . . . .Mon., Sep. 3
Census Date . . . . . .Wed., Sep. 12
Degree Applications Due . . . . . Fri., Sep. 28
Holiday - No Classes . . . . . .Wed., Nov. 21
Holiday: University Closed . . . . . Thu., Nov. 22 - Sat., Nov. 24
Commencement Ceremony . . . . . Sat., Dec. 8, Sun., Dec 9
Classes End . . . . . .Mon., Dec. 10
Study Day. . . . . Tue., Dec. 11
Final Exams . . . . . Wed., Dec. 12 - Tue., Dec. 18
Holiday: University Closed . . . . . Tue., Dec. 25 - Tue., Jan. 1
Term Ends . . . . . .Mon., Dec. 31, 2012

*Winter Term, 2012**

Priority Registration . . . . . .Mon., Nov. 5, 2012 - Sat., Dec. 29, 2012
Term Begins . . . . . Tue., Jan. 1, 2013
Open Registration . . . . . Mon., Dec. 31 - Sat., Jan. 5
Late Registration . . . . . Mon., Jan. 7 - Fri., Jan. 18
Classes Begin . . . . . Mon., Jan. 79
Census Date . . . . . Fri., Jan. 18
Holiday: University Closed . . . . . Mon., Jan. 21
Degree Applications Due . . . . . Fri., Feb. 8
Spring Break: No Classes . . . . . .Mon., Mar. 11 - Sat., Mar 16
Classes End . . . . . .Mon., April 22
Study Day. . . . . Tue., April 23
Final Exams . . . . . Wed., April 24 - Tue., April 30
Term Ends . . . . . Tue., April 30
Commencement Ceremony . . . . . .Thu., May 2, Fri., May 3
University Year Appointments End [2] . . . . . .Wed., May 15, 2013

1. An equal number of class days is needed for some laboratory courses. To make up for class days lost due to observance of holidays, substitute class days are scheduled.

2.University Year Appointments are a full nine months in length. Individual service assignments are the responsibility of the appropriate Dean, or, by delegation, the Department Chairperson.

*Tentative.

GENERAL INFORMATION

This publication is for informational purposes and is neither a contract nor an offer to contract. The University reserves the right to change any provision or requirement at any time without notice.

Contained in the following section are the general rules and regulations for undergraduate study at Wayne State University, as well as descriptions and locations of University student services. For additions, amendments, and specific applications of the following regulations, consult the individual School and College sections of this bulletin.

For graduate regulations, degree programs and curricula, consult the Wayne State University Graduate Bulletin.

It is the responsibility of the student to meet and satisfy all University, college and program requirements.

Foreword

University Administration

Board of Governors

TINA ABBOTT
DEBBIE DINGELL
EUGENE DRIKER
DIANE L. DUNASKISS
DANIALLE KARMANOS
PAUL E. MASSARON
ANNETTA MILLER
GARY S. POLLARD
ALLAN D. GILMOUR, Ex Officio

Officers

ALLAN D. GILMOUR, President of the University
TINA ABBOTT, Chairperson of the Board of Governors
DEBBIE DINGELL, Vice Chairperson of the Board of Governors
JULIE MILLER, Secretary to the Board of Governors and Executive Assistant to the President
RICHARD NORK, Vice President, Finance and Business Operations and Treasurer

University Administrative Officers

ALLAN D. GILMOUR, M.B.A., President
ROBERT M. ACKERMAN, J.D., Dean of the Law School
RONALD T. BROWN, Ph.D., Provost and Senior Vice President for Academic Affairs
STEPHEN CALKINS, J.D., Associate Vice President for Academic Personnel
ANDREA ROUMELL DICKSON, J.D., Executive Vice President and Chief of Staff
AHMAD EZZEDDINE, Ph.D., Associate Vice President for Educational Outreach and International Programs
JERRY HERRON, Ph.D., Dean of the Irvin D. Reid Honors College
HARVEY HOLLINS III, M.A., Vice President for Government Affairs
ROBERT KOHRMAN, M.A., Associate Vice President for Budget, Planning and Analysis
LOUIS LESSEM, J.D., Vice President and General Counsel
JULIE MILLER, M.A., Secretary to the Board of Governors and Executive Assistant to the President
RICHARD NORK, B.S., Vice President, Finance and Business Operations and Treasurer
VALERIE PARISI, M.D., Dean of the School of Medicine
HILARY H. RATNER, Ph.D., Vice President for Research
BARBARA K. REDMAN, Ph.D., Dean of the College of Nursing
DAVID RIPPLE, M.A., Vice President for Development and Alumni Affairs, and President of the Wayne State University Foundation
MATTHEW SEEGER, Interim Dean of the College of Fine, Performing and Communication Arts
HOWARD N. SHAPIRO, Ph.D., Associate Vice President for Student Services and Undergraduate Affairs
CAROLYN SHIELDS, Ph.D., Dean of the College of Education
ROBERT L. THOMAS, Ph.D., Dean of the College of Liberal Arts and Sciences
FARSHAD FOTOUHI, Ph.D., Dean of the College of Engineering
PHYLLIS I. VROOM, Ph.D., Dean of the School of Social Work
MARK WARDELL, Ph.D., Associate Provost and Dean of the Graduate School
DAVID L. WILLIAMS, Ph.D., Dean of the School of Business Administration
MICHAEL WRIGHT, M.B.A., Vice President for Marketing and Communications
SANDRA G. YEE, Ed.D., Dean of University Libraries and of the School of Library and Information Science
LLOYD Y. YOUNG, Pharm.D., Dean of the Eugene Applebaum College of Pharmacy and Health Sciences

University Mission

As an urban research university, it is our mission to discover, examine, transmit and apply knowledge that contributes to the positive development and well-being of individuals, organizations and society. Wayne State University is a national research institution dedicated to preparing students to excel in an increasingly advanced and interconnected global society.

Foundational Values

Wayne State University is a national research university with an urban teaching and service mission. It is a constitutionally autonomous public university within the State of Michigan's system of public colleges and universities.

As a national research university, Wayne State is committed to high standards in research and scholarship. Its first priority is to develop new knowledge and encourage its application. Because it is a national research university, Wayne State develops and maintains strong graduate and professional programs in many fields, and in the arts, it fosters creativity and strives for excellence in performance and exhibition. To maintain its standards, the University seeks to strengthen those programs that have achieved national recognition while, at the same time, fostering programs which show promise for the future. Wayne State strives to maintain its performance ranking as measured by its funded research, the quality of its graduate programs as evaluated by national studies of graduate education, and the effectiveness of all academic programs as assessed by external evaluation.

As an urban teaching university, and because its graduates typically continue to live and work in the area throughout their lives, Wayne State seeks especially to serve residents of the greater Detroit metropolitan area, although it enrolls students from across the State, the nation, and around the world. WSU is dedicated to preparing students to excel in an increasingly advanced and interconnected global community.

The University offers more than 350 bachelor's, master's and doctoral degree programs as well as specialist, certificate and professional programs. It makes available high-quality educational programs in more than six hundred fields of study or concentration leading to more than three hundred different degrees at the bachelor's, master's and doctoral levels. As a nationally ranked university, Wayne State holds high expectations for the educational achievements of its students and consequently maintains selective admissions standards; but as an urban university it recognizes an obligation to develop special avenues that encourage access for promising students from disadvantaged educational backgrounds. The University aspires to implement its curricula in ways that serve the needs of a nontraditional student population that is racially and ethnically diverse, commuting, working, and raising families. Its student body is composed of students of traditional college age together with many older students, and includes many who are from the first generation in their family or neighborhood to attend a university. In its teaching, the University strives to be sensitive to the special experiences, conditions, and opportunities presented by this diversity in its student body. To meet its obligations to its nontraditional students, the University attempts to schedule classes throughout the metropolitan area, during the evening as well as during the day.

Wayne State University recognizes its obligation to serve. Like other major universities, it strives to serve the disciplines and professions represented among its academic programs as well as public and private sector organizations and associations at local, State, and national levels. As an urban university, it makes a special commitment to the Detroit metropolitan area in three ways: first, it uses its metropolitan locale as a setting for basic and applied research and fosters the development of new knowledge of urban physical and social environments; second, it employs its locale as a teaching laboratory and incorporates metropolitan area materials into its curriculum; and third, it brings knowledge to bear to assist and strengthen

the metropolitan area. In particular, Wayne State University contributes to the economic revitalization of southeastern Michigan through research programs that develop new technology and teaching programs that educate the citizens who will live and work in the region in the coming years.

Wayne State University respects and protects the personal and academic freedom of its students, faculty and academic staff. The programs and activities of the University are open to all qualified persons without regard to race, religion, marital status, sex, sexual orientation, age, national or ethnic origin, political belief, or physical handicap, except as may be required by law. The University seeks to demonstrate, through all its programs and activities, its appreciation of human diversity and to maintain an atmosphere of tolerance and mutual respect that will nourish human liberty and democratic citizenship.

A relatively youthful state university — part of Michigan's State supported system of higher education only since 1956 — Wayne State University has developed rapidly as a national research university with urban teaching and service missions. Nevertheless, it recognizes that much must be achieved before the goals it holds for itself are fully attained. It is pursuing those goals with pride in its progress and confidence in its future.

History of the University

Wayne State has nearly 230,000 living alumni. More than 172,500 of them live in the State and more than 137,210 live in the Detroit area. Over thirty percent of all degree holding adults in the metropolitan area are Wayne State University alumni.

The early history of the University is an account of originally unrelated colleges and schools which were united in 1933 into a single institution, Wayne University, under the control of the Detroit Board of Education. In 1956, this institution became Wayne State University by formal action of the Governor and Legislature of Michigan. The following specific events are among the most significant in the University's first century of development.

1868 — The Detroit Medical College, forerunner of the School of Medicine, was established.

1881 — The Detroit Normal Training School, forerunner of the College of Education, was established.

1917 — The Detroit Junior College, offering a two-year program in general education, was established in ‘Old Main' and later developed into the College of Liberal Arts.

1923 — The Detroit Normal Training School became a four-year degree-granting institution under the name of the Detroit Teachers College. The first degrees were granted in 1924. The Detroit Junior College became the College of the City of Detroit with four-year degree programs. The first degrees were conferred in 1925.

1924 — The College of Pharmacy was organized.

1930 — The first regular graduate courses were offered in Liberal Arts and Education. The first Master's degrees were conferred in 1932.

1933 — The College of Engineering and the Graduate School were established.

1933 — The Colleges of Liberal Arts, Education, Engineering, Medicine and Pharmacy and the Graduate School were united by action of the Detroit Board of Education into a university organization, temporarily called the Colleges of the City of Detroit.

1934 — The name Wayne University was adopted, taken from Wayne County and, ultimately, from General Anthony Wayne.

1935 — The School of Public Affairs and Social Work was organized. In 1950 it became the present School of Social Work.

1937 — The Law School, established in 1927 as Detroit City Law School, came into the University.

1945 — The first doctoral programs were authorized in the fields of Chemistry, Physiological Chemistry and Education.

1945 — The College of Nursing, which began as a program in the College of the City of Detroit, became a separate college.

1946 — The School of Business Administration, originating in the College of Liberal Arts, became the tenth academic unit in the University.

1956 — Wayne University became Wayne State University by Act 183 of Michigan Public Acts of 1956.

1959 — Monteith College was established.

1959 — Wayne State University became a constitutionally established University by popularly adopted amendment to the Michigan Constitution.

1964 — The Division of Urban Extension was established.

1973 — The College of Lifelong Learning was established as successor to the Division of Urban Extension.

1973 — The College of Pharmacy and Allied Health Professions was established.

1985 — The School of Fine and Performing Arts and the College of Urban, Labor and Metropolitan Affairs were established.

1989 — The name of the School of Fine and Performing Arts was changed to the College of Fine, Performing and Communication Arts.

1993 —The College of Science was established.

2001 — The name of the College of Pharmacy and Allied Health Professions was changed to the Eugene Applebaum College of Pharmacy and Health Sciences.

2002 — The College of Lifelong Learning was discontinued and its programs transferred to other units.

2004 — The College of Liberal Arts and the College of Science were merged into the College of Liberal Arts and Sciences.

2005 — The College of Urban, Labor and Metropolitan Affairs was discontinued and its programs transferred to other units.

2008 — The Irvin D. Reid Honors College was established.

2009 — The Library and Information Science Program was established as the School of Library and Information Science.

Location

More than 100 buildings provide housing for the services, instructional and research needs of the University and its students and staff. Most academic and service units of the University are located on the main campus in Midtown of Detroit, largely bounded by York Street on the north, Woodward Avenue on the east, Forest Avenue on the south and Trumbull Street on the west. The major classroom, laboratory, library and other academic buildings are located east of the John C. Lodge Freeway; most of the athletics and recreational facilities are on the west side of the freeway. (For maps, see page 500.)

The School of Medicine and its affiliated teaching hospitals and clinics are located a short distance south and east of the main campus in the Detroit Medical Center. The Eugene Applebaum College of Pharmacy and Health Sciences is also located on the medical campus. Certain smaller instructional and service units are located in other parts of the metropolitan area.

Organization

The general governance of Wayne State University is constitutionally vested in the Board of Governors, consisting of eight popularly elected members and the President of the University, who is named by the elected members. The President is the chief executive officer of the University and is charged by the Board of Governors with responsibility for its administration. For educational and administra-

tive purposes, the University is organized into major academic units — schools, colleges, divisions, centers and institutes. The following schools, colleges and divisions offer degree programs in their respective areas and together constitute the heart of the University:

School of Business Administration
College of Education
College of Engineering
College of Fine, Performing and Communication Arts
Graduate School
Law School
College of Liberal Arts and Sciences
School of Library and Information Science
School of Medicine
College of Nursing
Eugene Applebaum College of Pharmacy and Health Sciences
School of Social Work

The Dean of the College or School is its chief executive officer. More than half the Colleges and Schools are organized into departments or divisions, each administered by a chairperson (or head). Academic standards, curricular development, course revision and similar academic matters are the primary responsibility of the faculty and dean of the College or School, although these matters are subject to review and approval by the Provost and Senior Vice President for Academic Affairs and by the President and, whenever they involve major educational policy decisions, by the Academic Senate.

The Graduate School is the central unit for the supervision and encouragement of graduate work in the University and has basic responsibility for the improvement and review of existing programs and the approval of new graduate programs. Except for applicants and candidates for the Doctor of Philosophy degree, the detailed supervision of graduate students' work is conducted by the College and School and, where appropriate, by the departments.

All degrees are granted by the University through the Colleges and Schools, except that the Dean of the Graduate School, with the approval of the Graduate Council, recommends candidates for the Doctor of Philosophy degree, selected master's degrees and interdisciplinary graduate certificate programs.

Centers and institutes Wayne State University's centers and institutes play an integral role in the university's emphasis on encouraging innovative scholarship, providing service to society and strengthening its performance as a nationally recognized research university. WSU's centers and institutes embrace the multidisciplinary nature of scholarship and research within the university, and expand university boundaries by fostering collaborations with government, industry and organizations to enhance economic growth and the quality of life locally, nationally and globally. Our centers and institutes vary greatly in size, focus and mission. Some promote a primarily research-focused agenda, while others focus on instruction and/or community service.

The most recent version of WSU's policy on centers and institutes, adopted on November 30, 2005, identifies a two-tiered category of centers and institutes. Centers are grouped first into university or college centers. University centers are engaged in activities that involve more than one college/school and are under the direct administrative supervision of the President or designee. Within the university centers are Type I (primarily academic) or Type II (research centers) with oversight generally falling to the Provost or the Vice President for Research, respectively. A college center is engaged in activities that primarily involve one college/school and is under the direct administrative supervision of the dean of that college/school.

University Centers

ACADEMIC
Center for Urban Studies
Cohn-Haddow Center for Judaic Studies
Developmental Disabilities Institute
Humanities Center

RESEARCH
Barbara Ann Karmanos Cancer Institute
Center for Molecular Medicine and Genetics
Center to Advance Palliative-Care Excellence
Institute of Environmental Health Sciences
Institute of Gerontology
Merrill Palmer Skillman Institute

School and College Centers

BUSINESS ADMINISTRATION
Institute for Organizational and Industrial Competitiveness
Manufacturing Information Systems Center (MISC)

EDUCATION
Institute for Learning & Performance Improvement

ENGINEERING
Bioengineering Center
Center for Automotive Research

FINE, PERFORMING AND COMMUNICATION ARTS
Center for Arts and Public Policy

LIBERAL ARTS AND SCIENCES
Center for Chicano Boricua Studies
Center for Excellence and Equity in Mathematics
Center for Peace and Conflict Studies
Center for the Study of Citizenship
Confucius Institute
Douglas A. Fraser Center for Workplace Issues
Labor Studies Center

MEDICINE
C.S. Mott Center for Human Growth and Development
Cardiovascular Research Institute
Ligon Research Center of Vision

NURSING
Center for Health Research

SOCIAL WORK
Center for Social Work Practice and Policy Research

Extension Services and Non-Credit Offerings

Educational Outreach provides extension services for the off-campus credit programs of the Colleges and Schools, as well as University-wide Spring/Summer sessions. The Colleges, Schools and instructional divisions have comprehensive responsibility for degrees and degree programs whenever they are offered. For further information, see page 55.

Non-credit courses, seminars and programs are offered primarily through Executive and Professional Development, a unit of Educational Outreach.

Accreditation

Wayne State University as a whole is accredited as a doctoral degree-granting institution by the regional accrediting agency, The North Central Association of Colleges and Schools, The Higher Learning Commission, 30 N. LaSalle St., Suite 2400, Chicago, Illinois 60602-2504; telephone: 800-621-7440. In addition, more than forty specific programs and curricula are accredited individually by specialized or professional accrediting agencies. A report is produced annually for the Board of Governors which designates the accrediting agencies of the University's programs; the report is available from the Board of Governors' Office, 4231 Faculty Administration Building. The principal accreditation agencies are as follows:

BUSINESS ADMINISTRATION

School: Accreditation Council of AASCB International – *The Association to Advance Collegiate Schools of Business (AACSB)*

On-line MBA: *North Central Association of Colleges and Secondary Schools —The Higher Learning Commission*

Advertising/Marketing Communications Curriculum: *International Advertising Association*

EDUCATION

College Accreditation: *Michigan Department of Education*

Art Therapy Program: *American Art Therapy Association*

Counseling (graduate only): *Council for Accreditation of Counseling and Related Educational Programs (CACREP)*

Education Administration (Masters) Building Level Administrator: *Michigan Department of Education*

Educational Psychology, School and Community Psychology: *National Association of School Psychologists*

Education Specialist; Central Office Administration, Superintendent: *Michigan Department of Education*

Health Education Programs: *Michigan Department of Education*

Kinesiology Doctoral Program: *American Academy of Kinesiology/ Physical Education*

Rehabilitation Counseling and Community Inclusion (graduate only): *Council of Rehabilitation Education, INC. (CORE)*

Special Education Administration Director/Supervisor: *Michigan Department of Education*

Teacher Education Programs: *Michigan Department of Education*

ENGINEERING

Division of Engineering (undergraduate): B.S. degrees in Chemical Engineering, Civil Engineering, Electrical Engineering, Industrial Engineering, and Mechanical Engineering are accredited by the:

Accreditation Board of Engineering and Technology, Inc. (ABET, Inc.),

Division of Engineering and Technology (undergraduate) B.S. degrees in Electrical/Electronic Engineering Technology, and Mechanical Engineering Technology are accredited by the

Accreditation Board of Engineering and Technology, Inc. (ABET, Inc.),

FINE, PERFORMING and COMMUNICATION ARTS

Dance: *National Association of Schools of Dance (NASD)*

Music: *National Association of Schools of Music (NASM)*

Theatre: *National Association of Schools of Theatre (NAST)*

LAW

American Bar Association (ABA) and American Association of Law Schools (AALS) (Joint Committee)

LIBERAL ARTS and SCIENCES

Chemistry (undergraduate only): *American Chemical Society (ACS)*

Communication Sciences and Disorders: *American Speech-Language-Hearing Association, Council on Academic Accreditation (CAA) in Audiology and Speech-Language Pathology*

Nutrition and Food Science (Coordinated Program in Dietetics): *Commission on Accreditation for Dietetic Education*

Political Science (Master of Public Administration): *National Association of Schools of Public Affairs and Administration (NASPAA)*

Psychology (Clinical Training Program): *American Psychological Association (APA)*

Urban Planning (Master of Urban Planning): *Planning Accreditation Board (PAB)*

LIBRARY and INFORMATION SCIENCE

American Library Association (ALA)

MEDICINE

Continuing Medical Education: *Accreditation Council for Continuing Medical Education (ACCME)*

Doctor of Medicine Degree Program (M.D.): *Liaison Committee on Medical Education (LMCE), representing the American Medical Association and the Association of American Medical Colleges*

Genetic Counseling (Master of Science in Genetic Counseling): *American Board of Genetic Counseling*

Graduate Medical Education Programs, Affiliated Hospitals' Resident Physician Programs: *Accreditation Council on Graduate Medical Education (ACGME)*

Master of Public Health: Council on Education for Public Health

Radiological/Medical Physics: *Commission on Accreditation of Medical Physics Educational Programs, Inc.*

NURSING

College (Baccalaureate and Master's programs): *Commission on Collegiate Nursing Education (CCNE)*

Nursing Practice (Doctor): *Commission on Collegiate Nursing Education (CCNE)*

Midwifery Program: *Accreditation Commission for Midwifery (ACNM)*

Advanced Practice Nursing with Women, Neonates and Children: (Primary Pediatric Practitioner Program and Acute Care Pediatric Nurse Practitioner Program): *Pediatric Nursing Certification Board*

EUGENE APPLEBAUM COLLEGE OF PHARMACY AND HEALTH SCIENCES

Clinical Laboratory Science: *National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)*

Industrial Hygiene Program: *Accreditation Board of Engineering and Technology, Inc. (ABET) — Applied Science Accreditation Commission*

Mortuary Science: *American Board of Funeral Service Education, Inc. (ABFSE)*

Nurse Anesthesia: *American Association of Nurse Anesthesia (Council on Accreditation of Nurse Anesthesia Educational Programs)*

Occupational Therapy: *Accreditation Council for Occupational Therapy Education (ACOTE)*

Pathologists' Assistant Program: *National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)*

Pharmacy (Doctor of Pharmacy): *American Council on Pharmaceutical Education (ACPE)*

Physical Therapy: *Commission on Accreditation in Physical Therapy Education (CAPTE)*

Physician Assistant Program: *Accreditation Review Committee on Education for the Physician Assistant, Inc. (ARC-PA)*

Radiation Therapy Technology (undergraduate): *Joint Review Committee on Education in Radiologic Technology (JCERT)*

Radiologic Technology (undergraduate): *Joint Review Committee on Education in Radiologic Technology (JRCERT)*

SOCIAL WORK

Bachelor of Social Work and Master of Social Work:
Council on Social Work Education (CSWE)

Equality of Opportunity

Wayne State University is committed to a policy of non-discrimination and equal opportunity in all of its operations, employment opportunities, educational programs and related activities.

This policy embraces all persons regardless of race, gender, color, national origin, religion, age, sexual orientation, marital status or disability. It expressly forbids discrimination, sexual harassment or any form of harassment in hiring, terms of employment, tenure, promotion, placement and discharge of employees, admission, training and treatment of students, extra-curricular activities, in using University services, facilities and in the awarding of contracts.

This policy also forbids retaliation and/or any form of harassment against an individual as a result of filing a complaint of discrimination or participating in an investigation.

Wayne State University complies with Titles VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as Amended, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, the Vietnam Era Veterans Readjustment Assistance Act of 1974 and Michigan Public Act 453.

Inquiries regarding equal opportunity Academic/Administrative policies or complaints may be made to the Office of Equal Opportunity, 4324 Faculty/Administration Building, Wayne State University, Detroit Michigan 48202; Telephone 313-577-2280 or http://www.oeo.wayne.edu.

Non-Discrimination for the Disabled

In accordance with federal requirements of the Americans with Disabilities Act of 1990 and the Rehabilitation Act of 1973, there shall be no discrimination on the basis of disability in Wayne State University's programs, operations and activities, in the hiring, terms and conditions or privileges of employment or any matter directly or indirectly related to such employment, or in the admission, education and treatment of students. (See page 45 for services available to disabled students.)

Drug and Alcohol Free Workplace

Wayne State University is committed to providing a drug- free environment for its faculty, staff, and students. The Board of Governors has made this commitment a formal policy of the University. All faculty, staff and students must abide by the terms of the Board policy as a condition of employment or enrollment at the University. The unlawful possession, use, distribution, sale or manufacture of drugs or alcohol is prohibited on University premises, at University activities, and at University work sites.

Pursuant to that policy, the unlawful possession, use, distribution, dispensation, sale or manufacture of any illicit drugs, and the unlawful possession, use or distribution of alcohol on University property, or at any University work site, or as part of any University activity, is prohibited.

Any employee or student employee who is convicted of a criminal drug offense occurring at the workplace is subject to appropriate employee discipline in accordance with established University policies and collective bargaining agreements, and may be required to participate satisfactorily in a drug abuse or rehabilitation program as a condition of further employment or enrollment.

Any student or employee who, while on University premises or at any University activity, engages in the unlawful possession, sale, manufacture, distribution, or use of drugs or alcohol shall be subject to appropriate sanctions, in accordance with established University policies, the Student Code of Conduct, and collective bargaining agreements, and in conformity with local, State and federal law, up to and including expulsion or termination. A student or employee who is found to have violated this policy may be required to participate in a drug or alcohol treatment program as a condition of further employment or enrollment.

The University encourages employees who may have a problem with the use of illicit drugs or with the abuse of alcohol to seek professional advice and treatment. Individuals who seek assistance with such problems may obtain additional information on a confidential basis by telephoning the Substance Abuse Hotline, at 313-577-1010. Access to this hotline is absolutely anonymous. The Substance Abuse Hotline provides information to the caller by means of recorded messages and no record is kept of the caller. Students may also seek referral assistance by contacting University Counseling and Psychological Services (CAPS), at 313-577-3398.

Policy on Sexual Harassment

It is the policy of Wayne State University that no member of the University community may sexually harass another. Any employee or student will be subject to disciplinary action for violation of this policy.

The law of the State of Michigan prohibits discrimination in employment and in education and provides that discrimination because of sex includes sexual harassment, which means unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communication of a sexual nature when:

(a) Submission to such conduct or communication is made a term or condition either explicitly or implicitly to obtain employment, public accommodations or public services, education, or housing.

(b) Submission to or rejection of such conduct or communication by an individual is used as a factor in decisions affecting such individual's employment, public accommodations or public services, education, or housing.

(c) Such conduct or communication has the purpose or effect of substantially interfering with an individual's employment, public accommodations or public services, educational, or housing environment. (MCLA 37.2103 (h))

In the area of speech, what the law and this policy prohibit is speech as action: that is, sexual communication which is either directly coercive as demanding favors, or indirectly coercive, as rising to that level of offensiveness which interferes substantially with the victim's education or employment. The determination of what level of offensiveness is actually coercive, and therefore unlawful and prohibited by this policy, will in some cases be difficult. A significant element in the determination is provided by the fact that an unequal power relationship underlies sexual harassment. The more unequal the relationship, the greater the risk is of substantial interference with the victim's education or employment.

In the area of physical contact, physical contact which is unwelcome is so gravely offensive that it always has the effect of substantially interfering with the victim's employment or educational environment. Employees and students should not take for granted that they are welcome to touch other employees or students, since if their contact is in fact unwelcome, they will be in violation of the law and of this policy. (WSUCA 2.28.06.010-2.28.06.080)

Policy on Workplace Violence

Wayne State University is committed to providing a work and educational environment that is free from threats, assaults, or acts of violence. Threats of violence or of physical harm, and any form of physical or sexual assault or threats of physical assault are prohibited. This includes conduct that harasses, disrupts, or interferes with another person's work performance or creates an intimidating, offensive or hostile work or educational environment.

It is a violation of the University's policy to bring certain items on campus, including all types of firearms, explosives, switchblade knives and any knife with a blade longer than three inches, and any other object carried for the purpose of injuring or intimidating. Violations of this policy may result in disciplinary action under existing policies.

University personnel are expected to notify appropriate management personnel of any violent or threatening behavior, when that behavior is work-related, carried out on University property, or is connected to University employment. Any individual who has obtained a personal protection order that identifies the workplace as a protected area should provide that information to the Department of Public Safety.

Academic Programs and Degrees

The table on the following pages lists the major academic programs and degrees offered by Wayne State University. Academic programs are defined as any combination of courses leading to the designation of a major, or to a separate degree designation. An asterisk (*) appended to a subject area indicates that a departmental honors major is also available in that field at the undergraduate level. Detailed descriptions of the programs may be found in the appropriate sections of the Undergraduate or Graduate Bulletin. The following index identifies standard abbreviations for University degrees and certificates, and the columns (Roman numerals) in the table indicating degree categories.

Symbols and Abbreviations

Degree and Certificate Programs

AuD ..... Doctor of Audiology
BA ..... Bachelor of Arts
BFA ..... Bachelor of Fine Arts
BGC ..... Bridge Graduate Certificate
BHS ..... Bachelor of Health Science
BMus ..... Bachelor of Music
BPA ..... Bachelor of Public Affairs
BS ..... Bachelor of Science
BSCM ..... Bachelor of Science in Construction Management
BSCT ..... Bachelor of Science in Computer Technology
BSEET ..... Bachelor of Science Electrical.Electronic Engineering Technology
BSEMT ..... Bachelor of Sci. in Electromechanical Engineering Technology
BSETT ..... Bachelor of Science in Electric Transportation Technology
BSMCT ..... Bachelor of Science in Mechanical Engineering Technology
BSMFT ..... Bachelor of Science in Manufacturing Engineering Technology
BSMS ..... Bachelor of Science in Mortuary Science
BSN ..... Bachelor of Science in Nursing
BSPDT ..... Bachelor of Science in Product Design Engineering Technology
BSW ..... Bachelor of Social Work
DNP ..... Doctor of Nursing Practice
DPT ..... Doctor of Physical Therapy
EdD ..... Doctor of Education
ESC ..... Education Specialist Certificate
GC ..... Graduate Certificate
JD ..... Juris Doctor
LLM ..... Master of Laws
MA ..... Master of Arts
MADR ..... Master of Arts in Dispute Resolution
MAELR ..... Master of Arts in Employment and Labor Relations
MAT ..... Master of Arts in Teaching
MBA ..... Master of Business Administration
MD ..... Doctor of Medicine
MEd ..... Master of Education
MFA ..... Master of Fine Arts
MLIS ..... Master of Library and Information Science
MMus ..... Master of Music
MOT ..... Master of Occupational Therapy
MPA ..... Master of Public Administration
MPH ..... Master of Public Health
MS ..... Master of Science
MSET ..... Master of Science in Engineering Technology
MSN ..... Master of Science in Nursing
MSW ..... Master of Social Work
MUP ..... Master of Urban Planning
PBC ..... Post-Baccalaureate Certificate
PharmD ..... Doctor of Pharmacy
PhD ..... Doctor of Philosophy
PMC ..... Post-Master's Certificate
SCP ..... Specialist Certificate Program
SPL ..... Specialist in Library and Information Science
TC ..... Teaching Certificate
UC ..... Undergraduate Certificate

Columns Used in the Following Table

I ..... Baccalaureate, First Professional Degree, or Undergraduate Certificate
II ..... Undergraduate, Post-Baccalaureate, or Graduate Certificate
III ..... Teaching Certificate
IV ..... Master's Degree
V ..... Specialist Certificate
VI ..... Doctoral Degree

Academic Programs and Degrees

For interpretation of symbols and abbreviations used in this table, see preceding page.

School/College and Major	*I*	*II*	*III*	*IV*	*V*	*VI*
SCHOOL OF BUSINESS ADMINISTRATION						
Accounting*:	BA, BS	PBC		MS		
Business Administration:				MBA		PhD
Business Administration: Joint JD/MBA:	JD			MBA		
Finance*:	BA, BS					
Global Supply Chain Management*:	BA, BS					
Information Systems Management*:	BA, BS					
Management*:	BA, BS					
Marketing*:	BA, BS					
Taxation:				MS		
COLLEGE OF EDUCATION						
Art Education*:	BA, BS		TC	MEd		
Bilingual/Bicultural Education:			TC	MEd		
Career and Technical Education:	BA, BS		TC	MEd		
College and University Teaching:		GC				
Counseling:				MA, M Ed	ESC	EdD,PhD
Curriculum and Instruction:					ESC	EdD,PhD
Early Childhood Education:				MEd		
Educational Leadership:				MEd		
Educational Leadership and Policy Studies:						EdD,PhD
Elementary Education*:	BA, BS		TC	MAT, MEd		
English Education (Elementary and Secondary)*:	BA, BS		TC	MEd		
Evaluation and Research, Education:				M Ed		EdD,PhD
Foreign Language Education:			TC	MEd		
General Administration and Supervision:					ESC	
Health Education*:	BA, BS		TC	MEd		
Instructional Technology:				MEd	ESC	EdD,PhD
Kinesiology*:	BA, BS		TC	MEd		PhD
Language Arts (Elementary)*:	BA, BS					
Mathematics Education (Elementary)*:	BA, BS					
Mathematics Education (Secondary)*:	BA, BS		TC	MEd		
Music Education:			TC			
Online Teaching:			GC			
Psychology, Educational:				M Ed		PhD
Psychology, School and Community:				MA		
Psychology, School:		GC				
Reading:				M Ed	ESC	
Reading, Language and Literature:						EdD
Rehabilitation Counseling and Community Inclusion:				MA		
Science Education (Elementary)*:	BA, BS					
Science Education (Secondary)*:	BA, BS		TC	MEd		
Secondary Education:			TC	MAT		
Social Studies Education (Elementary and Secondary)*:	BA, BS		TC	MEd		
Social Studies Education/History Joint degree:				MEd/MA		
Special Education*:	BA, BS		TC	MEd	ESC	EdD,PhD
Speech Education (Secondary)*:	BA, BS		TC			
Sports Administration:				MA		
COLLEGE OF ENGINEERING						
Alternative Energy Technologies:		GC		MS		
Biomedical Engineering:	BS			MS		PhD
Chemical Engineering*:	BS			MS		PhD
Civil Engineering*:	BS			MS		PhD
Computer Engineering:				MS		PhD
Computer Technology:	BSCT					
Construction Management:	BSCM					
Control Systems	UC					

[continued on next page]

School/College and Major	I	II	III	IV	V	VI
COLLEGE OF ENGINEERING (continued)						
Electric-drive Vehicle Engineering		GC		MS		
Electrical Engineering*:	BS			MS		PhD
Electrical/Electronic Engineering Technology:	BSEET					
Electric Transportation Technology	BSETT					
Electromechanical Engineering Technology:	BSEMT					
Electronics and Computer Control Systems (Interdisc.):				MS		
Engineering Management:		BGC		MS		
Engineering Technology:				MSET		
Environmental Auditing:		GC				
Hazardous Waste Management:				MS		
Injury Biomechanics:		BGC				
Industrial Engineering*:	BS			MS		PhD
Manufacturing Engineering:				MS		
Manufacturing Engineering Technology:	BSMFT					
Manufacturing/Industrial Engineering Technology:	BS					
Materials Science and Engineering:				MS		PhD
Mechanical Engineering*:	BS			MS		PhD
Mechanical Engineering Technology:	BSMCT					
Polymer Engineering:		GC				
Product Design Engineering Technology:	BSPDT					
Sustainable Engineering:		GC				
Systems Engineering		BGC				
COLLEGE OF FINE, PERFORMING AND COMMUNICATION ARTS						
Art*:	BA, BFA			MA, MFA		
Art History*:	BA			MA		
Communication*:				MA		PhD
Communication and New Media:		GC				
Communication Studies*:	BA					
Dance*:	BS,BFA		TC			
Design and Merchandising:	BA, BS			MA		
Dispute Resolution:		GC		MADR		
Dispute Resolution Joint JD/MADR:	JD			MADR		
Film*:	BA					
Health Communication:		GC				
Journalism*:	BA					
Media Arts and Studies*:	BA					
Music — Instrumental and Vocal*:	BA, BMus		TC	MA, MMus		
Orchestral Studies:		GC				
Public Relations*:	BA					
Theatre*:	BA, BFA			MA, MFA		PhD
GRADUATE SCHOOL						
Alcohol and Drug Abuse Studies:		GC				
Infant Mental Health:		GC				
Molecular and Cellular Toxicology (Interdisc.):				MS		PhD
Molecular Biology and Genetics:				MS		PhD
LAW SCHOOL						
Corporate and Finance Law:				LLM		
Joint JD/MADR in Dispute Resolution:	JD			MADR		
Joint JD/MA in Economics:	JD			MA		
Joint JD/MA in History:	JD			MA		
Joint JD/MA in Political Science:	JD			MA		
Joint JD/MBA:	JD			MBA		
Labor and Employment Law:				LLM		
Law:	JD					
Taxation:				LLM		

School/College and Major	*I*	*II*	*III*	*IV*	*V*	*VI*
COLLEGE OF LIBERAL ARTS AND SCIENCES						
Africana Studies:	BA					
American Studies:	BA		GC			
Anthropology*:	BA			MA		PhD
Asian Studies*:	BA					
Astronomy	BA					
Audiology:						AuD
Biochemistry and Chemical Biology*:	BS					
Biological Sciences*:	BA, BS			MA, MS		PhD
Biomedical Physics:	BS					
Chemistry*:	BA, BS			MA, MS		PhD
Chicano-Boricua Studies (Co-Major Program):	BA					
Classics*:	BA			MA		
Communication Sciences and Disorders:	BA					PhD
Comparative Literature:				MA		
Computer Science*:	BA, BS		PBC	MA, MS		PhD
Computing, Scientific:			GC			
Criminal Justice*:	BS			MS		
Dietetics:	BS		PBC			
Economic Development:			GC			
Economics*:	BA			MA		PhD
Economics: Joint JD/MA:	JD			MA		
Employment and Labor Relations:				MAELR		
English*:	BA			MA		PhD
Environmental Science:	BS					
Film Studies:	BA					
French* (see Romance Languages)						
Geology:	BA, BS			MS		
German*:	BA			MA		
History*:	BA			MA		PhD
History: Joint JD/MA:	JD			MA		
History/Library & Information Science joint degree:				MA/MLIS		
History/Social Studies Education joint degree:				MA/MEd		
History, World (Graduate Bridge Program):			BGC			
Honors, College (Co-Major):	BA					
Industrial/Organizational Psychology:				MA		
Information Systems Technology:	BA					
International Studies (Co-Major Program):	BA					
Italian (see Romance Languages)						
Labor Studies:	BA					
Language Learning:				MA		
Linguistics:	BA			MA		
Mathematical Statistics:				MA		
Mathematics*:	BA, BS			MA		PhD
Mathematics, Applied:				MA		
Modern Languages:						PhD
Molecular Biotechnology:				MS		
Multidisciplinary Science:				MA		
Near Eastern Languages*:	BA			MA		
Near Eastern Studies*:	BA					
Non-Profit Sector Studies:			PBC			
Nutrition and Food Science*:	BA, BS			MA, MS		PhD
Peace and Conflict Studies (Co-Major Program):	BA					
Peace and Security Studies:			GC			
Philosophy*:	BA			MA		PhD
Physics*:	BA, BS			MA, MS		PhD
Political Science*:	BA			MA		PhD
Political Science: Joint JD/MA:	JD			MA		
Psychology*:	BA, BS			MA		PhD
Public Administration:				MPA		
Public Affairs*:	BPA					
Romance Languages* (French, Italian, or Spanish):	BA			MA		

[continued on next page]

School/College and Major	*I*	*II*	*III*	*IV*	*V*	*VI*
COLLEGE OF LIBERAL ARTS AND SCIENCES (continued)						
Slavic Studies:	BA					
Sociology*:	BA			MA		PhD
Spanish (see Romance Languages)						
Speech-Language Pathology:				MA		
Urban Planning:				MUP		
Urban Studies:	BA					
Women's Studies (Co-Major Program):	BA					
SCHOOL OF LIBRARY AND INFORMATION SCIENCE						
Archival Administration:		GC				
Arts and Museum Librarianship:		GC				
Information Management for Librarians:		GC				
Library and Information Science:				MLIS	SPL	
Library & Information Science/History joint degree:				MLIS/MA		
Public Library Services for Children & Adults:		GC				
Records and Information Management:		GC				
SCHOOL OF MEDICINE						
Anatomy and Cell Biology:				MS		PhD
Basic Medical Sciences:				MS		
Biochemistry and Molecular Biology:				MS		PhD
Cancer Biology:				MS		PhD
Clinical and Translational Science:		BGC				
Genetic Counseling:				MS		
Immunology and Microbiology:				MS		PhD
Medical Physics:						PhD
Medical Research:				MS		
Medicine:	MD					
Medicine: MD/Phd Joint Degree:	MD					PhD
Pathology:						PhD
Pediatric Health, Global:		GC				
Pharmacology:				MS		PhD
Physiology:				MS		PhD
Psychiatry and Behavioral Neurosciences:				MS		
Public Health:				MPH		
Public Health Practice:		GC				
Radiological Physics:				MS		
Rehabilitation Sciences Administration:		GC				
Translational Neuroscience:						PhD
COLLEGE OF NURSING						
Adult Acute Care Nursing:				MSN		
Adult Primary Care Nursing:				MSN		
Advanced Practice Nursing: Women, Neonates, Children:				MSN		
Community Health Nursing:				MSN		
Nurse Midwifery:		GC				
Nursing*:	BSN					PhD
Nursing Education:		GC				
Nursing Practice:						DNP
Pediatric Nurse Practitioner - Primary Care		GC				
Pediatric Nurse Practitioner - Acute Care		GC				
Psychiatric Mental Health Nurse Practitioner:		GC		MSN		
Transcultural Nursing:		GC				
Women's Health Nurse Practitioner		GC				

School/College and Major	*I*	*II*	*III*	*IV*	*V*	*VI*
EUGENE APPLEBAUM COLLEGE OF PHARMACY AND HEALTH SCIENCES						
Analytical Toxicology:		GC				
Anesthesia:				MS		
Anesthesia, Pediatric:		GC				
Clinical Laboratory Science:	BS	PBC				
Environmental Health & Hazardous Material Control:		GC				
Forensic Investigation:		PBC				
Health Sciences:	BHS					
Industrial Toxicology:		PMC				
Mortuary Science:	BS					
Occupational and Environmental Health Sciences:				MS		
Occupational Safety:		GC				
Occupational Therapy:				MS, MOT		
Pathologists' Assistant*:	BS					
Pharmaceutical Sciences:				MS		PhD
Pharmaceutical Sciences: PharmD/PhD Joint Degree:						PharmD/PhD
Pharmacy:						PharmD
Pharmacy Management, Health Systems:				MS		
Physical Therapy:						DPT
Physician Assistant Studies:				MS		
Radiation Therapy Technology:	BS					
Radiologic Technology:	BS					
Radiologist Assistant Studies:				MS		
SCHOOL OF SOCIAL WORK						
Disabilities:		GC				
Gerontology:		GC				
Social Welfare Research and Evaluation:		GC				
Social Work:	BSW				MSW	PhD

Academic Programs — Minor Areas of Study

Minor concentrations are groups of courses, usually totalling eighteen to twenty-four credits, focused in a particular subject area. Minors are not noted on diplomas but they do appear on the student transcript. The University does not require students to select a minor, nor are they required for an undergraduate degree. The following list indexes all of the Minors for which program descriptions were available at the time of publication of this bulletin.

Degree Requirements

DEGREE REQUIREMENTS: To earn a bachelor's degree at Wayne State University, a student must satisfy the following *minimum* requirements, as well as any other requirements for specific degrees stipulated by the Schools/Colleges, Departments, and Programs of the University:

1. Complete a minimum of 120 credits with a cumulative grade point average of 2.00 or higher for all Wayne State University course work.

2. Complete the University General Education Requirements as specified below.

3. Complete all School/College, Departmental and Program requirements.

4. Complete a minimum of thirty credits at Wayne State University.

5. Observe the following credit limitations:

a) Credit by special examination may not be counted as resident credit, but such credit, if earned during a semester in which the student is registered for a regular course(s), will not be considered an interruption of residence.

b) Not more than thirty-two credits earned through one or more of the following programs will apply towards graduation: credit earned by the College-Level Examination Program, Advanced Placement, International Baccalaureate, Credit by Special Examination, or other credit earned for a course in which the student has not been regularly enrolled in a University course.

c) Not more than sixteen credits by Special Examination may be earned in any one subject.

d) A maximum of sixty-four credits transferred from a two-year institution may normally be applied toward graduation. Articulation agreements for specific programs may occasionally include more than sixty-four transfer credits, subject to board-approved academic policy.

SECOND BACHELOR'S DEGREE: A student who holds a bachelor's degree from any accredited institution may receive a second bachelor's degree from Wayne State University by satisfying the following minimum requirements:

1. Complete at least thirty credits at Wayne State University beyond the first bachelor's degree.

2. Meet all School/College, Department, and Program requirements for the degree.

CONCURRENT DEGREES: A student who wishes to simultaneously receive two different bachelor's degrees from Wayne State University must satisfy the following minimum requirements:

1. Complete a minimum of 150 credits.

2. Complete all University, School/College, Department, and Program requirements for each degree.

GRADUATION APPLICATION: Degrees are NOT awarded automatically upon completion of scholastic requirements. To be considered as a candidate for a degree, students must file an Application for Degree form with Student Records by the degree application deadline published in each term's Academic Calendar, for the term in which the student expects to graduate.

SCHOOL/COLLEGE REQUIREMENTS: Schools/Colleges, Departments, and Programs may establish degree requirements above and beyond those stated here. For statements of any such specific degree requirements, students should consult the School/College and Departmental sections of this bulletin.

Bulletin-in-Effect Graduation Policy: All undergraduate students at Wayne State University may choose to graduate under the academic regulations and degree requirements as stated in the Bulletin in effect at the time of their graduation, or either of the two previous Bulletins provided one of the Bulletins covers a period of the student's registration. All requirements of the chosen Bulletin must be met. However, if necessary, general education advisors as well as Colleges and Schools can make appropriate adjustments in order to accommodate students as best they can to adapt their previous coursework to a new bulletin.

University General Education Program

Wayne State has had a University-wide Program in General Education since 1987 for all undergraduate students pursuing bachelor's degrees regardless of their academic specialties. These requirements contribute to the goal of ensuring that all students have the basic skills fundamental to success in college while simultaneously achieving the intellectual breadth necessary to place specialized and professional curricula in proper perspective. By means of the General Education Program, undergraduate students improve their skills and are introduced to methods of inquiry, modes of thought, bodies of knowledge, and representative ideas drawn from a wide range of academic disciplines.

The General Education Requirements for students matriculating or graduating under the 2011-2013 University Bulletin are organized into the following categories:

Competency Requirements

Learning Objectives: Competency Requirements ensure that students develop and demonstrate early in their academic careers fundamental skills in the following areas that underlie and make possible the acquisition of knowledge.

Written Communication
Mathematics
Oral Communication
Computer Literacy
Critical/Analytic Thinking

Group Requirements

Learning Objectives: Group Requirements have a two-fold purpose: 1) to enable students to acquire knowledge and demonstrate understanding in a broad range of representative branches of knowledge; and 2) to enable students to develop and demonstrate the ability to apply methodological skills which encourage continued exploration on an independent level throughout their lives. Group Requirements are organized in the following categories:

NATURAL SCIENCE

Physical Sciences
Life Sciences

HUMANITIES

Visual and Performing Arts
Philosophy and Letters

SOCIETY AND INSTITUTIONS

Social Science
American Society and Institutions
Historical Studies
Foreign Culture

Second Degree and Transfer Students

Students who hold a bachelor's degree from an accredited institution and who seek a second bachelor's degree are exempt from the University-wide General Education Requirements, but must satisfy all School/College, department and program requirements.

Equivalent courses taken at another institution may satisfy General Education Requirements. In cases where this would exceed the limitation of sixty-four credits from a community college accepted on a transfer basis, such courses shall satisfy the requirements, but the credits will not count towards the degree.

General Education Course Prefixes

Parenthetical two-letter prefixes denote content areas of subjects and identify courses approved for satisfying Competency Requirements and Group Requirements in the University's General Education Program. The following prefixes, listed and defined in alphabetical order, precede course titles in the departmental Courses of Instruction sections of this bulletin, and in each semester's Schedule of Classes.

(AI) — American Society and Institutions
(BC) — Basic Composition
(CL) — Computer Literacy
(CT) — Critical and Analytic Thinking
(FC) — Foreign Culture
(HS) — Historical Studies
(IC) — Intermediate Composition
(LS) — Life Sciences
(MC) — Mathematics
(OC) — Oral Communication
(PL) — Philosophy and Letters
(PS) — Physical Sciences
(SS) — Social Sciences
(VP) — Visual and Performing Arts
(WI) — Writing Intensive

Competency Requirements

Success in college and the ability to function as an educated citizen require not only the ability to master areas of substantive knowledge, but also a series of fundamental skills that underlie and make possible the acquisition of knowledge. Since competencies or skills are preconditions for higher education, basic competencies should be demonstrated early in one's academic career. Multiple methods of demonstrating competency are available, including satisfactory completion of designated courses or earning appropriate scores on designated examinations.

Competency Requirements, with the exception of the Writing-Intensive Course in the Major (WI), should be met early in a baccalaureate degree program. Students who fail to meet the specified deadline will be allowed two additional semesters (or equivalent) in which to satisfy the competency requirement. During this time, they must be actively involved in taking the appropriate course or otherwise preparing themselves to demonstrate competence. After the two-semester limit, students who have not satisfied the requirement may be barred from enrolling in courses other than those which satisfy the competency requirement until the requirement has been completed.

The following general principles apply to all competency requirements:

1. Students who satisfy any Competency Requirement by passing a prescribed Wayne State University placement, qualifying, screening, competency or proficiency examination shall be excused from equivalent course work but shall receive NO course credit.

2. Course credit granted for satisfactory completion of an Advanced Placement, CLEP, International Baccalaureate, or Departmental Examination will satisfy the appropriate Competency or Group Requirement; credit so earned will be applicable to a baccalaureate degree.

3. Courses used to satisfy Competency Requirements shall not generally be used to satisfy Group Requirements.

Written Communication (BC, IC, WI)

Writing ability is a cornerstone of academic studies and is often considered the touchstone of a university education. Skill and effectiveness in writing serve the individual throughout life — in career, in community, and in social and leisure activities. The ability to write well must be developed so that specialized audiences within professional fields as well as general audiences can be addressed effectively. While writing proficiency may be honed and refined in composition courses, writing is a skill that serves many purposes; one that requires constant renewal. The requirement in Written Communication is structured not only to provide training in how to write well, but also to insure that writing skills continue to be exercised and enhanced throughout the undergraduate years. The progression of the Written Communication requirements reflects the important notion of 'writing across the curriculum.' This requirement contains the following three components:

Basic Composition (BC): All students must demonstrate competence in basic English composition prior to completing thirty credits. Basic composition competence shall be determined by satisfactory completion of a designated course, or its course equivalent or earning credit for basic composition through a national standardized test.

All students must demonstrate competence in basic composition by:

a) Completing successfully an approved course in basic composition with a grade of 'C' or better: **ENG** 1020, 1050; (students should consult College/School listing for the specific requirement in their curriculum); OR

b) Earning credit for basic composition through Advanced Placement CLEP or International Baccalaureate; OR

c) Transferring credit received for successful completion of a comparable course completed with a grade of 'C' or better at another college or university.

Intermediate Composition (IC): All students must complete satisfactorily a designated intermediate, or more advanced, course in which the teaching of English composition and rhetoric is a major component prior to completing seventy-five credits. Satisfactory completion requires a grade of 'C' or better. Courses currently approved for intermediate composition are: **AFS** 2390; **ENG** 2050, 2100, 2110, 2120, 2210, 2310, 2390, 2570, 3010, 3020, 3050. (Students should consult College/School listing for the specific requirement in their curriculum.)

Writing-Intensive Course in Major (WI): Prior to graduation, all students must demonstrate that they have developed the ability to communicate effectively with specialized or professional audiences by completing successfully the writing requirements, or courses which incorporate major writing assignments, specified by the departments or professional schools in which they are seeking a degree. Completion of the IC requirement (see above) is prerequisite to all WI courses. Satisfactory course completion requires a grade of 'C' or better. (Students should consult College/School listing for the specific requirement in their curriculum.)

Mathematics (MC)

All educated individuals should master the underlying mathematical concepts and skills to study academic subjects in which mathematical formulations comprise an integral part of the subject matter, to deal with mathematical manipulations which might be required in their careers, to manage their personal finances, and to understand mathematical elements relevant to public issues.

Competency in basic mathematics must be demonstrated by all students prior to completion of the first thirty credits taken at Wayne State University. Mathematics competency shall be demonstrated by:

a) Satisfactory completion of **MAT** 1000 or 1050 with a grade of 'C' or better if taken at Wayne State University; OR

b) Placing into a mathematics course above the level of **MAT** 1000/ 1050 on the Mathematics Placement Examination; OR

c) Achieving appropriate scores on national standardized tests; OR

d) Transferring credit received for successful completion of a course equivalent to or higher than **MAT** 1000 completed with a grade of 'C' or better at another college or university.

Oral Communication (OC)

Educated persons should be comfortable in situations which require them to make oral presentations, be able to convince others of a point of view, or make appropriate remarks in an informal setting. Along with an ability to write cogently, communicating orally is mentioned most frequently by employers and others who evaluate the preparedness of college students as a fundamental skill to be able to compete in contemporary society. Consequently, oral communication is a crucial skill needed for success in virtually every field of endeavor.

All students must demonstrate competency in the fundamentals of oral communication prior to completing sixty credits. Oral communication competency shall be demonstrated by:

a) Completing successfully an approved course in oral communication: **COM** 1010; **ENG** 3060 (students should consult College/School listing for the specific requirement in their curriculum); OR

b) Passing the Oral Communication Competency Examination; OR

c) Transferring credit received for successful completion of a comparable course taken at another college or university.

Computer Literacy (CL)

The application of computer technology to virtually all academic disciplines and their corresponding array of occupations is a central fact of contemporary life, and the need for students to become computer-literate is essential to general education. In the modern world, it is vital that students possess both elementary and advanced knowledge of computer functions. Two levels of proficiency are required:

1) Basic proficiency in computer literacy, by which students should be able to initiate a file and operate word-processing software, understand how to gain access to University computer systems, and command fundamental skills to perform simple on-line data retrieval and manipulative operations.

2) Advanced proficiency should be relevant to the major field of study, and involves developing the skills and knowledge necessary to use computers effectively in ways appropriate to that discipline. All undergraduate programs have been reviewed by the General Education Oversight Committee to insure that advanced computer proficiency has been integrated appropriately into their curricula. Consequently, all students completing the degree requirements for their major will have achieved the necessary advanced proficiency.

Computer Literacy (CL): Prior to the completion of thirty credits at Wayne State University, the computer literacy requirement must be demonstrated through one of the following three options:

a) Successfully completing an approved course in computer literary: **B E** 1200; **COM** 3210; **CSC** 1000, 1050, or any higher-level CSC course; **E T** 2160; **FPC** 1100. (students should consult College/ School listing for the specific requirement in their curriculum); OR

b) Passing the Computer Literacy Competency Examination; OR

c) Transferring credit for successful completion of a comparable course taken at another college or university.

Critical and Analytic Thinking (CT)

The ability to reason critically and to analyze information is essential to the acquisition of knowledge in any discipline and may therefore appropriately be regarded as a fundamental skill, one to be acquired by students as early as possible in their education. Critical and analytic thinking includes: formulating and identifying deductively- and inductively-warranted conclusions from available evidence; recognizing the structure of arguments (premises, conclusions, and implicit assumptions); assessing the consistency, inconsistency, logical implications, and equivalence among statements; and recognizing explanatory relations among statements. Competency in critical thinking must be demonstrated by all students prior to completion of the first seventy-five credits earned toward a bachelor degree. Competency shall be demonstrated by:

a) Completing successfully an approved course in critical thinking: **B A** 1010; **COM** 2110; **PHI** 1050 (students should consult College/ School listing for the specific requirement in their curriculum); OR

b) Passing the Critical Thinking Competency Examination; OR

c) Transferring credit received for successful completion of a comparable course taken at another college or university.

Group Requirements

The purpose of the Group Requirements is two-fold: to acquire a broad range of knowledge, and to develop methodological skills which encourage continued exploration on an independent level. As knowledge proliferates and the interrelatedness of separate disciplines becomes increasingly evident, the traditional goal of mastering discrete or representative bodies of common, traditional material has become obsolete; even the aim of becoming familiar with all areas of knowledge has become an impossible objective. A commitment to intellectual diversity, though, must remain a central goal of any coherent undergraduate experience, and all college students must be exposed to a broad range of basic disciplines. Thus, courses specifically designed to insure that students are adequately exposed to representative branches of knowledge are fundamental to any set of general education requirements, and course work in areas outside specialized fields is required of all undergraduates at Wayne State University. These courses provide the conceptual framework within which major and professional curricula are placed in proper perspective and supply an appropriate foundation upon which continuing self-education can take place.

In addition to providing breadth of knowledge, however, the General Education Group Requirements aim to foster awareness and understanding of how scholars and scientists in various disciplines acquire knowledge. Group requirements allow students to understand and apply the methods used in different disciplines to acquire knowledge so they will have the ability to continue to explore and learn independently throughout their university careers and throughout life.

Fundamental to any set of general education requirements at the university level are courses designed to ensure that all students have facility with certain branches of knowledge. The Group Requirements introduce students to knowledge and methods in a range of areas to provide the intellectual breadth necessary for completion of the major and for continuing self-education later in life.

To satisfy the Group Requirements, students will be introduced to materials drawn from the natural sciences: physical science, life science, and laboratory; the humanities: visual and performing arts, and philosophy and letters; and society and institutions: social science, American institutions, historical studies, and foreign culture. Courses which fulfill the Group Requirements carry a minimum of three credits and constitute broad introductions to individual academic disciplines. Such courses are designed for non-majors; however, some courses designed specifically for majors, or for those with substantial prior preparation, may also be acceptable. The following principles apply to the General Education Group Requirements:

1. Courses which satisfy the Group Requirements must be elected from lists of approved courses.

2. Students who place out of a course or courses which satisfy one or more of the Group Requirements will be considered to have fulfilled those portions of the Group Requirements represented by such courses.

3. For the purpose of satisfying these Group Requirements, students may generally elect no more than TWO courses from a single subject area as defined by the University system of Subject Area Codes (the letter prefixes to course numbers). Howerver, majors in certain programs may take more than two courses from a single subject area to satisfy Group Requirements. This exemption applies to courses coded AFS for Africana Studies majors; courses coded CBS for Chicano-Boricua Studies co-majors; and to the Subject Area Code of a departmental honors major as well as courses coded HON for University Honors co-majors. Courses for these programs may be found in the Departmental sections of this bulletin.

4. Where specified, a Group Requirement may be satisfied by approved course sequences.

5. Pass/No Pass Grading: Courses taken for P-N grades (Pass/No Pass or Credit/No Credit) may be used to satisfy Competency Requirements; however, no course taken on this basis may be used to fulfill specific Group Requirements. Courses used to fulfill Group Requirements must be taken for a letter grade.

All students must fulfill the following Group Requirements by satisfactory completion of designated courses in each area; or, by an appropriate score on designated placement, national or departmental examinations.

Natural Science (PS, LS)

The evolution of science in the last four centuries has profoundly influenced the development of thought throughout the world. The natural sciences, both directly and through their applications in technology, present society with problems as well as opportunities. By transforming cultural values and beliefs, the sciences have altered behavior and created new pathways to the future. Thus, university graduates should understand the nature and applications of scientific knowledge, the processes by means of which it is generated and tested, and its limitations and capabilities. They should be familiar with phenomena of the natural world and comprehend how theoretical explanations are provisionally accepted by the scientific community.

All students are required to complete successfully at least two courses (a minimum of three credits each) in the natural sciences (one in the physical sciences and one in the life sciences). To permit the individual student to experience the role of systematic observation in the promulgation of scientific knowledge, a minimum one-credit laboratory or interactive demonstrations or simulations must be associated with at least one of these courses

Physical Sciences (PS): Students must elect one course from the fields of astronomy, chemistry, geology, or physics, or combinations of no more than two of these areas. The following approved options are designed to explain physical laws and their effects on the natural world; emphasis is placed on mathematical predictability and the nature of scientific inquiry.

Courses noted with an asterisk (*) can satisfy the laboratory requirement when elected for appropriate credits and/or with the appropriate laboratory.

PHYSICAL SCIENCE OPTIONS:

AST 2010; **CHM** 1000*, 1020*, 1220*, 1225*, 1410*; **GEL** 1010*; **HON** 4230; **PHY** 1020*, 1040, 1070*, 1420*, 2130*, 2170*, 2175, 3100*. (Students should consult College/School listing for the specific requirement in their curriculum.)

Life Sciences (LS): Students must elect one course from the fields of biology, behavioral psychology, physical anthropology, nutrition and food science, or combinations of no more than two of these areas. The following approved options are designed to explain the mechanisms which govern the behavior and functioning of living organisms; emphasis is placed on factors which control these mechanisms and the nature of scientific inquiry.

Courses noted with an asterisk (*) can satisfy the laboratory requirement when elected for appropriate credits and/or with the appropriate laboratory.

LIFE SCIENCE OPTIONS:

ANT 2110; **BIO** 1030, 1050*, 1510*, 2200*; **HON** 4220; **NFS** 2030*; **PSY** 1010*, 1020. (Students should consult College/School listing for the specific requirement in their curriculum.)

Humanities (VP, PL)

Meaningful exposure to the humanistic disciplines produces more well-rounded and humane citizens, individuals capable of broadening their view of human experience. It also provides an indispensable creative perspective on the teachings of other disciplines. The General Education Group Requirements in the humanities afford students an opportunity to examine a range of humanistic statements and to consider some of the ways in which they are meaningful. Analyzing works drawn from across the humanities (arts, philosophy, and letters), considering the varied contexts to which they belong and within which they are properly understood, and evaluating a range of interpretations, leads to an appreciation of how imagination and intellect, working in tandem, provide insight into the nature of human experience.

To meet the humanities requirement objectives, all undergraduate students at Wayne State are required to complete successfully at least one course in the visual and performing arts, and one course in philosophy and letters as defined below (a minimum of three credits each).

Visual and Performing Arts (VP): Students must complete one course in the appreciation or history of art, music, film, dance, theatre, or appropriate combinations of these media. The following approved options are designed to enhance understanding and pleasure; emphasis is placed on developing the fundamental skills of analysis, interpretation, and evaluation and applying them to primary materials in the visual and performing arts.

VISUAL AND PERFORMING ARTS OPTIONS:

A H 1000, 1110, 1120, 4240; **AED** 5050; **COM** 2010, 2020; **DNC** 2000, 2310; **ENG** 2450; **HON** 4240; **MUH** 1340, 1345, 1350, 1351, 1370; **N E** 2060; **SLA** 3710; **SLP** 1500; **THR** 1010, 1030, 1200. Studio and applied arts courses that fulfill the criteria for Visual and Performing Arts may be found on the University Bulletin site at http://www.bulletins.wayne.edu. (Students should consult College/School listing for the specific requirement in their curriculum.)

Philosophy and Letters (PL): Students must complete one course in philosophy, literature, linguistics, the history of rhetoric, or appropriate combinations of these subjects. The following approved options are designed to enhance understanding and pleasure; emphasis is placed on developing the fundamental skills of analysis, interpretation, and evaluation, and applying them to primary philosophical and literary materials.

PHILOSOPHY AND LETTERS OPTIONS:

CLA 1010, 2100, 2200; **COM** 2160; **ENG** 2200, 2500, 2720, 3110, 3120, 3140; **FRE** 2700 2991; **GER** 2310, 2700, 2991; **HON** 2100, 4200; **ITA** 2700; **LIN** 2720; **PHI** 1010, 1020, 1030, 1040, 1100, 1120, 2100, 2110, 2320, 3500, 3550, 3700; **P S** 3510, 3520; **RUS** 2700, 3600, 3650; **SLA** 2310; **SPA** 2700. (Students should consult College/School listing for the specific requirement in their curriculum.)

Society and Institutions (HS, AI, SS, FC)

Understanding human society and institutions is a basic element of general education. To this end, students must develop a historical perspective, an appreciation for world cultures, and learn how the methods of social science are used to develop theoretical understanding of human society and institutions. Studying the social sciences assures that students are introduced to several bodies of knowledge which shed light on contemporary social problems and

are develop understanding of methods appropriate to social science investigation (research). The findings of social scientists address such relevant issues as race relations, family structure, the organization of social institutions, politics, economic policy, and international relations. The courses which satisfy the requirements in social science introduce the methodology of modern, empirical social science.

To meet the Society and Institutions Requirement, all undergraduate students at Wayne State are required to complete successfully at least one course in historical studies, one course in American society and institutions, one course in basic social science, and one course in foreign culture as defined below (a minimum of three credits each).

Historical Studies (HS): Historical studies provide insight into the development of human institutions, their similarities and differences, and the means by which knowledge about the past is acquired. Such studies reveal how contemporary perspectives evolve from past events and enhance our understanding of the present.

To meet the historical studies requirement objectives, all undergraduate students at Wayne State are required to complete successfully at least one course (a minimum of three credits) in historical studies. The following approved options do not offer a comprehensive overview of history; rather, they are designed to introduce significant historical periods or themes in which comparative perspectives are emphasized and the and methods of historical studies explained.

HISTORICAL STUDIES OPTIONS:

ANT 3200; **ASN** 1710; **HIS** 1000, 1300, 1400, 1600, 1610, 1710, 1800, 1810, 1995; **HON** 4250; **N E** 2030, 2040. (Students should consult College/School listing for the specific requirement in their curriculum.)

American Society and Institutions (AI): Students must elect one course in this area. The following approved options are designed to promote civic literacy by studying American society from the perspective of pluralism; emphasis is placed on the organization of political bodies and the manner in which they function.

AMERICAN SOCIETY AND INSTITUTIONS OPTIONS:

HIS 1050; **HON** 2000; **P S** 1010, 1030.

Social Science (SS): Students must elect one course in basic social science. The following approved options provide an overview of social structures and illustrate the role of human beings in different institutional arrangements; emphasis is placed on the approaches and methods of modern social science: the significance of theories, models, data collection, analysis, and inference.

SOCIAL SCIENCE OPTIONS:

AFS 2210; **ANT** 2100; **ECO** 1000, 2010, 2020; **GPH** 1100, 2000, 3130, 3200; **HIS** 2000; **HON** 1000; **P S** 1000, 2000, 2240; **SOC** 2000, 2020, 2500, 3300, 3510, 4100; **U S** 2000; **W S** 3010. (Students should consult College/School listing for the specific requirement in their curriculum.)

Foreign Culture (FC): A significant measure of a college education is the degree to which individual cultural assumptions can be placed in the context of a wider and more diversified world view. Such understanding leads to greater appreciation for the life style and artifacts of different peoples and a tolerance for opinions originating from disparate traditions by helping minimize narrow certainties and dispel provincial attitudes.

To meet these objectives, all undergraduate students at Wayne State are required to complete successfully at least one course (a minimum of three credits) in foreign culture elected from the following list of approved options:

FOREIGN CULTURE OPTIONS:

AFS 3250, 3610; **ANT** 3150, 3520, 3540, 3550; **ARB** 2010; **ARM** 2010, 3410, 4750; **ASN** 2150; **CBS** 2410, 2420; **CHI** 2010; **DNC** 2400; **ENG** 2670, 2730; **FRE** 2010, 2710, 2720; **GER** 2010, 2710, 2720, 3410; **GPH** 2700; **GRK** 2010**,** 2110, 3710; **HEB** 2010; **HIS** 2440, 2700; **HON** 4260; **ITA** 2010, 2710, 2720; **JPN** 2010, 4550, 4560; **LAT** 2010; **LIN** 2730; **N E** 2000, 3225, 3550; **NUR** 4800; **PHI** 2150; **POL** 2010, 2710, 3410; **P S** 2700; **RUS** 2010, 2710, 3410; **SLA** 3410; **SPA** 2010; **SWA** 2010; **UKR** 2010, 3410. This includes completion of any foreign language sequence through courses numbered 2010 or 2110. (Students should consult College/School listing for the specific requirement in their curriculum.)

UNDERGRADUATE HONORS CURRICULA

The University's honors curricula serve to challenge highly motivated students through courses of advanced study; to provide academic programs of unusual breadth and depth; to provide recognition of outstanding scholastic achievement; to foster interest in research and scholarly activity; and to provide students an opportunity to work with outstanding faculty.

Two types of curricula are available: a University-wide Honors Curriculum; and a College or Department Honors Curriculum. Membership in the Honors College is encouraged for students pursuing either University or Department/College Honors.

Dual Recognition: Students who complete the requirements for University Honors and, in addition, the requirements of a College/Department Honors Program, shall have both designations on the transcript and the diploma. Only a single senior essay, thesis, or project shall be required.

More information about both University Honors and departmental Honors is available online at www.honors.wayne.edu and at the Honors College as well as through the respective departments/colleges.

University-wide Honors Curriculum

The University-wide Honors curriculum, managed by the Irvin D. Reid Honors College, allows undergraduate students in any College or School to pursue individually-designed Honors Programs which complement their majors.

Admission: Students with excellent academic records are eligible to apply to the University's Irvin D. Reid Honors College. In considering applicants, emphasis shall be placed on the student's prior accomplishments, and on measures of potential appropriate to the individual and his/her field. Normally, the following are required:

Entering Freshmen: Any entering freshman with a high school grade point average of 3.5, or a composite ACT score of 26 or SAT combined score of 1100, is eligible for consideration for admission to the Honors College.

Matriculated Students: Students who have a cumulative grade point average of 3.3 or above at Wayne State University may apply for admission to the Honors College.

Transfer Students: Students who have completed a minimum of fifteen college credits with a cumulative grade point average of 3.3 at another postsecondary institution are eligible to apply for admission to the Honors College. Transfer students must have a composite ACT score of 26 or SAT combined score of 1100. Normally, no student shall be admitted to the University Honors Curriculum who has fewer than sixty credits to be completed for an undergraduate degree at Wayne State University. Students must complete at least one Honors Seminar, the Honors thesis, and any additional required upper-level courses in their major at WSU.

Eligibility to register for Honors courses: Students whose cumulative grade point average is at least 3.3, but who are not formally in the Honors College, are eligible to elect honors courses to enrich their educational experiences.

University Honors Requirements: The College shall require Honors-designated course work totaling a minimum of thirty-six credits for the baccalaureate program the student is pursuing. Students in this College MUST SATISFY THE GENERAL EDUCATION REQUIREMENTS, but the approved General Education courses

may differ for the Honors College after review by the Honors Council and the General Education Implementation Committee and approval by the President or his/her designee. The Honors College General Education core curriculum will define a common body of knowledge beginning with the freshman Honors first-year sequence, and including a specified complement of Honors courses chosen from existing General Education options as determined by individual departments in consultation with the College.

Retention: The academic record of each student shall be reviewed at regular intervals. To remain in the University Honors College, a student normally shall be expected:

a) to pursue a course of study consistent with the objectives of the Honors College, as recommended by the University Honors Council and approved by the President or his/her designee; and

b) to maintain a cumulative grade point average greater than or equal to 3.3; however, Colleges/Departments may establish a higher g.p.a. for retention in a College/Department program.

A student whose cumulative grade point average is below 3.3 and is, for that reason, dropped from the Honors College, may reapply when his/her cumulative g.p.a. is 3.3 or higher.

Graduation: For graduation from the Honors College, students must have a minimum cumulative grade point average of 3.3, and must complete a minimum of thirty-sixcredits in honors-designated course work (including credits in an independent research project, essay, or thesis). Graduates of the University-wide Honors College will be so recognized on the transcript and diploma.

College or Department Honors Curricula

Undergraduate departments in Colleges and Schools have developed programs leading to honors degrees. Details of these programs are included in the College and Department sections of this Bulletin.

Admission: Students must be admitted to the major or program for which honors is sought. A minimum grade point average of 3.3 is required for enrollment in College/Department programs; however, Colleges/Departments may establish a higher grade point average for admission.

Program Requirements: College or Department Honors Curricula require a minimum of twelve credits in honors-designated course work of which at least three credits may be in an independent research project, essay, or thesis in the student's College/Department. Students also must meet the requirements of their major fields. The honors requirements for the major may include approved modifications of normal major requirements.

Retention: To remain in a College or Department Honors Program, a student normally shall be expected to maintain a cumulative grade point average greater than or equal to 3.3; however, Colleges/Departments may establish a higher g.p.a. for retention in College/Department programs.

Graduation: For graduation with honors, students must meet the requirements approved by their department/college/school, including a minimum 3.30 grade point average, an Honors thesis and at least one Honors seminar.

Graduation with Distinction

Wayne State University bestows upon students completing the baccalaureate degree three separate designations for scholastic excellence reflected in the cumulative grade point average: Cum Laude, Magna Cum Laude, and Summa Cum Laude. Graduation with distinction will be indicated on the student's diploma and on the transcript.

Graduation with Distinction will recognize at each graduation the top twenty per cent of students in each College who have earned the highest grade point average in their Colleges, with the following approximate distribution:

Summa Cum Laude: Top five per cent

Magna Cum Laude: Next five per cent

Cum Laude: Next ten per cent

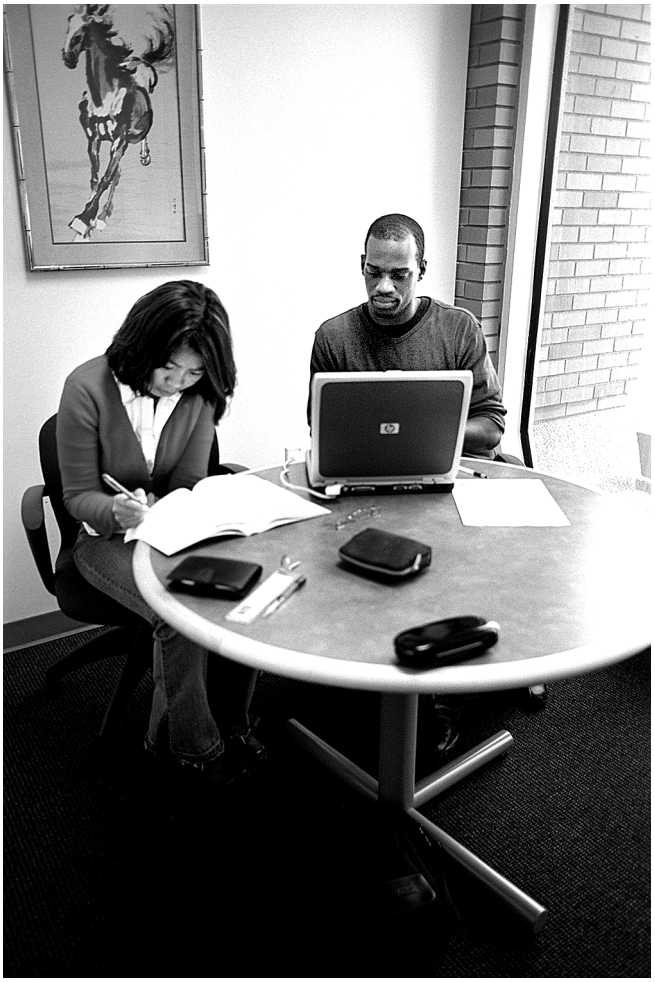
The specific minimum grade point averages will be determined each year in the following manner, but graduation with distinction will not be awarded in cases of any g.p.a. less than 3.0:

Based on the grade point average distributions of the previous year's senior class, the grade point average cut-offs for each College will be established to provide for recognition of the top eighteen to twenty per cent of the graduating students.

The criteria for Graduation with Distinction include:

1. A minimum of sixty credits in residence at Wayne State University.

2. A qualifying minimum grade point average (calculated as explained above) on all course work at Wayne State University must be completed by the end of the semester of graduation. (For notation in the commencement program, the grade point average on all course work completed prior to the semester of graduation will be used.)



Undergraduate Admission

Office of Undergraduate Admissions

Welcome Center, 42 W. Warren Avenue, PO Box 2759,
Detroit MI 48202
Telephone: 313-577-3577, Fax: 313-577-7536
Website: http://www.admissions.wayne.edu

Service Hours: The Office of Undergraduate Admissions assists students by appointment, telephone, and on a walk-in basis during posted service hours. Service hours can be found at http://www.admissions.wayne.edu.

The Office of Undergraduate Admissions has the primary function of recruiting, admitting, and enrolling new undergraduate students to the University. This office also helps to coordinate the recruitment activities of individual departments, alumni groups, and students. The office organizes visits and programs at local high schools and community colleges as well as in the State of Michigan and selected regions outside of the State.

Also included in functions of the Undergraduate Admissions Office are administration of the Presidential and Wayne State Scholarships and the new student orientation programs for undergraduates. (See below.)

Application

An official Application for Undergraduate Admission with a $30.00 non-refundable application fee for U.S. residents should be filed in the Office of Undergraduate Admissions. The application fee for international students is $50.00. Students are expected to apply online at: http://www.admissions.wayne.edu.

Admission Application Procedures Dates

1. Students still in high school may apply after completion of their junior year.

2. Out-of-state applicants (including transfer students not currently attending another college) who do not plan to enroll in another college or university before entering Wayne State may apply up to eleven months in advance of the term desired.

3. Applicants currently registered at another college or university should apply early in the last term prior to transfer.

4. Preferred deadlines for receipt of applications are: Fall: August 1; Winter: December 1; Spring/Summer: May 1.

Admission Requirements and ACT Score Requirement

Admission to Wayne State is selective. In order to qualify for admission an applicant must present scholastic records indicating college preparation in accordance with the Presidents' Council guidelines and ability to undertake a college degree program. Graduates of accredited high schools can qualify for admission in two ways: 1) admission is offered if the cumulative high school grade point average is 2.75 ('B-minus') or above; and 2) admission may be offered if the high school grade point average is between 2.00 and 2.74, providing the American College Test (ACT) standard composite score is at least 21. **Every entering freshman must have an ACT score on file.**

Special Admissions: Chicano-Boricua Studies, and Community Education have programs for which special admission criteria apply. Contact the Office of Undergraduate Admissions for information. See also descriptive information under the headings of Chicano-Boricua Studies (page 307), and Community Education (page 46).

Recommended High School Preparation

1. English (four years recommended): Students entering the University should be able to: 1) comprehend the main and subordinate ideas in written works, lectures, and discussions; and 2) conceive ideas about a topic and be able to organize them for presentation in both verbal and written forms. Effective use of the English language is central to one's ability to succeed at the University and in the professions and occupations for which our students are preparing.

2. Mathematics (four years recommended): Entering students should be able to: 1) understand ratios, proportions, percentages, roots and powers; and 2) perform the mathematical operations of algebra and geometry. While most careers for which University students are preparing require mathematical competency, an increasing number of careers in science and technical curricula require advanced preparation in mathematics.

3. Biological and Physical Sciences (three years recommended): Students should be acquainted with: 1) concepts of matter, energy, motion and force and the natural laws and processes of the physical sciences in general; 2) the science of life and living matter with special reference to growth, reproduction and structure; and 3) laboratory methods. A basic understanding of the physical and biological sciences is essential for many fields of college-level study and is necessary if one is to comprehend our world and the impact of science and technology on it.

4. Social Sciences/History (three years recommended): Students should study different cultures and societies — their social systems, customs, communities, values, economies, governments, and politics. A knowledge of the main events and ideas that have shaped our nation and its place in the world should also be possessed by entering students. They should understand how the past bears upon the present condition and future course of mankind. As the social sciences improve one's appreciation of the scientific method and other approaches to critical analysis, an understanding of history is required for an informed exercise of citizenship in a free society.

5. Foreign Languages (two years recommended): Proficiency in a foreign language not only introduces students to non-English speaking cultures but also heightens awareness and comprehension of one's native tongue. Language is the basic instrument of thought, and the ability to read, speak and write in a foreign language permits one to understand another culture in a more fundamental way. Foreign language competency will open up career opportunities denied to those without it.

6. Fine Arts (two years recommended): Students entering the University should be acquainted with the visual and performing arts, through study and/or participation. Several academic disciplines at the University require high levels of skill in the arts. Study in this area enriches life and heightens one's sense of beauty and aesthetic perception.

7. Computer Literacy: Some formal instruction in the logic and use of computers in problem solving and data retrieval is increasingly important in all fields of study.

Transfer Admission

Transfer students are considered for admission if they meet the following minimum conditions:

1. Completion of at least one semester of college work (twelve transferable semester credits or eighteen quarter credits) at an accredited college institution with a cumulative 'C' average (2.00).

2. For those students who have completed fewer than twelve transferable academic credits with a 'C' average at another institution, the

high school record will be used as an additional factor in determining admissibility.

3. Students who have attended unaccredited institutions should consult with an admission counselor to determine admissibility.

'WayneDirect' — Early Admission

This is an early admission program for Wayne County community college district students. It enables Wayne State University to identify students enrolled in community colleges in the district who wish to receive their baccalaureate degree from Wayne State. For further information, see www.apply.wayne.edu/waynedirect/index.php

Transfer of Undergraduate Credits

Wayne State University policy accepts transfer credit from all accredited institutions of higher education, both community colleges and baccalaureate-granting colleges and universities.

No transfer grades apply in computing Wayne State grade point averages.

Transfer Credit from Regionally Accredited Institutions: Wayne State University will accept equivalent academic credit from regionally accredited baccalaureate-granting institutions, and up to sixty-four semester credits from community colleges and other regionally accredited institutions which offer Associate Degrees. (All credits will be evaluated in the latter case; the most relevant sixty-four credits will apply to the degree.) Courses for which a 'D' is earned may not transfer. Many major departments will require at least a 'C' or higher grade for credit in the degree plan.

Credit from Institutions NOT Regionally Accredited: Wayne State University will accept transfer credit from other accredited institutions, provided that the institution: 1) grants a baccalaureate or associate degree; 2) is fully accredited by an agency recognized by the Council on Postsecondary Education (COPA); and 3) the courses presented for transfer are shown to have equivalency or are determined to be of a traditional academic nature.

Transfer Credit from Institutions in Candidacy Status: Wayne State University will accept for transfer those credits for which a grade of 'B' or higher was earned from institutions with candidacy status from a regional accrediting agency.

Technical, Vocational and Applied Credit: To facilitate transfer of students, Wayne State University will accept for transfer up to twelve semester credits earned in technical, vocational and applied (TVA) courses at two- and four-year colleges if such courses are determined to be related to a student's intended program. For students transferring from associate degree granting institutions, the twelve TVA credits will be included in the sixty-four credit limitation.

Transfer of Remedial or Developmental Course Work: Credit earned in courses designated remedial or developmental will not transfer.

Transfer of Redundant or Duplicative Course Work: Transfer credit will not be awarded for redundant course work (i.e., courses with substantially duplicative content). Credit will be awarded for only one course in any set of redundant courses.

Residency and Upper Division Requirements: Transfer students will be required to meet the University and College residency requirements and to obtain the same number of upper division credits in fulfillment of the baccalaureate degree as are required of native students in specific major programs.

Junior Standing: Wayne State University will award junior standing to all transfer students for whom fifty-six or more transferable semester credits have been accumulated, whether they are transferred credits or credit earned at Wayne State University. Junior standing will not guarantee automatic entry to major and professional programs in the Schools and Colleges. Transcripts will be individually evaluated to determine whether all prerequisites for major and professional standing have been met by native and transfer students.

Advanced Placement Tests

Superior performance in the College Board Advanced Placement Tests will entitle an entering freshman to consideration for advanced placement and/or advanced standing credit up to a maximum of thirty-two semester credits of work in the areas covered by the examination. These areas include American history, European history, art history, studio art, biology, chemistry, computer science, English, French, German, Latin, Spanish, mathematics, music literature, music theory, and physics. Advanced placement and/or advanced standing credit will be awarded and such credit may satisfy General Education Requirements (see page 18) in accordance with policies adopted by the appropriate Department. Interested students should contact the Office of Undergraduate Admissions.

College-Level Examination Program

The College Board sponsors the College-Level Examination Program (CLEP). This program gives students and prospective students the opportunity to demonstrate their academic proficiency at the freshman-sophomore college level in various areas and in specific subjects whether or not they have had previous formal college instruction in materials covered by the tests. As described by the College Board, the Examinations are intended to provide a comprehensive measure of undergraduate achievement in the five basic areas of the liberal arts: English composition, humanities, mathematics, natural sciences and social sciences. They are not intended to measure advanced training in any specific discipline, but rather to assess a student's knowledge of fundamental facts and concepts, his/her ability to perceive relationships and his/her understanding of the basic principles of the subject. The content of the Examinations is similar to the content of those subjects ordinarily included in the program of study required of most general education students in the first two years of college.

The Subject Examinations are essentially end-of-course tests developed for widely taught undergraduate courses. They measure understanding of basic facts and concepts, as well as the ability to apply such understanding to the solution of problems and the interpretation of materials. Questions that require of a student only rote recall are avoided.

Superior performance in these examinations will be considered as a basis for granting advanced placement and/or advanced standing credit as well as for waiving parts of the General Education Requirements of the University (see page 18). For further information, please consult advisors, school or college offices, or University Advising Center at 313-577-8889.

For information on credit by Special Examination, see page 37.

Special Requirements and Professional Admission

For additional undergraduate admission information relating to special requirements and professional admission in particular Schools and Colleges, please refer to the following sections: *Business Administration — page 70; Engineering — page 130; Engineering Technology — page 169; Fine, Performing and Communication Arts — page 192; Nursing — page 431; Pharmacy and Health Sciences — page 445; Social Work — page 483.*

Guest Admission

Students currently attending an accredited institution of higher education who are interested in taking undergraduate courses at Wayne State for one semester, or who wish to register for courses concurrently, are eligible to apply for Guest Admission. Requirements

include the completion of fifteen semester credits (credit hours) at the home institution and a minimum cumulative 'C' grade point average (equivalent to a 2.0 grade point average at Wayne State). Please contact the Admissions Office for further details regarding this status.

Visitor Program

The Visitor Program allows any adult who is not currently enrolled for credit courses at Wayne State to attend a wide range of University courses for no credit. Provided space is available, adults may enroll as visitors in most of the courses listed in the Schedule of Classes.

It is not necessary to be formally admitted to the University to take advantage of this noncredit program. Visitor-status students do not submit written work or take examinations. Tuition for courses enrolled under Visitor status is one-half of the freshman credit rate plus one-half of the registration fee; tuition must be paid in full at the time of registration.

Registration for both on-campus and off-campus courses takes place the first week of classes. For information, call the Noncredit Programs unit at 313-577-4682.

International Students

This university is authorized under Federal law to enroll non-immigrant alien students. A student from another country desiring admission should file an Application for Admission to Undergraduate Studies for Applicants from Other Countries, with a $50.00 nonrefundable application fee, with the Office of Undergraduate Admissions. Full instructions for admission procedures, academic requirements, and language standards are included with the application forms. A student from a country in which English is not the native language must take an English Language Proficiency Examination prior to admission or have a minimum Test of English as a Foreign Language (TOEFL) score of 550 (213 on computerized version), and a Test of Written English score of 5.5. Arrangements should be made through the Office of Undergraduate Admissions. Also see Office of International Students and Scholars, page 47. For information on international student admission to the Graduate School, see the Wayne State University Graduate Bulletin and page 29 below.

Re-Entry Following an Interruption in Attendance

Undergraduate students who were previously admitted and registered at Wayne State University and whose attendance has been interrupted need not reapply at the Office of Undergraduate Admissions. It is expected that students who left in good standing report to the College of their choice for any special instructions regarding their return to classes.

Wayne State University — University of Windsor Exchange Agreement

Wayne State University and the University of Windsor have entered into an exchange agreement whereby students from each institution may enroll in selected courses at the other institution. Courses available are limited to those not offered at the student's home institution. Limitations also apply to the number of courses and credits a student may take under this agreement. Wayne State University and the University of Windsor students who wish to participate in the program must be in good standing at their home institution and must have prior approval of the appropriate academic unit that the course(s) will be accepted as part of the student's course of study. Students who participate in the Wayne State University/University of Windsor program pay tuition and fees at the home institution and receive credit for the course(s) only at the home institution. Students should consult the Director of International Programs, Office of the Provost and Senior Vice President for Academic Affairs, for further information.

Phoenix Program (Second Start)

The Phoenix Program provides undergraduate students who left Wayne State University on Probation or Dismissal with the opportunity to petition for return under a second-start policy. To be eligible for such admission, the student must not have enrolled at Wayne State University for at least five consecutive years, immediately prior to petition for the Phoenix Program. Petitions for re-entry are decided by the Dean of the School or College in which the student is matriculated or seeks to enter. With the approval of the Dean, the student and an academic advisor develop an academic contract, and the advisor closely monitors the student through the first twelve credits of course work.

To return to regular status, students must complete twelve semester credits with a grade of 'C' or better and satisfactorily complete the Mathematics Competency and English proficiency requirements of the University General Education Requirements (see page 18) within two years under the Phoenix Program. (NOTE: a grade of 'C-minus' is considered to be lower than a 'C.') Students will be expected to complete degree requirements in effect at the time of their return to the University. Should students earn any grade below 'C' in their first twelve credits in the Phoenix Program, they will be excluded from the University. To maintain the integrity of students' academic records, previous course work will remain on the transcripts; however, the credits and grade point average (g.p.a.) will be adjusted to reflect the grade point average earned since the start of the Phoenix Program.

For information about the Phoenix Program, students should contact the Dean's office of the School or College in which they have matriculated or wish to enter.

Scholarship Programs

FRESHMEN: For information about scholarship opportunities for newly admitted freshman students, check the admissions website: http://www.admissions.wayne.edu

COMMUNITY COLLEGE TRANSFERS: For information about scholarship opportunities for incoming transfer students, check the admissions website: http://www.admissions.wayne.edu

New Student Orientation

The Office of Undergraduate Admissions holds new student orientation sessions throughout the summer for incoming freshmen and transfer students enrolling for the Fall semester. Students entering during the Winter semester attend orientation sessions in December. All freshmen and transfers with fewer than thirty earned credits entering Wayne State University for the first time are required to attend an orientation session.

Graduate School Admission

OFFICE OF GRADUATE ENROLLMENT SERVICES
Welcome Center, 4th Floor, 42 W. Warren Avenue,
Detroit MI 48202
Telephone: 313-577-3577; Fax: 313-577-0131
E-mail: domesticgrad@wayne.edu and
internationalgrad@wayne.edu
Website: http://www.gradadmissions.wayne.edu

The Graduate Admission application is available at the website.

Regular Graduate Admission

To be considered for graduate admission, an applicant must hold or be completing, prior to graduate enrollment, an earned baccalaureate degree or its equivalent from a college or university of recognized standing and have adequate preparation with discernible ability to pursue graduate studies in the major field elected. These criteria are subject to standards set by the individual Colleges and Schools, which reserve the right to revise or amend their entrance requirements beyond the minimal requirements of the University.

Before any student can be considered for admission to graduate study, the following must be submitted to the Office of Graduate Enrollment Services: A completed Application for Graduate Admission, the graduate application fee ($50) and an official transcript from any college or university at which a bachelor's degree was earned. A transcript is considered official only if it is sent directly from the institution where the course work was completed and bears an official seal. The applicant is also responsible for arranging to take any examinations that may be specified by the Office of Graduate Enrollment Services, the College, or the Department.

Several academic areas of the University require an additional Departmental application. Students are advised to contact the Department to which they are applying and request full particulars on admission procedures.

In most Departments (see Departmental sections of this bulletin for variants), a regular admission may be authorized for the domestic master's degree applicant upon the Department's recommendation, if the applicant's grade point average is 2.75 ('C'=2.00) or above for the upper division (approximately the last 60 semester credits) of his/her undergraduate course work and if he/she holds a degree from a regionally accredited institution.

All baccalaureate graduates of *unaccredited* institutions must present a 3.00 ('B') or better upper-division grade point average to be considered for graduate admission. Course work completed after the baccalaureate which is presented as the qualifying basis for graduate admission cannot be applied toward a graduate degree at Wayne State University.

Doctoral applicants must present higher entrance qualifications than those required of master's degree applicants. A doctoral applicant is required to have an undergraduate grade point average of 3.0 ('B'=3) or above for the upper division of the undergraduate course work and must have completed an undergraduate major or substantial specialized work in his/her proposed doctoral major field. Certain departments require the completion of a master's degree with superior scholarship before considering acceptance of a student as a doctoral applicant. Applicants with less than a 3.0 g.p.a. in undergraduate course work may be eligible for admission to doctoral study if they have subsequently achieved a grade point average of 3.0 or better in substantial graduate course work in the proposed doctoral field.

The individual colleges reserve the right to refuse a non-resident admission if such admission prevents registration of a qualified Michigan resident. This ruling may not be invoked to secure admission to a Michigan resident if his/her grade point average entitles him/her to qualified status only.

Qualified Graduate Admission

In most Departments, qualified admission to a master's or certificate program may be authorized if an applicant's grade point average is between 2.50 and 2.74 or if his/her degree is from a non-accredited institution, provided the major Department and the Graduate Officer of the appropriate School or College have reviewed the applicant's academic experience, extra-scholastic qualifications and reasons for pursuing graduate study and have recommended his/her admission to the Graduate School.

Upon recommendation of the Department and the Graduate Officer of the appropriate College or School, qualified status may be granted to an applicant whose grade point average is below 2.25, if, since the time his/her baccalaureate degree was conferred, he/she has shown substantial evidence of academic or extra-scholastic qualifications of such merit as to warrant special consideration.

Applications from students who have completed substantial course work at, and/or graduated from, institutions which were not accredited by one of the six regional U. S. accrediting institutions (MSA/CHE, NEASC, NCA, NASC, SACS, or WASC-Sr.) at the time studies were undertaken, will have a special review. If requested, the applicant will be required to furnish documentation of the nature and level of the credit obtained, the bases on which the credit was awarded, institutional operating practices, library holdings, physical facilities, faculty qualifications, and any other matters that may be relevant to an evaluation of credit. The director of admissions is authorized to deny admission to any applicant whose previous education does not conform to Graduate School standards. The Office of Graduate Enrollment Services may also make recommendations concerning the appropriateness for transfer of previously completed graduate course work.

All graduate admission procedures and regulations are subject to revision by the University Graduate Council at any time.

Graduate Admission Application Dates

The Office of Graduate Enrollment Services will make every effort to process applications in time for the semester of the student's choice. However, only complete applications received by the last recommended dates shown below are ensured academic review before the semester starts. Unless an application and all supporting materials are received by the date indicated, there may not be adequate time for the desired program to review the application and make the admission decision.

Fall Term — Classes begin Early September: **apply by June 1**
Winter Term — Classes begin Early January: **apply by October 1**
Spring Term — Classes begin Early May: **apply by February 1**

For international students, the application form and all transcripts and documents must be on file in the Office of Graduate Enrollment Services at least four months prior to the start of the term in which the applicant plans to begin graduate studies.

Several Colleges and Departments have earlier deadlines. Doctoral programs also have earlier application deadlines. Students should consult the School/College and Department sections of this bulletin, the program's website, or the Office of Graduate Enrollment Services for complete information.

Graduate Non-Degree Admission

An applicant who wishes to take graduate courses but does not wish to be in a degree program may request admission on a non-degree basis. The eligible applicant will be admitted to a particular College but not to an individual major program. In most instances, a non-

degree student may, with the Department's approval, register for any courses for which he/she has the necessary preparation.

The applicant for a non-degree graduate classification is cautioned that *only one semester of full-time graduate study, or part-time registrations not to exceed nine credits, is normally permitted in this classification*. Beyond these limits, registration as a non-degree student requires the approval of the Graduate Officer of the student's College. Not more than nine credits, subject to the approval of the Graduate Officer, may be applied at a later date toward the residency and credit requirements for either the master's or Ph.D. degree. For the Ed.D. degree, credit earned beyond the nine-credit limitation will be reviewed by the appropriate Division and the Education Graduate Officer for possible application toward the degree.

If a student in non-degree status decides to seek admission to a graduate degree program, he/she should apply to the appropriate College Graduate Office for a Change of Status *before* completing nine credits. There is no assurance that credits earned while holding a non-degree classification will be acceptable in a degree program, or that prerequisites may not have to be specified if the student later becomes a degree applicant.

Depending on previous degrees, applicants may request admission to one of the following Graduate Non-Degree classifications:

1. POST-MASTER'S: Students holding Wayne State master's degrees should apply for a Change of Status in the Graduate Office of the College they wish to enter. Those with master's degrees from other institutions must submit an *Application for Graduate Admission* and transcripts.

2. POST-DOCTORAL: This rank is reserved for persons holding earned doctoral degrees.

Graduate Guest Admission: Graduate students actively pursuing degrees and who are in good standing at other accredited colleges and universities may be admitted to elect a limited number of credits at Wayne State University. Interested students may obtain a *Graduate Guest Application* from the Graduate Enrollment Services website; this must be signed by their home institution before it can be accepted for consideration. **A guest admission is valid for only one semester and must be renewed with each subsequent registration.** A maximum of twelve semester credits may be earned as a Graduate Guest Student. Admission as a Graduate Guest student does not constitute permission to register as a degree applicant.

Senior Rule Admission: In their last undergraduate semester, Wayne State students with a 3.0 (or above) upper division grade point average have the option of taking a limited number of graduate credits. Graduate credit is awarded only for those courses taken in excess of baccalaureate degree requirements. Undergraduate and graduate courses combined may not exceed sixteen credits for the final semester of baccalaureate degree course work. A Senior Rule student must register for at least one credit which is required for the undergraduate degree in order to be eligible for this status. Students who have completed all required registrations for the baccalaureate may not obtain Senior Rule status. Completion of the *Application for Graduate Admission* is required, and students are advised to consult their advisers and the Office of Graduate Enrollment Services. Application deadlines for Senior Rule admission are the same as for regular graduate admission. Students who qualify and are recommended by the Department or College will be admitted for one semester. Graduate admission will be regularized upon evidence that the student has completed all requirements for the bachelor's degree; it is the student's responsibility to provide this transcript.

As a courtesy, the University permits a student to pay undergraduate fees for the graduate courses elected in a Senior Rule status. It is recommended that students elect only courses numbered 5000-6999 in their Senior Rule semester.

Eugene Applebaum College of Pharmacy and Health Sciences: Undergraduate pharmacy students may register for one of their last two semesters of their fifth year under Senior Rule status.

College of Nursing: Applicants must submit a graduate College of Nursing Application to the College's Office of Student Services, 225 Cohn, Wayne State University, Detroit, Michigan 48202.

Permit to Register

This is a one-term-only admission status which may be granted to applicants with incomplete applications for graduate admission, at the discretion of the academic department, and upon presentation of evidence of an earned baccalaureate degree with an acceptable grade point average and the application fee. Registration beyond the initial semester requires the submission of a regular graduate admission application, the processing fee, and official transcripts. Admission as a graduate Permit-to-Register student does not obligate Wayne State University to accept the applicant in the future for a graduate degree, nor is there any assurance that credit earned in this status will be accepted toward a graduate degree.

This option is not available in all University Schools and Colleges. Applicants are encouraged to discuss admission options with the staff of the Office of Graduate Enrollment Services.

Michigan Intercollegiate Graduate Studies (MIGS) Program

The Michigan Intercollegiate Graduate Studies (MIGS) Program enables graduate students of Michigan public institutions to take advantage of educational opportunities at other Michigan public institutions offering graduate degrees. Any graduate student in good standing in a master's, specialist, or doctoral program at a member institution is eligible to participate with approval of the appropriate academic unit. Students on a MIGS enrollment pay tuition and other fees at the host institution. All credits earned under a MIGS enrollment are accepted by a student's home institution as if offered by that institution. *This type of enrollment is limited to one term for master's or specialist degree students, or two terms for doctoral degree students.* Students interested in this program should contact the Office of Graduate Enrollment Services for further information.

Post-Bachelor Admission

The Post-Bachelor status is granted to college/university graduates who wish to take Wayne State University courses through the 6000 level *for undergraduate credit only*. The status serves two groups of students:

a) Those who wish to pursue vocational or avocational interests without intending to use Wayne State University credit to earn another degree at Wayne State University;

b) Those who seek admission to the Graduate School but need to raise their undergraduate grade point average and/or fulfill specific undergraduate course requirements for Graduate School consideration.

The following special rules apply to Post-Bachelor Admission:

a) **Under no circumstances will credit earned in this status apply toward a graduate degree program.**

b) The applicant must present evidence of a degree earned from an accredited institution (official transcript or diploma).

c) Post-Bachelor status students are not eligible for financial aid from Wayne State University, except if a student is taking prerequisite course work for a graduate program; in the latter case, he/she is eligible for a Stafford Loan for one twelve-month period for a maximum amount not to exceed the equivalent tuition for a first-year undergraduate student.

d) Applications for Post-Bachelor status from students new to Wayne State University should be made to the Office of Undergraduate Admissions, Welcome Center, 42 W. Warren, Wayne State University.

e) An applicant who earned an undergraduate degree from Wayne State University, or who was previously admitted and registered in a Wayne State graduate program, should contact the Records Office to be re-admitted to the University as a Post-Bachelor student. Post-Bachelor applicants in the Colleges of Education and Nursing must obtain authorization directly from the College.

'AGRADE' Program

Several Colleges have established an accelerated combined undergraduate and graduate program (AGRADE) in which highly qualified seniors in the college may enroll simultaneously in some undergraduate and graduate programs of the College. A maximum of fifteen credits may be applied towards both undergraduate and graduate degrees in a student's major field if that program is an AGRADE participant. Those who elect the AGRADE program may expect to complete the Bachelor's and Master's degrees in five years of full-time study.

AGRADE Credits: Students may elect a minimum of three and a maximum of fifteen AGRADE credits. These will be used to complete the baccalaureate degree as well as to serve as the beginning of graduate study. Upon formal admission to a master's program, AGRADE credits are transferred as if they were graduate credits transferred from a graduate program at another university. The remaining graduate credits required for the master's degree will be earned in the conventional manner following formal admission to the graduate program.

Eligibility: AGRADE applicants must have an outstanding overall g.p.a. and have performed at a superior level in their major, as determined by the major department. The earliest date by which a student may apply for the AGRADE program is during the semester in which he/she completes ninety credits toward the undergraduate degree.

Application: A student seeking AGRADE status should present to the Graduate Admissions Committee of his/her major department all of the materials which that department requires for normal admission (except the GRE; where required, the GRE scores should be forwarded at the normal point in the formal graduate admission process).

Admission and program requirements are described in the College of Engineering, College of Liberal Arts and Sciences and College of Nursing sections of this bulletin and available in their graduate offices.

International Graduate Students

For complete information, see 'International Students and Scholars,' page 47.

Students from other countries must contact the Office of Graduate Enrollment Services or their prospective Department for appropriate application materials and deadline dates. To be considered for graduate admission, applicants must have completed an appropriate university-level program comparable in subject matter and credits to a program for which a bachelor's degree is awarded at Wayne State University.

The fact that a degree in another country may have a similar name to a degree offered in the United States does not mean the two degrees require similar lengths and content of study or that they should be accepted as equivalents. *All graduate applicants must:* 1) present an excellent scholastic record; 2) have sufficient financial resources for minimum tuition, supplies and living expenses; and 3) have a sufficient proficiency in English (see the section on English Proficiency Requirement — International Students, below).

FINANCIAL AID: University sponsored financial assistance for international students is severely limited and unconfirmed awards should not be included in financial projections.

ENGLISH PROFICIENCY REQUIREMENT
FOR INTERNATIONAL STUDENTS

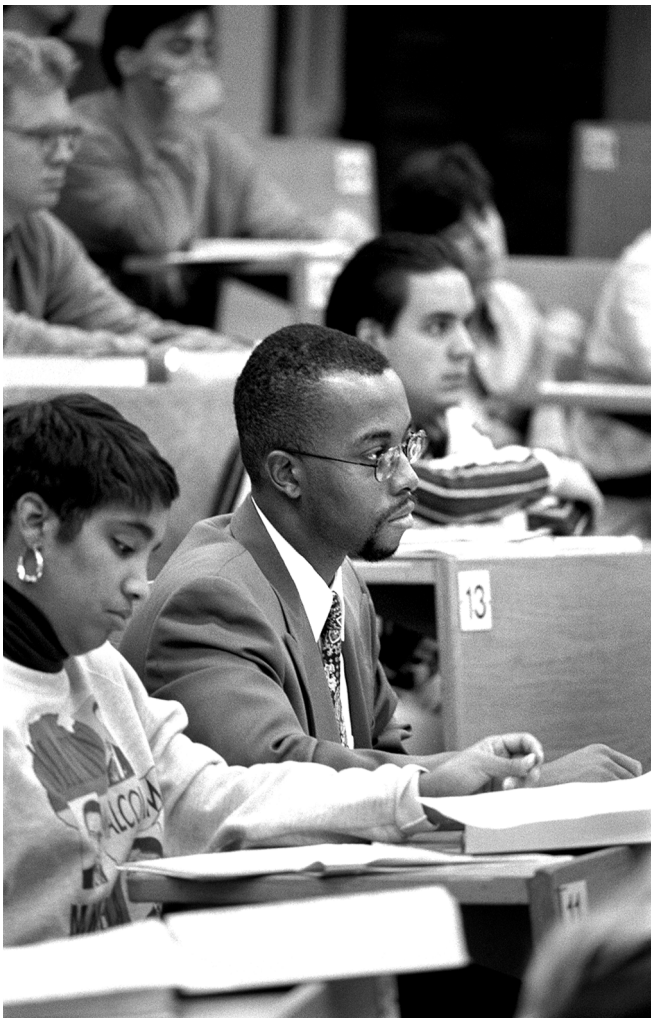
Graduate applicants who graduated from colleges/universities in other countries must demonstrate proficiency in English. To fulfill this requirement an applicant must satisfy one of the following criteria:

1) Complete baccalaureate degree requirements at an accredited U.S. institution or in a country where English is the native language.

2) Present an acceptable score on the Michigan English Language Assessment Battery (MELAB).

3) Present an acceptable score on the Test of English as a Foreign Language (TOEFL) or equivalent test such as the IELTS.

Some units may elect to grant qualified graduate admission to academically-talented International Students whose TOEFL scores fall slightly below the University minimum score. Interested students should contact the chairperson or director of their prospective program, to determine whether the program offers such qualified admission. For further information on the English Proficiency policy, please consult the Office of Graduate Enrollment Services .



Tuition and Fees

Listed below are the Tuition and Fees per semester in effect at the time of preparation of this Bulletin. Undergraduates in Business, Nursing and Fine, Performing and Communication Arts pay a higher tuition rate than other undergraduate colleges. Please see the Graduate Bulletin for rates in Graduate and Professional programs. **Tuition and Fees are subject to change without notice by action of the Board of Governors.** In accordance with action of the Board of Governors, a portion of these fees is used for operation of the Student Center. Current tuition and fee information is available on-line at: http://www.reg.wayne.edu/students/tuition.php

Undergraduate Tuition and Fees

Including Eduction, Engineering, Liberal Arts and Sciences, Pharmacy, and Social Work

Resident Lower Division: $ 263.45 per credit

Resident Upper Division: $310.55 per credit

Non-Resident Lower Division: $ 603.45 per credit

Non-Resident Upper Division: $714.15 per credit

Business Administration

Resident Lower Division: $ 268.95 per credit

Resident Upper Division: $326.05 per credit

Non-Resident Lower Division: $ 608.95 per credit

Non-Resident Upper Division: $729.65 per credit

Fine, Performing & Communication Arts

Resident Lower Division: $ 268.65 per credit

Resident Upper Division: $325.75 per credit

Non-Resident Lower Division: $608.65 per credit

Non-Resident Upper Division: $729.35 per credit

Nursing

Resident Lower Division: $ 253.45 per credit

Resident Upper Division: $501.05 per credit

Non-Resident Lower Division: $ 603.45 per credit

Non-Resident Upper Division: $904.65 per credit

Student Fees

Omnibus Fee: Undergraduate students are assessed a $24.85 fee per credit. Most graduate and professional students are assessed a $35.70 fee per credit. M.D. program students are assessed a $24.40 fee per credit. The Omnibus Fee is used primarily to maintain, upgrade and replace student computing and technology resources on campus. A small portion is also used to fund student activities on campus, and to enhance programs directed toward improving on-campus activities, including athletics.

Fitness Center Maintenance Fee: Students are assessed a $25.00 Fitness Center Maintenance Fee for each term of enrollment. The funds from the fee are used for maintenance of the Fitness Center.

Application Fees: Applications for admission to any undergraduate, graduate or professional program must be accompanied by the non-refundable application fee. The fee is $30.00 for an undergraduate application and $50.00 for a graduate or professional application. The non-refundable application fee for international students is $50.00 There is no application fee for members of the Alumni Association, their spouses and/or dependents, or for applicants sixty years of age or older, except for applicants to the Law School and School of Medicine.

School of Medicine Application Fee: Persons who have submitted a first application to the School of Medicine through the American Medical College Application Service (AMCAS), and who are asked to submit additional material (secondary application), are required to pay a non-refundable fee of $30.00 for the processing of the secondary application.

Orientation Fees: Undergraduate freshmen shall be charged a $75.00 Orientation Fee. Undergraduate transfer students shall be charged a $25.00 Orientation Fee. Parents attending Parent Orientation may be charged a $10.00 fee.

Student Exchange and Visitors Information Service (SEVIS) Fee: International students and scholars/visitors who must be reported through the federal SEVIS system shall be charged a $50.00 non-refundable fee for each term of enrollment.

Registration Fee: There is a $163.05 non-refundable registration fee, except that students enrolled in the Visitor Program shall pay half of the regular non-refundable registration fee.

Late Registration Fee: Any student registering after the Priority registration date (as indicated in the Schedule of Classes website: http://www.classschedule.wayne.edu for the applicable term) must pay either a non-refundable $35.00 Late Registration Fee if registration is completed before the start of classes or $70.00 if completed after the start of classes. Late Registration Fees will be waived for new students in their first term of WSU enrollment**.**

Late Payment Fees: A student who does not satisfy his/her tuition and fee assessment by the prescribed dates on the invoices (and as indicated on the Schedule of Classes website: http://www.classschedule.wayne.edu or WSU Pipeline for the applicable term) shall be assessed a $25.00 Late Payment Fee if the past due balance is less than $500.00, or a $40.00 Late Payment Fee if the past due balance is $500.00 or more.

Partial Payment Fee: Students are expected to pay their full tuition and fee invoices by specified dates, depending upon when they register. A $20.00 partial payment fee will be assessed on all balances owed as of the last day of late registration.

Course Material Fees: These fees are required of some classes (the fee is noted in the fee column after the course listing on the Schedule of Classes website (http://www.classschedule.wayne.edu) in which a relatively large portion of instructional costs is due to the necessary use of consumable resources. The fee is automatically assessed; a fee card is not required. The fee may be cancelled when a course is officially dropped within the tuition and fee cancellation period specified in each semester's term calendar. For additional information, contact the Department offering the course. Courses listed as having special fees require payment of the fee in addition to the tuition.

Credit Card Fee: Students using credit cards for tuition and fee payments shall be charged a 2.9% fee.

Returned Check Fee: A $35.00 fee will be assessed to students' accounts for any check and/or ACH check payments returned to the University for any reason.

Examination Fee for Credit by Examination: The fee for an examination taken to establish credit by examination is $10.00 per credit. Such examinations will be approved under provisions established by the Schools and Colleges. Credit allowed on the basis of transcript entries from another institution is not applicable to this provision.

Music Fees: Students registering for music courses taken as private lessons pay a fee of $160.00 for one credit. For three credits, the additional fee is $320.00. In the event of withdrawal, the student will receive a refund of the difference between the fee assessed and the cost to the University of any lessons that were provided.

Graduation Fee: There is a $40.00 non-refundable fee for students who apply for a degree or certificate.

Transcript Fees: Transcripts are issued free-of-charge, up to ten copies per calendar year. A fee of $5.00 per transcript is charged for copies in excess of ten. A fee of $20.00 is assessed for each emergency transcript. An emergency transcript is one which requested by 3:00 p.m. and mailed out for overnight delivery the next business day.

Locker Fee: Students registering for certain activity courses in physical education who wish to use locker facilities are charged.

Payment of Tuition and Fees

Student Financial Obligation for Payment of Tuition and Fees

When registering for courses each semester students are required to electronically sign a "Financial Responsibility Agreement." This agreement represents a binding contract obligating the student to pay all tuition and fees assessed including any collection, attorney, and/or litigation costs associated with collecting those fees, in the event of non-payment.

Payment Due Dates

PRIORITY REGISTRATION: Payment is due the Friday preceding the first day of the semester.

OPEN REGISTRATION: Payment is due the Friday preceding the first day of the semester.

LATE REGISTRATION: Payment is due the day of registration or on the day a schedule change is made.

Payments not received by the due date(s) are subject to both partial and late payment fees. Failure to make payment because a statement of account or invoice is not received does not exempt students from partial payment or late payment fees. Please refer to the published tuition due dates and the complete eBill Posting Schedule and Payment Due Dates on the Office of University Bursar's web site:

http://fisops.wayne.edu/bursar/e-bills/eBill-Schedule.php

Payment Options

Wayne State University provides various options for paying tuition and fees.

In person at two Cashier Office locations:

Academic Administration Building, 5700 Cass Ave., Room 1100

Welcome Center, 42 W. Warren, Room 217

By mail - Wayne State University, P.O. Box 02788, Detroit, MI 48202

By telephone - 1-866-520-7786

On the web - http//www.pipeline.wayne.edu

Checks, Money Orders, and Cash: Wayne State University accepts personal and certified checks, money orders, and cash as payment for tuition and fees. Payments can be mailed. However, please do not mail cash. Checks or money orders should be made payable to Wayne State University. The student's name and University AccessID number should be written on the check or money order.

Fee-free ACH Checks: Wayne State University also accepts fee-free automated clearing house (ACH) check payments using WSU Pipeline. Checks (paper or ACH) returned by the bank are subject to additional fees.

Credit Card Payments: Wayne State University does not accept credit card payments directly. Credit card payments can be applied to a student's University account by a third party processor, CASHNet SmartPay. CASHNet SmartPay will assess a convenience fee (2.9%) on all credit card payments. To make a credit card payment log into WSU Pipeline and select credit card payment which will automatically invoke the CASHNet SmartPay process.

Installment Payment Plans (IPP): Wayne State University has two affiliations which enables it to offer interest free installment payment plans for students on a semester on an annual basis through the following companies:

Academic Management Services (AMS); 1-866-884-8466;
www.tuitionpay.com

Tuition Management Systems (TMS); 1-800-722-4867;
www.afford.com

There is a nominal fee for enrolling. Contact the company for terms and conditions.

Sponsored Tuition Programs: Certain employers participate in direct tuition billing arrangements as part of their employee benefits programs. Students with questions about the University's procedures or required documentation for a specific plan should contact the Student Accounts Receivable Office at 313-577-6623.

Delinquent Prior Term Balances: Personal checks are not accepted as payment for delinquent balances. Payment must be made by cash, certified check, money order or credit card.

IMPORTANT: Students who do not drop their courses during the tuition cancellation period for the term are financially obligated to pay for the courses even if they have not attended any class sessions. See the Registration Calendar at: http://reg.wayne.edu/students/registration-calendar.php.

Students with questions regarding any information presented in Payment of Tuition and Fees section above should contact the Office of the University Bursar at 313-577-3653.

Disclosure Statement: The University reserves the right to update and/or change this information at anytime.

Registration is not permitted beyond the prescribed registration date unless extenuating circumstances beyond the control of the student warrant an exception to University Policy as determined by the University Registrar. In such cases, full tuition, Registration Fee and Late Registration Fee is due on the day of registration.

Short Term Courses: Payment of the full tuition and the non-refundable Registration Fee is required on the date of registration or no later than the first class meeting date. Late Payment Fees are assessed to any student who has not paid his/her tuition and fee assessment by the due date.

Special Adjustments: The Registrar is authorized to make adjustments in the application of the policies stated in this section of the Bulletin when unusual circumstances warrant. Examples of circumstances which may warrant special consideration are: serious illness or death of the student or of someone closely related, or mis-advisement by a University representative. Tuition cannot be cancelled for reasons such as changes in work schedule or other employment demands, claim of lack of information, insufficient funds, unawareness of the difference between tuition and student financial aid, undocumented reasons, or reasons that are within the control of the student. Students who wish to have their requests reviewed must submit a completed 'Request for an Exception to Enrollment Policy' application and supporting documentation to Registration and Scheduling, Suite 5101, 5057 Woodward.

Holds on Records: Initial eligibility to register for classes each semester is based on a student's admission status with the University. All students must be authorized by the University in order to enroll in classes. 'Holds' may be placed on student records, and registration denied to a student, for academic reasons (e.g., probation or dismissal), a disciplinary problem, money owed to the University, failure to return library books and/or other supplies and equipment, and/or non-compliance with program, Departmental, School/College, or University regulations.

A 'Hold' will be placed on the records of any student who has past due indebtedness to the University. While the hold is in effect, registration for a subsequent term will not be permitted, official transcripts

of academic work taken at the University will not be furnished, degree or enrollment certification will not be provided, nor will a diploma be issued.

Tuition Cancellation

Tuition, not including the non-refundable Registration Fee, may be canceled in accordance with the following schedule when students officially drop classes using the Campus Pipeline on-line portal, by submitting a properly completed Register/Drop/Add form, or by sending a certified letter to Registration and Scheduling, in the Office of the Registrar. A certified letter requesting to drop classes sent through the U.S. Postal Service shall be considered effective on the date it is received in the Office of the Registrar. The Registration Fee will be refunded when students drop all classes during the early priority registration period, as defined in each term's calendar.

Students who officially drop classes before the conclusion of the first two weeks of classes (for the Fall and Winter terms) are entitled to 100% tuition cancellation, and the dropped classes do not appear on the academic record.

Students are contractually liable for tuition unless they take official action during the tuition cancellation period to drop classes. The registration fee is not subject to cancellation and is non-refundable during the Open and Late Registration periods.

Students who officially drop fifteen-week classes after the second week of classes (for the Fall and Winter terms) are not entitled to any tuition cancellation; however, classes dropped prior to the conclusion of the fourth week of classes do not appear on the students' academic record.

The tuition cancellation schedule shown below applies to courses that start in accordance with the Official University Academic Calendar. The tuition cancellation schedule for courses with specially approved starting dates is dependent upon the starting date of the course. Questions about the tuition cancellation schedule should be referred to the University Registrar.

Classes meeting fewer than four weeks: Students who officially drop scheduled classes before the first day of classes are entitled to a 100% tuition cancellation and 0% thereafter.

Classes meeting four to eight weeks: Students who officially drop scheduled classes before the second week of classes are entitled to a 100% tuition cancellation and 0% thereafter.

Classes meeting nine to fifteen weeks: Students who officially drop scheduled classes before the third week of classes are entitled to a 100% tuition cancellation and 0% thereafter.

Classes meeting sixteen to twenty-seven weeks: Students who officially drop scheduled classes before the fourth week of classes are entitled to a 100% tuition cancellation and 0% thereafter.

Classes meeting twenty-eight or more weeks: Students who officially drop scheduled classes before the seventh week of classes are entitled to a 100% tuition cancellation and 0% thereafter.

Residency (State of Michigan)

The following regulations and review procedures are established by Wayne State University for tuition and fee purposes. The University recognizes that a variety of definitions exist for the term 'resident' and applicants are encouraged to give careful attention to these regulations which define residency for University tuition purposes.

— Regulations

PHYSICAL PRESENCE IN MICHIGAN

Generally an individual must document at least six months of continuous physical presence in the State as the first step in establishing eligibility for a residence classification. The six months continuous residence must be completed before the first day of classes for the term in which a residence classification is sought. A minimum of six months physical residence is a first step, but is not the only criterion used in determining residency, and by itself will not qualify a student for resident status. If the six month physical residence is fulfilled while a student is enrolled as a student, it is presumed that a student is primarily here for educational purposes and not to establish domicile. Under limited circumstances (see 4. below) which clearly demonstrate that presence in the State of Michigan is for purposes of employment and not education, an individual may be immediately eligible for a Michigan residence classification, prior to the passage of the minimum six months residence.

TEMPORARY ABSENCES

For the purpose of these regulations, the terms "residence" and "domicile" are used interchangeably. In general, domicile is the place where a person actually resides with the intention of making it the person's true, fixed, permanent home, and principle establishment, and to which whenever (s)he is temporarily absent, (s)he has the intention of returning. Full-time attendance at a school outside Michigan and enlistment in a military service may be examples of temporary absences. Other types of absences for more than six months will be presumed to be non-temporary.

PRESENCE FOR EDUCATIONAL PURPOSES

The presence in this state of a student from another state or country for the primary purpose of attending school is not residence. It is presumed that a non-resident at the time of his or her enrollment continues in that classification throughout his or her presence as a student, except where it can be established that presence in the State of Michigan is primarily for purposes that are not educational, with enrollment only incident to the primary purpose of establishing a domicile. If a student enrolls in undergraduate school for more than eight credits, or in graduate school for more than six credits, or in Law School for more than ten credits in any one full length term, within six months after arrival in Michigan, it is normally presumed that the student's sojourn is for the purpose of attending school and not to establish domicile. Applicants must demonstrate that their presence in Michigan is primarily for purposes that are not related to enrollment.

FACTORS CONSIDERED IN RESIDENCE CLASSIFICATION

The following facts, although not conclusive, have probative value in support of a claim for residence classification: acceptance of an offer of permanent employment in this state; former residence in the State and the maintenance of significant connections while absent; economic, social compulsion causing a person to abandon a former residence and acquire residence in the State, with attendance at the University only an incident to such residence. Students or their dependents providing verification that their presence in Michigan is the result of a job transfer decision made by an employer are eligible for a waiver of the six-month minimum residence requirement, as described above.

The following facts, standing alone, are not accepted as sufficient evidence of domicile: employment by the University as a fellow, scholar, assistant, or in any position normally filled by students; a statement of intention to acquire a domicile in this state; voting or registration for voting; the lease of living quarters; payment of local and state taxes; automobile registration; driver's license; continued presence in Michigan during vacation periods.

For purposes of these regulations, the age of majority is eighteen years. A minor does not have the capacity to establish his or her own domicile. Normally, the domicile of a minor follows:

a) That of the parents or surviving parent; or

b) That of the parent to whom custody of the minor has been awarded by a divorce or other judicial decree; or

c) That of the parent with whom the minor in fact makes his or her home, if there has been a separation without a judicial award of custody; or

d) That of an adoptive parent, where there has been a legal adoption, even though the natural parents or parent may be living; or

e) That of a "natural" guardian, such as grandparent with whom the minor in fact makes his or her home, where the minor has permanently left his or her parental home and reasonable expectation of substantial financial support from the parents has been dissolved.

f) If a Michigan resident parent or guardian of a minor moves his or her residence to another state, the minor shall remain eligible for resident tuition status as long as (s)he continues to attend school regularly in this state.

g) Where a general guardian has been appointed by the State of the ward's domicile, at the time of appointment the ward's domicile presumption remains in that State. The appointment by a Michigan court of a resident guardian of a minor not domiciled in this State at the time of appointment has no effect upon the domicile of the ward.

h) A minor who has permanently left his or her parental home, and who has no reasonable expectation of substantial financial support from his or her parents or legal guardian, etc., may qualify for resident status as if (s) he were of majority age.

NON-U.S. CITIZENS

A non-U.S. citizen may apply for resident status in the same manner as a citizen, if (s)he is in the United States for other than a temporary educational purpose. In order to demonstrate this, applicants must provide evidence from the U.S. Bureau of Citizenship and Immigration Services of one of the following:

a) A U.S. permanent resident alien with a green card.

b) An applicant for U.S. permanent residence whose Petition for Alien Relative, or Employment-based Immigration Petition for Alien Worker has been approved, or who have been issued an Employment Authorization documentation pending adjustment of status. These individuals will have documentation of this status such as an I-130 (Petition for Alien Relative) or I-140 (Immigration Petition for Alien Worker) Approval Notice, or an I-151 or I-551 Notice of Action indicating approval of petition to become an immigrant.

c) An alien with a current valid visa type issued for purposes of working in the United States, and currently working in the State of Michigan. These currently include visa types of A, E, G, H, I, L, R and TN.

d) An alien granted asylum or refugee status.

WAIVER OF NON-RESIDENT PORTION OF TUITION:

Military Service Provisions: Individuals serving in the U.S. Military and stationed in Michigan and their dependents are eligible for a Michigan residence classification. Stationing orders and proof of relationship (for dependents) must be provided with the application.

Good Neighbor Residence Provisions: Residents of Fulton, Lucas, Ottawa, and Williams counties in Ohio, or residents of Ontario, Canada who enroll at Wayne State in eligible programs will have the non-resident portion of their tuition and fees waived. This provision does not apply to all academic programs. Wayne State University Tuition and Fee Regulations published each academic year identify specific academic programs eligible for this provision.

Online Program Provisions: Students enrolled in programs which are offered completely online will have the non-resident portion of their tuition waived. Wayne State University Tuition and Fee Regulations published each academic year will identify the specific academic programs eligible for this provision.

— Review Procedures

1. Initial Classification and Appeal

a) Registering under proper residence and advising the University of changes in circumstances, which might affect residence classification, is the responsibility of the student. Questions concerning a student's residence prior to enrollment should be raised with the Office of Admissions. Questions arising after enrollment should be raised with the Registration and Scheduling.

b) After enrolling student may challenge the initial classification made by the Office of Admissions by filing an Application for Residence Classification with the Registration and Scheduling Office.

c) Except for documented delays caused by University personnel, Applications for Residence Classification must be filed by:

September 30 for the Fall Term and the Medical School Year Term
January 31 for the Winter Term
July 31 for the Spring/Summer Term

Deadlines falling on weekends will be extended to the next business day. Applications received after these dates will be processed for the following term.

2. Further Appeal: A student may appeal the Registration and Scheduling Office residence decision as follows:

a) by filing a written notice of appeal with the University Registrar within sixty days after the student is notified of the classification decision. The notice of appeal shall include reasons for the appeal, the period for which resident status is claimed, and a complete statement of the facts on which the appeal is based, together with supporting affidavits or other documentary evidence. Failure to file notice within sixty days shall constitute a waiver of any right to further appeal. The student has the right to consult the University Ombudsman at any time, and the student may particularly want to utilize the Ombudsman's services at this point in the review procedures.

b) A student may appeal the Registrar's decision by filing a written notice of appeal with the Office of the General Counsel within fifteen (15) days from the date of the Registrar's decision. Failure to file written notice of appeal of the Registrar's decision with the Office of the General Counsel within fifteen (15) days shall constitute a waiver of any right to further appeal.

c) A student may appeal the decision of the Office of the General Counsel within fifteen (15) days by filing a written notice of appeal with the Office of the President. Failure to file written notice of appeal of the General Counsel's decision with the Office of the President within fifteen (15) days shall constitute a waiver of any right to further appeal. After the notice of appeal, the President or his designee shall review the student's appeal and render a final decision.

3. Erroneous Classification

a) If an erroneous classification of non-resident occurs, an adjustment for the appropriate period and amount will be made.

b) If an erroneous classification of resident occurs, the students shall be reclassified as a non-resident student. If the cause of his or her incorrect classification shall be found to be due to any material concealment of facts or false statement made by him or her at or before the time of his or her original classification, (s)he shall be required to pay all tuition and fees which would have been charged to him or her and shall be subject also to appropriate discipline in accordance with University Student Code of Conduct and Due Process policies. If it is determined that there is no such concealment of facts by the student, fees shall be adjusted only for current and future terms.

4. Effective Dates of Residence Regulations:

a) Originally approved by the Board of Governors, November 9, 1979
b) Amended October 28, 1983
c) Amended February 12, 1993
d) Amended November 28, 2007, effective for the Fall Term 2008

Financial Aid

OFFICE OF STUDENT FINANCIAL AID

Welcome Center, 42 W. Warren Avenue, P.O. Box 2340,
Detroit MI. 48202
Telephone: 313-577-3378 or Fax: 313-577-6648
Website: http://www.finaid.wayne.edu

Definition and Purpose of Financial Aid

The Office of Student Financial Aid (OSFA) provides need-based and non-need-based financial aid to help eligible students meet the expenses of their education. Financial aid is intended to supplement, not to replace, students' financial resources. Financial need is determined from the information that students supply on the Free Application for Federal Student Aid (FAFSA) Provided below are the specific services of this office.

Service Hours

Walk-in service is provided at the Financial Aid counter in the lobby of the Welcome Center Monday through Thursday, 8:30 a.m. to 6:00 p.m., and Friday 8:30 a.m. to 5:00 p.m. June through August, appointments and walk-in services end at 5:00 p.m. Monday through Friday.

Financial Aid Application (FAFSA)

How and When to Apply for Financial Aid: To apply for need-based grants, loans, and work-study, students must complete the Free Application for Federal Student Aid (FAFSA). Apply online at www.fafsa.ed.gov. The U.S. Department of Education (ED), the federal processor, no longer distributes the paper FAFSA to institutions. The paper FAFSA can be downloaded and printed from the ED website: www.federalstudentaid.ed.gov/fafsa/fafsa_options.html)

If students provide a valid e-mail address on the online FAFSA at www.fafsa.ed.gov, the federal processor will send an e-mail message within one to five business days containing a secure link to their online Student Aid Report (SAR). Approximately fourteen to twenty-one business days after filing the paper FAFSA, the federal processor will mail a SAR to the student's address. If students provide an e-mail address on the paper FAFSA, and if they have signed their application, they will receive an e-mail message from the federal processor within one to five business days containing a secure link to their online SAR. Students are not required to submit their SAR to OSFA. The FAFSA processor will electronically transmit the SAR data to OSFA if the student lists the WSU federal code, 002329, on his/her application.

Help to Complete the FAFSA: For assistance in completing the FAFSA, telephone the Federal Student Aid Information Center at 1-800-4-FED-AID [1-800-433-3243] during regular business hours (Eastern Time), Monday through Friday.

Application Deadlines

Fall/Winter Application Priority Date: The application priority date for financial aid consideration at WSU is February 15 for fall and winter semesters. The priority date is the date by which the FAFSA should be submitted to facilitate determination of student eligibility for financial aid before the beginning of the fall semester. The priority date is not a deadline. Students may submit the FAFSA after the priority date. However, applications received after April 30 may not have full needs met and the applicants may receive reduced awards.

Spring/Summer Financial Aid Request Priority Date: A spring/summer Loan Consideration Request Form and Work-study Consideration Request Form are required in addition to the FAFSA. The spring/summer supplemental forms are available on the OSFA Web site, http://finaid.wayne.edu/aply.sprngsmr.php, on the first day of spring/summer Priority Registration, see the Registration Calendar, which is on Web site of the Office of the Registrar at: http://reg.wayne.edu/students/registration-calendar.php. The priority date for submission of the supplemental forms is the last day of spring/summer Priority Registration, see the Registration Calendar. At WSU, the spring/summer semester is the third term of the school year; a new school year begins each September and ends the following August. Thus, the spring/summer semester is considered a separate and concluding part of the previous fall and winter semesters. (Examples: The spring/summer semester 2011 is part of the 2010-2011 school year; the spring/summer semester 2012 is part of the 2011-2012 school year.) Note: If the FAFSA has been submitted for the academic year, it is not necessary to submit it again for the spring/summer semester.

Financial Aid Types

Financial aid at Wayne State University is awarded in the form of a 'package,' or combination of aid. There are four types of aid that a student might receive: grants, scholarships, loans and employment. The amount of financial aid a student may receive can not exceed his/her demonstrated financial need, based on the information provided on his/her application. The types are defined as follows:

Grants: Gift assistance that requires no repayment.

Scholarships: Gift assistance awarded on the basis of academic achievement or other special ability that requires no repayment. Financial need is a factor for some awards.

Loans: Money that must be repaid at a future date, usually following graduation or when the student ceases to be enrolled on at least a half time basis. Loan amounts are usually based on demonstrated need, but non-need-based loans are available.

Work-Study - Employment: Work-study programs are on- or off-campus jobs that pay at least the federal hourly minimum wage. Students interested in work-study should carefully read the Student Guide to On-Campus Employment which explains the hiring process and the terms and conditions of employment. The Guide is available from the Office of Career Services, located in Room 1001 of the Faculty/Administration Building, and also available online at:
http://careerservices.wayne.edu/New/Student Emp%20Guide%20REVISED%20ADDITION%202010.pdf

Financial Need: Student Aid Report (SAR)

Purposes of the Student Aid Report (SAR): The SAR lists the information reported on the FAFSA. The SAR will either identify the Expected Family Contribution (EFC) or instruct the student to take additional action, which will allow an EFC to be determined. The EFC is a measure of the student's (and his/her parents, if dependent or his/her spouse's, if married) financial strength; it is used in determining financial need and is a five-digit number (00000-99999). The SAR also indicates whether or not the application has been selected for the verification process, which is explained below.

How Financial Need Is Determined: To determine financial need, OSFA subtracts the student's EFC from the average cost of attendance (COA) for his/her program at Wayne State University. COA minus EFC = financial need.

Verification: The process by which an educational institution confirms accuracy of the data reported on an individual student's FAFSA is called verification. The federal processor selects the FAFSA applications for which the data submitted must be verified. If the federal processor selects a student's FAFSA for verification, the student must: 1) complete and submit a verification worksheet, which the Office of Student Financial Aid will provide, and 2) submit income information to confirm the FAFSA data.

Note: If an application is selected for verification, the student must complete the verification process before his/her eligibility for financial aid can be determined, and therefore, before financial aid can be awarded. The priority date for submitting the verification worksheet and income information is April 30. This is the date by which the verification worksheet and income information should be submitted to facilitate determination of eligibility for financial aid before the beginning of the fall semester. Submission of the documents after April 30 may result in an offer of reduced funding.

The Cost of Attendance (COA): The COA, which is also called a budget, includes tuition and fees; on-campus room and board or a housing and food allowance for off-campus students; and allowances for books, supplies, transportation, loan fees, and, if applicable, dependent care; costs related to a disability; and miscellaneous expenses. The COA is an *estimated average* and may not reflect any particular student's actual educational expenses.

The COA may be adjusted to include: loan fees (if applicable); dependent care directly related to attendance at Wayne State; costs related to a disability; reasonable costs for eligible study-abroad programs; or an allowance for reasonable costs connected with a student's employment as part of a cooperative education program.

Michigan Resident Cost of Attendance: The average total cost of attendance for the 2010-2011 academic year is $20,319 for a Michigan resident undergraduate student enrolled full-time and not living with his/her parents. The components for this cost are the following:

Tuition and Fees $9,184
Books and Supplies $ 980
Room and Board $6,721
Transportation $1,580
Miscellaneous $1,854

TOTAL: $20,319

Out-of-State Cost of Attendance: The average total cost of attendance for the 2007-2008 academic year was $28,010 for a non-Michigan resident student enrolled full-time. components for this cost are the following:

Tuition and Fees $19,753
Books and Supplies $980
Room and Board $6,721
Transportation $1,580
Miscellaneous $1,854

TOTAL: $30,888

Current Tuition and Fees: *Tuition and fees are subject to change by the WSU Board of Governors without notice.* The schedule of current tuition and fees is available on the Office of the Registrar website: http://reg.wayne.edu/students/tuition.php

Special Circumstances: The Office of Student Financial Aid recognizes that students may have extenuating financial circumstances that the standard need analysis form (FAFSA) does not consider. Applicants may request a review of extenuating circumstances that they believe affect their financial aid eligibility by submitting a Special Circumstances Appeal Form, which is available on the OSFA Website: http://finaid.wayne.edu/forms.php.

Enrollment Criteria

Students must be enrolled at least half time to be considered eligible for financial aid. At the undergraduate level and at the post-bachelor's level, enrollment for six to eleven credits is considered half time. Enrollment for twelve or more credits is considered full-time.

Eligible Program Exceptions (Financial Aid)

Students must be enrolled in an eligible program (one that leads to a degree or certificate) to receive consideration for financial aid funds. There are two exceptions to the eligible program requirement:

1) enrollment in prerequisite course work to gain admission to an eligible program; and

2) enrollment in the teacher certification program. Descriptions of the exceptions are available on the OSFA website: http://finaid.wayne.edu/post-bach-student-eligibility.php

Programs Ineligible for Financial Aid

Students who are subject to any of the following admission criteria are not eligible for financial aid:

a) Admission to the University that is granted with status as a 'Guest Student' (http://apply.wayne.edu/guest_students/index.php).

b) Admission to a program that does not lead to a degree or certificate and for which neither of the eligible program exceptions stated above applies.

c) Admission to the University in the English Language Institute, Post-Master's Rank G2, or Post-Bachelor's Rank 06 with the following exceptions:

Exceptions (Eligible Programs): There are six programs with the Post-Bachelor's Rank 06 that offer certificates and are not construed as prerequisite to admission to an eligible program. Therefore, students enrolled in these programs are eligible for financial aid consideration.

Post-bachelor's Certificate in Accounting

Post-bachelor's Certificate in Art Education

Post-bachelor's Certificate in Computer Science

Post-bachelor's Certificate in Dietetics

Post-bachelor's Certificate in Clinical Laboratory Science

Post-bachelor's Certificate in Forensic Investigation

Financial Aid Disbursement

Financial aid (except work-study) is paid in two disbursements if the award is for the academic year. Half of the award is paid in the fall semester and half is paid in the winter semester. One-semester loans have one disbursement. Federal financial aid regulations prohibit financial aid disbursement earlier than ten days before the first day of classes each semester.

Work-Study Payments

Work-study earnings are paid biweekly in the form of a paycheck. The department in which the student is employed submits a record of the hours worked to the Payroll Office, and the Payroll Office authorizes payments.

Note: The spring/summer semester is the third term of the school year. Since the spring/summer semester is considered as separate from the fall and winter semesters, unused funds from a fall and/or winter work-study award cannot be earned in the spring/summer semester.

Refund Policies

Return of Title IV (Federal) Funds Policy: Financial aid recipients who withdraw from all classes may be required to repay a portion of the federal aid received. Students should consult the Withdrawal and Return of Title IV (Federal) Funds Policy for a detailed explanation of the circumstances for which these federal regulations apply:

http://finaid.wayne.edu/withdrawl_and_return_of _title_iv_policy_ 0809.pdf.

Withdrawal from Classes: Students are strongly encouraged to discuss with a financial aid administrator the effect that withdrawing from all classes will have on their financial aid.

Academic Regulations

Each student, except those in the annual Doctor of Medicine program, is required to register at the beginning of each term of attendance according to the procedure and schedule published in the official University Schedule of Classes (available on the web at http://www.classschedule.wayne.edu). Registration must be completed before the student may attend classes. For registration dates, the student should consult the Schedule of Classes.

Students wishing graduate credit must NOT register under 'post-bachelor' status. This is an undergraduate classification in which graduate credit may NOT be earned.

Normal Program Load

A full-time undergraduate student is one who is enrolled for twelve or more credits during a semester. The definition of a normal course load will vary depending upon the requirements of each program. In general, for completion of undergraduate degree requirements in four years, full-time students should average fifteen to eighteen credits each semester during the academic year. Undergraduate students may not elect more than eighteen credits per semester except by written consent of the Dean or advisor. Individual Schools and Colleges may set credit restrictions below those specified here; for details see their respective sections of this bulletin.

Auditing Courses

To audit a course, a student must indicate that he/she wishes to audit the course rather than receive academic credit, at the time of registration. Registration to audit a course is subject to the following regulations:

1. Students must pay the tuition assessment for the course, which is the same as if it were taken for academic credit;

2. A student is not permitted to take quizzes and examinations in audited courses;

3. A student may not normally change from audit status after registering for the course. In some cases, exceptions may be permitted during the term with the written recommendation of the instructor and the written approval of the Dean of the college/school in which the student is enrolled. The instructor's recommendation and Dean's approval must be included with the student's Drop/Add Form indicating the desired change.

The Graduate School does not encourage students to audit graduate-level courses.

Dual Enrollment

Undergraduate Election of a Graduate Course: Highly qualified undergraduate students may, under special circumstances, take a 7000-level course for undergraduate credit only. A written petition initiated by the student's advisor must be approved by the graduate officer of the School or College, the professor teaching the course, and the Dean of the Graduate School. The petition, with all required signatures, must be turned in at the time of registration.

Graduate School Admission Under the Senior Rule: In their last semester, undergraduate students with a 3.0 (or above) upper division grade point average who have completed all general education competencies (mathematics, basic composition, intermediate composition, oral communication, critical thinking, and computer literacy), have the option of taking a limited number of graduate credits. Graduate credit is awarded only for those courses taken in excess of baccalaureate degree requirements. Undergraduate and graduate courses combined may not exceed sixteen credits for the final semester of baccalaureate degree course work. A Senior Rule student must register for at least one credit which is required for the undergraduate degree in order to be eligible for this status. Students who have completed all required courses for the baccalaureate degree may not obtain Senior Rule status. Completion of the Application for Graduate Admission form is required, and students are advised to consult their advisers and the Office of Graduate Enrollment Services. Application deadlines for Senior Rule admission are the same as for regular graduate admission. Students who qualify and are recommended by the Department or College will be admitted for one semester. Graduate admission will be regularized upon evidence that the student has completed all requirements for the bachelor's degree, see Senior Rule Admission, page 28.

The University permits a student to pay undergraduate fees for the graduate courses elected in a Senior Rule status. It is recommended that students elect only courses numbered 5000-6999 in their Senior Rule semester.

College of Nursing: Applicants must submit a graduate College of Nursing Application to the College's Office of Student Services, 225 Cohn, Wayne State University, Detroit, Michigan 48202.

Dual Enrollment: Graduate students may register for undergraduate courses, however these courses will be recorded on the undergraduate transcript. All courses elected under this status will be assessed at the graduate rate. These courses cannot be used as graduate credit nor to meet requirements for any graduate degree.

Dual Registration at the University of Michigan: A student enrolled at either Wayne State University or the University of Michigan may elect a course or courses in the other institution if the course fits his/her program but is not available in his/her home institution. The student must have written approval of the department chairperson in his/her major area at the home college and the approval of his/her Dean. The election must also be approved by the department which offers the course. Students desiring to participate in Wayne State University - University of Michigan dual registration should obtain the necessary forms from the Office of the Registrar and pay the appropriate tuition at their home institution.

Repeating Courses — The mark of 'R'

Courses Repeated prior to Winter Term 1998: If an undergraduate student repeats a course and completes it with a grade of 'A,' 'B,' 'C,' 'D,' or 'E,' the following rules will apply in posting the student's cumulative record:

1. The grade, grade points and credits for an earlier attempt will be eliminated from the student's grade point average computation.

2. The grade, grade points and credits of only the latest repetition will be included in the student's grade point average computation.

3. An 'R' on the student's academic record will replace the original grade in the course repeated under this rule. Thus, the indicator 'R' will appear for all attempts in a course except the last.

Courses Repeated Winter Term 1998 to Spring/Summer Term 2006:

If an undergraduate student repeats a course and completes it with a grade of 'A,' 'A-minus,' 'ANC,' 'B-plus,' 'B,' 'B-minus,' 'BNC,' 'C-plus,' 'C,' 'C-minus,' 'CNC,' 'D-plus,' 'D,' 'D-minus,' or 'E,' the following rules will apply in posting the student's cumulative record:

1. The grade, grade points and credits for an earlier attempt will be eliminated from the student's grade point average computation.

2. The grade, grade points and credits of only the latest retake will be included in the student's grade point average computation.

3. The original grade in the course repeated under this rule will remain on the student's academic record. Earlier attempts will be flagged for exclusion in the g.p.a. calculation and the latest attempt will be flagged for inclusion in the g.p.a. calculation.

Courses Repeated from Fall Term 2006 to the present:

If an undergraduate student repeats a course and completes it with a grade of 'A', 'A-minus', 'ANC', 'B-plus', 'B', 'B-minus', 'BNC', 'C-plus', 'C', 'C-minus', 'CNC', 'D-plus', 'D', 'D-minus', or 'F', the following rules will apply in posting the student's cumulative record:

1. No student shall attempt to take a class more than four (4) times (for a definition of "attempt," see 5, below).

2. If a student anticipates an attempt to take a class for the third (3rd) time, he/she must meet with an academic advisor to receive permission for this attempt.

3. If a student anticipates an attempt to take a class for the fourth (4th) time, he/she must obtain written permission from the chair (or his/her designee) of the department offering the course and the chair (or his/her designee) of the student's home department.

4. When a course is repeated, credit is only granted once. The last grade and credit hours for a repeated course are used in computing a student's grade point average and for awarding credit hours applicable for a degree even if lower than the previous grade. However, a grade of 'WP' (Withdrawal/Passing, no credit) or 'WF' (Withdrawal/Failure, no credit) or 'I' (Incomplete, no credit) will not replace a previous grade or credit hours for a course. All attempts to take a course will be recorded on a student's transcript, whatever the last grade and credit hours awarded may be.

5. Withdrawals, incompletes, as well as courses repeated in an effort to earn higher grades will count as attempts. If a student drops the class before a 'W' would appear on the transcript, this is not counted as an attempt, i.e. the student does a drop or a drop/add to another course. If tuition has been assessed and the time for refunding tuition has passed but the time for having a 'W' appear on the transcript has not, the tuition will not be refunded, but the registration will not count towards the allowed attempts.

6. Any student who has repeated three different courses must meet with an academic advisor for permission to repeat another course.

7. There shall be an appeals process to the dean's office of the colleges offering the course and the student's home department.

After a degree has been granted, no grade computed in that degree may be changed.

If a post-bachelor status student repeats a course originally taken under regular undergraduate status, the repeat will in no way modify the earlier attempt. The second election, however, will be averaged in the grade point base.

School of Business Administration: No course in which a student has received a passing grade or mark may be repeated without the prior written approval of the Graduate Officer of the School of Business Administration.

Eugene Applebaum College of Pharmacy and Health Sciences: No course may be repeated without the prior written consent of the advisor(s) delegated for each professional curriculum.

Credit by Special Examination

Upon the recommendation of the Department Chairperson and with the written approval of the appropriate College or School office, a student may earn credit in a course in which he/she has not been regularly enrolled in this University, but which is offered by a Department, by passing a special examination. Credit by a special examination is restricted as follows:

1. Not more than sixteen credits may be earned in any one subject.

2. Not more than thirty-two credits may be included in the minimum credits required for graduation.

3. Credit will be recorded with grade to indicate the level of performance in the examination but will not be considered in computing grade point average.

4. Credit will not be considered residence credit.

5. To be eligible to earn Credit by Special Examination, a student must have been regularly admitted or have attended with guest status, have enrolled for one semester and have completed at least one course.

Students who intend to transfer to other schools are cautioned that Credit by Special Examination at one institution is infrequently accepted for transfer credit by another institution.

For Special Examination fee, see page 30.

Undergraduate Academic Probation

An undergraduate student whose cumulative grade point average (g.p.a.) falls below 2.00 will be placed on Academic Probation. An 'Academic Probation' status is placed on the student's record and the student shall be permitted to register only after consultation with, and approval has been granted by, a designated University advisor.

A student shall be given two subsequent terms for enrollment on probationary status. At the conclusion of the two terms, a student who has not achieved a cumulative g.p.a. of at least 2.00 shall be excluded from his/her program. A student excluded from the University may not apply for readmission or reinstatement for one calendar year.

Each School and College may establish more stringent Probation, Exclusion, and Appeal policies, and students should consult the appropriate Dean's Office. The Probation Committee of the University Advising Center is responsible for monitoring the University Probation and Exclusion Guidelines for Students in the College of Liberal Arts and Sciences, and the College of Fine, Performing and Communication Arts. Students must consult with an academic advisor regarding appropriate deadlines for academic hold releases and/or reinstatement procedures.

Obligations of Faculty and Students to the Instructional Process

Since education is a cooperative effort between teacher and student, both parties must fulfill obligations if the integrity and efficacy of the instructional process are to be preserved.

Responsibilities of Faculty Members

1. To contribute to and remain abreast of the latest developments in their fields;

2. To continually pursue teaching excellence;

3. To treat all students with respect and fairness without regard to ancestry, race, religion, political belief, country of origin, sex, sexual preference, age, marital status, or handicap;

4. To encourage differing viewpoints and demonstrate integrity in evaluating their merit;

5. To attend regularly and punctually, adhere to the scheduled class and final examination times, and arrange for notification of absence and coverage of classes;

6. To establish and maintain appropriate office hours;

7. To present, early in the semester, the following course information:

   a) course objectives and general outline;

   b) classroom procedures to be followed, expectations concerning class attendance, and proposed dates of major evaluations (including examinations, papers, and other projects);

   c) grading policy;

   d) where appropriate, a schedule of class-related activities, including class meetings and laboratory sessions;

   e) lists of texts and/or other materials needed for the course;

f) late enrollment, withdrawal, and other special policies.

8. To provide and adhere, within reasonable limits, to the written syllabus of the course;

9. To know course matter thoroughly and prepare and present the material conscientiously;

10. To be informed of University services and recommend their use to students when advisable;

11. To follow these policies concerning written work and grades:

a) grade and return written work promptly;

b) submit final grades by the scheduled time;

c) retain written materials not returned within the semester (e.g., final examinations, major term papers) for one academic semester in accordance with unit policy and allow students to examine such materials;

12. To implement unit procedures for student evaluation of faculty teaching, with attention to preserving student anonymity;

13. To behave appropriately in dealing with students so as to maintain a scholarly atmosphere.

Responsibilities of Students

1. To inform themselves of and to fulfill all requirements of the University and those of the College and Department from which they expect to receive their degree;

2. To fulfill conscientiously all assignments and requirements of their courses;

3. To attend classes regularly and punctually;

4. To maintain a scholarly, courteous demeanor in class;

5. To uphold academic honesty in all activities;

6. To notify the instructor as early as possible if prevented from keeping an appointment or carrying out an assignment;

7. To discuss with the instructor any class-related problem and follow established procedures in the resolution of these problems;

8. To adhere to the instructor's and general University policies on attendance, withdrawal, or other special procedures.

It is expected that faculty and students will fulfill their obligations to the instructional process. If, however, a complaint does arise, the parties should meet in an effort to resolve the matter. When such a discussion fails to resolve the problem or is inappropriate given the circumstances, the head of the academic unit should be contacted. If this contact fails to satisfy the complaint, the College's published procedures should be followed. Although the University Ombudsperson is not a direct part of the appeal process, students and faculty may consult the Ombudsperson at any point during such proceedings.

Classroom Attendance Policy for Undergraduate Students

This policy shall be applicable to all courses within the University: Attendance may form the basis for a portion of a course grade. In such cases, students must be provided with explicit written information concerning that fact no later than the end of the second week after the start of classes. Such information shall be specific with regard to the penalty incurred for each absence and the means, if any, to compensate for the absence. It should be recognized that there may be certain situations where the student may not be permitted to make up the absence(s).

It is recognized that students may be required to miss classes on occasion as a result of their participation in approved University activities. Examples of such activities include formal participation on University sports teams, debate teams, and performing arts groups. These activities are generally directed by a University official, such as a coach, and usually have a set schedule of events.

Students participating in approved University activities should consult with instructors prior to registration, but no later than the end of the second week after the start of classes, to determine the class attendance policy. At this time, the student should provide the instructor with a schedule of planned absences, preferably signed by the University official directing the activity (e.g., Athletic or Program Director or his/her designee), in order to allow the instructor to evaluate and advise the student on the possible impact of the planned absences. In this case, the instructor will consider absences due to participation in approved University activities, as outlined above, to be excused absences, on par with those due to other unavoidable circumstances such as illness. For classes requiring mandatory attendance incompatible with the number of planned absences, students will be advised to register, if possible, during a semester in which they will not be participating in the University activity (for example, during the off-season for a sports team or during the summer).

It is the student's responsibility to learn the course material. When classes are missed, for whatever reason, it is the student's obligation to obtain copies of the class materials and students are responsible for all materials covered in the lectures. An excused absence does not excuse the student from completing assigned work, including exams.

Student Code of Conduct

High standards of student conduct play a major role in creating an environment of excellence and the Student Code of Conduct is used to maintain these standards. The code: 1) establishes the expectations that students are accountable for their behavior; 2) describes acceptable student conduct, both academic and non-academic; 3) describes disciplinary policies and procedures; 4) specifies the rights of students and other parties; and 5) specifies prohibited conduct and sanctions to be imposed if such conduct occurs. Examples of prohibited conduct subject to the Student Code of Conduct include, but are not limited to, academic misbehavior, knowingly furnishing false information to the University, disorderly behavior, theft, damage of property, illegal drugs, weapons on campus, physical assault, unauthorized entry, violation of criminal law, etc.

The University Student Conduct Officer, housed in the Dean of Students Office, monitors the student disciplinary process and is responsible for coordinating matters involving student discipline; describing the disciplinary procedures; and informing students and other parties of their rights. Copies of the Student Code of Conduct can be found online at http://www.doso.wayne.edu/codeofconduct.pdf or in the Dean of Students Office, 351 Student Center.

Student Academic Ethics

Academic Records: The submission of fraudulent academic records for admission or transfer of credit by a student may be cause for the student's dismissal.

Academic Work: Academic work submitted by a student for credit is assumed to be of his/her own creation, and if found not to be, will constitute cause for the student's dismissal.

Student Rights and Responsibilities

Upon the recommendation of the Student-Faculty Council, the University (Faculty) Council, the President-Deans Conference and the President, the Board of Governors, in January, l967, approved a comprehensive statement of Student Rights and Responsibilities for the University. Copies of this document are available to students and faculty in the offices of the deans of each College and the Dean of Students Office.

Law School: The faculty of the Law School has approved a set of academic regulations specifically applicable to Law School students, copies of which are available to all students enrolled in the Law School.

College/School Grade Appeal Procedures

Students should first seek to settle grade disputes informally with the instructor. Each College and School has established formal grade appeal procedures. These procedures are available from the Dean's Office of the College or School. In most instances, formal grade appeals must be filed within thirty days of the time the student has or should have received his/her final grade.

Academic Appeal Procedure

In matters where a College's signed final decision is based upon the evaluation of a student's academic performance, and when review procedures available to him/her within the College have been exhausted, the student may request the Provost to review that decision on the record. A written Request for a Provost Review must be made by the student himself/herself, with a copy to the Dean of the College, postmarked within thirty calendar days of the postmark of the College's final decision, which is to be sent to the address provided by the student in the College's review procedures. The Request for a Provost Review should outline any additional arguments the student wishes to be taken into consideration by the Provost's review. The Provost's review of the College's decision will proceed as soon as practicable after notification by the student of his/her wish to seek review.

The student may also file with the Provost a Request for a Postponement of the effect of the College's final decision. Such a Request must be postmarked within seven calendar days of the postmark of the College's final decision, and a copy must be sent to the Dean of the College. Upon receiving a Request for Postponement, the Provost will immediately contact the Dean. Unless the College demonstrates clearly and convincingly that the injury to the College or to third persons that would result from such a postponement would outweigh the injury to the student from denying the postponement, the effect of the decision rendered by the College must be postponed until the date that the Provost issues a decision regarding the underlying Request for Provost Review. The Provost will inform the student and the Dean of her/his decision regarding the Request for Postponement within three school days after receiving the request. Exceptions to this procedure may be granted by the Provost upon a showing of good and sufficient cause.

Academic Nepotism

Faculty members are not to place themselves, or allow themselves to be placed, in situations amounting to 'academic nepotism,' i.e., teaching or otherwise directing the credit study or research of a student who is also a close relative. Concomitantly, students are not to take courses from close relatives or engage in research for academic credit under the direction of close relatives. All such credit will be disallowed.

Student Records and Registration

Office of the Registrar

50577 Woodward; Telephone: 313-577-3550, Fax: 313-577-3769
Website: http://www.reg.wayne.edu/

The Office of the Registrar supports the instructional, research and service missions of the University by providing a wide variety of academic services to students, faculty and staff. The office consists of several units: Student Records maintains academic and personal student data, grades, transcripts, graduation applications, and diplomas. Registration and Scheduling prepares the Schedules of Classes and of Final Examinations, makes room assignments for classes and special events, processes registrations, drops and adds (adjustments to students' schedules), assesses tuition and fees, determines residency, and reviews all appeals for exceptions to University enrollment policies. Transfer Credit and Degree Audit evaluates coursework from other universities for undergraduate credit at Wayne State University, and provides students with degree progress information for all academic programs. Student Systems Technical Support provides hardware, software, web and network services. The unit also develops systems and procedures for business processes, produces official enrollment data, and responds to the student information needs of the University community.

Registration and Scheduling

313-577-3541; Fax: 313-577-8192
Website: http://www.reg.wayne.edu/students/registration.php

Registration is the process of officially enrolling in classes for a particular term. The Class Schedule Website, provided by the Office of the Registrar in advance of each term, lists the days, times and locations for registration and explains registration procedures. Prior to registering, students should review the information at the Schedule of Classes website: http://www.classschedule.wayne.edu

A student may not attend any class for which he/she is not officially registered.

POST-BACHELOR STATUS: Students wishing graduate credit are cautioned NOT to register 'post-bachelor.' This status allows students holding bachelor's degrees from accredited institutions to elect only courses open to undergraduate students (numbered below 7000), which may be used to fulfill prerequisite requirements for graduate admission. Credit for courses elected as a post-bachelor student does *not* count toward graduate credit.

Registering for Classes — On the Web

Complete instructions for registration appear in the Schedule of Classes, on the Web at http://wayne.edu/register/. Addi-tional information and assistance is available from Registration and Scheduling (Suite 5101, 5057 Woodward): 313-577-3541 or email: registration@wayne.edu.

1. To register on the Web, the student needs to know his/her WSU AccessID and password. For information and help with the AccessID and password, call the Computing and Information Technology Help Desk at 313-577-4778; or e-mail: helpdesk@wayne.edu; or consult the Web: http://www.wayne.edu (click 'WSU Directories', then click 'WSU People Search' and search your 'name').

2. Registration may be done on any computer with access to the World Wide Web.

3. The Web address for registration is http://pipeline.wayne.edu. Students should log in using the WSU AccessID and password.

Then, successively click on: the Student tab, Registrar/Add/Drop (from the Student Services Menu listed on the left); and once inside Registration follow the prompts on each webpage.

It is highly recommended that students print a copy of their student schedule from WSU Pipeline prior to the beginning of the term. Additional information and assistance is available by emailing registration.wayne.edu or by calling Registration and Scheduling at 313-577-3541. How-To Videos can be accessed at http://reg.wayne.edu/videos/index.php.

WSU Pipeline

Website: http://pipeline.wayne.edu

WSU Pipeline is a secure Internet gateway that provides unified access to Wayne State information, services, and computing systems. This comprehensive Web environment is a one-stop location where WSU students, faculty, and staff can conveniently use online self-service functions and easily access many computing systems, such as Wayne Connect and the Blackboard Learning System. Using Pipeline, they also have continual access to specific information and helpful tools needed for communication, collaboration, teaching and learning, and University administration. Wayne State applicants are able to track the progress of an admission application through WSU Pipeline. Current students can use secure self-services to check financial aid, register for and drop/add classes, pay tuition and fees, check holds and final grades, obtain enrollment verifications and transcripts, self-register for training programs/workshops, and more.

Accessing the Pipeline: Use a current Web browser on any computer connected to the Internet to access WSU Pipeline (http://pipeline.wayne.edu) and then log in using a WSU AccessID (e.g., xy6789) and password. As soon as a student applies for admission or an employee is hired, a unique AccessID is automatically created. Instructions on how students and employees can look up an AccessID and find the initial password they need for full access to WSU computing services and resources are on the following Website: http://computing.wayne.edu/accessid.

Blackboard Courses on the Web: see page 59.

STARS (Student Tracking, Advising, and Retention System)

Website: http://stars.wayne.edu

STARS is a secure and convenient Web access to students' academic records. WSU students, faculty and advisors can use the convenient online self-service functions to access information in a student's academic record, including academic programs, transfer course equivalencies, test results, registration and course history. There is also a degree audit function that helps students evaluate progress towards completion of their degree program, and select their classes each term.

Degree Audit: By clicking on the Degree Audit in STARS in Pipeline, students can review progress toward completing degree requirements for their current degree program by selecting "Generate New Evaluation." They can see how their courses would apply to a different program by selecting the "What If Analysis." Degree Audit presents a detailed analysis of the course requirements for each academic program, including general education, major, minor, and concentration requirements. Also available is a Plan of Work page which students (and advisors) can use to map out the courses that should be taken each term for a specific degree program and major. Students can create multiple plans for taking courses if they are not yet certain which programs to follow.

Drop/Add — Adjusting Your Schedule

Registered students may drop and/or add classes on the date(s) indicated on the Registration Calendar. Note the following requirements:

1. The regulations pertaining to dropping and adding courses are stated as they pertain to regular courses fifteen weeks or more in duration. These regulations are applied proportionately to courses that are offered for less than fifteen weeks.

2. Students who do not officially drop their courses within the first two weeks of classes are financially obligated to pay for the courses even if they have not attended any class sessions.

3. Students who officially drop full term courses before the conclusion of the first two weeks of classes (for the Fall and Winter terms) are entitled to 100% tuition cancellation, and the courses do not appear on the students' academic records.

4. Students who officially drop fifteen-week courses after the second week of classes (for the Fall and Winter terms) are not entitled to any tuition cancellation; however, courses dropped prior to the conclusion of the fourth week of classes do not appear on students' academic records. After the fourth week of classes, courses dropped are considered a — Withdrawal. The Withdrawal will include a notation of 'P' — Passing, 'F' — Failing, or 'N' — Never Attended, beginning in 2006-07.

5. Students are not permitted to add courses after the first week of the term without instructor and departmental permission. Departments are required to enter a late add permit/override for students if exceptions are made to permit adding of classes during the second week.

6. Students are required to submit their withdrawal through Pipeline for their instructors' approval for withdrawals processed after the fourth week of the term. Once logged into Pipeline, click the Student tab, under Registration from the Student Services menu, choose Withdraw from a Class, follow the prompts on each page.

7. Students are not permitted to withdraw from courses after the end of the tenth week of class for full term classes. The withdrawal deadlines are published in each term's academic calendar and students are notified of the deadline twice during the term. Withdrawal dates for less than full term courses are adjusted proportionally. Late withdrawal requests will not be approved. Medical withdrawal requests have separate deadlines.

Classes for which a grade has been earned cannot be withdrawn.

College of Engineering: Students are not permitted to withdraw from courses after the fifth week of classes without written approval of their adviser. Some departments have more stringent restrictions on withdrawing from of courses.

University Grading System

Final grades are available on the campus Pipeline web service (http://pipeline.wayne.edu). Grades are not mailed to students. Final grades are recorded under the following system.

Undergraduate Grades

'A' — Excellent: 4.00 grade points per credit
'A-minus' — Excellent: 3.67 grade points per credit
'ANC' — Excellent: no credit
'B-plus' — Good: 3.33 grade points per credit
'B' — Good: 3.00 grade points per credit
'B-minus' — Good: 2.67 grade points per credit
'BNC ' — Good: no credit
'C-plus' — Fair: 2.33 grade points per credit
'C' — Fair: 2.00 grade points per credit
'C-minus' — Fair: 1.67 grade points per credit
'CNC' — Fair: no credit
'D-plus' — Poor: 1.33 grade points per credit
'D' — Poor: 1.00 grade points per credit

'D-minus' — Poor: 0.67 grade points per credit
'F' — Failure: 0.00 grade points per credit

'P' — Passed
'PNC' — Pass: no credit
'N' — Not Passed
'NNC' — Not Passed: no credit
'S' — Satisfactory
'SNC' — Satisfactory: no credit
'U' — Unsatisfactory
'UNC' — Unsatisfactory: No credit
'M' — Marginal Pass

'P,' 'N,' 'S,' 'U,' 'M,' 'ANC,' 'BNC,' 'CNC,' 'UNC,' 'SNC,' 'PNC,' 'MNC,' and 'NNC' grades are not reflected in the grade point average.

'NR' — No grade reported by the instructor.

'P' or 'N' —Passed or Not Passed (undergraduate students only). These grades do not affect grade point averages, but undergraduate courses completed with grade of 'P' may count toward a degree.

'S,' 'M,' or 'U' — Satisfactory, Marginal, or Unsatisfactory performance in non-degree courses and in certain designated courses such as field work, practicums and internships. These grades do not affect grade point averages.

Marks (Effective Fall Term 2006)

The mark of 'I' (Incomplete) is given to an undergraduate student when he/she has not completed all of the course work as planned for the term and when there is, in the judgment of the instructor, a reasonable probability that the student will complete the course successfully without again attending regular class sessions. The student should be passing at the time the grade of 'I' is given. A written contract specifying the work to be completed should be signed by the student and instructor. Responsibility for completing all course work rests with the student.

The mark of 'I' will be changed to a letter grade when the student completes the course work as arranged with the instructor or, if the instructor has left the University, with the Chairperson of the department or other instructional unit. Work must be completed within one calendar year. There are NO extensions.

The mark of 'I' will not be awarded if, in the instructor's judgment, it is necessary for the student to attend subsequent sessions of the class. If regular attendance is necessary to complete coursework, the student must register for the class for the semester in which attendance is planned. The student will be assessed tuition and applicable fees for the second registration. If the student decides to register for the course, subsequent to the assignment of an 'I', then the mark of 'I' for the original election will be changed to a Withdrawal/Passing ('WP'), and the student will be responsible for tuition and applicable fees for the second registration. Students are responsible for notifying their department and the department offering the course that they have reregistered for the course so that the 'I' is not changed to an 'F.'

Any unchanged mark of 'I' will, within one calendar year from the time it was received, be changed to a grade of 'F' or failure. This will not be changed after the 'I' is replaced.

The mark of 'WF' (Official Withdrawal Failing) is given when the student withdraws from the course in accordance with University policy and the student had earned a failing grade as of the date the withdrawal is approved.

The mark of 'WN' (Withdrawal Non-Attendance) is given to students who did not attend any classes and/or did not complete any assignments and/or did not participate in credit-earning activities by the withdrawal date.

The mark of 'WP' (Official Withdrawal Passing) is given when the student drops the course in accordance with University policy and the student had earned a passing grade as of the date the withdrawal is approved.

The mark of 'Y' (Deferred) is given when the student is up-to-date in the work of a course planned to continue beyond the semester (i.e., essay, thesis, dissertation and certain courses taken in sequence).

The mark of 'Z' (Auditor) is given when the student has formally registered for the course for audit. The student's Academic Dean or his/her designee must provide written audit authorization to the student at the time of registration.

Passed — Not Passed Program

The University has a program whereby undergraduate students may elect to take courses in which they will be marked as *Passed* ('P') or *Not Passed* ('N') in place of a letter grade. The following regulations apply:

1. The student may elect one 'P'-'N' course per semester with the consent of an advisor, but he/she may not elect more than six courses in all.

2. After classes have begun, a student may not change from Passed/Not Passed to a letter grade election or vice versa.

3. Courses taken for 'P'-'N' may be used to satisfy competency requirements; however, no course taken on this basis may be used to fulfill specific group or major requirements.

4. Credits for a 'P'-'N' course may be used to fulfill graduation requirements but will not count in the grade point average. In the event the student enrolls in more than six 'P'-'N' courses, those beyond the permissible maximum will be designated on the permanent record as not applicable toward graduation.

School of Business Administration: Students in the School of Business Administration may *not* take courses offered by the School of Business Administration on a passed / not passed basis.

Change of Grade and Mark

Once recorded in the Office of the Registrar, grades/marks will be changed only if the instructor posts the grade change in the online grade/mark change system in Pipeline. Most changes must be posted within one calendar year. (Deferred (Y) grades are the exception.) Failure grades that are posted as a result of a student not completing an incomplete course may not be changed. After a degree has been awarded, the grades associated with that degree may not be changed. Other change of grades or marks older than a year must be approved by the department chair and the Associate Dean of the school or college that offered the course.

Credits

A credit (credit hour) is defined as one class hour per week or its approved equivalent requiring a minimum of two hours of preparation per week carried through a semester. A credit in other modes of instruction should be made as consistent as possible with the above definition.

Laboratory: A three-hour laboratory period is normally regarded as the equivalent of one class hour.

Class Ranking

Ranks are determined according to the number of degree credits satisfactorily completed. The classifications are:

Freshman: ..... 0 to 28.99 credits, inclusive
Sophomore:..... 29 to 55.99 credits, inclusive
Junior:..... 56 to 87.99 credits, inclusive
Senior: ..... 88 credits or above

Grade Point Average

The grade point average (g.p.a.) is the numerical index of the student's scholastic average. Points are assigned to each letter grade (see University Grading System, above) for each hour of credit. To compute your grade point average, multiply the grade points assigned to each course grade by the number of credits for each course; add the results and divide by the total number of credits.

For example, a grade of 'A' in a class carrying 3 credits would be assigned 12 grade points (3 x 4), and a grade of 'C' in a class carrying 4 credits would be assigned 8 grade points (4 x 2). In this example, the grade point average is: 20 (total grade points) divided by 7 (total credits attempted) = 2.85 g.p.a.

Credit for special examinations, transfer credit, and courses in which a mark of 'I' 'W', 'WF', 'WN', or 'WP' or a grade of 'S,' 'U,' 'M,' 'P,' and 'N,' has been earned are excluded from grade point average computation.

Law School: This grade point system does not apply to Law School students.

Responsible Attendance and Performance

Students must show diligence and are normally expected to complete the courses they elect. Irresponsible attendance is wasteful of both student and University resources. Those students who consistently receive excessive marks of 'I' (incomplete), 'WF' (Withdrawal Failing), 'WN' (Withdrawal Non-Attendance), or 'WP' (Withdrawal Passing) may be refused the privilege of further registration by the dean or the dean's designee of their school or college.

Transcript Request Policy

Official transcripts bear the seal of the University and the signature of the Registrar. They are sent directly to the receiving party. Transcripts are issued free of charge, up to ten copies per year. A fee of $5.00 per transcript is charged for copies in excess of ten. A fee of $20.00 is assessed for each emergency transcript. An emergency transcript is one which is mailed out overnight.

Students may request transcripts via Pipeline: http://pipeline.wayne.edu (using the Access ID). A transcript may also be requested by postal mail, by faxing a request to 313-577-0945, or in person. Due to the signature requirement for releasing educational records, the University cannot accept telephone requests for transcripts. Requests by postal mail should be addressed to: Wayne State University Student Records, Attn: Transcripts, 5057 Woodward Avenue, Suite 4101, Detroit, MI 48202.

To ensure prompt attention, the student should include his/her name (including name while in attendance, if different), student identification number, social security number, date of birth, last term of attendance, his/her authorizing signature, and the name and address to which the transcript is to be sent. Transcripts are not issued to anyone outside the University without the written permission of the student. Requests for official transcripts will not be honored if the student or former student has an outstanding financial obligation to the University.

Release of Student Records

The University recognizes the educational records of students as being privileged and has a policy designed to ensure that this information is not improperly divulged without the consent of the student. The University is subject to the Family Education Rights and Privacy Act (FERPA) and has promulgated regulations pursuant thereto. Copies of the regulations and a list of student records maintained by the University are available for inspection in the Office of the Registrar. The University reserves the right to provide anonymous academic information to other schools and colleges when it is to be used for curriculum evaluation purposes. Additional information about student rights under FERPA can be found at http://reg.wayne.edu/students/privacy.php

Student Directory Information

Effective Winter Term 2000, Wayne State University policy permits the release of certain Student Directory information. The specific items are: name, address, telephone number, age (or date of birth), major, level, degrees received, previous institutions attended, honors, awards, e-mail addresses, participation in sports or student activities, and height and weight for members of athletic teams.

Unless a student informs the Office of the Registrar that he or she does not want this information released, it will be available to third parties on request. In addition, the student's name, WSU e-mail address, College/School, and major will be visible in the University's Electronic Directory on the Internet. Students who do not want this information released must formally request withholding by completing the Release of Directory Information form, available from the Office of the Registrar and on the Office website: http://www.reg.wayne.edu/.

Michigan's Freedom of Information Act

The Freedom of Information Act (PA 242) provides that a member of the public, in accordance with certain guidelines, has a right to inspect and receive copies of public records maintained by the University. A public record is broadly defined and includes written documents, pictures, recordings, punch cards, magnetic cards, etc., which are maintained by the University in the course of official responsibilities. However, certain records are exempt from disclosure.

Media Relations Office, 3100 Academic/Administrative Building, is designated as the Office responsible for accepting requests for public records, and the Director of that office is the University officer in charge of providing this service. Under the statute, a fee can be charged for records released and is based on the cost of labor involved in the search, examination and duplication of records, as well as the mailing costs. Only the Office of General Counsel may authorize the denial of a FOIA request.

Application for Degree or Certificate

Each candidate for a degree or certificate must file an Application for Degree online at http://www.pipeline.wayne.edu, not later than the Friday of the fifth week of classes for the semester in which the student expects to complete the requirements for the degree or certificate; consult the Academic Calendar on page 4 of this bulletin or on the Registrar's website: http://reg.wayne.edu/students/calendar.php. If an application for a degree was filed for a previous graduation term in which the student did not graduate, a new application and fee is required. Applications for graduation require that a $40.00 fee be paid in the online application process.

Commencement

Information concerning commencement announcements, caps and gowns, invitations, tickets, time and place, assembling and other relevant items will be mailed to the graduates by the Commencement Office prior to the event. Candidates for advanced degrees are requested and expected to attend the commencement at which the University confers upon them the honor of the degree earned. Additional information regarding commencement can be found at their website: http://commencement.wayne.edu/

Student ID (WSU OneCard)

42 W. Warren, Room, 257; 313-577-CARD

Website: http://www.onecard.wayne.edu/

The WSU OneCard is a multi-purpose identification and debit card all in one. It is a convenient, easy-to-use card designed to provide students with access to a wide variety of campus services. It serves as the Library Card for WSU Libraries. The WSU OneCard offers a 'cashless' environment to its cardholders by debiting funds from their account. The card can be used for parking, door access, copying and printing services, as well as food and bookstore purchases. Students may obtain the OneCard from OneCard-Parking Service Center located in the Welcome Center, 42 W. Warren Ave., Suite 257, 8:30 a.m. – 5:00 p.m. Monday through Friday.

Funds may be added to the OneCard with a check or money order at the OneCard-Parking Service Center, via WSU Pipeline (https://lumprod.wayne.edu/cp/home/displaylogin) with a credit card or at one of the Cash System Value Terminals located in the following University buildings: Eugene Applebaum College of Pharmacy and Health Sciences Building, G. Flint Purdy Library, Science and Engineering Library, Student Center Building, Scott Hall, State Hall, David Adamany Undergraduate Library, University Tower Apartments, Law School Library, Matthaei Building, Ghafari Hall, Oakland Center, Welcome Center, Helen L. DeRoy Apartments, The Towers Residential Suites and WSU Bookstore.

Student Academic Success Services

University Advising Center

1600 David Adamany Undergraduate Library; 313-577-2680
Fax: 313-577-5020; Appointments: 313-577-2680;

Service hours are posted on our website at http://www.advising.wayne.edu

The University Advising Center provides academic advising to all undergraduate students with undeclared majors and to preprofessional students in the College of Liberal Arts and Sciences, and the College of Fine, Performing and Communication Arts. The Center is staffed by professional advisors whose major responsibilities include the following:

Program Advising helps undergraduate students select the courses designed to fulfill the requirements of their chosen academic programs. Courses are suggested, described, and discussed in connection with students' intended academic goals. advisors are fully informed on undergraduate degree requirements, including group requirements, restrictions on credits, transfer credit, and residency. Advisors monitor the progress of students towards the completion of School/College and University requirements for graduation.

Curriculum Advising helps students identify the various options and curricula they may employ to achieve particular academic and/or career goals.

Academic Deficiency Advising: Students whose grade point averages fall below 2.0 are placed on academic probation and are required to discuss their progress with an academic advisor. Advisors help probationary students consider ways to overcome academic deficiencies. Referrals may be made to other University services where students can find assistance for specific problems or difficulties.

Preprofessional Advising: Advisors assist students in planning programs which will fulfill requirements for admission to the various professional programs offered by Wayne State University, including those of the School of Social Work, the College of Nursing, and the Eugene Applebaum College of Pharmacy and Health Sciences.

Health Careers Advising: Students in pre-medical, pre-dental, pre-osteopathic and pre-veterinary medicine are advised on specific curricula, co-curricular activities, preparation for admission exams and procedures for applying to the professional school. Credential file services are available to students and letters of recommendation are sent to professional schools as requested by the student.

Changes of College and Curriculum: Students wishing to enter the Colleges served by the University Advising Center from another undergraduate College within the University, or to change programs within those Colleges, do so at the Advising Center. Advisors provide details of program change including changes in prerequisites, and process requests for change.

Early Academic Assessment: Academic progress for students enrolled in 0000-2999-level courses is assessed by faculty from the beginning of the third week to the end of the seventh week of classes. If a student's performance is assessed below the 'C' level, the student receives an alert notification referring him/her to appropriate campus resources.

Academic Success Center

1600 David Adamany Undergraduate Library; 313-577-3165;
Fax: 313-577-9372
Service hours are posted on our website at*:* http://www.success.wayne.edu

The mission of the Comerica Academic Success Center (ASC) is to ensure that all Wayne State University undergraduate students become self-determined, motivated and independent learners. The Center accomplishes this through instruction and services that support students' development of skills to achieve academic excellence.

Reading and Study Skills: Professional learning specialists are available to support students' academic success. Any undergraduate Wayne State student may work with a learning specialist to identify specific study skill difficulties and formulate personalized strategies for success. Each plan identifies the student's strengths, opportunities for development and action steps necessary to help the student become a more effective learner. Programs are designed to improve students' study skills including reading comprehension, memory improvement and test preparation.

Tutoring: The Academic Success Center offers drop-in tutoring for a variety of undergraduate courses. In addition to subject material, tutoring sessions address study skill areas such as note-taking and reading comprehension when necessary. All tutors have received faculty recommendation and maintain at least a 3.2 g.p.a. Students may access the tutoring schedule at www.success.wayne.edu.

Supplemental Instruction: Supplemental Instruction (SI) supports many 1000- and 2000-level courses by offering collaborative learning sessions facilitated by an SI leader. Sessions are designed to help students understand the course's key concepts, organize the material and develop strategies to effectively prepare for exams. Research suggests that students who consistently participate in SI typically earn a half to a full letter grade better than students who do not take part in SI. All SI leaders have received faculty recommendation, maintain at least a 3.2 g.p.a. and are required to attend the lecture. Students may access the SI schedule at the website: http://www.success.wayne.edu

Study Skills Workshops: The Academic Success Center offers a series of study skills workshops for all students each semester. Sessions provide strategies and techniques to help students effectively manage their time, prepare for exams, reduce test anxiety, improve memory and concentration and strengthen other skills. Additionally, workshops may be scheduled for groups, student organizations and academic departments to address specific needs.

Counseling and Psychological Services (CAPS)

522 Student Center Building; 313-577-3398, Fax: 313-577-9628

Counseling and Psychological Services (CAPS) enhances students' development and academic success by promoting an open, problem-solving approach to personal challenges and working collaboratively on building appropriate skills, attitudes, and actions. Please refer to http://caps.wayne.edu for more information.

Service hours: Monday - Friday 8:30 am to 5:00 pm; by appointment: Tuesday 5:00 pm to 7:00 pm. Registered WSU students may drop-in or call for an evaluation with a CAPS counselor Monday through Friday from 9:00 am to 5:00 pm.

Eligibility: All currently enrolled students are eligible for counseling evaluation to assess whether their needs can be addressed effectively via short-term counseling at CAPS or require more specialized or longer-term counseling at another facility. Faculty, staff, alumni, children, or spouses are not eligible.

Crisis Services: In the case of a non-life-threatening crisis, students, faculty, or staff can contact CAPS and indicate that a student needs immediate assistance. If assistance is needed during evening or weekend hours, contact the Wayne State University Police Department at 313-577-2222 or call the Wayne County crisis hotline at 313-224-7000. In the event of a life-threatening emergency at any time, contact the Wayne State Police Department.

Career Services

1001 Faculty/Administration Building; 313-577-3390; Fax: 577-4995
Website: www.careerservices.wayne.edu

Career Services provides help to students and alumni in defining career and employment goals and assists them in their search for employment opportunities. In addition to the following services, Career Services offers topical workshops, career events, and group and individual career/employment counseling. Career Services welcomes the opportunity to discuss customized services to meet individual needs.

Career Development: The main focus of this service is to help students explore career options, clarify their career goals, and link those goals to appropriate academic paths. Individual and group services are available.

Cooperative *Education, Internships, and Summer Programs:* Comprehensive paid professional, career- and non-career related work experiences are available, including a wide variety of part- and full-time experiential learning situations. Orientation workshops are offered on an ongoing basis.

On-Campus *Student Employment:* Students may work on-campus up to twenty hours per week as a Student Assistant or College Work-Study student. Job openings may be viewed in-house or on line via our open posting system.

Professional Employment and On-Campus Recruiting: Graduating students and alumni may increase professional full-time employment opportunities through on-campus interviews, resume referral, career fairs, in-house and on-line job postings, and a myriad of career-related support services

Testing, Evaluation, and Research Services

698 Student Center; 313-577-3400; Fax: 313-577-0617
E-mail: testing@wayne.edu
Website: http://www.testing.wayne.edu/

This unit houses the official University testing programs. On the undergraduate level, testing and evaluation services are provided to those students who need to take the an entrance examination, course credit by examination via the computer-based College-Level Examination Program, department-based qualifying and placement examinations for course selection in Biology, Chemistry, English and Mathematics, as well as test-out options for some of the University General Education competency requirements.

On the graduate level, testing and evaluation services are provided to students for graduate and professional school admission, as well as for some certification and licensing purposes.

The office also houses a certified Educational Testing Service (ETS)/ Prometric computer-based testing center for high stakes testing at the graduate and undergraduate levels, examples of which are the Graduate Record Exam (GRE) General Test, the Internet-based Test of English as a Foreign Language (TOEFL), and the Medical College Admission Test (MCAT).

Testing, evaluation and assessment-related support services are also provided to faculty and academic staff, and include scoring of teacher-made tests or qualifying examination data, consultation regarding test programs commercially available, and consultation on the construction of course examinations.

This office also tabulates and reports the results of the University-wide Student Evaluation of Teaching (SET) Program.

Student Disability Services (SDS)

1600 David Adamany Undergraduate Library; 313-577-1851;
313-577-3365 (TTD)

Service hours are posted on our website at: http://studentdisability.wayne.edu/

SDS is the office at Wayne State University which coordinates reasonable accommodations and support services for qualified students with various disabilities and believes in preparing students to self-advocate to fulfill their academic goals. This ofice collaborates throughout the University to ensure academic and campus life accessibility.

Disability Determination: Students who have self identified their need for accommodations will have professional disability specialists available to assist them throughout their university career. With proper documentation the disability specialist verifies disability and develops appropriate accommodations in consultation with the student. Individualized prescribed accommodation helps facilitate accessibility to the student's academic goals and campus life at Wayne State University. It is the student's responsibility to give his/her accommodation letter to instructors in a timely manner so as to create a collaborative learning environment.

Academic Accommodations: Examples of academic accommodations are: consultation prior to University enrollment, priority registration, volunteer note-taker services, study rooms with adaptive equipment, alternative testing arrangements, alternate media, interpreters/CART reporters, and information on community resources. Also, many departments have liaisons who have undergone training whose responsibilities include mediating if accommodation issues should arise and assist faculty in developing universal instructional design.

Adaptive Technology resources are available to students with disabilities. SDS has adaptive computers and computer software which are designed to assist students' reading and writing. Adaptive equipment and technology includes but is not limited to: closed-circuit TV's, JAWS, Dragon Dictate, Kurzweil 3000, Zoom Text, and FM systems.

Community Agencies: SDS works cooperatively with various community agencies that assist students with disabilities at the University. The agencies include but are not limited to: Michigan Rehabilitative Services, Commission for the Blind, Disability Network, and Reading for the Blind and Dyslexic.

Office of Military and Veterans' Educational Benefits (OMVEB)

1600 Adamany Undergraduate Library;
313-577-9180; Fax: 313-577-5020
Website: http://www.omveb.wayne.edu

This office assists veterans, eligible dependents/survivors, reservists and National Guard members in obtaining educational benefits. Specifically, students are aided in applying for Federal benefits outlined under Title 38, and Title 10, U.S.C., including: the Montgomery G.I. Bill (chapter 30), the Reserve G.I. Bill (chapter 1606), Post 9/11 G.I. Bill (Chapter 33), Reserve Educational Assistance Program, REAP (chapter 1607) V.E.A.P. (chapter 32), Vocational Rehabilitation (chapter 31), and the Survivors'/Dependents' Educational Assistance (chapter 35). All eligible students must officially request to use their educational benefits each semester.

Non-Degree Status: Students must be in a degree program to receive benefits. Those not currently admitted to a degree program and enrolled in classes must verify to the OMVEB via an academic adviser the reason for enrollment (i.e., completing foundation courses for a master's-level program).

Admission Fee Waivers: Any applicant who has an honorable discharge (form dd214), from service in U.S. Armed Forces, may receive a waiver of the Undergraduate Admission Fee. Please be prepared to verify discharge with Admissions Counselor or VA Advisor during application process.

Transfer Credits: Wayne State University will give four transfer credits for veterans, reservists, and National Guard members for service in the U.S. military. The University will require military discharge document DD-214.

Wayne State University will accept up to twelve transfer credits from veterans upon receiving their respective branch transcripts of military training. These credits are to be evaluated according to the 'Guide to the Evaluation of Educational Experiences in the Armed Services,' published by the American Council on Education.

This policy shall be in effect for all veterans, reservists, and National Guard members currently enrolled Fall 2005 and thereafter.

Late Tuition and Late Registration Fee Waiver: Late fees, Partial Payment fees and Late Registration fees can be waived for all students currently receiving VA Educational Benefits. Contact OMVEB for assistance.

Licensing/Certification Reimbursement: All students collecting under Active Duty GI Bill are eligible for reimbursement for any licensing test fees. Contact the OMVEB or visit http://www.gibill.va.gov for further information.

Tutorial Assistance is also available as part of all benefit packages as noted above. Eligible recipients may receive $100.00 per month, up to twelve months to help defray tutoring costs. Contact the OMVEB for further details. No charge to benefit entitlement is incurred for the first six months received of Tutorial Assistance.

Active Duty Tuition Waiver: A Waiver of Non-Resident Portion of (assessed) Tuition is available to military service personnel on active duty in Michigan, their spouses and dependent children. Eligible students must complete the student information and section II of *Request for Waiver of Non-Resident Portion of Tuition* form along with substantiating documentation of Active Duty status to the Registration and Scheduling Office, 5057 Woodward Ave., Room 5101, each term. The completed waiver must be submitted before the end of the first week of classes.

VA Work-study Program: The VA work-study allowance is available to all students eligible for VA Educational Benefits. Those eligible who are at least a three-quarter-time student in a college degree program, or a vocational or professional program, can 'earn while they learn.' Pay for VA Work-study is the equal to the Federal minimum wage or your state minimum wage, whichever is greater.

Services performed under a VA work-study program must be related to VA work. Examples of acceptable work are:

— Processing VA paperwork at any university or college having a VA Office (e.g., you may be enrolled at WSU but work at Oakland or Macomb Community College VA Offices)

— Outreach services under VA supervision;

— Work at VA medical facilities or National Cemetery System offices

— Work with the Veterans counselor at any of the MESC offices

— Work in the Education or Transition offices at local base

— Work at Department of Defense facilities related to education benefits under the GI Bill.

National Guard Students: Please note that Wayne State does not currently participate in the Guard's Tuition Grant Program. However, if your branch provides Tuition Assistance and/or Tuition Reimbursement the OMVEB will provide assistance as necessary with regard to grade and tuition certifications to your unit.

Reserve Officer Training Corps (ROTC): Wayne State University now offers an Army ROTC program. For information about ROTC, contact Captain Charles Caruana, Assistant Professor of Military Science, at (313) 577-2374 or ccaruana@wayne.edu.

Recalled To Active Duty (Reservists / National Guard): Students serving in the Selected Reserves or National Guard who are called up to Active Duty during a semester may request full reimbursement of tuition and fees. Students must file an *Exception to Enrollment Policy* form and submit a copy of their orders to OMVEB. Students called up active near the end of a semester are encouraged to consider requesting Incomplete grades for coursework.

Early-Out Requests: Potential Students on Active Duty requesting a verification of enrollment to be sent to their Commands must be admitted to Wayne State University and have registered for classes. Please contact the Graduate Admissions Office and the Registration Office for assistance. Once these conditions are met, the VA Certifying Official can complete an enrollment verification for active duty members seeking an 'early out' from military service. Hard copy proof of student's admittance and registration for classes is NOT required for the VA Certifying Official to complete the enrollment verification.

Community Education

Academic Pathways for Excellence (APEX)

5700 Cass Ave., Suite 2800 Academic/Administration Building
Telephone: 313-577-4695; Fax: 313-577-800

The Division of Community Education (DCE) is one of several academic support programs under the auspices of Academic Pathways for Excellence (APEX). Founded in 1969, it provides access to degree programs for recent high school graduates and returning adults who do not meet minimum University admission requirements, yet have the talent and potential to graduate from Wayne State University. Key foundational components of DCE include: individualized academic advising, prescribed courses of study, tutoring in English and mathematics, and study skills courses. Federal and State financial assistance is available to those who qualify.

Application: Students are admitted for the fall term. Admissions applications and official transcripts are due on a date predetermined by the APEX staff. Information on admissions deadlines can be obtained by contacting the Office of Undergraduate Admissions or DCE.

Admission: Minimum requirements for admission are a high school diploma with a 2.3 g.p.a. and ACT test results. Applicants with a 2.0 - 2.29 g.p.a. will be referred to the Pathways Program for consideration. Applicants with a General Equivalency Diploma (GED) must score a minimum of 450 to be admitted. All applicants must demonstrate proficiency on a diagnostic academic skills assessment test. Test results are used in the evaluation of academic needs and necessary tutorial support. Students must attend DCE Orientation and the required Summer Program. Submission of a federal financial aid application (FAFSA) is required of all applicants prior to enrollment, unless applicants indicate that they are willing to pay all required tuition and fees from their own resources.

Financial Aid: Individuals interested may apply for federal, state, or University grants using applications available at the federal website http://www.fafsa.ed.gov. The Urban Extension Grant also makes funds available to qualified DCE students.

Program Requirements: DCE students are required to register with DCE advisors to ensure course selection toward the fulfillment of program/degree requirements. Students are also required to consult with advisors on resources and support services necessary for academic success. Students must complete the following requirements in order to enter the appropriate school or college: Basic Composition (BC) writing course, Mathematics Competency (MC) and either an Oral Competency (OC) or Basic Computer Literacy (CL) requirements. DCE students are eligible to receive academic support services from DCE during their entire program of study at Wayne State University.

WSU-Wayne County Community College District PATHWAYS Program

Some students who do not meet general admission requirements for Wayne State University, often lack the specific skills essential for success at the university level. It is recognized that many of these students could be successful at Wayne State University if proper remediation in specific areas such as study skills, mathematics, communication, and critical thinking is provided. Therefore the PATHWAYs Program offers an alternative route into Wayne State University for promising students in need of academic preparation that can be better provided in a community college.

The PATHWAYs Program features a collaborative effort by faculty and student services staff from WSU and WCCCD. Major attention is focused upon the careful articulation of course content and skills development required in the WSU curriculum. The program builds a cohort of incoming WCCCD students who have committed to transferring to Wayne State University upon completion of program requirements and WSU Math-English competencies.

Students may receive but are not limited to the following benefits by participating in PATHWAYS:

- Specialized Personal and Academic Advising
- Linked Skill Development Classes
- Student and Parent Activities
- Transfer Orientations
- WCCCD Academic Instruction at Wayne State University
- OneCard and access to University Libraries and Facilities in the second semester
- Retention/Support Services upon Transfer to WSU

Federal TRIO-ACCESS

Academic Pathways for Excellence (APEX)

5700 Cass Ave, Suite 1330, Academic/Administrative Building;
313-577-5050

Website: http://www.federaltrio.wayne.edu

Federal TRIO-ACCESS provides academic assistance and support services to promising youth and adults who have been historically under-represented in higher education due to their economic condition, first generation status, or educational preparation. This office provides academic support services, instruction, and college preparation workshops for pre-college students in the metropolitan Detroit area and students enrolled at WSU. Federal TRIO-ACCESS serves an extremely diverse student population that ranges from twelve to nineteen years of age, veterans of the armed services, and other adult learners. ACCESS Programs serve over 6,000 students residing in Wayne, Oakland, and Macomb Counties or enrolled at Wayne State University.

Federal TRIO-ACCESS is comprised of six state and federally funded programs designed to increase the post-secondary admission rates of the diverse populations it serves, and to increase the graduation rates of these students in the University. Through continuous improvement of services, the department aims to maximize the academic achievement of its participants and to promote equity and excellence at Wayne State University.

The Educational Opportunity Center (EOC), 5700 Cass Avenue, Suite 2701, Academic/Administrative Bldg., 577-5050, provides a comprehensive career counseling program that offers free academic, vocational career and financial aid information to eligible applicants nineteen years of age and older, who wish to pursue a postsecondary education.

The Educational Talent Search Program (ETS) and The Higher Education Opportunities Committee (HEOC), 5700 Cass Ave., Suite 1330, Academic/Administrative Bldg., 577-5050, provides guidance and information on college admissions and financial aid to students who reside in its target area or attend designated Detroit high schools and wish to pursue a post-secondary education. ETS also sponsors trips to colleges and works with students on career choices, tutoring, study skills, and test-taking techniques.

Gaining Early Awareness and Readiness for Undergradaute Programs (GEARUP)/ College Day Program, 5700 Cass Ave., Suite 2902, Academic/Administrative Bldg., 577-5050, offers life skills programs, career counseling services and college visitations designed to educate parents and encourage seventh- through twelfth-grade students in targeted schools to complete high school and enroll in higher education.

Upward Bound Program, 5425 Woodward, 577-1943, provides services for low income and first generation college students in grades nine to twelve with the potential and motivation to be successful in higher education. The students must attend target area high schools. Upward Bound provides students with a head start on improving the skills required to succeed in college, through academic instruction, tutoring, academic and career guidance, personal counseling, and a six week summer residential program.

Veterans' Educational Opportunity Program (VEOP), 5425 Woodward, 577-9710, provides a program of instruction, academic and career guidance, personal counseling, tutoring, and post-secondary placement to veterans who have served in the U.S. Armed Forces from December 31, 1955 to present.

McNair Postbaccalaureate Achievement Program (McNair Scholars Program), 5700 Cass Avenue, Suite 1330, Academic Administrative Bldg., 577-5050, provides faculty mentors, student-faculty research projects, GRE preparation services, stipend support and travel funds to present research for WSU junior and senior students. The goal of the McNair Scholars Program is to prepare underrepresented students to successfully complete doctoral studies.

Office of International Programs

4029 Faculty/Administration Building; Phone: 313-577-8968
Fax: 313-577-5666
Associate Vice President for Educational Outreach and International Programs: Ahmad Ezzeddine
Project Coordinator: Rebecca Journigan

Website: www.oip.wayne.edu

The Office of International Programs (OIP) is responsible for coordinating the university's resources and expertise to support international education on and off campus, to expand the university's global presence, and to facilitate the engagement of students, faculty, and staff with its global agenda. It also connects the metropolitan Detroit community with other university constituencies, locally and abroad. OIP encompasses the followings programs and activities: the Office of International Students and Scholars; Study Abroad and Global Programs; and the English Language Institute.

Office of International Students and Scholars (OISS)

416 Welcome Center; 313-577-3422; Fax: 313-577-2962
Director: Linda Seatts

Website: http://www.oiss.wayne.edu

The University is home to over 2500 international students and visiting scholars from over 100 countries. The OISS was established to aid in their educational and scholarly pursuits at Wayne State. OISS provides quality service in facilitating linkages to the campus and community, offering cross-cultural educational programs and activities, and assisting in matters related to immigration regulation compliance.

The mission of OISS is to support and enhance the educational, cultural, and social experiences of international students and scholars at Wayne State University. It serves as a primary link to the University, the community, the federal government, and public and private agencies and organizations. In addition, it provides international and cross-cultural educational programs to the University and its community.

OISS staff advises students and scholars on immigration regulations and issues of cross-cultural adjustment; provides educational, cultural and social programs and activities, including a comprehensive orientation program and written materials designed to help them achieve their educational and personal goals; assists University departments in the hiring of foreign national employees by processing necessary immigration petitions with the U.S. Citizenship and Immigration Services (USCIS), Department of Labor (DOL), and the United States Department of State (DOS); consults and interacts with University units, governmental organizations and other agencies; serves as a focal point for campus and community services; provides cross-cultural workshops and training seminars; and works with campus and academic support units to help define and achieve institutional goals related to international education and exchange.

Academic Progress: *Department of Homeland Security regulations require:*

1) That F-1 and J-1 students maintain a full course of study and make normal progress toward program completion at the institution they have been authorized to attend.

2) Graduate students must successfully complete at least eight credits each semester (excluding continuing students who qualify for a vacation semester during Spring/Summer or an approved annual vacation).

3) Graduate Teaching Assistants and Graduate Research Assistants must successfully complete at least eight credits each semester (excluding students who qualify for a vacation semester during Spring/Summer or an approved annual vacation). If GTAs/GRAs need to take less than eight credits, they must complete the OISS Request for Exception to Full Time Enrollment form and obtain approval from OISS. Students should consult an OISS advisor for details on compliance with this and other requirements.

New International Students and Scholars

New International Students and Scholars receive the OISS welcome booklet with their visa document (Form I-20 or DS 2019) before they leave their home country. The booklet provides information on a wide variety of important topics such as housing, health insurance, expenses, immigration status, local climate, and air transportation. New students and scholars from abroad must report to OISS as soon as they arrive and must participate in a comprehensive orientation program. This program is designed to meet immediate needs in terms of housing information and University registration procedures; introduce them to U.S. culture and the University's educational system; and provide information on banking, health insurance, safety, and immigration regulations. In addition, a number of social and recreational programs and activities are planned to assist students and scholars in making a smooth transition to their new environment.

Non-immigrant Students

Before registering for classes, all non-immigrant international students must report to OISS to complete check-in procedures and have immigration documents reviewed, purchase mandatory health insurance (see below), and obtain an orientation schedule. Transferring F-1 students from other U.S. institutions must have their previous school release their Student and Exchange Visitor Information System (SEVIS) record to Wayne State University and must complete transfer procedures as provided in the federal regulations within fifteen days of the first day of class. F-1 students must notify the OISS of any change in name, address, program (including changes in level and field of study), and full-time enrollment. OISS must provide this information to Immigration and Customs Enforcement (ICE) through the Student and Exchange Visitor Information System (SEVIS). J-1 exchange visitors, including students, may not make a change in level, field, or category without the advance approval of the Department of State, and may be precluded from change of visa status until a two-year home country residency requirement is met.

Commuting Canadian students enrolled less than full time must obtain a part-time I-20 from OISS each semester they are enrolled and should consult with an OISS advisor to determine the impact of their status on future immigration benefits including the availability of practical training.

Faculty and Research Scholars

The University provides foreign professors and research scholars with opportunities to engage in research, teaching, consulting, and lecturing with colleagues at Wayne State; to participate actively in cross-cultural activities; and to share their experience as well as increase their knowledge about the United States, Wayne State University, and the metropolitan Detroit community. OISS provides centralized support services necessary to enable and assure the employability of such non-U.S. citizens within government regulations. Offers of employment to foreign nationals must be authorized by OISS, and only this Office may sign immigration forms and petitions related to employment on behalf of the University. All foreign national employees must complete USCIS Form I-9, 'Employment Eligibility Verification' and present evidence of their identity and employment eligibility at OISS before commencing employment at Wayne State University.

Health Insurance: International Students and Scholars

416 Welcome Center; 313-577-3422; Fax: 577-2962
Health Insurance Advocate: 313-577-0724

International students and scholars, and their dependents holding F-1/F-2 status and J-1 exchange visitors and their dependents holding J-1/J-2 status are required to comply with the health insurance requirements of the University. Commuting Canadian students may waive the health insurance requirement by providing proof of OHIP coverage prior to each semester of enrollment. Insurance that meets these requirements may be purchased through OISS. The mandatory international insurance program is designed to provide international students, exchange visitors, and their eligible dependents with continuous insurance protection and access to quality affordable health care services. The University is mandated by federal law to terminate from its program all exchange visitors and their dependents who do not meet minimum insurance requirements. For additional information or to purchase the health insurance please access the OISS website at http://www.oiss.wayne.edu or contact the Health Insurance Advocate in the OISS; telephone: 577-0724 or e-mail oiss-mail@wayne.edu

Insurance for U.S. Citizen and Permanent Resident Students and their dependents: U.S. citizen and permanent resident students can purchase the voluntary Student Injury and Sickness Insurance Plan. For more information and/or to purchase the Domestic Health Insurance plan, students may go to http://www.aetnastudenthealth.com or contact Aetna 1-800-225-3375 or the Health Insurance Advocate in OISS at 313-577-0724.

Study Abroad and Global Programs

906 W. Warren Avenue; 131 Manoogian Hall; 313-577-3207
Director: Kelli Dixon
e-mail: studyabroad@wayne.edu
Website: http://www.studyabroad.wayne.edu

Study Abroad and Global Programs coordinates international educational activities at Wayne State University. Key activities include: 1) the administration of the global grant competition for students to encourage international activity on campus including international research and student study/internship abroad initiatives and the U.S. Student Fulbright program; 2) the coordination and support of internationally-themed events; and 3) the development and management of international outreach activities and off-campus programs including agreements between Wayne State University and universities outside the United States.

Study Abroad programs are offered in collaboration with academic departments and faculty of both U.S. and foreign institutions, in order to combine academic study with a cross-cultural learning experience in a foreign environment. A variety of program options have been developed to address the diverse needs of students. Programs vary in length, level, academic focus, teaching format, language requirements, cost, and degree of independence demanded of the participant.

The office provides a full range of support services to students on such issues as program selection, academic planning, registration, credit, financial aid, and cultural adjustment. In addition, program materials have been designed specifically to assist students in preparing for their study abroad experience. Books, brochures, catalogs on academic and travel/study programs in foreign countries are available at the Study Abroad Resource Center, including information on Wayne State's thirty-threey study abroad programs and other programs sponsored by American and foreign institutions.

Arabic Language and Culture at the American University of Cairo or Lebanese American University, Beirut: These programs provide opportunities for WSU students to study Arabic language and culture abroad. During the summer, WSU students may take a vari-

ety of language and culture classes while living abroad in Egypt or Lebanon. For information on these programs, contact the Study Abroad and Global Programs Office, 577-3207 or visit our website at http://www.studyabroad.wayne.edu for current program information.

Japan Center for Michigan Universities: The Japan Center for Michigan Universities (JCMU) is a consortium consisting of the fifteen State-supported Michigan public universities, the Michigan Japan Foundation, and Shiga Prefecture. JCMU offers semester- and year-long study opportunities in Hikone, Japan.

The Center's academic program is designed for students interested in acquiring knowledge about Japanese language and culture, including those not majoring in Japanese studies. It provides semi-intensive Japanese language courses and several core courses on Japanese culture to Michigan and other American university students. Academic credit may be granted by a student's home institution upon successful completion of JCMU courses; independent study is also available. The program also features home-stays in a Japanese community, field trips, and participation in cultural events. For information on this program, contact the Study Abroad and Global Programs Office, 577-3207 or visit our website at http://www.studyabroad.wayne.edu for current program information.

Spanish Language, Literature and Culture in Xalapa, Mexico at the Universidad Vercruzana: This program provides students with an opportunity to study Spanish in a Spanish speaking country for an entire semester or academic year. The program is unique that in addition to learning Spanish, it provides participants with a complete cultural immersion experience: living with a Mexican family and interacting with Mexican students through programs and activities organized by the Universidad Veracruzana. For information on this program, contact the Study Abroad and Global Programs Office, 577-3207 or visit our website at http://www.studyabroad.wayne.edu for current program information.

Euram Center (France): Located in the heart of the Loire Valley, a 1000-year-old abbey is the site for a semester-long study opportunity for Wayne State students. This program is ideal for freshmen and sophomores looking for General Education Foreign Culture credit. All courses, with the exception of the foreign language courses, are taught in English. For information on this program, contact the Study Abroad and Global Programs Office, 577-3207 or visit our website at http://www.studyabroad.wayne.edu for current program information.

Other International Opportunities: A number of short-term special international study trips for credit are available to Wayne State students. Visit our website at http://www.studyabroad.wayne.edu for current program information.

FULBRIGHT GRANTS and other grants for graduate study abroad: The U.S. Fulbright Student program is designed to give recent B.S and B.A. graduates, masters and doctoral candidates, and young professionals and artists opportunities for personal growth and international experience. Each year the Fulbright Program allows Americans to study or conduct research in over 100 nations. Application deadline depends on the specific program but generally it must be submitted to the campus Fulbright advisor by September of the year prior to the foreign study experience. For more information and application forms, contact the Study Abroad and Global Programs Office, 313-577-3207. The Fulbright Program website is: http://us.fulbrightonline.org/home.html

International Students requiring information on study at Wayne State University should contact the Office of International Students and Scholars; see http://www.oiss.wayne.edu

Study Abroad Resource Center: Books, brochures, catalogs and advising on travel/study programs in foreign countries are available at the Resource Center, including information on Wayne State sponsored study abroad programs and programs sponsored by U.S. and foreign institutions. Course credit is available on approval for many study abroad programs; credit approval usually must be obtained prior to entering a study abroad program.

Honors College: The Irvin D. Reid Honors College has Study Abroad experiences; see page 261.

English Language Institute (ELI)

351 Manoogian Hall, (313) 577-2729
Director: Bruce Morgan

Website: www.eli.wayne.edu

As the only intensive English language program in the metropolitan Detroit area, the English Language Institute (ELI) has specialized in teaching English communication, cultural orientation, and academic preparation skills to non-native speakers of English from all over the world for more than thirty-five years. The ELI is committed to assisting individuals at all level of English proficiency to develop their communication skills in the shortest possible time by using the newest language-teaching methodology and the most up-to-date audio, video, and computer technology available. Small classes and highly trained instructors make it possible for students to improve their English rapidly and effectively.

Programs

Intensive Program: For students interested in improving their academic skills in a relatively short period of time, the ELI offers up to twenty-four hours per week of instruction at varying levels from beginning to advanced. While beginning levels focus on basic communicative skills, advanced classes emphasize mastery of the academic skills needed to succeed in the university such as research paper writing, essay test-taking, note-taking, and presenting information to an audience.

In addition to attending class, ELI students are encouraged to participate in weekly extracurricular activities in order to become integrated into the English-speaking community. Each semester the ELI offers field trips around the metro-Detroit area, conversation partner practice with native speakers, and practice TOEFL tests while at the same time urging students to take advantage of all university facilities and services.

Non-Intensive Program: Students who complete the requirements of the ELI also can enroll in ENG 0500 offered as Written Communication , offered to all non-native speakers of English who do not pass the WSU undergraduate writing requirement. This two-credit course meets once a week and satisfies university admission requirements for writing proficiency.

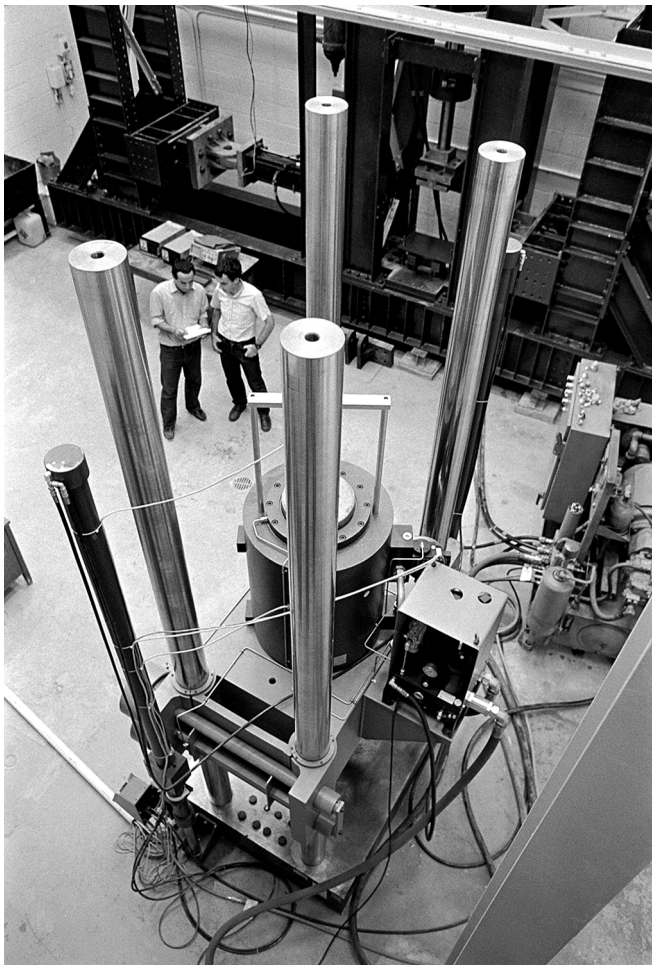
Other non-intensive classes provide instruction for those wishing to develop or improve their English proficiency at a slower pace than that of the intensive program. Specialized classes, including TOEFL (PBT, iBT, and TSE) preparation and American Pronunciation, are offered during the evening and are especially geared to professionals

Test of English as a Foreign Language (TOEFL) Testing and Reporting: To insure international students will be successful in the University, all must meet Wayne State's TOEFL admission requirements. The ELI administers the paper-based TOEFL fourteen times per year on the main campus and four times at Wayne State's satellite Oakland Center. Scores are then reported to the applicants as well as Undergraduate and Graduate Admissions.

Graduate Teaching Assistant (GTA) Training and Testing: All prospective GTAs whose native language is not English must pass the SPEAK® test, rated by ELI faculty, with a score of at least fifty (out of sixty) to be cleared for teaching. A score of forty-five allows a person to teach while enrolling in ENG 0520, a course taught by two ELI faculty members. The final exam, also rated by ELI faculty as well as a faculty member from the academic department, is a teaching demonstration in the GTA's field of study. The SPEAK® test is offered at various times throughout the academic year. ENG 0520 is offered fall and winter semesters.

Members of the ELI faculty also participate in the final day of the Graduate School's GTA orientation each August by facilitating practice teaching sessions with international GTAs.

Scholarly Writing for Graduate Students: Non-native English speaking Ph.D. candidates who need to publish in scholarly journals and meet other professional obligations can take a course designed specifically to meet their needs. Introduction to Scholarly Writing for Non-native English Speakers (English 5850) is a course supported by the Graduate School and taught by ELI faculty each semester.



Campus Life

Dean of Students Office

351 Student Center; 313-577-1010

The Dean of Students Office provides services and affords opportunities to enhance student life and campus activities. The Office coordinates major campus student activities and events, including new student convocation, homecoming, student organizations day, and the finals week late night breakfast. The office coordinates the campus calendar of student activities for WSU's celebration of Black History Month. The office also coordinates leadership development programs; advises fraternities and sororities; presents student volunteering opportunities, and promotes student involvement in co-curricular life at Wayne State. The University Student Conduct Officer is housed in the Dean of Students Office.

Student Organizations: There are over 250 recognized student organizations including such diverse categories as academic/professional, social action, political, sororities/fraternities, honoraries, ethnic and religious groups, as well as student governments. Student organizations use the Dean of Students Office to process their event planning and all students use the Dean of Students Office to learn about getting involved in campus life. The Office staff also assists students who want to organize new student groups. The staff also coordinates various campus publications including the on-line newsletter Warrior Net News.

The South End, the official student newspaper, is published weekly during the academic year.

Parents' Information Network and Parents Advisory Council: The Dean of Students Office coordinates the Wayne State Parents' Information Network. Through this association, parents can attend special orientations receive newsletters, and participate in on-line resource chats and activities on-campus during the academic year targeted to parents; and also have available the parents hotline: 1-877-WSU-PARENT. The office may be e-mailed at: parents@wayne.edu. The Parents Advisory Council is a group of parents who meet with University officials each semester to provide feedback and advice on university activities and resources.

Student Council

395 Student Center; 313-577-3416
Website: http://www.doso.wayne.edu/studentcouncil/

The Student Council is the recognized student government of Wayne State University. It consists of twenty-six members, thirteen members at large elected in a University-wide election, and thirteen appointed members, one student representative appointed by the Office of Housing and Residential Life, and one representative appointed by the Associate Vice President for Educational Outreach to represent the extension centers. The Student Council has an official advisory responsibility in policy formation for the governing of student activities at Wayne State. The Council, through the Budget Committee, allocates the student life portion of the Omnibus Fee. The award winning Program Board plans events for students throughout the year such as the Homecoming Comedy Show, film series, coffeehouse series, and diversity programs as well as the annual Mad Anthony Concert. The Student Council also appoints Council members and student volunteers to sit on several University committees; students interested in serving on a committee should contact the Council office. The Student Council is advised by the Dean of Students Office.

Student Leadership Awards

The David D. Henry Award and the Howard A. Donnelly Award are given annually to the undergraduate man and woman at graduation who have been judged as having made the most outstanding contributions to the University in the areas of student activities, leadership and service. These contributions must be consistent with high scholarship during the recipient's entire undergraduate career.

The David D. Henry Award was established in 1948 to honor the third University President and recognizes students completing their studies in the Fall semester. The Howard A. Donnelly Award was established in 1927 at the request of Mr. Howard Donnelly, a friend of the University, through a grant provided in his name. The Donnelly Award recognizes students completing their studies in the Winter semester.

The winners of these awards are determined by a faculty selection committee comprised of academic representatives from within the University.

Office of Housing and Residential Life

598 Student Center; 313-577-2116
Website: http://www.housing.wayne.edu

Housing and Residential Life at Wayne State fosters student learning and success through engaging residents in an intentional living-learning community. Supported by safe, comfortable and convenient residence hall, apartment and dining environments, residents grow in self-awareness and cross-cultural understanding as they practice social and group development as members of a diverse group of Wayne State learners.

Facilities and programs administered by this Office are located just steps away from classrooms, libraries, the Student Center, and the Recreation and Fitness Center and combine the convenience and activity of the campus with the energy and pace of downtown urban living.

Ghafari Hall and Atchison Hall, opened in 2002 and 2003 respectively, offer a state-of-the-art living environment for both first-year and upperclass students. These facilities offer one-bedroom units with private baths for one or two people, on-site dining, laundry and retail as well as free Internet access, cable connections and wireless internet. The reception areas are staffed twenty-four hours each day.

Towers Residential Suites: Opened in 2005, this facility features suite-style accommodations, with one-, two-, three- and four bedroom units with a shared bath and common living area. Separate floors of Towers Residential Suites are reserved for graduate students. The Towers has fitness facilities, laundry rooms, free internet access, cable connections, wireless internet, study and social lounges, and retail and convenience stores. On the first floor is the Towers Cafe, a 400-person cafe-style dining facility, open to residents and the campus community for breakfast, lunch, and dinner. The reception area is staffed twenty-four hours per day, and entry is by hotel-style card access.

University Tower Apartments, opened in 1995, is a 300-unit complex for graduate, undergraduate, and professional students and families, with one-, two- and three-bedroom units; the two- and three-bedroom units have two baths. University Towers has central air conditioning, a computer lab, an on-site child care center, wireless internet, and a twenty-four-hour reception desk.

Helen L. DeRoy Apartments: In a fifteen-story building built in 1972, 258 units are available for graduate and professional students and families; it includes efficiency, one-, and two-bedroom units (furnished or unfurnished) and has central air conditioning, wireless internet, laundry facilities, and a twenty-four-hour reception desk.

Chatsworth Tower Apartments offers graduate and professional students spacious efficiency, one-, and two-bedroom apartments in a graceful, nine-story facility built in 1929. Amenities include a twenty-four-hour reception desk, on-call maintenance, internet access, cable connections, laundry rooms, and vending machines. Some air conditioned units are available.

For more information and current pricing, contact the Office of Housing and Residential Life at 313-577-2116 or visit the Website: http://www.housing.wayne.edu

Athletics, Intramurals and Recreation

Matthaei Facility: 126 Matthaei Building; 313-577-4295

Intercollegiate Athletics: 101 Matthaei Building; 313-577-4280

Website: WSUathletics.com

Mort Harris Recreation and Fitness Center: 5210 Gullen Mall; 313-577-BFIT (2348)

Website: http://www.rfc.wayne.edu

Wayne State University has a rich athletic tradition dating back to the fall of 1917 and recently celebrated ninety years of singular outreach and academic success. The first Detroit Junior College athletic event (precursor of Wayne State University) was a basketball game against the Detroit College of Law on January 19, 1918. Since then WSU student athletes have captured numerous honors, including national championships awarded by the NCAA and conference. Individual participants have been identified with recognition as national champions, academic All-Americans and All-Conference champions. The nearly 400 student athletes currently involved in competitive athletics have a combined grade point average 3.08. The athletic department provides competitive opportunities in the following sports: baseball, men's and women's basketball, men's and women's cross country, men's and women's fencing, football, golf, women's ice hockey, softball, men's and women's swimming, men's and women's tennis, and volleyball. Last season, nine out of sixteen programs competed in NCAA championships with the institution achieving its highest National finish ever: twenty first in the nation among 295 colleges and universities.

The University competes in both NCAA Division I and Division II. Currently, women's hockey is in Division I competing in the College Hockey America conference, while both fencing squads compete in the Midwest Fencing Conference with Ohio State, Notre Dame and Northwester among the schools. The other University athletic programs compete in the Great Lakes Intercollegiate Athletic Conference (GLIAC). Members of the GLIAC are: Ashland University, Ferris State University, University of Findlay, Grand Valley State, Hillsdale College, University of Indianapolis, Lake Erie College, Michigan Technological University, Northern Michigan University, Northwood University, Ohio Dominican University, Saginaw Valley State University, Tiffin University, as well as the WSU Warriors.

The University offers a wide and varied program of recreational and intramural activities. The Matthaei Complex, and the surrounding athletic campus on forty-three acres of land, located on the west end of campus, offers a myriad of drop-in activity areas that include courts and fields for basketball, football, jogging, racquetball, soccer, squash, tennis, and volleyball, a weight training/exercise room, and swimming facilities. Use of these facilities is free with a current University ID.

The Matthaei Building is normally open from 7:30 a.m. to 9:00 p.m., Monday through Friday; and is closed on Saturday and Sunday, during the fall and winter semesters. During the spring/summer semester the Building is open from 7:30 a.m. to 7:30 p.m., Monday through Friday. A facility schedule is published monthly. Operational hours are subject to change, and not all areas of the complex will be available at all times, due to scheduled classes, intramural activities and varsity athletics. Locker and towel services are available for all affiliates. For additional facility information, visit the Matthaei Shop in the Matthaei Building; or call 313-577-4260 or -4295.

Ticket and schedule Information is available at the Athletic Office, 101 Matthaei Building, 313-577-4280; or call the ticket office toll-free: 1-866-WSU-TIKS. For current information on WSU athletic teams (including ticket information), intramurals or recreation, visit the Website: (WSUathletics.com). All men's basketball and football games are broadcast on the Warrior Radio Network at WDTK-AM 1400 and are also available for free on the internet. Women's Hockey has audio broadcasts via Warrior All-Access at wsuathletics.com live on Teamline. Students are admitted free to all University-controlled WSU athletic events with a One Card.

The Mort Harris Recreation and Fitness Center is a state-of-the-art facility located in the heart of the campus, next to the Student Center and the libraries on Gullen Mall. It offers programs and services to meet the recreational, fitness, wellness and personal development needs of the campus community. Among its features are:

This state-of-the-art facility is located in the heart of the campus, next to the Student Center and the libraries on Gullen Mall. It offers programs and services to meet the recreational, fitness, wellness and personal development needs of the campus community. Among its features are:

Group Fitness Classes (non-credit): A rich assortment of classes, conducted by trained, certified and experienced instructors, is available to meet individual needs, including traditional high/low aerobics, hip-hop, step, yoga, spinning, and stretch and tone.

Open Recreation: The fitness areas, multi-purpose courts, walking track and climbing wall offer opportunities for unstructured play and participation. Basketball, volleyball, and a variety of equipment and areas for working out, stretching, or socializing are offere.

Sports Programs: The Mort Harris RFC now offers sports leagues for all WSU students. One day tournaments and leagues are available in a variety of sports, including basketball, volleyball, cricket, dodgeball, flag football, and more.

Club Sports: The Mort Harris RFC is also the home for all Club Sports. Students interested in starting up a particular club sports, are invited to consult our website, rfc.wayne.edu, to view the registration process and to become familiar with g.p.a., credit load, and insurance guidelines. All WSU Club Sports are fully funded by the participating students themselves.

Fitness and Wellness Programs: Nutritional counseling, health assessments, massage therapy and personal training programs for every level of fitness are available to all members.

Outdoor Adventure: This is a challenging exercise option for building strength and endurance. All necessary equipment may be rented; structured classes and open-use periods are available.

The 78,000 square-foot Mort Harris Recreation and Fitness Center also features a concession area, a service center on the lower level with equipment check-out and towel rental, a family/disabled locker room, weight equipment specifically for use by disabled persons, weight equipment specifically for use by the disabled, men's and women's locker rooms with individual private showers, and day-use or semester rental lockers.

Student Center Administration

Director: 573 Student Center; 313-577-3482

www.studentcenter.wayne.edu

The Student Center is a unifying force in the life of the university. The Student Center Administration's mission is to provide a facility which will meet the educational, social, recreational, dining, program, and meeting-room needs of students, faculty and administration, alumni, and guests. The department has three components - program, service, and facility - and operates in the tradition of college unions and the philosophical outlook of the Association of College Unions International. The Student Center provides a physical and intellectual environment in which students can develop individual, organizational, programming, and leadership skills, as well as experience personal growth.

The Student Center serves as the home away from home for thousands of students. It is the facility where friends meet to socialize between classes, where many catch up on class assignments, watch television, eat, or spend a leisure hour. The major components and services of the Student Center include:

Programming (313-577-4585): Throughout the academic year, Student Center Administration offers a variety of programs for the general student population. Some of these programs include: musical performances, dance opportunities, movies, bingo, Summer Kids Camp and other enjoyable activities.

The Underground is a lower level entertainment zone in the Student Center. This area includes an expanded game and entertainment zone, the Underground Grill, the VIP Room, the U Club, programs for students, TVs and lounges.

Food Service: The Student Center provides a selection of food services for the campus community. First floor dining options include Pizza Hut Express, Subway, Taco Bell Express, McDonald's, and KFC Express. On the lower level, the Underground Grill serves hot dogs, chili dogs, chicken wings and a variety of other items. Additional food options are provided by the Barnes and Nibble convenience store.

Campus Information and Service Center, (313-577-3568): The Campus Information and Service Center provides the following services for a fee: typewriter rental, duplicating service, SMART and DDOT bus tickets, laminating service, fax service, and State Hall locker rentals. In addition, Student Center Graphics, University Lost and Found, and the campus bulletin board posting service are locatedin the CISC.

Student Center Graphics, (313-577-3730): This office provides design services and large format printing for the campus community and outside clients. SCG also provides items such as banners, posters, logo designs and consultations for a fee.

Grosberg Religious Center: Various religious denominations have offices on the sixth and seventh floors of the Student Center. Programs and personal and spiritual counseling are available from various denominations.

Reservations Office, (313-577-4585): Located in 573 Student Center, this office schedules rooms and audio-visual equipment available for meetings, seminars, conferences and special programs. Bake sale opportunities, literature table, and showcase information are also provided by this office.

Food Service Facilities

A Pizza Hut, Taco Bell Express/KFC Express, McDonald's, and Subway are located on the first floor of the Student Center; in addition, there are restaurants throughout the campus. Satellite cafeterias are also located in Scott Hall and the basement of the Law Library. There are also vending machines in the Student Center and at other campus sites.

Catering services are provided at McGregor Memorial Conference Center and through the Student Center Reservations Office. Several non-University affiliated restaurants in the area offer additional variety.

Academic Administration Building

AVI Food Services Cart

Atchison Hall, Wayne Anthony Drive

Jimmy John's
Salad 101

David Adamany Undergraduate Library, Gullen Mall

Delilah's Deli

Eugene Applebaum Building

AVI Food Services Cart

Faculty Administration Building

AVI Food Services Cart

Ghafari Hall, Wayne Anthony Drive

Einstein Bagels
Starbuck's
Warrior Grille

Law School Building

AVI Food Services Cart

Medical School Campus

Midtown Deli - Mazurek Medical Education Commons
Vital Signs Café - Scott Hall

Oakland Center

Delilah's Deli

Parking Structure #6

La Pita Restaurant

Student Center, Gullen Mall

McDonald's
Pizza Hut
Subway
Taco Bell Express /KFC Express
Underground Grille

The Towers, Wayne Anthony Drive

The Towers Café
Freshens

5057 Woodward Ave.

Gateway Deli

Retail Service Facilities

Wayne State University offers a wide variety of retail service providers on campus. From University Pharmacy to Salon X, there are friendly and helpful service providers conveniently located.

Atchison Hall, Wayne Anthony Drive

Michigan First Credit Union ATM

David Adamany Undergraduate Library

Michigan First Credit Union ATM

Deroy Apartments

Campus Health Center

Detroit Receiving Hospital

Michigan First Credit Union

Eugene Applebaum Building

Fifth Third Bank ATM

Faculty Administration Building

Michigan First Credit Union ATM

Ghafari Residence Hall

Michigan First Credit Union ATM

Law School Building

Michigan First Credit Union ATM

Oakland Center

Michigan First Credit Union ATM

Student Center, Gullen Mall

Barnes & Nibble - Convenience Store
Comerica - ATM (first floor, South)
J.P. Morgan Chase Bank - ATM (lower level)
Michigan First Credit Union Branch

The Towers, Wayne Anthony Drive

Barnes & Noble - Law School Books and Convenience Store
FedEx Office
Salon X
University Pharmacy

Welcome Center, 42 W. Warren

Barnes & Noble - Bookstore & Starbuck's Cafe

Fifth Third Bank ATM

West Warren

Subway

5057 Woodward Ave.

Andy's Convenience Store
J.P. Morgan Chase Bank
Michigan First Credit Union

Faculty, Staff, and Visitor Parking

42 W. Warren, Welcome Center (8:30 a.m. - 5:00 p.m., Mon. - Fri.); 313-577-3704

www.parking.wayne.edu

The University maintains numerous parking facilities available to faculty, staff and visitors on a fee basis. Generally, faculty and staff enroll in the assigned parking program and the current fees are paid through automatic payroll deductions. Once enrollment is accomplished, a permit is issued. The permit is a hanging tag, which must be displayed in the vehicle at all times while parked on campus. The employee OneCard or Proximity Card (available at Structure #8 only at this time) will serve as the access card to the assigned parking area. Enrollees will be assigned a parking area as close as possible to their workplace. Assignment to some locations may require placement on a waiting list and an interim assignment to an alternate location until space becomes available in the desired area.

Visitor parking is provided on either a guest/visitor card or cash use basis at the time of entry into a lot or structure. Visitor parking cards may be purchased from any OneCard dispenser located in various campus buildings or at the OneCard office. Visitors who wish to park on a cash basis must deposit $3.50 (rates subject to change) in an entry gate cash acceptor located at the following: Structures 1, 2, 3, 5, and 6; Lots 11, 15, 23, 32, 36, 50, 60 and 75 (located on the Medical School campus).

Primary Care Nursing Center

Campus Health Center: 5200 Anthony Wayne Drive, Suite 115 (located in Helen DeRoy Apartment Building); 313-577-5041

The Campus Health Center provides comprehensive health care services for students, including physical examinations, family planning, illness visits, and immunizations (including flu, meningitis, hepatitis B, etc.). Visits are by appointment, but walk-ins are accepted for students experiencing an illness. Counseling services are also available. All currently enrolled students receive one free office visit per semester. Additional visits are billed to student's health insurance with most health care plans accepted. Students without insurance have reduced fees of $25 to $40 for additional office visits per semester. Payment accepted at the time of service by cash, OneCard, Visa, MasterCard, Discover, or American Express credit cards. To make an appointment, call (313) 577-5041.

Health Insurance

Office of International Students and Scholars (OISS)
416 Welcome Center; 313-577-3422; Fax: 313-577-2962
Website: http://www.oiss.wayne.edu
Health Insurance Advocate: 313-577-0724

Students may choose to purchase an injury and sickness insurance plan for a reasonable fee. The policy provides stipulated amounts for outpatient prescription drugs (sickness only), hospitalization, surgery and emergency room fees, alcoholism and drug abuse treatment, and psychotherapy benefits. Forms to purchase this insurance are available by contacting the Health Insurance Advocate in the OISS; telephone 313-577-0724.

Police and Public Safety Services

The Wayne State University Police Department (313-577-2222) patrols and services the University and the city streets, businesses, and private residences within and between the various campus areas. The Department, to the extent that resources allow, also patrols and provides other police services to the neighborhoods and businesses in the area surrounding the University.

Police service is provided twenty-four hours a day, seven days a week. All officers have, at minimum, a bachelor's degree. They are commissioned as Detroit Police Officers, with full police authority on and off campus, after training at a State-certified Police Academy. Any matter requiring the services of a police officer can be reported at any hour of the day or night. The police headquarters is at 6050 Cass; (313-577-2222).

Blue Light System — Emergency Telephones (7-2222): The University has installed outdoor emergency telephones throughout the campus. These emergency telephones are identified by bright blue lights.

Emergencies (313-577-2222): All emergencies should be reported immediately, i.e.: all crimes, missing/stolen property, automobile accidents, suspicious persons, injured persons, vandalism, break-ins or burglaries.

Accidents (313-577-2222): Ambulatory patients will be transported, by officers, to either Detroit Receiving Hospital or the University Health Center. The Police Department does not provide ambulance service but utilizes the Detroit Fire Department Emergency Medical Service to handle other than minor injuries.

Fire or Other Extreme Hazards (313-577-2222): Emergencies such as fire, smoke, explosions, broken gas or water mains, severe electrical hazards, etc., should be reported.

Crime Prevention Section (313-577-6064): The Police Department's Crime Prevention Section provides a number of crime prevention services, including personal safety seminars, crime prevention programs, and services. All programs and services are free of charge (except the Rape Aggression Defense Training for which there is a fee of $25.00) to any Wayne State department, student, staff, or faculty member. Examples of services provided include: Security Services, Street Smarts seminars, Operation Identification, Alcohol Awareness, and Rape Aggression Defense Training. The Crime Prevention Section also publishes monthly 'CampusWatch' articles. E-mail inquiries may be made to: campuswatch@wayne.edu/

Additional information is available on the department's website at: http://www.police.wayne.edu

Ombudsperson Office

798 Student Center Building; 313-577-3487

Website: http://ombudsman.wayne.edu

The Ombuds Office exists to support students in achieving their academic goals by providing assistance in accessing services and resolving issues that are hampering their academic progress. The Office advises students about University policies and procedures, helps them identify possible avenues and solutions, and directs them to appropriate University services.

The Ombuds Office acts as a neutral party and does not advocate a particular point of view. It listens to student-related concerns and exercises independent judgment regarding any action it may take. The Office has no authority to change academic or administrative decisions, but it facilitates communication when appropriate.

The Ombuds Office is a safe place to ask for help. Confidentiality is maintained as appropriate and feasible based on individual student needs and desires.

The Ombudsperson is the Chairperson of the Tuition and Fees Appeals Board (TFAB). The TFAB is charged by the President to be the final arbiter of appeals for tuition and related fees. Students who have exhausted the appeals process in the Office of the Registrar related to tuition and fees may appeal to the TFAB. Each appeal is reviewed as an individual case, and cancellation of tuition and/or fees is granted only when circumstances warrant. It cannot grant tuition adjustments for classes in which students received earned grades. The TFAB will consider only those appeals that are filed within one calendar year following the last day of the academic term in which the challenged fees were assessed.

Educational Outreach

5057 Woodward Avenue, Suite 3101, Detroit MI 48202;
Telephone: (313) 577-4682

Associate Vice President for Educational Outreach and International Programs: Ahmad Ezzeddine
Director: Terry Margolis
Associate Director, Macomb and St. Clair Sites: Kevin Chandler
Associate Director, Oakland Center: Kelly Johnson-Hill
Program Coordinators: William Slater, Cheryl White, Gail Stanford
Instructional Services Supervisor: Margaret Matyniak
E-mail: educationaloutreach@wayne.edu

Website: www.educationaloutreach.wayne.edu

Educational Outreach is principally responsible for Wayne State University's off-campus programs and courses. This division administers academic off-campus course offerings and programs for most Schools and Colleges of the University, for undergraduate and graduate credit; the University Summer Session; and the partnership degree programs at University centers. Additionally, the division oversees credit and non-credit executive education, certificate, professional development and continuing education programs for the University

The Division operates several instructional centers in the Detroit metropolitan area as well as in other selected locations in Michigan, and delivers distance learning and online instructional programs. Through these outreach efforts, WSU is able to serve and meet the educational needs of a diverse student audience: working adults who are unable to pursue traditional on-campus programs of study; persons who desire courses of instruction at or near their place of employment; and others who are simply taking courses to enrich their educational background or improve their technical skills.

Educational Outreach also administers the University's Visitor Program. Under this program, adults can attend a wide range of selected University courses, both on and off campus, provided classroom space is available. No grade or academic credit may be earned, and students may not be registered for courses taken for credit simultaneously with courses taken under the Visitor Program.

Extension Centers

The Division of Educational Outreach operates several instructional centers in the Detroit metropolitan area as well as in other selected locations in Michigan. Through these outreach locations, the University is able to serve and meet the educational needs of a diverse student audience. The locations of the centers are listed below.

OAKLAND CENTER: 33737 W. Twelve Mile Road, Farmington Hills, MI 48331; Telephone: 248-553-3545; 313-577-3592; Fax: 248-553-7733; E-mail: oaklandcenter@wayne.edu

UNIVERSITY CENTER AT MACOMB: 44575 Garfield Road, Clinton Township, MI 48038; Telephone: 313-577-6261; 586-263-6700; Fax: 586-263-6120

HARPER WOODS CENTER: Harper Woods Middle/High School, 20225 Beaconsfield St., Harper Woods, MI 48225; Telephone: 586-263-6700 (contact via University Center at Macomb)

MACOMB EDUCATION CENTER: 16480 Hall Road, Clinton Township, MI 48038; Telephone: 586-226-4291; Fax: 586-226-8570; E-mail: Macomb@wayne.edu

UNIVERSITY CENTER AT ST. CLAIR COUNTY COMMUNITY COLLEGE (SC4): M-TEC Building - Room 251 K, 343 Erie Street, Port Huron, MI 48061; Telephone: 810-989-5808, option 7; Fax: 810-989-5784; (contact may also be made via the University Center at Macomb - Telephone: 586-263-6700; 313-577-6261)

ADVANCED TECHNOLOGY EDUCATION CENTER programs are offered at Macomb Community College, South Campus, 14500 E. Twelve Mile Road, (WSU Office - Bldg. T, Rm. 126), Warren, MI 48088; Telephone: 586-263-6700 (contact via the University Center at Macomb); E-mail: Macomb@wayne.edu.

Academic Regulations

Complete information regarding academic rules and regulations of the University is contained in this (General Information) section of the bulletin.

Credit Registration: Registration for off-campus academic courses is held during the regular Registration periods for each semester (see Academic Calendar, page 4). Instructions for each registration period are available on the WSU website and Pipeline. For specific registration information, telephone: 313-577-3541or 313-577-4682.

Fees for credit classes are the regularly established fees of Wayne State University, which are published each semester in the University Schedule of Classes. All fees are subject to change at any time without notice by action of the Board of Governors of the University.

Admission Requirements

Most credit courses offered through Educational Outreach are open to all students who are qualified by virtue of meeting the prerequisites for individual courses or, in cases where there are no prerequisites, on the basis of their own assessment of their aptitudes. Those individuals who have been formally admitted to Wayne State University for a degree or certificate program, or post-baccalaureate study, and who are in good academic standing, will have course credits and grades earned through extension recorded on their transcripts in the same manner as credits earned on campus.

Degree Programs

The following degrees are offered by the Schools and Colleges within the University, but course work for these programs is available through credit extension services. Students should consult the Educational Outreach Office (telephone: 313-577-4682) or their resident School/College for information regarding the amount of such coursework available through extension.

UNDERGRADUATE

Bachelor of Arts/Science in Education with a major in Elementary Education - Science or Math

Bachelor of Arts with a major in History, optional minor in Political Science or Criminal Justice

Bachelor of Arts in Public Relations

Bachelor of Social Work

Bachelor of Science with a major in Computer Science

Bachelor of Science in Construction Management

Bachelor of Science in Electrical/Electronic Engineering Technology

Bachelor of Arts in Business Administration with a major in Global Supply Chain Management

Bachelor of Science in Mechanical Engineering

Bachelor of Arts with a major in Anthropology, optional minor Political Science or Criminal Justice

Bachelor of Arts with a major in Communication Sciences and Disorders

Bachelor of Science in Criminal Justice

GRADUATE

Master of Education with a major in Bilingual/Bicultural Education with a concentration in English as a Second Language

Master of Education with a major in Special Education and a concentration in Autism Spectrum Disorder

Master of Education with a major in Special Education and a concentration in Learning Disabilities

Education Specialist Certificate with a major in Special Education and a concentration in Learning Disabilities

Master of Arts in Employment and Labor Relations

Master of Social Work

Post-bachelor's program in Communication Sciences and Disorders

Master of Science in Engineering Management

Engineering Management Bridge Certificate program

Collateral-College Course Offerings

Educational Outreach offers entire curricula or selected courses applicable to many Wayne State University degrees and certificates at convenient times and places for adult learners. The following Schools and Colleges regularly schedule courses through extension facilities. For current information on upcoming courses and programs off-campus, visit the website: www.educationaloutreach.wayne.edu

Business Administration: Business Administration courses are offered in Oakland County at the Oakland Center in Farmington Hills and on the Macomb Community College South Campus in Warren. School of Business Administration courses in the 6000-6090 series are open only to students holding matriculated graduate status at Wayne State University. Graduate courses, numbered at the 7000 level, are open only to students admitted to the M.B.A. program at Wayne State University.

Education: Bachelor's, master's, post-graduate specialist programs are offered in Oakland County at the Oakland Center and the University Center at Macomb. In-service courses and programs are offered at the request of local schools and school districts. The College of Education also participates in the interdisciplinary graduate certificate programs in infant mental health and gerontology.

Engineering: Courses leading to a bachelor's degree in Engineering Technology and a bachelor's degree in Mechanical Engineering are scheduled on the Macomb Community College South Campus in Warren. Periodically, other courses from various departments in the College of Engineering are scheduled at extension centers.

Fine, Performing and Communication Arts: Courses in art and art history, communications, dance, film, journalism, music, photography, public relations, radio/television, and theatre are offered at several off-campus extension centers.

Liberal Arts and Sciences: Introductory and advanced courses for both full-time and part-time students are available in Africana Studies, Anthropology, Classics, Criminal Justice, Economics, English, French, History, Humanities, Peace and Conflict Studies, Philosophy, Political Science, Sociology, Spanish, Urban Studies, and Women's Studies at selected off-campus centers. Science courses are scheduled off-campus in nine departments: Biological Sciences, Chemistry, Communication Disorders and Sciences, Computer Science, Geology, Mathematics, Nutrition and Food Science, Physics and Astronomy, and Psychology. These courses, scheduled at most centers, may be used to fulfill University General Education Requirements (see page 18).

Library and Information Science: An active off-campus graduate program provides courses for most of the requirements for the Master of Science in Library and Information Science degree, accredited by the American Library Association. The complete program is offered at the University Center at Macomb. Program courses are also offered at selected extension centers including Lansing, Oakland Center and the University Center. Courses leading to the Graduate Certificate in Archival Administration are also available.

Pharmacy and Health Sciences: Courses are scheduled off-campus occasionally through the Clinical Laboratory Science, Mortuary Science, Occupational and Environmental Health Sciences, and the Occupational Therapy Departments.

Social Work: The School of Social Work offers the Bachelor of Social Work (B.S.W.) full-time program at the University Center at Macomb and at the University Center at St. Clair County Community College. In addition, a Master of Social Work Program is offered at the University Center at Macomb. Additional courses leading to completion of partial degree requirements for the B.S.W. and Master of Social Work (M.S.W.) degrees and for the Graduate Certificate Program in Social Work Practice with Families and Couples are offered at several extension sites.

Alternative Delivery Modes of Instruction: Interactive video allows for the flexible transmission and receipt of course materials, lectures and assignments. WSU's interactive compressed video system connects students and faculty at multiple sites by transmitting information via live two-way audio and video lines. These electronic classrooms enable faculty and students to interact with each other although separated by many miles.

Travel Study

Sponsoring schools and colleges in the University offer travel study programs through the Division of Educational Outreach. Most programs occur in the spring/summer sessions; times and locales vary each year. Travel study refers to programs in the United States. Please refer to the section on Study Abroad for international study programs. Recent travel study programs include:

COLLEGE OF LIBERAL ARTS and SCIENCES

Biological Sciences: marine lab at the Florida Keys; field studies at Fish Lake, Michigan

COLLEGE OF EDUCATION

Science Education: ecology courses at Higgins Lake, Michigan

COLLEGE OF FINE, PERFORMING, and COMMUNICATION ARTS

Fashion Merchandising: design in New York City

Office of Online Programs

Director: James Mazoué, Ph.D.
169 Purdy/Kresge Library
Telephone: 313-577-4873

Website:online.wayne.edu

The Office of Online Programs supports the development and implementation of quality online programs and courses and provides administration and support services, including the review, development, and implementation of administrative policies and guidelines for online programs. The Office also works closely with WSU schools, colleges, faculty, and instructional technology support staff on campus, to ensure that students have access to a broad range of high quality online course offerings and flexible degree options, including complete online degree programs.

The Office provides a range of consulting support and production services for faculty and academic departments interested in developing online courses and programs that offer students new educational options and opportunities. The Office of Online Programs website also acts as a one-stop informational gateway to prospective online students who are interested in the University's online offerings. In partnership with other campus support organizations, it also serves

as a campus-wide advocate for online learning and as a resource for online faculty development initiatives.

Executive and Professional Development

Associate Vice President for Educational Outreach and International Programs: Ahmad Ezzeddine
Director: Terry Margolis
Associate Director: Lori Wurth
Program Coordinator: Naimah Wade
Telephone: 313-577-4449

Website: www.ExecEd.wayne.edu

Executive and Professional Development (EPD) provides proven practical solutions to business challenges through executive education, business training and consulting. Offering a unique blend of expertise and flexible design, EPD moves beyond off-the-shelf, prepackaged education, training and consulting 'services' by applying problem-solving strategies to assess and meet the needs of its clients. EPD is committed to providing customized, fully integrated, in-depth programs to address specific organizational needs and improve individual and organizational capabilities and performance. The EPD portfolio includes:

BUSINESS TRAINING AND EXECUTIVE EDUCATION

EPD offers programs that respond to problems currently facing business, government and industry. Programs are offered in a variety of formats and deliver the strategies, tools, and knowledge needed to succeed in today's changing business environment. EPD mobilizes the resources of WSU to serve the specific and unique needs of the community by offering customized degree and non-degree programs, be they an onsite MBA program offered for a specific company, an Engineering Management Master program offered for a group of engineering executives, or a master of social work offered at one of the university's extension sites.

EPD provides a blended training approach by using a variety of alternative delivery methods including on-site facilitated sessions, videoconferencing, on-line training and computer-based programs.

CERTIFICATE PROGRAMS

EPD responds to industry's demand for a more comprehensive approach to continuing education by offering certificate programs that encompass several current management and business issues. These multiple-session programs offer participants the opportunity for higher mastery and competency in a particular subject area and can be customized to meet each organization's specific needs.

ON-SITE CONSULTING SERVICES

In conjunction with training, EPD's expert staff provides consulting services in a variety of areas including training and design development, leadership and organizational development, succession planning, business process improvement, strategic planning, and executive coaching.

SMALL BUSINESS SERVICES

Building on twenty years of success, EPD's Small Business Programs continue to attract people from all walks of life who want to learn how to start and run their own small businesses. These practical, step-by-step, hands-on programs are offered throughout the nation and have recently been underwritten by DTE Energy as a resource for their business customers.

PROCUREMENT TECHNICAL ASSISTANCE CENTER

The Procurement Technical Assistance Center (PTAC) works with qualified businesses in the Detroit area to prepare them to bid for government contracts. PTAC's goal is to provide small business owners with a competitive edge in selling to the public sector by educating them about opportunities, and offering marketing and technical assistance. Recently, PTAC services resulted in awarded contracts totaling more than $5 million.

For further information on any Executive and Professional Development services or activities, call: 313-577-4449

Visitor Program (Non-Credit)

The Visitor Program allows any adult who is not currently enrolled in credit courses at Wayne State to attend a wide range of University courses in a non-credit status. Provided space is available, adults may enroll as visitors in most of the courses listed in the Schedule of Classes.

It is not necessary to be formally admitted to the University to take advantage of the Visitor Program. Visitor status students do not submit written work or take examinations.

Registration for both on-campus and off-campus classes takes place the first week of classes and is processed by the Division of Educational Outreach, located on the main campus.

Tuition for undergraduate courses enrolled under Visitor status is one-half of the freshman credit rate plus one-half of the registration fee. Tuition must be paid in full at the time of registration. Payment is accepted by money order, check, or MasterCard. Money orders and checks must be drawn from a United States bank and personal checks cannot be starter checks. Students may register in person or by calling 313-577-4665

Additional University Services

Computing & Information Technology (C&IT)

5925 Woodward Avenue; 313-577-4778
Website: http://computing.wayne.edu/

Computing & Information Technology (C&IT) provides information technology services and resources that support and enhance Wayne State University's teaching, learning, research, and administrative activities. C&IT's primary goal is to provide technology services that enable our students, faculty, and staff to be successful at WSU. C&IT employees strive to provide excellent customer service, respond to the changing needs of the University community, and make it easy and convenient for everyone to use technology at Wayne State.

Information Security: While at work or school, Wayne State students, faculty, and staff can rely on C&IT's Information Security Office (ISO) to protect the confidentiality, integrity, and availability of information on WSU computer systems. ISO staff work with the campus community to provide a safe computing environment for all. The office also ensures the security of the University's IT infrastructure. For more information, visit http://security.wayne.edu.

Internet Access at WSU

WSU AccessIDs: As soon as someone applies for admission to WSU, a unique AccessID (e.g., xy6789) is automatically created and made available to them. The AccessID and password combination is the student's key to accessing computing services and resources at Wayne State: Applicants can check their admissions status online and access and use computers in the University Libraries. Admitted students have access to such computing services as: wireless Internet on campus, e-mail and online calendars (with 10 GB of storage), free and discounted software, secure student self-services through WSU Pipeline (financial aid, registration, online tuition payments, final grades, and more), and the Blackboard Academic Suite on the Web (for access to courses and course materials, to post, retrieve, and share files, create e-Portfolios, and more).

For more information about computing resources and services accessible to applicants, students, faculty, staff, and others, using a WSU AccessID and password, see the descriptions below. Additional information is available on C&IT's Website at: http://computing.wayne.edu/accessid. For personal assistance or help with a forgotten password, call the C&IT Help Desk: 313-577-4778.

Access to the Internet: A Wayne State student can access the Internet on campus, from home, or "on the go" to get secure access to WSU's rich computing resources and convenient self-services:

- Use a computer in any University library, at a WSU off-campus extension center, or in a computer lab located in academic departments on campus (see 'Computers on Campus,' below).

- Use a laptop/notebook computer or smartphone connected to WSU's wireless network on campus, or plugged in to a wired network connection in libraries and popular gathering places. For more information about wireless@wayne and current service locations, visit C&IT's Website at: http://computing.wayne.edu/wireless. For more about wired@wayne connections, visit: http://computing.wayne.edu/wired.

- Use secure wireless or wired high-speed Internet access with a personally owned computer in a University residence hall or apartment on campus. For details, visit: http://computing.wayne.edu/resnet

- Use a home computer connected to a broadband (high-speed) Internet service (cable modem, DSL, or wireless). Information about accessing the Internet from home is available on C&IT's Website at: http://computing.wayne.edu/internetaccess.

For help or additional information about how a WSU student can access the Internet and use WSU computing resources and services, visit the C&IT Websites noted above or contact the C&IT Help Desk: 313-577-4778 or: helpdesk@wayne.edu.

Computers and Software

Computers on Campus: The University Libraries have more than 800 computers and a variety of applications in support of student learning; and many Wayne State schools, colleges, and departments also provide special-purpose computers and software for their students and faculty. For a comprehensive list of computers students can use on WSU's main and medical campuses and at off-campus centers, visit: http://computing.wayne.edu/labs.

Computer Hardware Purchases: Information about desktop computers and laptop/notebook computers recommended for student use at Wayne State, with links to computer companies that offer educational discounts, is on C&IT's Website at: http://computing.wayne.edu/hardware.

Computer Repair Services: A WSU student or employee can have a personally owned computer serviced and repaired at the C&IT PC Clinic for a nominal fee. More information about PC Clinic services and procedures is available on C&IT's Website at: http://computing.wayne.edu/clinic.

Software - Free and Discounted: Using an AccessID and password, WSU students can download free software (for antivirus protection and bibliography management). Students also can purchase commercial software (such as Microsoft and Adobe products) for substantial discounts using MasterCard or Visa on a secure Website (http://clearinghouse.wayne.edu). Additional information about software in use at Wayne State is available on C&IT's Website at: http://computing.wayne.edu/software.

E-mail and Directory Tools at WSU

WSU E-mail and Communication Tools: An electronic mail account and many communication and collaboration tools on the Web (such as a portable address book, shared online calendars, secure chat, instant messaging, discussion boards, and more) are accessible to all Wayne State students, faculty, and staff using a WSU AccessID and password (see above). Wayne Connect is the primary method of communication on campus. It is essential, therefore, that everyone at the University uses Wayne Connect e-mail, or forwards it to a regularly used e-mail address. WSU communication and collaboration tools are easily accessible using a Web browser. Assistance with using any of these tools at Wayne State is available on C&IT's Website at: http://computing.wayne.edu/email and from the C&IT Help Desk: 313-577-4778 and: helpdesk@wayne.edu

WSU Online Directory: Contact information to help people get in touch with students, faculty, staff and departments at Wayne State is found listed in the University's Online Directory, available from WSU's Website (http://wayne.edu/).

Messaging, WSU Broadcast (Emergencies)

Wayne State offices use the Broadcast Messaging Service to deliver emergency alerts and official announcements to all Wayne State students, faculty, and staff and to targeted audiences, as the need arises (by the WSU Police Department, Records and Registration, Student Accounts Receivable, as well as C&IT). Using this messaging service, every individual can conveniently choose to receive a variety of WSU announcements: by e-mail, instant message, and/or text message.

New students and employees are given the option to choose to receive emergency alerts and/or register a cell phone -- the first time

they log in to WSU Pipeline (see next section). Thereafter, it is easy to access Broadcast Messaging through WSU Pipeline to maintain custom delivery options for WSU messages (including ones from Blackboard course instructors, for example). For more information, visit C&IT's Website at: http://computing.wayne.edu/messaging/.

Computing News and Announcements: C&IT makes advance announcements of changes to the availability and status of Wayne State's networks and enterprise-wide/core computer systems and services via e-mail and on its Website (http://computing.wayne.edu). Archived news announcements also are available.

Pipeline and Self- Services at WSU

WSU Pipeline is an Internet gateway/portal on the Web at pipeline.wayne.edu that provides Wayne State applicants, students, faculty, and staff with secure access to Wayne State computer systems (such as Wayne Connect and Blackboard), online self-services (see below), and campus announcements and events. Pipeline only displays information, services, and tools that are pertinent to the individual, depending on his/her role (student, faculty, employee, or researcher).

- Applicants to Wayne State are able to check their admission status through WSU Pipeline.

- Current students can use secure self-services to check financial aid, register for and drop/add classes, pay tuition and fees, check holds, obtain enrollment verifications and transcripts, self-register for orientation or other WSU events, view final grades, and more.

To access WSU Pipeline, use a current Web browser on a computer or mobile device connected to the Internet and go to: http://pipeline.wayne.edu, then log in using your WSU AccessID (e.g., xy6789) and password (see "AccessIDs" above). For assistance accessing WSU Pipeline or using available self-services and tools, visit C&IT's Website at: http://computing.wayne.edu/pipeline, or contact the C&IT Help Desk: 313-577-4778 and: helpdesk@wayne.edu.

Blackboard Courses on the Web

Blackboard is the online learning and course management system Wayne State uses to deliver all or part of many regularly scheduled University courses and to enhance teaching and learning. In the Blackboard Web environment, WSU students can retrieve and submit course materials, access learning resources, take tests and view the test grades, communicate and interact with other students and the instructor, store and share course files on the Web, and create e-Portfolios. Many faculty members require students to participate online as part of their academic work, and some courses are offered entirely online through Blackboard.

At the start of each semester, students should check with instructors about Blackboard requirements for their courses. Using a WSU AccessID and password, students and faculty can log in to Blackboard directly (http://blackboard.wayne.edu). For assistance accessing or using Blackboard at Wayne State, contact the C&IT Help Desk: 313-577-4778, or: helpdesk@wayne.edu. WSU students and instructors also can download the latest Blackboard User Manual and helpful support materials from: http://computing.wayne.edu/blackboard.

High Performance Computing (WSU Grid) and Networking

WSU researchers with projects requiring high performance computing (HPC) can use Wayne State University's scalable, grid-enabled computing system. Examples of grid or distributed computing implementations in the areas of research and education include: scientific simulations that require intensive calculations, large medical-image storage and processing, computer-aided drug discoveries, and projects with huge data management and storage needs. For more information about the WSU Grid, its infrastructure, and applying online for an account, visit: https://www.grid.wayne.edu, or call: 313-577-8106 or e-mail: advcomp@wayne.edu.

Wayne State's membership in the Internet2 advanced networking consortium offers researchers countless opportunities for participation and collaboration. The Internet2 Network addresses researchers' bandwidth-intensive requirements, such as: collaborative applications, distributed research experiments, and grid-based data analysis. In addition, the Michigan LamdaRail (MiLR), a very-high-speed, special-purpose data network in research and higher education (created by Wayne State University, Michigan State University, and the University of Michigan), gives researchers access to 10 Gbps Ethernet connections between the three universities, as well as to national and international research and education networks. To talk with C&IT network specialists about running applications or transferring data on these advanced networks, call: 313-577-5558 or e-mail: ac4070@wayne.edu.

Research Consulting Services

WSU graduate students and researchers can obtain a broad range of consultative services on the use of computer technology at any phase of the research process: design, implementation, statistical analysis, and reporting. C&IT Research Consulting staff specializes in the use of analytical software such as: SAS, SPSS/PASW, Amos, Stata, and PASS. For more information, visit C&IT's Website at: http://computing.wayne.edu/rcs or call: (313) 577-0299 for an appointment.

Help Desk

The Computing & Information Technology (C&IT) Help Desk provides friendly and knowledgeable computer support to Wayne State University students, faculty, and staff to help them:

- access the Internet and computing systems and resources on WSU's network using a computer or mobile device on campus, at home, or "on the go";

- access and use WSU E-mail and Calendars and other communication and collaboration tools (using Wayne Connect and Blackboard), with an AccessID and password;

- access and use other enterprise-wide/core computer systems and servers at Wayne State (such as WSU Pipeline, Blackboard, OneCard, or the WSU Grid);

- use computer operating systems and software applications on a Windows PC or a Macintosh (that are supported by the C&IT Help Desk);

- obtain free software (for virus protection and bibliography management) and/or purchase commercial software (e.g., Microsoft and Adobe) at substantial discounts;

- get information about or assistance with purchasing a Windows PC or Macintosh computer at an educational discount;

- troubleshoot hardware and software problems and/or have a personally owned computer serviced and repaired (by the C&IT PC Clinic); and to

- use or learn about any of the computing resources or services that C&IT provides the University community.

To contact the C&IT Help Desk:

- call: 313-577-4778 (on weekdays, evenings, and weekends, except for holidays),

- e-mail: helpdesk@wayne.edu,

- check C&IT's Website: http://computing.wayne.edu, or

- stop by in person: C&IT's universe IT service center at 211 Student Center (second floor south).

Answers to commonly asked questions about Wayne State computing and IT services may also be found at: http://kb.wayne.edu.

If a problem occurs accessing a University computer system, check the System Status page on C&IT's Website (http://computing.wayne.edu/systemstatus) for the current status and availability of the university's core computer systems, such as: Blackboard, WSU's Schedule of Classes, Wayne Connect E-mail, and Pipeline. Note that C&IT reserves every Sunday morning from 2 a.m. to 8 a.m. for performing system or hardware maintenance.

Computing & Information Technology (C&IT)
Telephone Numbers and Websites of Interest to WSU Students:

AccessID and Password Help: 313-577-4778 or:
http://computing.wayne.edu/accessid

Blackboard Help: 313-577-4778 or:
http://computing.wayne.edu/blackboard

Blackboard Access: http://blackboard.wayne.edu

Broadcast Messaging Help or Info: 313-577-4778
http://computing.wayne.edu/messaging/

C&IT Help Desk: 313-577-4778 or:
http://computing.wayne.edu

C&IT PC Clinic: 313-577-5056 or:
http://computing.wayne.edu/clinic/

Computers:
On campus - http://computing.wayne.edu/labs
Buying - http://computing.wayne.edu/hardware
Servicing - http://computing.wayne.edu/clinic/

E-mail and Calendar Assistance: 313-577-4778 or:
http://computing.wayne.edu/email

E-mail Access: https://connect.wayne.edu/

Grid and High Performance/Research Computing: 313-577-8106 or:
https://www.grid.wayne.edu

High Performance Networking: 313-577-5558 or:
http://cns.wayne.edu/network

Information Security: 313-577-4778 or http://security.wayne.edu

Internet Access Help: 313-577-4778 or:
http://computing.wayne.edu/internetaccess

Knowledgebase at WSU:
http://kb.wayne.edu

Pipeline Access: http://pipeline.wayne.edu

Pipeline Help: 313-577-4778 or:
http://computing.wayne.edu/pipeline

Research Consulting Services: 313-577-0299 or:
http://computing.wayne.edu/rcs

Software Clearinghouse: 313-577-4060 or:
http://clearinghouse.wayne.edu

Software C&IT Supports: 313-577-4778 or:
http://computing.wayne.edu/software

System Status at WSU: 313-577-4778 or:
http://computing.wayne.edu/status

universe IT Support Service Center: 313-577-4778

Wayne Connect Access: https://connect.wayne.edu

Wayne Connect Communication & Collaboration System:
313-577-4778 or:
http://computing.wayne.edu/email/

WSU Pipeline Help: 313-577-4778 or:
http://computing.wayne.edu/pipeline

UNIVERSITY LIBRARIES

The Wayne State University Library System is a dynamic organization operating within the challenging and rapidly changing environment of today's information age. The Library System supports the education, research and service missions of the University and its communities through comprehensive, high-quality services and resources. The Library System is a leader in providing accurate, timely and Web-based information throughout the metropolitan Detroit area and Michigan. Scholarly materials in the University libraries total more than three million volumes, 18,000 journal subscriptions and a broad range of electronic resources, including e-books and electronic journals, many of which are available in full-text.

The Library System includes the David Adamany Undergraduate Library, the Arthur Neef Law Library, the Purdy/Kresge Library, the Science and Engineering Library, the Vera P. Shiffman Medical Library and its Learning Resource Center at the Eugene Applebaum College of Pharmacy and Health Sciences, and the Library Services Center at the Oakland Center in Farmington Hills. Also included are the School of Library and Information Science and the Office for Teaching and Learning.

All University libraries offer reference and research support, interlibrary loan, circulation and course reserve services, document delivery and library and information literacy programs. The libraries utilize and support the latest information technologies to provide state-of-the-art access to instructional and research materials. All undergraduate students are welcomed at all library facilities. The libraries provide a range of study environments - from silent to interactive -- and including a twenty-four-hour facility.

Library Cards: see WSU OneCard, page 43.

David Adamany Undergraduate Library

Telephone: 313-577-8852
Website: http://www.lib.wayne.edu/

The David Adamany Undergraduate Library is designed to enhance and enrich the learning experience of undergraduate students by helping them to master the research skills necessary for academic success and for success as information-literate citizens. The library features over 500 computers, four instructional labs, a twenty-four hour study area, collaborative study rooms, 2,700 comfortable seats for study, course reserves, and hands-on opportunities for learning to use multimedia and electronic information resources. It also houses the Student Success Center, which includes University Academic Advising, the Academic Success Center and Student Disability Services (SDS), and the media collection that includes videos, CDs, DVDs and lecture tapes

Arthur Neef Law Library

Telephone: 313-577-3925
Website: http://www.lib.wayne.edu/lawlibrary

Wayne State University's Arthur Neef Law Library is located at the north end of the University main campus. Its collection of over 620,000 volumes makes it the second largest law library in Michigan. The library subscribes to over 1,500 journals and 1,000 loose-leaf services. An official depository since 1971, the library holds over 100,000 U.S. documents including 3,500 current serials. Students and faculty have access to the major legal databases and many digital collections.

In addition to complete collections of federal and Michigan legal materials, the library contains the statutes of all states and territories. The library owns major microform collections of U.S. government publications; colonial, state, and territorial session laws; and the U.S. Supreme Court records, briefs, and oral arguments

Purdy/Kresge Library

Telephone: 313-577-4042
Website: http://www.lib.wayne.edu/

The Purdy/Kresge Library is the primary research library for the social sciences, humanities, arts, education, and business disciplines at Wayne State University. The library provides access to books, periodicals, government documents, and numerous electronic resources. The Purdy/Kresge Library supports the research and instructional needs of faculty, graduate students, and upper-level undergraduates in these disciplines, as well as the information needs of the greater Detroit community.

The Purdy/Kresge Library houses a book collection of over 1.5 million volumes, an extensive microform collection, a large document collection and a number of special collections including the Leonard Simons Collection of rare Michigan history texts, the Arthur L. Johnson Endowment collection, and the Ramsey Collection of Children's Literature. The New Media and Information Technology Unit is located within the Purdy/Kresge Library, providing scheduling and operations to all aspects of library computing and classroom media support. This library is also the home of the Technology Resource Center, a collaborative effort of the Libraries, the Office for Teaching and Learning, and Computing & Information Technology, that assists faculty and instructors in designing and developing instructional experiences for the classroom and online teaching environments.

Science and Engineering Library

Telephone: 313-577-4066
Website: http://www.lib.wayne.edu/

The Science and Engineering Library serves the College of Engineering, the College of Nursing, and the Departments of Biology, Chemistry, Physics, Mathematics, Computer Science, Nutrition and Food Science, Geology, and Audiology/Speech-Language Pathology in the College of Science. It also houses the computer lab that hosts the computer-based version of the Wayne State Mathematics competency course. The Science and Engineering Library has over 600,000 volumes and receives nearly 3,000 current serials. Special holdings include the System on Automotive Safety Information (SASI) collection, a unique resource for transportation research, as well as the River Rouge Collection, the Dubpernell Electrochemistry Collection, and a large map collection. The library also houses the Resource Services unit of the University Library System as well as the consortium offices of the Detroit Area Library Network

Shiffman Medical Library and Learning Resources Center

Telephone: 313-577-1094
Website: http://www.lib.wayne.edu/shiffman

The Shiffman Medical Library supports the research, education and clinical and public health care information needs for the University, major hospitals within the Detroit Medical Center and unaffiliated health care providers and trainees throughout Michigan. In addition to assisting WSU undergraduate students with research, learning and internship information needs in the health sciences, all WSU students are encouraged to use the library's consumer health information services. The library maintains access to all the major health sciences, bio-scientific and consumer health databases; a core collection of journals dating to the mid-19th century; and books in print and electronically reproduced. Health information learning programs and informatics workshops, listed on our Website, are open to all members of the University community. Internet access, printing and photocopying services are identical to those found in all University Libraries. A Learning Resources Center focused on the daily information and computing needs of students of the Applebaum College is available Monday through Friday.

Oakland Center Library Services Center

Telephone: 248-553-6632

The Oakland Center Library Services Center in Farmington Hills provides services such as document delivery, interlibrary loan, instructional sessions, and circulation of materials from main campus libraries. A small collection of course reserves and reference materials is available, as well as access to electronic resources.

University Archives

Walter P. Reuther Library; 313-577-4024

The Wayne State University Archives was created by the University's Board of Governors in 1958. The collection provides historical information about WSU and its predecessor institutions that date to 1868. In addition to collecting the University's historical records, the WSU Archives holds the papers of presidents and administrative leaders, the papers of selected faculty members, and the papers of student and professional organizations that document the development of the University and higher education in Michigan.

The Archives' holdings of over 6,000 cubic feet include manuscripts, minutes, publications, photographs and reports. Extensive secondary material is arranged in subject and biographical files tracing the University's history from 1868 to present. The WSU Archives also collects all publications created by and pertaining to the University, including the student newspaper from 1917 to present, as well as departmental newsletters. Subjects in the collection range from student activities such as athletics and student organizations, to local subjects such as Central High School, the Detroit Medical Center, and the Detroit Board of Education.

Archives of Labor and Urban Affairs

Walter P. Reuther Library; 313-577-4024; Fax: 313-577-4300

The Archives of Labor and Urban Affairs enjoys an international reputation as the largest and finest labor archives in the world. In all, the Archives has some 95 million documents in addition to 20,000 books, monographs, union publications and proceedings; 2,000,000 photographs; and 20,000 films and tape recordings. A unique portion of the holdings is the labor journal and newspaper collection, which has nearly 1,600 current and non-current titles dating from the late 1800s to the present. The Archives is housed in the Walter P. Reuther Library of Labor and Urban Affairs.

The Archives was established in 1960 to collect and preserve records of the American labor movement, related social, economic, and political reform groups, and twentieth century urban America. The Archives has since become the official depository for the inactive files of the United Auto Workers, the Congress of Industrial Organizations, the American Federation of Teachers, the National Association of Letter Carriers, The Newspaper Guild, the United Farm Workers, the Service Employees International Union, the American Federation of State, County and Municipal Employees, the Air Line Pilots Association, the Association of Flight Attendants, the Industrial Workers of the World, and many state and local labor organizations. Records have also been received from such groups as the Citizens Crusade Against Poverty, the Michigan Chapter of the American Civil Liberties Union, the Detroit Branch of the National Association for the Advancement of Colored People, the United Community Services of Detroit, United Way for Southeastern Michigan, and New Detroit, Inc. Many individuals who played leading roles in labor and urban affairs have also placed their papers in the Archives.

UNIVERSITY and COLLEGE CENTERS

The centers described below have programs pertaining to undergraduate study. A list of additional centers follows this list. See www.research.wayne.edu/ci/ for a full listing and links to web pages

Center for Chicano-Boricua Studies

3326 Faculty/Administration Building; 313-577-4378;
Fax: 313-993-4073; *e-mail:* aa1941@wayne.edu
Director: Jorge L. Chinea, Ph.D.
Website: http://www.clas.wayne.edu/CBS/

The Center for Chicano-Boricua Studies (CBS) is a multi-service unit engaged in teaching, research, and service. The Center, which is also home to one of the University's Learning Communities, plays an important role in the urban mission of Wayne State University. Its mission has four components:

1. The Center recruits students into the University through a two-year program designed to facilitate the transition between high school and college and to increase retention. It also provides support services for students interested in Latino and Latin American studies outside of the two-year program.

2. It promotes research on: a) issues relevant to the Latino community, especially in the urban and workplace environment; and b) Latin American history and current issues.

3. It creates and fosters the interaction and exchange of personnel and resources between the University and the Latino community; and it serves as a source of expertise on Latino issues to the larger metropolitan community.

4. As an advocate for the awareness and advancement of Latino issues within the University, the Center contributes to the University's continuing efforts to create a richer multicultural campus environment.

Center for Excellence and Equity in Mathematics

1321 Faculty/Administration Building; 313-577-8839; Fax: 313-577-7596

Director: Steven M. Kahn
(313) 577-1882; e-mail: skahn@math.wayne.edu

Associate Director: Monica G. McLeod
(313) 577-8839; e-mail: monicamcleod@wayne.edu

Administrative Assistant: Kishya Curry
(313) 577-2558; e-mail: kishya@wayne.edu

The Center for Excellence and Equity in Mathematics is a research and educational center with a two-fold mission: to find ways to significantly improve the quality of K-12 and introductory college-level mathematics courses across the United States, and to use mathematics as a tool to provide students from inner cities and underrepresented minority groups with the educational and lifetime opportunities that all students should have. The Center is home to many programs, including the Emerging Scholars Program, an honors-level pre-calculus and calculus program for college students, and the WSU Math Corps, an academic and mentoring program for Detroit public school students.

Center to Advance Palliative-Care Excellence (CAPEWAYNE)

5557 Cass Avenue, Cohn Building, Room 332; (313)-577-0907;
Fax: (313)-577-0940
E-mail: RenataK@wayne.edu
Website: http://www.capewayne.org

Director: Robert J. Zalenski, M.D., M.A., FACEP
(313) 966-7679; e-mail: rzalensk@med.wayne.edu
Associate Director for Research: Margaret Campbell, Ph.D., R.N.
(313) 745-3271: FAAN; e-mail: mcampbe3@dmc.org
Associate Director for Humanities: Richard Raspa, Ph.D.
(313) 577-6208; e-mail: aa2267@wayne.edu
Associate Director for Education: Stephanie Myers Schim,
Ph.D., R.N.; (313) 577-4034; e-mail: s.schim@wayne.edu
Associate Director for Practice: Michael Stellini, M.D.,
(313) 577-4342; e-mail: mstellini@med.wayne.edu
Executive Facilitator: Denise Waselewsky, M.T.
(313) 745-4350; e-mail: dwaselew@med.wayne.edu
Program/Project Coordinator: Renata Osko, M.B.A./H.C.M.
(313) 577-0907; e-mail: RenataK@wayne.edu

Instructors

Richard Raspa, Ph.D., Department of English;
(313)-577-6578, e-mail: aa2267@wayne.edu
Robert Zalenski, MD, Department of Emergency Medicine;
(313)-966-7679, e-mail: rzalensk@med.wayne.edu

CAPEWAYNE is an inter-disciplinary academic center bringing together scholars, educators, researchers and clinicians dedicated to improving the quality of end-of-life care.

The main focus areas of this center are education, research and clinical practice, all of which permeated by the field of humanities.

Education: The Center offers an end-of-life curriculum for students, trainees and clinicians across disciplines and levels of training.

Research: The Center gathers researchers who have a shared interest in the conduct of collaborative, interdisciplinary interdepartmental research. The Center is committed to expanding the body of science about palliative care.

Clinical Practice: The Center provides resources to clinicians across disciplines and settings that practice palliative care, through a paradigm of sharing and ensuring optimization of clinical care in our community.

Courses offered and taught by the Center Directors:

ANT 5430 (NUR 7515) (CD) End-of-Life Issues. (ANT 7430) (LIS 7635) (SOC 5020) (SOC 7020) Cr. 3-4

Physical, spiritual, legal, economic, political, cultural, and ethical issues at the end of life, examined as stories about individuals, families, and communities. (Y)

SOC 5020 (NUR 7515) (CD) End-of-Life Issues. (ANT 5430) (ANT 7430) (LIS 7635) (NUR 7515) (SOC 7020) Cr. 3-4

Physical, spiritual, legal, economic, political, cultural, and ethical issues at the end of life, examined as stories about individuals, families, and communities. (Y)

Developmental Disabilities Institute

Leonard Simons Building, Suite 268, 4809 Woodward Avenue;
313-577-2654; Fax: 313-577-3770
Director: Barbara LeRoy, Ph.D.; *E-mail:* B_Le_Roy@wayne.edu
Website: http://www.ddi.wayne.edu/

The Developmental Disabilities Institute is one of a national network of over sixty University Centers of Excellence in Developmental Disabilities, nationally and in U.S. territories. The Institute's mission is to

contribute to the development of inclusive communities, which enhance the quality of life of people with disabilities and their families through a culturally-sensitive statewide program of interdisciplinary education, community support and services, and research and dissemination of information.

Staff and faculty engage in education, community support, and research programs throughout Michigan via collaborative efforts with schools, community agencies, community colleges, and other universities. Over 10,000 individuals with disabilities benefit from these activities annually. The Institute offers a wide range of opportunities for students and faculty to engage in state-of-the-art community-based research, education, and technical assistance.

Students from a wide range of disciplines are provided opportunities for interdisciplinary leadership education and participation in research, training, and technical assistance projects. Students may earn credits for designation as Trainees of the Institute. These activities allow students to develop leadership skills and to gain skills in working with an interdisciplinary team. Interdisciplinary Education Programs of the Institute are developed as cooperative efforts between the Institute and academic units throughout Wayne State University and in collaboration with other universities in Michigan. The Graduate Certificate Program, which is housed in the School of Social Work offers leadership education opportunities related to disability in an urban context.

The Institute develops activities and projects based on needs of persons with disabilities and the communities in which they live and work. The Community Advisory Council, composed of family members, persons with disabilities, and representatives of key statewide organizations, meets quarterly to provide information and assistance to Institute staff and faculty in establishing priorities and evaluating activities.

Humanities Center

2226 Faculty/Administration Building;
313-577-5471; Fax: 313-577-2843
Director: Walter F. Edwards, Ph.D.
E-mail: walter.edwards@wayne.edu
Website: http://www.research.wayne.edu/hum/

The mission of the Humanities Center is to nurture interdisciplinary, transdisciplinary and intradisciplinary work in the humanities and the arts through competitions, conferences, discussion groups and other programs for Wayne State's humanities and arts faculty and students, and for visiting scholars and artists. The Center promotes excellence in research and creative endeavors through rigorous peer review of proposals submitted to it for funding. By sponsoring programs that involve community participants, the Center supports the University's urban mission. Through its various programs, the Center brings humanists of diverse talents and interests together for conversation and collaboration, and fosters innovation and creativity across the humanistic disciplines.

Labor Studies Center

3178 Faculty/Administration Building; 313-577-2191;
Fax: 313-577-7726
Director: Gayle Hamilton
Website: http://www.laborstudies.wayne.edu/

As part of Labor@Wayne, the Labor Studies Center is the outreach center that develops and administers labor educational programs to labor organizations, workers and the community that focus on the ever-changing role of labor in society. The Labor Studies Center is committed to strengthening the capacity of organized labor to represent the needs and interests of workers, empowering and educating workers on their rights, history and role in a global economy and at the same time strengthening the University's research and teaching on labor and labor relations issues.

The Labor Studies Center is an extension center that bridges the community, labor organizations and the University. As part of the University, the Center provides interested students with access to University resources and programs about unions and workers. The Center's primary areas of research and practice include: training and technical assistance to unions on labor relations and workplace issues; interventions to increase the organizational effectiveness of unions; the development and diffusion of constructive labor-management relations practices; and the formation and institutionalization of labor-community coalitions.

Merrill-Palmer Skillman Institute for Children and Families

71 East Ferry Ave.; 313-872-1790; Fax: 313-577-0947
E-mail: mpsi@wayne.edu
Interim Director: Peter Lichtenberg, Ph.D.
Website: http://www.mpsi.wayne.edu/

The Merrill-Palmer Skillman Institute is an interdisciplinary research institute focusing on urban children and families. It has a long and distinguished history as a research and educational institution, serving as a pioneer in the field of child development and early education. Since it became a part of Wayne State University in 1982, the Institute has encouraged collaborations among faculty from many departments within the University.

The Institute emphasizes mental health of children, education, childcare, and parenting, as well as public policy related to these issues. It has a preschool designed specifically for the study of early childhood development. Ongoing research includes a variety of topics, such as study of the social-emotional development of children, children in foster care, school readiness and early literacy skills.

The service programs of the Institute are an outgrowth of its research mission. They include training of mental health workers who serve very young children in the care of public and non-profit agencies; consultation to education and child care organizations; workshops for teachers, parents and the public; and the annual Metropolitan Detroit Teen Conference.

Center for Peace and Conflict Studies

2320 Faculty/Administration Building; 313-577-3453; Fax: 577-8269
Director: Frederic Pearson, Ph.D.
Website: http://www.clas.wayne.edu/pcs

The Center for Peace and Conflict Studies was established in 1965, and provides programs devoted to the resolution of conflict in all contexts, from the local community to the international system. Under the faculty director, and an interdisciplinary executive committee, research projects are developed that contribute to the exploration of the social and political problems of our time. Conferences and speaker series are organized and occasional papers issued.

The Center serves as the base for an undergraduate co-major and minor in peace and conflict studies, as well as a graduate certificate in peace and security studies to focus on requisites of peaceful borders. The Center director also directs the World Affairs Council of Detroit, a community outreach program designed to promote globalization of the Detroit metropolitan community. The Center networks nationally and internationally via the World Affairs Councils of America, as well as the Internet. Students of Wayne State and other universities in this country and abroad are frequently involved as interns, trainees and researchers in center programs.

World Affairs Council of Detroit: The Council promotes activities for a broad audience of youth and adults on crucial world issues and foreign policy challenges. Members of the public may join the Council to participate in Center and Council activities. The Council serves as a link between the University and the greater Detroit community on issues of foreign policy and America's place in the world, and brings

prominent speakers and officials to the campus and the community. Students also can become involved in the Peace and Conflict Student Forum.

Center for Urban Studies

5700 Cass Avenue, Room 2207 Academic/Administration Building; 313-577-2208; Fax: 313-577-1274

Director: Lyke Thompson, Ph.D.; e-mail: ad5122@wayne.edu
Managing Director: Charo Hulleza, M.P.A.
e-mail: c.hulleza@wayne.edu

Website: http://www.cus.wayne.edu

The Center for Urban Studies improves understanding of and provides innovative responses to urban challenges and opportunities. The Center conducts and disseminates research, develops policies and programs, and provides training, capacity-building, and technical assistance. The Center participates in defining and influencing local, regional, State, and urban policy. It engages community, government, institutions, and policy makers, in collaboration with University faculty and resources, to transform knowledge into action. Committed to serving Detroit and its metropolitan area, the Center exemplifies Wayne State's urban research and service mission. The Center employs a highly trained multi-disciplinary team consisting of social science Ph.D. and master's-level researchers, as well as WSU graduate and undergraduate students.

The Center is organized into nine specialized programs:

Survey Research: The Center conducts survey research for a variety of public and private institutions; data is collected through telephone interviews, mail and online questionnaires, focus groups, in-person interviews, and participant observation; staff also provides technical assistance in areas such as sampling design, data collection and processing, and statistical analysis.

Evaluation Research: Program evaluation is conducted for a variety of public and private institutions; Center staff provides program assessments through process, formative, and outcome evaluations informed by clients' feedback regarding their needs.

Urban Safety Program conducts research to explain differences in community crime rates and evaluation studies that examine the impact of public policy responses to crime. It also conducts data analysis and research on current best practices and model programs to inform local policy-makers; and represents a collaboration among Detroit metropolitan area organizations in providing community education to prevent youth crime and to empower neighborhoods. Its other program activities include conducting applied research on crime and safety issues in Detroit, Wayne County, and the southeast Michigan region.

Early Childhood and Disabilities Research evaluates the implementation and impacts of intervention systems for individuals with disabilities and special education services for students; provides policy recommendations for improvements; and conducts research on family and community supports for students and individuals with disabilities.

Community Development Research fosters stabilization and revitalization of urban communities by enhancing understanding of key community development issues and improving the programmatic capacity of governmental and nonprofit organizations.

Crime and Justice Research conducts studies to examine the quality and delivery of criminal justice services in both institutional and community-based corrections, to advance knowledge on the nature of criminal behavior, and to assist in the practical improvement in the quality of corrections.

Environmental Justice Research conducts research that helps protect urban communities by identifying potential solutions to environmental health hazards that may be disproportionately affecting minority and/or low-income populations.

Urban Health Research conducts research that promotes interdisciplinary teams with complementary skills and expertise in both basic and applied community health research in areas such as health disparities, substance abuse prevention and other public health issues.

Michigan Metropolitan Information Center (MIMIC): a university research and service program specializing in tracking and portraying demographic trends in urban population and housing in southeastern Michigan; MIMIC provides technical support to research projects, offers services to the general public and produces Geographic Information System (GIS) maps that assemble, store, manipulate and display geographically referenced information according to location.

Other WSU Centers and Institutes

Other Wayne State University Centers and Institutes that may provide opportunities for undergraduates:

Barbara Ann Karmanos Cancer Institute
4100 John R., 2nd Floor; 313-576-8670; Fax: 313-576-8668
e-mail: beplerg@med.wayne.edu
Website: http://www.karmanos.org
Director: Gerold Bepler, M.D., Ph.D.

Bioengineering Center
2208 Bioengineering Bldg.; 313-577-0252; Fax: 313-577-8333
e-mail: king.yang@wayne.edu
Website: http://ttb.eng.wayne.edu/
Director: King H. Yang

Cardiovascular Research Institute
1107 Elliman Building, 421 E Canfield; 313.577.4630; FAX: 313.577.8615
Director: Karin Przyklenk, PhD
Website: http://cvri.med.wayne.edu/index.php

Center for Automotive Research
2121 Engineering; 313-577-3887; Fax: 313-577-8789
e-mail: henein@eng.wayne.edu
Website: http://www.eng.wayne.edu/page.php?id=751
Director: Naiem Henein, Ph.D.

Center for Excellence and Equity in Mathematics
1309 Faculty/Admin. Bldg.; 313-577-3471
Director: Steven Kahn, Ph.D.
e-mail: skahn@math.wayne.edu

Center for Health Research
319 Cohn Bldg.; 313-577-4135; Fax: 313-577-5777
e-mail: n.artinian@wayne.edu
Website: http://www.nursing.wayne.edu/CHR/
Director: Nancy T. Artinian, Ph.D.

Center for Molecular Medicine and Genetics
3139 Scott Hall; 313-577-5326; Fax: 313-577-5218
e-mail: l.grossman@wayne.edu
Website: http://www.genetics.wayne.edu/
Director: Lawrence I. Grossman, Ph.D.

Center for Social Work Practice and Policy Research
4756 Cass Avenue; 313-577-4419; Fax 313-577-8770
Director: Joanne Sobeck, Ph.D.
email: ab1350@wayne.edu
Website: www.research.socialwork.wayne.edu

Center for theStudy of Citizenship
3089 Faculty/Admin. Bldg.; 313-577-2593; Fax: 313-577-6987
e-mail: M.Kruman@wayne.edu
Website: http://www.clas.wayne.edu/citizenship
Director: Marc W. Kruman, Ph.D.

Center to Advance Palliative-Care Excellence (CAPEWAYNE)
4201 St. Antoine, Suite 5C-UHC; 313-577-5751; Fax: 313-745-4710
e-mail: renatak@wayne.edu
Website: http://www.capewayne.med.wayne.edu
Director: Robert J. Zalenski, M.D., M.A.

Cohn-Haddow Center for Judaic Studies
2311 Faculty/Admin. Bldg.; 313-577-2679; Fax: 313-577-8136
e-mail: aa2690@wayne.edu
Website: http://www.judaicstudies.wayne.edu/
Director: David Weinberg, Ph.D.

Confucius Institute
5057 Woodward, Suite 11204; 313-577-0153; Fax: 313-577-6929
e-mail: ci@wayne.edu
Website: http://www.clas.wayne.edu/ci/
Director: John Brender, Ph.D.

C.S. Mott Center for Human Growth & Development
275 E. Hancock; 313-577-1337; Fax: 313-577-8554
e-mail: rsokol@moose.med.wayne.edu
Website: http://mott.med.wayne.edu/
Director: Robert J. Sokol, M.D.

Douglas A. Fraser Center for Workplace Issues
Walter P. Reuther Library, 5401 Cass Ave.; 313-577-2191; Fax: 313-577-5359
e-mail: eb9543@wayne.edu
Website: http://www.clas.wayne.edu/fraser/
Director: Marik F. Masters, Ph.D.

Institute for Learning and Performance Improvement
375 Education Bldg.; 313-577-6674; Fax: 313-577-1693
e-mail: iguerra@wayne.edu
Website: http://www.ilpi.wayne.edu/
Director: Ingrid Guerra-López, Ph.D.

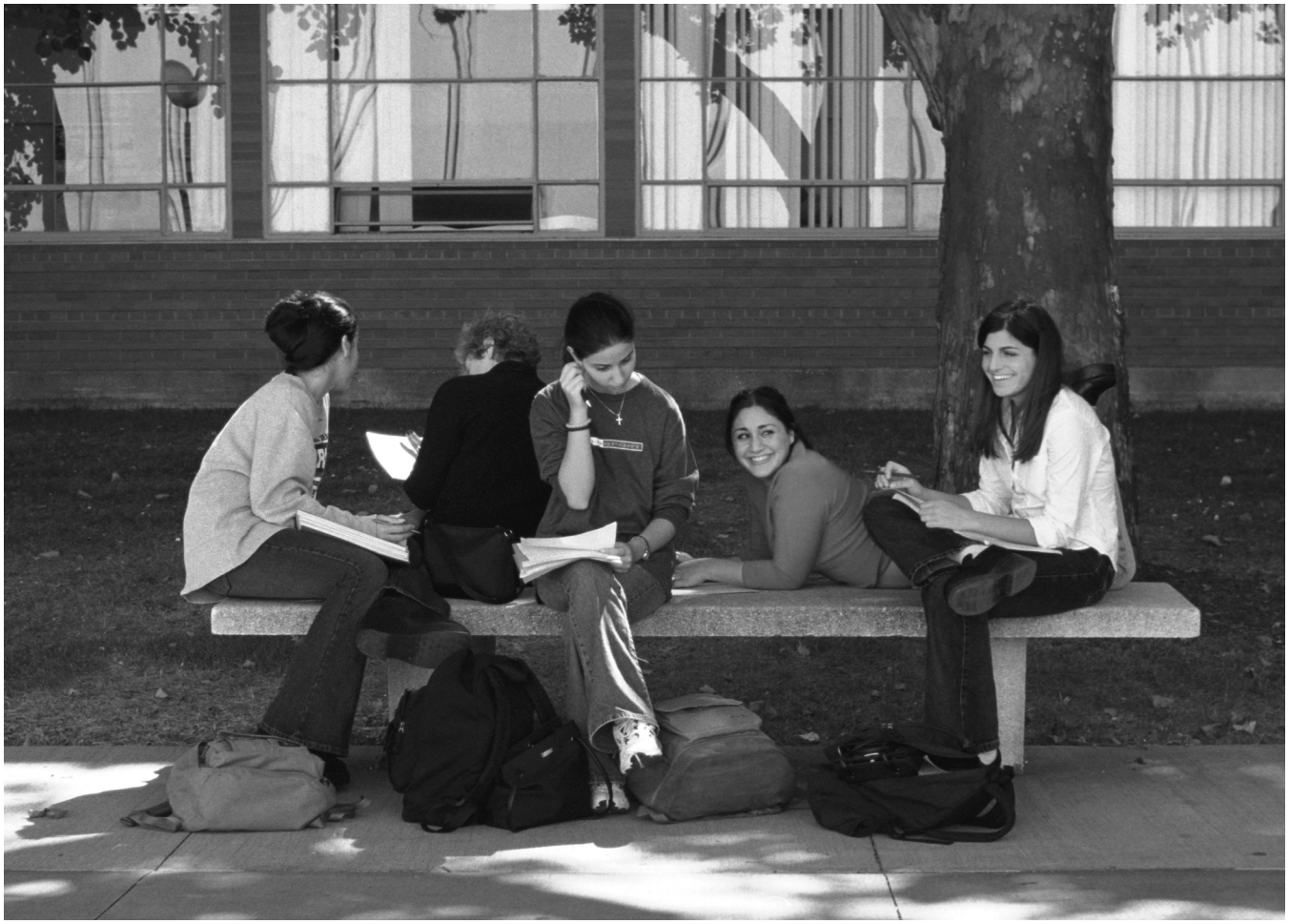
Institute for Organizational & Industrial Competitiveness
217 Prentis Bldg.; 313-577-4484; Fax: 313-577-2253
e-mail: ak2587@wayne.edu
Website: http://www.busadm.wayne.edu/article.php?id=106
Director: Larry Fobes
Executive Director: David L. Williams

Institute of Environmental Health Sciences
Eugene Applebaum College of Pharmacy and Health Sciences, 259 Mack Ave., Room 5137; 313-577-0100; Fax: 313-577-0082
e-mail: iehs_info@wayne.edu
Website: http://www.iehs.wayne.edu
Director: Melissa Runge-Morris, M.D.

Institute of Gerontology
87 E. Ferry St.; 226 Knapp Bldg.
313-577-2297; Fax: 313-875-0127
e-mail: ioginfo@wayne.edu
Website: http://www.iog.wayne.edu
Director: Peter Lichtenberg, Ph.D., A.B.P.P.

School of Medicine Ligon Research Center of Vision
K220 Kresge Eye Institute; 313-577-1355; Fax: 313-577-5482
e-mail: gabrams@med.wayne.edu
Website: http://www.kresgeeye.org/?id=78&sid=1
Director: Gary Abrams, M.D.

Manufacturing Information Systems Center
School of Business Administration, 5229 Cass Ave.; 313-577-7837; Fax: 313-577-4880
e-mail: aragowsky@aol.com
Website: http://business.wayne.edu/article.php?id=105
Director: Arik Ragowsky, Ph.D.



SCHOOL OF BUSINESS ADMINISTRATION

DEAN: David Williams

Foreword

The School of Business Administration is a professional school concerned with the theory and practice of business administration. The primary objectives of the School are to provide relevant education of high quality for business administration students, and to develop new knowledge through research and encourage application of its findings. To this end, in addition to their instructional services, the faculty has been a continuing source of notable scholarly publications and it is a special strength of the School that it brings a fine research faculty to the teaching of undergraduate as well as graduate courses.

The School has a tradition of instructional programs exemplifying high standards for both faculty and students as is acknowledged by the accreditation of the AACSB International — The Association to Advance Collegiate Schools of Business, the international association for management education, for all degree programs. The School provides relevant, comprehensive business education through programs that serve recent high school graduates as well as older student populations. The student body is racially and ethnically diverse, residential and commuting, and often working and raising families. To meet the needs of these students, the School schedules classes throughout the metropolitan area, during both day and evening hours. Most programs can be completed at either the Main Campus or the Oakland Center locations.

The undergraduate program begins during the freshman year. The first two years of undergraduate work are focused on developing an educational foundation in the basic sciences and arts. During the third and fourth years, the student follows a program of professional education. Students may select majors in accounting, finance, global supply chain management, information systems management, and marketing. The degrees of Bachelor of Arts and Bachelor of Science in Business Administration are awarded.

The graduate program leading to the Master of Business Administration (M.B.A.) degree is dedicated to educating graduate students for professional careers in business administration. The Master of Science in Accounting (M.S.A.) program prepares individuals for professional careers in public accounting. The Master of Science in Taxation (M.S.T.) degree is offered to those interested in the advanced study of taxation. For additional graduate program information, consult the Wayne State University Graduate Bulletin.

The Doctor of Philosophy Program in Business Administration prepares students for teaching and research at major universities. The program focuses on quantitative skills, enabling students to engage in research projects with faculty, and places a heavy emphasis on a global perspective.

The School of Business Administration also recognizes its obligation to community service. As a central part of an urban university, the School makes a special commitment to foster training, and basic and applied research that will benefit business enterprises. Of primary importance is the dedication to excellence in the instructional programs that prepare the business leadership that is critical to the continuing revitalization of southeastern Michigan.

Mission Statement

The mission of the School of Business Administration is to achieve excellence in business education, research, and service by adapting to the needs to the needs of a dynamic, globally competitive business environment.

Aspiration: The School of Business Administration aspires to be one of the leading business schools among North America's public research universities with an urban mission.

Degree Programs

BACHELOR OF ARTS in Business Administration with majors in

Accounting
Finance
Global Supply Chain Management
Information Systems Management
Management
Marketing

BACHELOR OF SCIENCE in Business Administration with majors in all of the Bachelor of Arts majors cited above

Double majors in the areas cited as B.A. or B.S. majors are possible. Students should consult the Office of Student Services for more details

POST-BACHELOR'S CERTIFICATE IN ACCOUNTING

MINOR IN BUSINESS ADMINISTRATION

MASTER OF BUSINESS ADMINISTRATION

MASTER OF SCIENCE IN ACCOUNTING

MASTER OF SCIENCE IN TAXATION

DOCTOR OF PHILOSOPHY IN BUSINESS ADMINISTRATION

Directory of the School

Website: http://www.business.wayne.edu

Telephone area code: 313

Dean: 226 Prentis Building; 577-4501;
BusinessDean@wayne.edu

Associate Dean for Research and Graduate Programs:
226 Prentis Building; 577-4501;
BusinessGradADean@wayne.edu;

Associate Dean for Undergraduate Programs:
226 Prentis Building; 577-4501;
BusinessUgradADean@wayne.edu;

Assistant Dean of Student Services:
200 Prentis Building; 577-4510; BusinessAstDean@wayne.edu

Administrative Services:
105M Prentis Building; 577-4502; BusinessAdminSvc@wayne.edu

Director, Career Planning and Placement:
103 Prentis Building; 577-4781; Bizcareers@wayne.edu

Director, Computing Services:
6.3 Prentis Building; 577-1624; BusinessCIT@wayne.edu

Director, Institute for Organizational and Industrial Competitiveness (IOIC):
217 Prentis; 577-4484; BusinessIOIC@wayne.edu

Director, Manufacturing Information Systems Center (MISC):
300 Prentis Building; 577-7837; BusinessMISC@wayne.edu

Director, Marketing and Communications:
226 Prentis Building; 577-0202; Jenny@wayne.edu

Office of Student Services:
200 Prentis Building; 577-4510; BusinessAstDean@wayne.edu

Student Senate Office:
116 Rands House; 577-4783; sbastudentsenate@wayne.edu

Director, School of Business Administration Development:
226 Prentis Building; 577-9212; BusinessDev@wayne.edu

Department of Accounting:
200 Rands House; 577-4530; Rcpaschke@wayne.edu

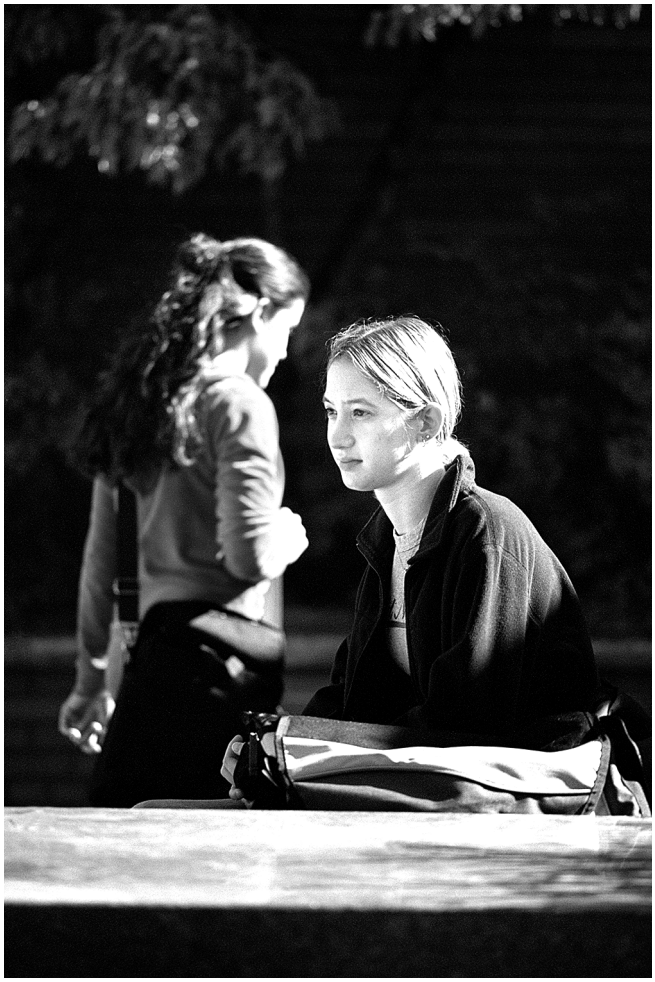
Department of Finance:
Third Floor Prentis Building; 577-4525

Department of Management and Information Systems:
Third Floor Prentis Building; 577-4525

Department of Marketing and Supply Chain Management:
Third Floor Prentis Building; 577-4525

Undergraduate Program Information: 577-4505

Graduate Program Information: 577-4510



Bachelor's Degrees

Admission Requirements

Effective for students admitted Fall 2009 and thereafter admission to the School of Business Administration Undergraduate Program is based upon two criteria: Preprofessional Program Standing and Professional Program Standing, as defined below.

Preprofessional Program Standing is the classification for entering high school students or transfer students admitted directly to the School of Business Administration through the Undergraduate Admissions Office. Typically, students are admitted at the freshmen or sophomore levels and pursue Business Foundation requirements, entry level Business Core classes and General Education Requirements. The purpose of the preprofessional coursework is to provide students with business instruction that prepares them for advanced level Business Core courses and business major courses.

Professional Program Standing is the classification for students entering or continuing in the School of Business Administration with the completion of fifty-four semester credits at Wayne State University or fifty-four transferable semester credits, and requires a minimum 2.50 grade point average as described in the School of Business Administration requirements (consult Student Services, 200 Prentis Bldg.). Entry into Professional Program Standing grants students approval to enroll in advanced Business Core courses and degree-applicable major courses. Students not meeting the grade point average requirement will NOT be allowed to enroll in either of these course groups until the required grade point average is achieved.

High School Students: Students who meet the University requirements for regular admission are eligible for admission to the School of Business Administration. (See Undergraduate admission requirement, page 24.)

Transfer Students: Students must meet University requirements for general admission. (See Undergraduate admission requirements, page 24.) Students currently in another program at WSU must have a minimum 2.00 g.p.a. to be admitted to the Business School. WSU students with less than a 2.00 g.p.a. will not be considered for admission. Transfer students from outside WSU are required to have a minimum 2.00 g.p.a. from their transfer institution. Transfer students with a 2.0- 2.49 g.p.a. will not be allowed to take any Business School Core at the 3000 level or higher or major courses until a minimum 2.5 WSU g.p.a. is achieved. The maximum number of transfer credits that will be accepted from a junior or community college is ninety-six quarter credits or sixty-four semester credits. Equivalency tables have been developed with area community colleges which identify lower division community college courses that are equivalent to the lower-division business foundation courses at Wayne State University.

Application for admission and all official collegiate transcripts must be submitted by transfer students to the Undergraduate Admissions Office of Wayne State University. Qualified applicants will then be referred to the School of Business Administration's Office of Student Services.

Admission Appeals: There is no guarantee of admission to the School of Business Administration. Formal appeals of admission denial may be made to the Assistant Dean of Student Services of the School of Business Administration. Guidelines for appeal are available in the Office of Student Services, 200 Prentis Building; 577-4510

Business Administration Curriculum

The Undergraduate program in Business Administration includes University General Education requirements (see page 18), business foundation, core, major, and elective courses.

SPECIFIC COURSE REQUIREMENTS: The courses listed below are required of all business students. No substitute courses are permitted except as noted. A minimum grade of 'C' (2.0 g.p.a.) must be earned in course requirements indicated by an asterisk (*).

Accounting

*ACC 3010 -- Introduction to Financial Accounting: Cr. 3
Prereq: MAT 1500 or 1800 or equiv;
(each with a minimum grade of C (2.0))

*ACC 3020 -- Introduction to Managerial Accounting: Cr. 3
Prereq: ACC 3010; ECO 2010; MAT 1500 or 1800
(each with a minimum grade of C (2.0)).

Business

B A 2020 -- Introduction to Business: Cr. 3

Business Law

BLW 2510 -- Business Law I: Cr. 3 (formerly ACC 2510)
Prereq: B A 2020

Economics

*ECO 2010 -- (SS) Principles of Microeconomics: Cr. 4

*ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 4
Note: Either ECO 2010 or 2020 will satisfy the Basic Social Science Group Requirement.

English

*ENG 1020 -- (BC) Introductory College Writing: Cr. 4
Prereq: placement through ACT score or English Qualifying Examination or passing grade in ENG 1010.

Mathematics

Courses Equivalent to or at a higher level than:

*MAT 1500 -- College Algebra for the Social & Management Sciences: Cr. 3
(Prereq: one of following within previous two semesters: satisfactory score on mathematics placement exam; or at least C-minus in MAT 1050 taken at WSU; or successful completion of MAT 0995 taken at WSU.

Statistics

*B A 2300 -- Quantitative Methods I: Probability & Statistical Inference: Cr. 3
Prereq: MAT 1500 or higher or equiv. (with a minimum grade of C (2.0)).

General Education Requirements

Students must also satisfy University General Education Competency and Group Requirements (see page 18) as part of the Business Administration curriculum.

Bachelor of Science in Business Administration

Admission Requirements: see above.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Science in Business Administration must satisfactorily complete 122 credits including the business foundation curriculum (see above), and all general education, business core, major, and elective requirements as noted below. Within the student's degree program, no more than sixty-four credits in business administration subjects and upper division economics may be applied toward the degree.

To be eligible for the degree, students must have earned a minimum 2.0 grade point average in the major requirements and a minimum overall grade point average of 2.0 in all undergraduate course work completed at Wayne State University.

— General Education Requirements

All undergraduate students are responsible for satisfactorily completing the University General Education Requirements (see page 18). In reviewing that material, students should note that COM 3300 satisfies the Writing-Intensive major course requirement for business administration curricula. Passing the Computer Literacy Competency Examination satisfies the Computer Literacy requirement for students enrolled as freshmen prior to Fall 2005. PSY 1010 (4 credits) is recommended for satisfaction of the Life Science Group Requirement; B A 1010 is recommended for satisfaction of the Critical Thinking requirement; and ECO 2010 or 2020 also satisfies the Basic Social Science Group Requirement. Business Administration students should consult the School of Business Administration's Office of Student Services, for specific information regarding the satisfaction of these requirements, consistent with academic requirements of the School.

— Core Requirements

All students must complete the following core courses. *Students are responsible for observing all course prerequisites and limitations.*

B A 3400 -- Quantitative Methods II: Statistical Methods: Cr. 3
FIN 3290 -- Business Finance: Cr. 3
GSC 3600 -- Operations and Supply Chain Management: Cr. 3
ISM 3630 -- Business Information Systems: Cr. 3
MGT 2530 -- Management of Organizational Behavior: Cr. 3
MGT 6890 -- Strategic Management & Business Policy: Cr. 3
(To be taken as one of the last five courses toward bachelor's degree and after completion of all other core courses.)
MKT 2300 -- Marketing Management: Cr. 3.

— Major Requirements

Majors and specializations are offered through four academic departments: Accounting, Finance, Management and Information Systems, and Marketing and Supply Chain Management. Majors in Accounting, Finance, Global Supply Chain Management, Information Systems Management, Management, and Marketing require six courses (eighteen credits). Students also have the option to double major. Each of the undergraduate majors employs a capstone course as a vehicle to assess a student's knowledge of the discipline. Students in all of the majors also complete the capstone course for the undergraduate program: MGT 6890, Strategic Management and Business Policy.

Students should refer to the respective departmental section of this bulletin for specific majors and specializations. After selecting a major, students must consult the Office of Student Services of the School of Business Administration to obtain an official Plan of Work. All courses must be taken in accordance with an approved Plan of Work and all course prerequisites and limitations must be observed.

— Elective Requirements

Electives form an integral part of an education in business administration. A student's selection of elective courses should be guided in part by his or her career objectives. These elective courses constitute study in addition to the business foundation, core, and major requirements listed on the student's Plan of Work.

FREE ELECTIVES: Free electives are courses offered by the School of Business Administration or by other Schools and Colleges of the University. The major or specialization may contain recommendations for electives. After a student has completed fifty-six credits, all

remaining free electives must be taken at the 3000 level (junior-senior) or higher.

NON-BUSINESS ELECTIVES: In order to graduate, all business administration students, regardless of major, must satisfactorily complete a total of sixty-five semester credits of non-business course work, including any business foundation requirements that are considered non-business. Non-business electives must be taken from courses offered outside the School of Business Administration. After a student has completed fifty-six semester credits, all remaining non-business electives must be taken at the 3000 level (junior-senior) or higher in the College of Liberal Arts and Sciences, the College of Engineering, or the College of Fine, Performing and Communication Arts, with the following exceptions:

1. Computer Science courses below the 3000 level, except CSC 1000, may be used to satisfy non-business elective course requirements;

2. Upper-division courses in the Department of Economics (3000 level or higher) and Physical Education may not be used to satisfy this requirement.

LANGUAGE ELECTIVES: Students who are preparing for careers in the global economy or employment opportunities overseas or with multinational corporations should consider electing foreign language courses. In addition, students who wish to earn the Bachelor of Arts degree may utilize their electives toward the satisfying of the Bachelor of Arts foreign language requirements (see below). For more information, contact the department in the College of Liberal Arts and Sciences in which the language is taught.

Bachelor of Arts in Business Administration

Admission Requirements: see above, page 69.

DEGREE REQUIREMENTS are the same as for the Bachelor of Science, cited above, with the additional requirement that a student must attain a level of proficiency in a single foreign language equivalent to the completion of eleven credits through university-level course work or placement by examination administered by the University's Department of Classical and Modern Languages, Literatures and Cultures. In some instances, completion of the Bachelor of Arts foreign language requirements may result in course work beyond the 122 credit minimum.

Minor in Business Administration

The School of Business Administration offers a minor in business administration for undergraduate students majoring in other disciplines. The Business Minor consists of six courses, totaling eighteen credits. Students must also complete prerequisite courses with a minimum grade of 'C' (2.0 g.p.a.) for each course. The minor provides an excellent opportunity for non-business majors to broaden their knowledge of the business disciplines. In addition, the program enhances career prospects and establishes a solid business base for pursuing a Master of Business Administration degree. To be eligible to apply for the Business Minor, students must have a minimum overall grade point average of 2.5.

Prerequisite Courses

ECO 2010 -- (SS) Principles of Microeconomics: Cr. 4
ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 4
MAT 1500 -- College Algebra for the Social & Management Sciences: Cr. 3
(or course(s) equivalent to or higher than MAT 1500)

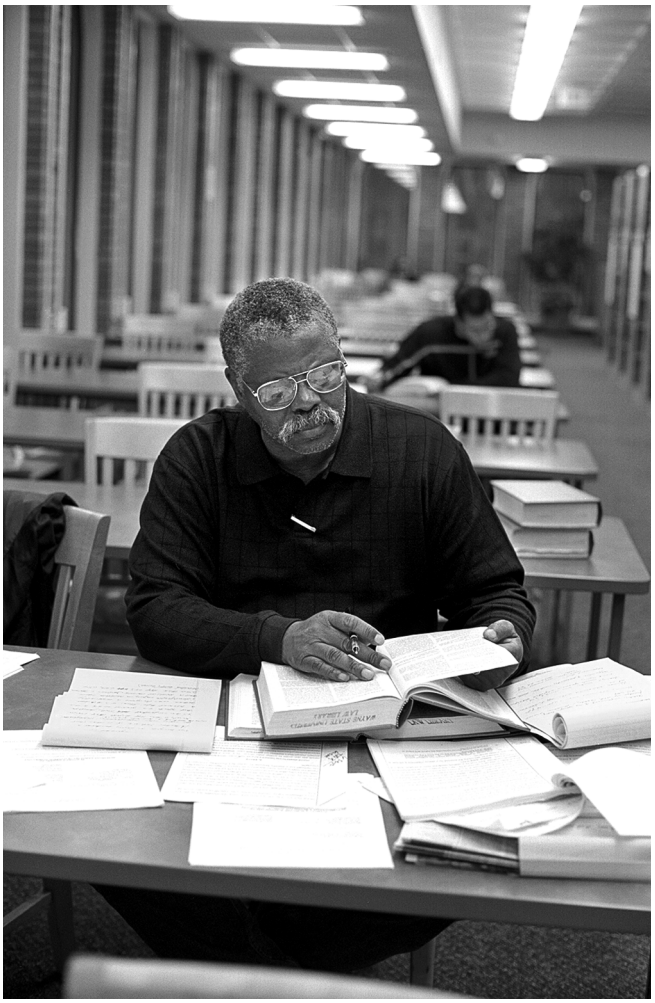
Required Courses

ACC 3010 -- Introduction to Financial Accounting: Cr. 3
FIN 3290 -- Business Finance: Cr. 3
MGT 2530 -- Management of Organizational Behavior: Cr. 3
MKT 2300 -- Marketing Management: Cr. 3
Plus two electives from School of Business Administration courses.

Cooperative Education Program

The School of Business Administration actively participates in the University Cooperative Education (Co-op) Program in which students' alternate semesters of work and academic study. Eligibility begins in the junior year or upon having earned more than the minimum fifty-four semester credits. Students interested in this program should contact the Cooperative Education Coordinator, Career Services, 1001 Faculty Administration Building; 577-3390.

Students admitted to the program with minimum junior standing should recognize that an additional calendar year may be needed to fulfill the requirements for the bachelor's degree. No academic credit is granted for participation in the Co-op Program; Satisfactory/Unsatisfactory ('S/U') grades are given, however, and are entered on the official University transcript.



Academic Regulations

For complete information regarding academic rules and regulations of the University, students should consult the General Information section of this bulletin, beginning on page 5. The following additions and amendments pertain to the School of Business Administration.

All students must fulfill the upper-division requirements of the School of Business Administration in effect at the time of admission to the School of Business Administration.

Admission to the School

Students seeking a business degree must be granted regular admission to the University to be eligible for admission to the School of Business Administration (see page 69).

Admission to Class

Please consult each term's Schedule of Classes for appropriate dates and deadlines for registration, late registration, and add/drop period. *Students may not attend a class for which they are not officially registered and will not be added retroactively.*

Application for Degree

Each candidate must file an Application for Degree in the Records Office, 5th floor, 5057 Woodward Ave., NO LATER THAN THE TENTH DAY OF CLASSES for the semester in which he or she expects to complete the requirements for the degree. If an Application for Degree was filed for a previous semester in which the student did not graduate, a new application and fee is required. Applications are available on the University website.

Attendance Policy

Regular attendance is a necessary condition for success in college study. This policy recognizes that the course content includes classroom lecture and discussion, certain aspects of which may be covered on examinations, quizzes, term papers, or homework assignments. Each instructor will announce his or her attendance standards at the beginning of the term.

Change of Major

Students wishing to change majors or *Plans of Work* within the School of Business Administration must submit a request in writing to the Undergraduate Advisor in the Office of Student Services, 200 Prentis Building. A *Plan of Work* for the requested major will then be mailed. Students are advised that such changes occurring late in their program may result in additional coursework beyond the minimum requirement of 122 credits.

Conduct

Each student is subject to official regulations governing student activities and student behavior. Students should familiarize themselves with the obligations of students in the instructional process, see page 37. Furthermore, it is the responsibility of each student to adhere to the principles of academic integrity. Academic integrity means that a student is honest with him/herself, fellow students, instructors, and the University in matters concerning his or her educational endeavors. Thus, a student should not falsely claim the work of another as one's own, or misrepresent him/herself so that the measures of one's academic performance do not reflect his/her own work or personal knowledge. Assignments submitted for any class are expected to be original, i.e., not resubmissions of work submitted in a previous or concurrent class.

If there are reasonable grounds to believe that a student has disregarded the regulations or student responsibilities, he or she may be disciplined. Such discipline may include suspension or dismissal, but no dismissal will be directed without reasonable opportunity for an appropriate hearing, as provided in the Student Due Process statute.

See University Code of Conduct (http://www.doso.wayne.edu/codeofconduct.pdf) and School of Business Administration Code of Ethics (http://www.business.wayne.edu)

Degrees

Degrees are granted upon the recommendation of the faculty of the School of Business Administration. Consideration is given to both scholastic attainment and to compliance with the standards and rules of the School.

Directed Study

A directed study is intended to give students the opportunity to conduct research in an area of interest to them under the supervision of a faculty member; credits vary between one and three. A cumulative grade point average of 3.00 is required to be eligible for consideration for directed study work. Students must complete the *Undergraduate Directed Study* form and obtain the required signatures prior to registration. No more than three credits of directed study in one Department are permitted in any semester. A total of no more than six credits of directed study may be used to fulfill graduation requirements. Contact the Office of Student Services, 200 Prentis, for further information.

Double Major

Students may pursue a double major within the Business School. For more information, contact the Office of Student Services, 200 Prentis

Graduation with Distinction

Wayne State University bestows upon students completing the baccalaureate degree three separate designations for scholastic excellence reflected in the cumulative grade point average: *Cum Laude, Magna Cum Laude,* and *Summa Cum Laude*. Graduation with distinction is indicated on the student's diploma and on the transcript. For information, see page 23.

Honors Program

Current WSU business students with a cumulative grade point average of 3.5 or higher may enroll in courses with an honors component assignment option, and complete the fifteen credit required program (contact the Office of Student Services for details) to qualify for an honors distinction on their transcript and diploma at graduation

Incomplete Marks

The mark of 'I' is appropriate only when a student has completed all of the requirements for a course except for a specific assignment, such as a project or an examination, and only when the instructor agrees that a student has a valid reason for not completing the assignment.

The mark of 'I' which is not converted to a letter grade within one year from the time it was received will be automatically changed to an 'F'

Grade Appeals Procedure

Students disputing a final grade should first contact the instructor of the course informally. Should the dispute remain unresolved, the student may initiate a formal appeal. The School of Business Administration's grade appeals procedure is available in the Office of Student Services, 200 Prentis Building and at http://www.business.wayne.edu.

Non-grade-related grievances should be brought directly to the appropriate departmental chairperson or to the Assistant Dean of Student Services. Additionally, the University Ombudsperson (see page 54) is available to all students for assistance in the resolution of University-related problems.

Mathematics Competency or Proficiency Requirement

Mathematics Competency (MC) requirements are stated in the University General Education Program; see page 19. Further information may be obtained from the Office of Student Services of the School of Business Administration, 200 Prentis Building. Information about registering for placement or competency examinations may be obtained from the Testing, Evaluation, and Student Life Research Services Office, 698 Student Center.

Normal Program Load

The normal academic load for an undergraduate student in the School of Business Administration is from nine to sixteen credits each semester, depending upon the particular courses elected. No student should expect to carry a full load and at the same time be employed full-time. Students desiring to carry more than eighteen credits must obtain written permission from the Office of Student Services prior to registration. Excess credits will not be honored when taken without prior written approval.

Passed/Not Passed Registration

Undergraduate students in the School of Business Administration may *not* take courses offered by the School of Business Administration on a *passed / not passed* basis.

Probation and Exclusion

A student who registers for, but repeatedly fails to complete his/her program and thus does not make normal progress toward graduation, may be placed on probation.

If a student's academic work is unsatisfactory (less than 2.0 cumulative grade point average or less than 2.0 grade point average in his or her major), the student will be placed on probation with the understanding that he or she will be expected to achieve a cumulative 2.0 grade point average within the next twelve credits completed, or a 2.0 major grade point average within the next six credits completed in the major. If probationary status is not removed within the prescribed number of credits, the student is subject to either temporary suspension or permanent dismissal from either the major or from the School of Business Administration.

The second (or subsequent) time(s) a student is placed on probation, he or she is subject to immediate dismissal from the School of Business Administration.

In the event of a temporary suspension, readmission to the School of Business Administration will be considered only with the recommendation of the Undergraduate Committee. (The Undergraduate Committee is composed of the departmental chairpersons and is chaired by the Assistant Dean of Student Services.) If, after readmission to the School of Business Administration, the academic deficiency is not removed within the first nine credits attempted, the student will be permanently dismissed from the School. Coursework completed at another institution during a period of temporary suspension will not be considered for transfer credit.

The exclusion of any student will be reviewed by the Undergraduate Committee of the School of Business Administration. A student on probation who fails to complete the courses for which he or she registers, without good reason as determined by the Dean or designee, shall not be permitted to re-register in the School of Business Administration.

The Undergraduate Committee, upon the recommendation of the student's Department Chairperson, may permanently exclude a student from a major, if the student fails to remove himself or herself from probationary status within the prescribed number of credits.

In matters where the School's final decision is based upon the evaluation of a student's academic performance and when review procedures available to him or her within the School have been exhausted, the student may request the Provost to review that decision on the record.

While on probation, a student may not represent the School in student activities.

Retaking Courses

The University policy on retaking courses is stated on page 36. No course in which a student has received a passing grade or mark may be repeated without the prior written approval of the Assistant Dean of Student Services of the School of Business Administration.

Residence Requirement

After the completion of fifty-six credits a student may not take course work and receive transfer credit for courses taken at the lower division (freshman and sophomore) at other institutions. The final year and the last thirty-two credits must be taken at Wayne State University. In exceptional cases, a limited number of the last thirty-two credits toward a degree may be taken at another accredited college or university. All such cases must receive the approval of the Assistant Dean of Student Services before the work is undertaken.

Students returning to the School after a five-year absence are required to conform to the program requirements in effect at the time of their return.

Retention of Instructors' Records

Term papers and examinations shall either be returned to the student or retained by the instructor for a period of ninety days. Thereafter, they may be destroyed. Instructors shall retain grade books for at least five years following the end of a term and instructors who leave the institution shall give grade books for courses conducted during the past five years to their department chairperson. Five years after the end of a course, grade books may be returned to the instructor or destroyed by the department.

Transfer of Courses in Major

No more than six semester transfer credits may be applied toward a student's major requirements. These courses must have received a grade of 'C' or better. Transfer of major credit beyond six semester hours may be applied toward free elective requirements. Only transfer courses taken at an AACSB accredited college or university will be considered.

Waiver of Degree Requirements

Students must comply with degree requirements as listed in this bulletin and on their *Plan of Work*. Students may petition for a modification in degree requirements by completing a waiver form and submitting it to the Office of Student Services of the School of Business Administration. Waiver of a *School requirement* requires the recommendation of the Undergraduate Committee and the approval of the Dean or his/her designee. Waiver of a *departmental requirement* requires the recommendation of the departmental chairperson. Undergraduate students are advised that no faculty member is authorized to approve a change in degree requirements.

Withdrawals from Class

See page 40 for the University policy on adjusting your schedule. Tuition refund and withdrawal policy also appears each semester in the Schedule of Classes and located at http://reg.wayne.edu/students/policies.php.

Financial Aids and Awards

Scholarships and Awards

The scholarships listed below give preference to students in the School of Business Administration. While the School of Business Administration, through its Scholarship Committee, a Departmental committee, or a joint committee of the School and an external organization, foundation, or agency is directly involved in selecting the recipients of certain scholarship awards, the School is also asked to nominate student candidates for certain other scholarship awards though it may not participate in the selection process.

Adcraft Club of Detroit Foundation Scholarship: Award open to a student majoring in marketing.

Alumni Association Endowed Scholarship: Designated for business administration students demonstrating high academic achievement, leadership, and service. Established in 1986.

Herbert G. and Delores A. Amthor Annual Scholarship: Established to recognize scholastic achievement, to encourage continued progress, and to provide assistance to students in financing their education in the School of Business Administration.

*Richard H. Austin Excellence in Accounting Endowed Scholarshi*p: Award of variable amount established to recognize potential abilities and academic achievements of accounting students.

Beta Alpha Psi Endowed Scholarship: Established to recognize the academic achievement of accounting majors.

Stanton P. Bocknek Memorial Endowed Scholarship: Awarded for the first time in 1988, these awards are designated for students demonstrating high academic achievement in accounting.

Lawrence and Charlynne Braun Endowed Scholarship: Established to recognize students who have displayed excellence in leadership, character, and scholastic achievement.

Theodore Buckwick Endowed Scholarship: Established to recognize students majoring in management who are working to finance their own education.

Chrysler Foundation Scholarship: Funding through the generosity of Chrysler Foundation to recognize outstanding students.

Community College Scholarship: Designed to recognize the academic achievements of recently-admitted community college students, this scholarship provides students with financial support to attend the School.

Barbara and Paul Czamanske/Compass Group Ltd. Endowed Scholarship: Designed to recognize undergraduate business students for their outstanding contribution to the University in the area of student activities, leadership, and service.

Delta Sigma Pi Scholarship Key: Awarded to the academically highest-ranked student in the graduating class of the School.

Delta Sigma PI Gamma Theta Endowed Scholarship: Recognizes the academic achievement of Delta Sigma Pi Brothers

Jack Demmer Ford, Inc., Endowed Scholarship in Business: Established to recognize students of high scholastic achievement and strong leadership qualities who reside in the tri-county (metropolitan Detroit) area.

Charles E. Dover Endowed Scholarship in Business Administration: Recognizes excellence in scholastic achievement, leadership and character among full-time undergraduate business students.

James D. and Shirley M. Ellis Endowed Scholarship: Recognizes undergraduate business students of high achievement who evidence financial need.

Marie Farrell-Donaldson Endowed Scholarship in Accounting: Recognizes accounting majors with high academic achievement and financial need.

Sidney and Jewel Fields Scholarship in Accounting: Created by the Morris and Emma Schaver Foundation, this award was established in 1988 to honor the forty-two years of service and friendship that Sidney and Jewel Fields have given to the Schaver family. Award of $2000 open to accounting majors.

Financial Executives' Institute Award for Academic Excellence: Recognizes the academically highest-ranked accounting or finance student in the December graduating class.

Sam, Leonard and Jack Fink Memorial Scholarship: Award of variable amount open to business administration students demonstrating high academic achievement.

Ford Motor Company Annual Scholarship: This scholarship is designated for academically-gifted business students.

Irving H. Frank Memorial Endowed Award: Established to encourage a student interested in the retail field.

General Motors Annual Scholarship: Designed to promote scholastic achievement by providing academic scholarships based on achievement and community services criteria, and designated for full time undergraduate students

Raymond M. Genick Endowed Scholarship in Small Business Management/Entrepreneurship: Awarded to an undergraduate or graduate student majoring or concentrating in small business management/entrepreneurship who exhibits excellence in scholastic and leadership efforts.

Paul A. and Mary K. Glantz Family Endowed Scholarship: recognizes full-time undergraduate students majoring in accounting.

Charles and Katherine Hagler Endowed Scholarship in Public Relations: Established in 1989 in memory of Charles and Katherine Hagler, this is an award of variable amount for recognition of an outstanding advertising/public relations student.

Jack A. Hamm and Bessie I. Hamm Endowed Scholarship: Established to assist students in financial need.

David Handleman Endowed Scholarship: Provides financial support to undergraduate business students.

T. Norris and Vivilore Hitchman Endowed Scholarship Fund: Established to recognize scholastic achievement of students majoring in business disciplines.

George R. Husband Endowed Scholarship: Awarded to accounting majors demonstrating high academic achievement, maintaining a minimum 3.0 g.p.a.

Austin and Harriet Kanter Endowed Scholarship: Designated to recognize a student majoring in marketing who displays outstanding scholarship, leadership, and service to the School of Business Administration.

Mildred and Charles Kaye Endowed Scholarship Fund for Accounting Students: Recognizes outstanding undergraduate students majoring in accounting.

Wilfred Kean Memorial Endowed Scholarship: Established in 1989 in memory of alumnus Wilfred Kean. Designated primarily for a student enrolled in evening classes in the School.

KPMG, LLP —Wayne State Alumni Scholarship: Funded solely by Wayne State Alumni with KPMG, LLP, this award is designated for accounting majors demonstrating high academic achievement.

Carl M. Krampert Memorial Annual Scholarship: Established to recognize business students who are employed a minimum of twenty hours per week and are in financial need.

Jack Kuzminski Memorial Endowed Scholarship: Established to recognize scholastic achievement of students majoring in finance.

Lear Corporation Annual Scholarship: Funded through the generosity of Lear Corporation to recognize deserving students.

Team Al Long Endowed Scholarship in Business: Established to recognize scholastic achievement and leadership efforts and to encourage continued progress for students who are graduates of Denby, Osborn, and Finney High Schools in Detroit.

Mauser Harmony with Nature Annual Scholarship: Established to honor the memory of Dr. Mauser, a scholar, author, and internationalist who devoted over two decades to teaching and writing at the School of Business Administration.

James D. McCarthy Memorial Scholarship: Established to continue the spirit and professional achievements of James D. McCarthy, CPA, JD, LLM and alum.

The Walter S. Meyers Endowment Fund for Student Development: Established to provide opportunities for marketing students to attend workshops, professional luncheons and professional development experiences which enable students to network with leaders in the community.

Bruce E. Mullican Memorial Endowed Scholarship: Established in 1984 in memory of M.B.A. alumnus Bruce E. Mullican. Award of variable amount, designated for students with demonstrated interest and involvement in small business management.

Robert H. Naftaly Endowed Scholarship: Created to recognize Mr. Naftaly's service on the Wayne State Board of Governors as well as to Blue Cross/Blue Shield of Michigan, this scholarship honors students interested or involved in careers in health care administration and who display excellence in both scholarship and leadership.

Marie L. Nash Memorial Endowed Scholarship Fund: Recognizes scholastic achievement of graduate students in the School of Business Administration.

National City Bank Annual Scholarship: Established to support graduates of E-Commerce Summer Camp.

Plante & Moran, PLLC Corporate Annual Scholarship: Funded through the generosity of Plante & Moran, PLLC, to recognize an outstanding accounting student.

Byron Oliver Pond III Annual Honors Scholarship: Established by Byron and Margaret Pond, in memory of loving son, Byron Oliver Pond, III, to recognize academic achievement.

Ripple Family Annual Scholarship: Established to recognize scholastic achievement and provide assistance to students pursuing their education in business.

Aubrey Roberts Scholarship: Awarded to Accounting majors demonstrating high overall scholarship and outstanding academic achievement in accounting subjects.

Bruce H. and Rosalie Rosen Endowed Scholarship: Established to recognize a full-time undergraduate majoring in management who exhibits excellence in academics, leadership, and character.

Bruce and Rosalie Rosen Annual Scholarship: Established to recognize scholastic achievement, to encourage continued progress, and to provide assistance to students in financing their education in the School of Business Administration.

Charles and Sandra Schultz Endowed Scholarship: Created to recognize the academic achievement and encourage the continued progress of business students.

School of Business Administration Alumni Association Endowed Scholarship for Emerging Leaders: Established to recognize talent and scholastic achievement, to encourage continued progress, and to provide assistance to students majoring in accounting in financing their education at Wayne State University.

School of Business Administration Faculty and Staff Annual Scholarship: Established by the business school's faculty to recognize academic achievement and encourage continued progress.

Alex and Zenia Serafyn Endowed Scholarship: Established to recognize talent and scholastic achievement, to encourage continued progress, and to provide assistance to students majoring in accounting in financing their education at Wayne State University.

Serta Restokraft / Eugene and Mignon Kraft Family Endowed Scholarship: Established to recognize scholastic achievement and continued progress of Detroit residents who intend to pursue a business or entrepreneurial career in the city of Detroit.

Sledz Family Scholarship: Established to recognize talent and scholastic achievement, to encourage continued progress, and to provide assistance to students majoring in accounting in financing their education at Wayne State University.

George M. and Mabel H. Slocum Foundation Endowed Scholarship: Award of variable amount open to marketing students of high academic achievement specializing in advertising/public relations.

Ronald Stone Annual Honors Scholarship: In honor of the contributions of Ronald Stone to the School of Business and the Alumni Association, this scholarship supports an honors undergraduate student.

Brian A. Strutz Endowed Scholarship Fund: Established to recognize scholastic achievement of business students

David A. Stulberg Endowed Scholarship: Established to recognize scholastic achievement, to encourage continued progress, and to provide financial assistance to undergraduate business students.

Triangle Annual Scholarship: Established to recognize scholastic achievement, to encourage continued progress, and to provide assistance to an honor student in financing their education at Wayne State University.

UHY Advisors, MI Annual Scholarship: Established to recognize scholastic achievement, to encourage continued progress, and to provide assistance to accounting students in financing their business education.

Virchow, Krause & Company Scholarship: Established to recognize talent and scholastic achievement, to encourage continued progress, and to provide assistance to students majoring in accounting in financing their education at Wayne State University.

William H. Volz Endowed Scholarship: Created to reward scholastic achievement and encourage continued progress for students interested in pursuing a law degree or a combined J.D./M.B.A. degree.

Louise C. Wissman Endowed Memorial Scholarship: This award recognizes Detroit residents of high academic achievement who are dedicated to continued progress at Wayne State University.

Recognition Awards

Alpha Delta Sigma Honorary Society: The Alpha Delta Sigma Honorary Society of the American Advertising Federation recognizes the academic achievement of advertising students.

American Marketing Association Award: Awarded by the Detroit Chapter to the outstanding student in marketing.

Corporate Awards: Sponsored by Detroit-area corporations who have generously provided funds to recognize Business Administration students demonstrating leadership, service and scholarship.

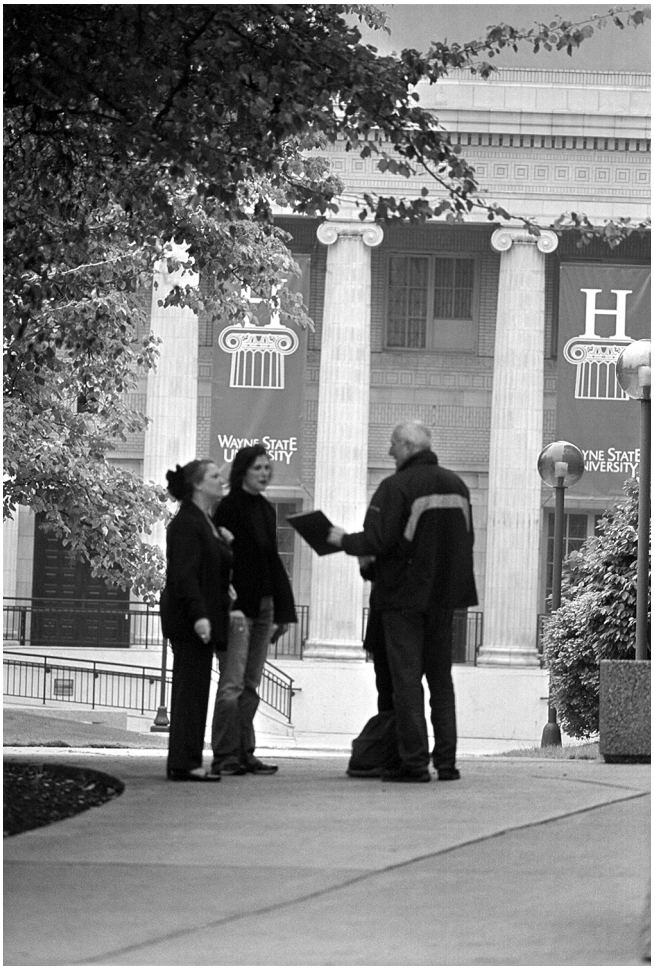
David D. Henry Award: Awarded to the outstanding male and female graduates based upon leadership, activities, and service to the University, consistent with high scholarship.

Student Community Service Award: Award made in recognition of outstanding community service. For information, contact the School's Student Services Office, 200 Prentis.

Dean's List: Each semester undergraduate students who have excelled in their academic studies are honored by placement on the Dean's List.

Delta Sigma Pi Scholarship Award: Awarded annually to the graduating senior with the highest scholarship in business administration.

Outstanding Student Award: Established in 1981, this award is presented annually to the student who has made the greatest contributions to the School of Business Administration and to the University.



Support Services and Organizations

Office of Student Services

The Office of Student Services is responsible for credentials evaluation, admissions processing, advising, and graduation certification of business administration students. In addition, Student Services personnel prepare and distribute the Plan of Work for students enrolled in graduate and undergraduate programs. Any student seeking academic, vocational, or personal counseling should make an appointment to see a member of the counseling staff: 577-4510 or 577-4505.

Career Planning and Placement

The School of Business Administration has its own placement department that is part of the Office of Student Services. The office offers students assistance in making informed career decisions and securing employment. Individual and group assistance is available on resume writing, interview techniques and business etiquette. For more information, call 577-4781.

Institute for Organizational and Industrial Competitiveness (IOIC)

The IOIC provides companies with current information about the elements of organizational competitiveness; fosters interaction among executives, policy makers and academics; and increases the exposure of students to the opportunities and challenges confronting organizations. The Institute facilitates and supports research to assist companies in gaining and sustaining a competitive advantage. For further information, call 577-4484

Manufacturing Information Systems Center (MISC)

The MISC serves as a resource for companies that currently use or plan to implement enterprise resource planning (ERP) systems. These software applications are designed to run and monitor a company's major activities but are often under-utilized. Based on years of work in the information systems field and international research findings, Director Arik Ragowsky has developed a model to assist manufacturing companies in better planning and using ERP systems. For further information, call 577-7837.

Computing Resources

The School of Business Administration is committed to providing Business School students with access to state-of-the-art computing and support. The School has an extensive array of computer equipment and software available for student use including three computing laboratories, one of which serves as a student walk-in facility and the other two laboratories are designated for classroom usage. The Student Walk-In Laboratory is reserved for business students only.

All the machines have the latest operating systems, with access to thirty-five different software packages, Internet, e-mail system, the University mainframe and local area network financial datasets such as CRSP and Compustat. Students have access to numerous databases on-campus and off-campus through the library information network. Laboratory Staff is on hand to answer questions on various software packages.

In addition to the Walk-In computer laboratories in the School that are open five days a week, students have twenty-four-hour access to the walk-in laboratory located in the David Adamany Undergraduate Library on the main campus. Additional computing facilities are also available at main campus and extension center locations.

The University has also set up wireless access points for the students on main campus allowing students the ability to use laptops and PDAs to access the library resources in classrooms or in common areas. Prentis and Rands building are wireless-accessible.

Student Organizations

The American Advertising Federation is a national organization headquartered in Washington, DC consisting of over 6800 undergraduate student members in 210 college chapters with more than 350 faculty advisors across the United States. The Wayne State Chapter participates in the National Student Advertising Competition (developing a full integrated marketing communications program for a national advertiser), a variety of internship programs, and Alpha Delta Sigma (national advertising honorary society).

The American Marketing Association (AMA) is an organization dedicated to the advancement of the science of marketing. Collegiate chapters promote professionalism and practical education for marketing students through exposure to, and assistance from, practitioners of the discipline.

Beta Alpha Psi is a national scholastic and professional accounting fraternity open to qualified students who have declared a concentration in accounting, finance, or information systems, and to full-time faculty of the Accounting, Finance, and Information Systems Departments. The fraternity objectives include: the promotion of the study and practice of compilation and analysis of financial information; the provision of opportunities for self-development and association among members and financial information professionals; and the encouragement of a sense of ethical, social and public responsibilities. The organization provides service to the University and metropolitan Detroit communities through its many volunteer activities.

Beta Gamma Sigma is the national honor society for students in business administration. The Wayne State chapter was installed in national membership in March 1979. Beta Gamma Sigma is the only scholastic honor society recognized by the American Assembly of Collegiate Schools of Business, the major accrediting body for schools of business administration. Election to membership in this honor society is the highest scholastic honor that a student in business administration can achieve. To be eligible for membership, students must rank in the upper five percent of their junior class, or the upper ten percent of their senior class, or rank in the upper twenty percent of those receiving master's degrees. Membership is by invitation only.

Delta Sigma Pi, an international professional fraternity in business administration, organized a local chapter at Wayne State University in 1949. The Wayne State Chapter seeks to enhance the educational, social, and professional experiences of its members through association with other students, faculty, and members of the professional business community.

The Financial Management Association (FMA) provides its members with a better understanding of the field of finance and develops relationships with practitioners in the Detroit metropolitan area. The club currently works with the National Investor Relations Institute, the Financial Analyst Society and the Economic Club of Detroit.

The International Business Association (IBA) was formed to promote an understanding of international business practices through programs and information dissemination to students. The organization aims to establish interaction between business students and the international business community.

National Association of Black Accountants (NABA) is a professional organization that sponsors speaking events, and provides a linkage with the professional community for minority students.

The Business School Student Senate is the official student government body of the School of Business Administration and is composed of two representatives from each recognized Business Administration student organization, at-large members elected from the student body, Student Council representatives, other students appointed by the Dean, the faculty or School adviser, ex officio, and the Dean of the School of Business Administration, ex officio.

Supply Chain Management Association (SCMA) provides its members an opportunity to learn about purchasing, logistics, materials management, inventory control, and related topics.

Additional information regarding specific student organizations can be obtained from the Business School Student Services Office (577-4505) or the University Student Center and Program Activities Office (577-3444).

BUSINESS ADMINISTRATION COURSES (B A)

The following B A courses, open to all Business students, are supervised by the Management and Information Systems Department

1010 (CT) Critical Thinking for Consumer Decisions. Cr. 3

Development of critical thinking skills and the application of these skills in evaluation and decisions for a broad range of consumer issues including advertising interpretations, purchase decisions, job applications, and consumer protection. (T)

2020 Introduction to Business. Cr. 3

Functions of modern business management, information systems, marketing, ethics and social responsibility. (T)

The following B A courses, open to all Business students, are supervised by the Marketing and Global Supply Chain Management Department

2300 Quantitative Methods I: Probability and Statistical Inference. Cr. 3

Prereq: MAT 1500 or higher or equiv. No business or free elective credit. No credit after ECO 4100, STA 1020, or equiv. Measures of central tendency and dispersion. Introduction to probability; normal, binomial, uniform, and Poisson distributions. Statistical inference and sampling methods. Computer techniques. (T)

3400 Quantitative Methods II: Statistical Methods. Cr. 3

Prereq: B A 2300 or ISM 2300 or ISM 3300; or ECO 5100 or equiv. Must be satisfactorily completed in first 16 credits after admission to the School. Uses of statistical techniques in business. Topics include: sampling, hypothesis testing, confidence interval estimation, regression, analysis of variance and chi-square tests. Application to accounting, market research, finance, production and forecasting. Computer techniques. (T)

Accounting

Office: 100 Rands House; 577-4530
Chairperson: Randolph C. Paschke

Professors

Charles R. Allberry (Emeritus), Gerald Alvin (Emeritus), B. Anthony Billings, Raymond J. Murphy (Emeritus), Alan Reinstein, William H. Volz

Associate Professors

Donald E. Gorton (Emeritus), Cathleen Miller, Santanu Mitra, Albert D. Spalding, Jr., Myles Stern, James F. Wallis (Emeritus)

Assistant Professors

Angela Andrews, Xiaowen Jiang, Pyung Kang, Cheol Lee, Pamela Schmidt, Maef Woods

Senior Lecturers

Deborah Jones, Antonie Walsh

Lecturers

Frank Lamarra, Randolph C. Paschke, Mark Savitskie, Daniel Weimer

Degree Programs

BACHELOR OF ARTS in Business Administration with a major in accounting

BACHELOR OF SCIENCE in Business Administration with a major in accounting

POST-BACHELOR'S CERTIFICATE IN ACCOUNTING

Bachelor's Degrees with Majors in Accounting

Admission Requirements: Students who meet the University requirements for regular admission are eligible for admission to the School of Business Administration.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 122 credits including satisfaction of the degree requirements (see page 70). All course work must be completed in accordance with the academic procedures of the University and the School which apply to this degree; see sections beginning on pages 18, 36, and 69.

The accounting program is designed to prepare students for professional careers in public, corporate, or governmental accounting. While stressing fundamental accounting theory, the curriculum provides thorough application of these concepts to practical situations. The major program in accounting employs a capstone course, ACC 5ii5, to assess students' knowledge of the discipline. Students who concentrate in accounting must complete the following courses:

ACC 5100 -- Intermediate Financial Accounting I: Cr. 3
ACC 5110 -- Intermediate Financial Accounting II: Cr. 3
ACC 5115 -- Intermediate Financial Accounting III: Cr. 3
ACC 5130 -- Accounting Systems Design and Control: Cr. 3
ACC 5160 -- Managerial Accounting: Cr. 3
ACC 5170 -- Introduction to Taxation: Individuals: Cr. 3

Post-Bachelor's Certificate in Accounting

The post-baccalaureate certificate program in accounting is designed to enable students who already hold a bachelor's degree in business administration or accounting to obtain the required educational background to be licensed as a Certified Public Accountant in Michigan.

Admission: Students must have a bachelor's degree in business administration or a discipline area of business administration or accounting from an accredited institution, with a grade point average of at least 2.0.

Students who have received their undergraduate degree in business administration, a discipline area of business administration, or accounting from Wayne State University should process a change in their status at the Registrar's Office to 'Post-Baccalaureate.' Students who have received an undergraduate degree in these areas from another institution must complete the Application for Undergraduate Admission form and request that official transcripts be sent directly to the Office of Admissions.

CERTIFICATE REQUIREMENTS: Candidates for this certificate must successfully complete a minimum of twenty-four credits in course work at Wayne State University following completion of the bachelor's degree, with a cumulative grade point average of not less than 2.0. Of these twenty-four credits, students must complete a minimum of six credits from courses offered by the Department of Accounting. Additionally, a minimum of twelve credits must be from courses offered within the School (Accounting, Finance, Information Systems, Marketing, and Management).

Each student's *Plan of Work* will be individually designed. Students intending to use this certificate to meet the requirements for licensure as a Certified Public Accountant in Michigan will work with their adviser to ensure that the courses chosen meet the requirements of the licensing body.

UNDERGRADUATE COURSES

The following courses, numbered 0990-5999 and 6100-6999, are offered for undergraduate credit. Courses numbered 6000-6090 and 7000-9999 which are offered for graduate credit only may be found in the graduate bulletin. For interpretation of numbering system, signs and abbreviations, see page 504. Students must be admitted to the School of Business Administration or receive permission from an adviser in the School to enroll in courses numbered 4000 and above.

ACCOUNTING COURSES (ACC)

3010 Introduction to Financial Accounting. Cr. 3

Prereq: MAT 1500 or MAT 1800 or equiv., each with minimum grade of C. Theory and practical applications of financial accounting principles; preparation and evaluation of financial statements and the items that make up these statements using real-world examples. Use of the language of business to communicate financial information about business enterprises. (T)

3020 Introduction to Managerial Accounting. Cr. 3

Prereq: ACC 3010 or equiv. and ECO 2010, or equiv.; and MAT 1500 or MAT 1800 or equiv.; each with minimum grade of C. Basic terms and concepts used in managerial accounting: cost behavior; cost-volume profit analysis; business planning and accounting controls; and how accounting information is used in managerial decision making. (T)

3050 The Profession of Accounting. Cr. 0

Prereq: ACC 3010 with minimum grade of C. Offered for S and U grades only. History and development of the profession; dramatic changes since the mid-twentieth century. Career opportunities and professional designations. How to prepare for a successful career in accounting. (F,W)

4500 (MGT 4500) Business Administration Co-op Assignment. (FIN 4500) (MKT 4500) Cr. 0

Offered for S and U grades only. No credit toward degree. Open only to School of Business Administration students; others by consent of instructor. Must be elected by Professional Development Co-operative Program students during work semester. Opportunity to put theory into practice on the job. Students will normally be assigned to cooperating business organizations for internship periods of one semester. (T)

5000 Financial and Managerial Accounting for Managers Cr. 3

Prereq: ACC 3010 and ACC 3020, each with minimum grade of C. Open only to School of Business Administration upper division students; others by consent of chairperson. Offered for undergraduate credit only. Coverage of key financial and managerial accounting topics and related skills beyond introductory level to enable evaluation and use of accounting information and data. (F, W)

5100 Intermediate Financial Accounting I. Cr. 3

Prereq: ACC 3010 and ACC 3020, each with minimum grade of C. Open only to School of Business Administration upper division students; others by consent of chairperson. Offered for undergraduate credit only. Accounting principles for preparing complete set of financial statements; how accounting meets the needs of various external users. Theories and practices of external financing of external financial reporting for organizations. Valuation and accounting for assets: cash, receivables, and inventory. (T)

5110 Intermediate Financial Accounting II. Cr. 3

Prereq: ACC 5100 with minimum grade of C. Open only to School of Business Administration upper division students; others by consent of chairperson. Offered for undergraduate credit only. Continuation of ACC 5100. Theories and practices underlying external financial reporting for organizations. Valuation of and accounting for specific items on the balance sheet, including property, plant and equipment, intangible assets, current and long-term liabilities, stockholders' equity, investments, income measurement concepts and issues. (T)

5115 Intermediate Financial Accounting III. Cr. 3

Prereq: ACC 5110 with minimum grade of C. Open only to upper division business administration students; others by consent of chairperson. Offered for undergraduate credit only. Continuation of ACC 5110. Complex financial reporting topics, such as securities, earnings per share, income taxes, pensions, leases, changes and errors, disclosure issues. Cases used to integrate concepts studied in managerial, systems, and tax accounting courses in this capstone course. (T)

5120 Advanced Accounting. (ACC 7122) Cr. 3

Prereq: ACC 5115 or equiv. with minimum grade of C. Open only to School of Business Administration upper division students; others by consent of chairperson. Offered for undergraduate credit only. Theories and practical applications of financial accounting: as learned in intermediate accounting courses; focus on accounting of consolidation and combination of business entities; accounting for foreign currency transactions; and interim and segment reporting. (F)

5130 Accounting Systems Design and Control. Cr. 3

Prereq: ACC 5100 and ISM 3630 both with minimum grade of C. Open only to School of Business Administration upper division students; others by consent of chairperson. Offered for undergraduate credit only. Implementation of accounting systems in a computer-intensive business environment; methods for developing and documenting Accounting Information Systems (AIS); evaluation of system controls; experience with accounting software packages. (T)

5160 Managerial Accounting. Cr. 3

Prereq: ACC 3020 with minimum grade of C. Open only to School of Business Administration upper division students; others by consent

of chairperson. Offered for undergraduate credit only. Focus on management accountant as integral part of the management team. Analyzing, managing, and accounting for costs; relevance of cost management in manufacturing firms and other types of organization; solving homework problems by application of concepts covered in textbook and lectures. (F,W)

5170 Introduction to Taxation: Individuals (ACC 7120). Cr. 3

Prereq: ACC 3010 and ACC 3020, each with minimum grade of C. Open only to School of Business Administration upper division students; others by consent of chairperson. Offered for undergraduate credit only. Introduction to taxation, tax research and tax planning; study of fundamental elements of individual taxation and how individuals and business owners benefit from an understanding of tax law . (F,W)

5180 Governmental and Not-for-Profit Accounting. (ACC 7188) Cr. 3

Prereq: ACC 5110 with minimum grade of C. Open only to School of Business Administration upper division students; others by consent of chairperson. Offered for undergraduate credit only. Theory and practical applications of accounting for governmental and not-for-profit organizations, and how they differ from for-profit entities. Technical accounting issues and management and regulatory issues for both state and local governments and for other governmental and non-governmental not-for-profit entities. Course is preparation for governmental and not-for-profit portion of the CPA examination. (T)

5200 ERP Systems: Concepts and Practice. Cr. 3

Prereq: ACC 3010, ACC 3020, and ISM 3630 each with a minimum grade of C. Open only to School of Business Administration upper division students; others by consent of chairperson. Offered for undergraduate credit only. Enterprise Planning (ERP) Systems are an organization's primary software package for accounting, operational and managerial activities. This course examines role and function of ERP Systems within organizations, analyses major business processes and their implementation in ERP software; hands-on use of ERP packages for transaction processing and decision support; use of ERP for customer relationship and management; supply chain management and electronic commerce also studied. . (F,W)

5270 Introduction to Taxation: Business Entities. Cr. 3

Prereq: ACC 5170 with minimum grade of C. Open only to School of Buiness Administration upper division students; others by consent of chairperson. Building on basic U.S. tax concepts learned in ACC 5170, study of business entity taxation by studying taxation of corporations, S corporations, partnerships, estates and trusts; study accounting for income taxes on financial statements; introduction to taxation of corporate reorganizations and liquidations, basic multistate and multi-national taxation principles, and transfer taxes and wealth planning. (F,S)

5290 Topics in Accounting. Cr. 3

Prereq: ACC 5110 with minimum grade of C. Open only to School of Business Administration upper division students; others by consent of chairperson. Offered for undergraduate credit only. Current developments in the profession of accounting, such as: mergers and acquisition accounting, new governmental regulations, international accounting issues, new professional standards. (T)

5890 Internship in Accounting or Tax Practice. Cr. 3

Offered for S and U grades only. Offered for undergraduate credit only. Prereq: junior standing or above; 3.0 or above cumulative g.p.a.; successful completion of minimum 12 credits in business course work at Wayne State; consent of chairperson; approved internship application form must be on file in Office of Student Services prior to registration. Student performs assigned tasks and responsibilities in a professional manner under supervision of host-employer for minimum 160 hours during the semester, abiding by the rules and regulations established by the employer and expected of all employees; student must satisfactorily complete all course requirements outlined in the internship program for the School of Business Administration (T)

5990 Directed Study in Accounting. Cr. 1-3 (Max. 6)

Prereq: 3.0 g.p.a. or above; senior status or higher; successful completion of minimum of 12 credits in business course work at Wayne State; consent of chairperson; approved directed study proposal form must be on file in Office of Student Services prior to registration. Offered for undergraduate credit only. Open only to School of Business Administration upper division students; others by consent of chairperson. Only three credits maximum in any academic semester. Research conducted under supervision of full-time faculty member in an area of special interest to student and faculty member. (T)

5996 Auditing, Assurance and Attestation. Cr. 3

Prereq: ISM 3400 or former ISM 4400; prereq or coreq: ACC 5115. Administration upper division students; others by consent of department chairperson. No credit after former ACC 5140. Offered for undergraduate credit only. Principles and procedures used by public accountants in examination of financial statements of companies and other organizations; issuing an independent opinion; professional standards and responsibilities of the certified public accountant. (F,W)

BUSINESS LAW COURSES (BLW)

2510 Business Law I. Cr. 3

No credit after ACC 2510. Prereq: B A 2020. Introduction to the domestic and international legal systems as they relate to business. Impact of the legal environment on management decision-making and the legal and ethical implications of contracts and sales, including product liability. (T)

5190 Business Law II. Cr. 3

No credit after ACC 5190. Prereq: BLW 2510 (formerly ACC 2510) with minimum grade of C. Open only to School of Business Administration upper division students; others by consent of chairperson. Offered for undergraduate credit only. Legal, ethical and managerial implications of various forms of organizing and operating a business; corporations, partnerships, limited liability companies, sole proprietorships. Negotiable instruments and the banking system; agency and professional liability. Course addresses many topics covered on CPA examination. (Y)

Finance

Office: 3rd Floor, Prentis Building; 577-4525
Interim Chairperson: Ranjan D'Mello

Professors

Sudip Datta (T. Norris Hitchman Endowed Chair in Finance), Mai Iskandar-Datta, James L. Hamilton (Emeritus), Milton H. Spencer (Emeritus)

Associate Professors

Mark E. Bayless, Robert C. Bushnell (Emeritus), Ranjan D'Mello, Mbodja Mougoue, Kelly R. Price, Margaret A. Smoller, Frank L. Voorheis (Emeritus), John D. Wagster

Assistant Professor

Jia Hao

Degree Programs

BACHELOR OF ARTS in Business Administration
with a major in Finance

BACHELOR OF SCIENCE in Business Administration
with a major in Finance

Bachelor's Degrees with a Major in Finance

Admission Requirements: Students who meet the University requirements for regular admission (see page 24) are eligible for admission to the School of Business Administration.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 122 credits including satisfaction of the degree requirements (see page 70), as well as requirements for one of the specializations listed below. All course work must be completed in accordance with the academic procedures of the University and the School which apply to this degree; see sections beginning on pages 18, 36, and 69.

Finance

Finance is primarily concerned with the determination of value and making decisions about allocation of funds in corporate and individual settings.

Students who major in Finance can apply their knowledge working in corporations and public finance in determining optimum investment strategies, raising funds to finance these investments, and managing daily operations. Students employed in investment banking and other financial institutions trade in varying types of financial assets such as stocks, bonds, and derivatives, allocate wealth across these assets, and manage and hedge risk.

With increasing globalization of the economy, many corporations employ people who are experts at analyzing potential future investments in foreign markets. Finance specialists become involved with currency exchange rates, foreign economic conditions and forecasts, and techniques for reducing the risk of investments.

Finance Major Requirements

ACC 5000 -- Financial & Managerial Accounting for Managers: Cr. 3
FIN 5215 -- Security Analysis and Portfolio Management: Cr. 3
FIN 5270 -- Advanced Business Finance: Cr. 3
FIN 6996 -- Corporate Financial Strategies: Cr. 3

Electives (Two of the following):

ACC 5160 -- Managerial Accounting: Cr. 3
FIN 5320 -- Principles of International Business Finance: Cr. 3
FIN 5330 -- Bank Management: Cr. 3
FIN 5890 -- Internship in Finance: Cr. 3
FIN 6997 -- Derivative Securities and Portfolio Management: Cr. 3

Students earning a Bachelor's Degree in Finance may find employment in several different areas, including corporate finance, financial institutions, and investments.

Corporate Finance

This area is for the student who wants to concentrate on those aspects of finance that will relate directly to financial decision-making in a business or non-profit organization. The corporate finance area offers careers as financial mangers in non-financial corporations. Entry level positions are generally as financial analysts or staff accountants, while potential future responsibilities include management of working capital, operating budgets, financial statement preparation, bank relationships, long term financial planning, capital budgeting, treasury operations and stockholder relations.

Suggested courses to include in final choice of electives for students seeking a career in Corporate Finance:

FIN 5320 -- Principles of International Business Finance: Cr. 3
FIN 5890 -- Internship in Finance: Cr. 3

Financial Markets and Investments

This area is for the student who is interested in working for organizations which offer financial and investment services such as banks, insurance companies and mutual and pension funds. Investment careers can also be found in other financial intermediaries such as investment banking firms, security and investment brokerage houses, and security and commodity exchanges. Responsibilities within such firms are highly varied and include commercial and personal lending, branch management, security analysis, portfolio and trust management, real estate management, and insurance, commodity and security brokerage.

Recommended electives for students seeking a career in Financial Markets and Investments:

FIN 5320 -- Principles of International Finance: Cr. 3
FIN 5330 -- Bank Management: Cr. 3
FIN 5890 -- Internship in Finance: Cr. 3
FIN 6997 -- Derivative Securities: Cr. 3

FINANCE COURSES (FIN)

The following courses, numbered 0990-5999 and 6100-6999, are offered for undergraduate credit. Courses numbered 6000-6090 and 7000-9999 which are offered for graduate credit only may be found in the graduate bulletin. For interpretation of numbering system, signs and abbreviations, see page 504. Students must be admitted to the School of Business Administration or receive permission from an adviser in the School to enroll in courses numbered 4000 and above.

3050 Personal Financial Planning. Cr. 3
Prereq: sophomore standing. Principles of finance applied to personal financial affairs. Topics include: goal formation, cash budgeting, time value of money, insurance, real estate, banking, investments, tax planning, pensions, estate planning. (I)

3290 Business Finance. Cr. 3
Prereq: ACC 3010; MAT 1500 or MAT 1800 or equiv.; and B A 2300 or ISM 2300, or ISM 3300 or equiv. each with a minimum grade of C. Principles of financial administration, with applications to problems of financial analysis, control, and planning by firms under changing economic conditions. (T)

4230 Financial Markets, Institutions and Securities. Cr. 3

Open only to students admitted to the School of Business Administration; others by consent of instructor. The framework of our financial system. The role of securities, interest rates, financial markets and intermediaries in promoting savings, investments and other economic goals. The function of the money, capital and equity markets in channeling funds to business. (I)

4500 (MGT 4500) Business Administration Co-op Assignment. (ACC 4500) (MKT 4500) Cr. 0

Offered for S and U grades only. No credit toward degree. Must be elected by Professional Development Co-operative Program students during work semester. Opportunity to put theory into practice on the job. Students will normally be assigned to cooperating business organizations for internship periods of one semester. (T)

4990 Directed Study in Finance. Cr. 1-3 (Max. 6)

Open only to upper division students admitted to School of Business Administration. Prereq: ACC 5100; FIN 5215; minimum 2.75 g.p.a.; consent of instructor prior to enrollment; written approval on proposal form prior to registration; consent of chairperson of major department. Advanced readings and research or tutorial under the supervision of a faculty member in areas of special interest to student and faculty member. (T)

5215 Security Analysis and Portfolio Management. Cr. 3

Prereq: FIN 3290, B A 3400 or ISM 3400 all with minimum grade of C. Only open to upper division students admitted to School of Business Administration. Focus on modern portfolio analysis; how characteristics of portfolio are significantly different from those of the securities from which they are formed; Investigation of the Capital Asset Pricing Model (CAPM) and Arbitrage Pricing Theory (APT). This course provides the tools to enable students to manage investment risks, detect mispriced securities, and measure the performance of investment managers. (F,W)

5270 Advanced Business Finance. Cr. 3

Prereq: FIN 3290 with minimum grade of C. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. Offered for undergraduate credit only. Risk analysis, working capital management, capital budgeting and valuation theories. Role of financial management in maximizing value of the firm. (F,W)

5320 Principles of International Finance. Cr. 3

Prereq: FIN 3290 with minimum grade of C. Open only to upper division students admitted to School of Business Administration; others by consent of instructor Offered for undergraduate credit only. Financial management in an international context. Determination of exchange rates; their effect on the economy and financial securities; operation of multinational firms (MNCs) in this environment. Measurement and management of MNC exchange-rate exposures; tax regulatory arbitrage; international portfolio investment; determination of cost of capital for a foreign direct investment project and construction of its capital budget.

(F,W)

5330 Bank Management. Cr. 3

Prereq: FIN 3290. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. Offered for undergraduate credit only. Analysis of the functional areas of management of banks and related financial institutions, including deposits, cash, loans and asset accounts. Discussion of current topics including liquidity, capital adequacy, electronic fund transfers and mortgages. (I)

5890 Internship in Finance. (FIN 7890) Cr. 3

Prereq: FIN 3290 or FIN 4290; B A 3400; GSC 3600; ISM 3630; MGT 2530; MKT 2300; minimum 3.0 g.p.a.; consent of chairperson prior to enrollment ; consent of chairperson prior to enrollment. Offered for S and U grades only. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. Offered for undergraduate credit only. Minimum ten-page paper (excluding exhibits) discussing a problem or opportunity facing the sponsor organization, application of financial concepts, and outcomes relative to the problem or opportunity; summary presentation to department chairperson. (I)

6996 Corporate Financial Strategies. Cr. 3

Prereq: FIN 5270 with minimum grade of C. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. Offered for undergraduate credit only. Advanced financial strategies dealing with cost of capital, mergers and other corporate reorganizations, investment banking and capital acquisition, dividend policy, lease financing, pension funds, convertible securities, international perspectives. (F,W)

6997 (FIN 6997) Derivative Securities. (FIN 7340) Cr. 3

Prereq: FIN 5215 with minimum grade of C. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. Offered for undergraduate credit only. Valuation of options, futures and swaps contracts on equities, fixed instrument securities and foreign exchange; use of these derivatives for risk management; brief review of empirical evidence. (F,W)

Management and Information Systems

Office: 3rd Floor, Prentis Building; 577-4525
Chairperson: Margaret Williams

Professors

Bruce E. DeSpelder (Emeritus), Victor C. Doherty (Emeritus), Celia Romm Livermore, James E. Martin, Marick F. Masters, John G. Maurer (Emeritus), Richard N. Osborn (Emeritus), Irvin D. Reid, Toni M. Somers, Larry J. Williams, Margaret L. Williams,

Associate Professors

Edwin F. Harris (Emeritus), Scott D. Julian, Catherine Kirchmeyer (Emeritus), Thomas J. Naughton, Irving Paster (Emeritus), Barbara Price (Emeritus), Arik Ragowsky, Alice Schnoor (Emeritus), Amanuel Tekleat, Fred P. Unruh (Emeritus), David Verway (Emeritus)

Assistant Professors

Jaegul Lee, Carl (Kun) Liu, Natalia Lorinkova

Senior Lecturers

Ariel S. Levi, David Lucas, Sheri Perelli, Paul Reagan, Frank Vandervegt, Victor Wooddell.

Lecturers

Elisia Hopkins

BACHELOR OF ARTS in Business Administration
with majors in: Information Systems Management, and Management

BACHELOR OF SCIENCE in Business Administration
with majors in: Information Systems Management, and Management

Bachelor's Degrees with a Major in Information Systems Management

Admission Requirements: Students who meet the University requirements for regular admission (see page 24) are eligible for admission to the School of Business Administration.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 122 credits including satisfaction of the degree requirements (see page 70), as well as requirements for one of the specializations listed below. All course work must be completed in accordance with the academic procedures of the University and the School which apply to this degree; see sections beginning on pages 18, 36, and 69.

Information Systems Management (ISM) refers to the use of computer-based systems to gather and analyze complex information about all aspects of a business. This information is used by managers to make business decisions. The major program in management information systems employs a capstone course, ISM 6997, to assess students' knowledge of the discipline. Students specializing in ISM frequently pursue career positions as communications analysts, data base administrators, and information systems managers. The following five courses plus at least one elective are required for the information systems management major:

REQUIRED COURSES

ISM 5820 -- Systems Analysis and Design: Cr. 3
ISM 5860 -- Data Communications and Networks: Cr. 3
ISM 5992 -- Database Systems: Cr. 3
ISM 5994 -- Software Tools for Business Applications: Cr. 3
ISM 6997 -- Information Systems Policy and Management: Cr. 3

ELECTIVE

Students must select ONE of the following but are strongly encouraged to elect more than one:

ISM 4575 -- Corporate Computer Networks and IT Security: Cr. 3
ISM 4990 -- Directed Study: Cr. 1-3
ISM 5200 -- ERP Systems: Concepts and Practice: Cr. 3
ISM 5890 -- Internship in Information Systems Management: Cr. 3
ISM 5900 -- Project Management: Cr. 3

Bachelor's Degrees with a Major in Management

Admission Requirements: Students who meet the University requirements for regular admission (see page 24) are eligible for admission to the School of Business Administration.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 122 credits including satisfaction of the degree requirements (see page 70). All course work must be completed in accordance with the academic procedures of the University and the School which apply to this degree; see sections beginning on pages 18, 36, and 69.

Management Core

The management major prepares individuals to compete in a technology-intensive manufacturing or service economy. The required courses have students analyze contemporary management problems participate in team projects and develop skills in managing people to drive organizational effectiveness.

Core Courses: Students majoring in management will complete the following three core courses, and then select from the designated elective courses listed below.

MGT 5530 -- Advanced Organizational Behavior: Cr. 3
MGT 5700 -- Human Resource Management: Cr. 3
MGT 6995 -- Seminar in Management: Cr. 3

Elective courses: Students complete three courses from the following list. Students have the opportunity to specialize by selecting their electives so that they have three courses in a specific area such as Human Resource Management and Labor Relations (MGT 5700 [core] plus MGT 5740 and MGT 5770) or Global Supply Chain (GSC 5620, GSC 5650, and GSC 5690).

GSC 5620 -- Global Supply Chain: Cr. 3
GSC 5650 -- Strategic Procurement: Cr. 3
GSC 5690 -- Quality: Cr. 3
ISM/ACC 5200 -- ERP Systems: Concepts and Practice: Cr. 3
MGT 5510 - Organizational Theory: Cr. 3
MGT 5540 -- Managing Diversity: Cr. 3
MGT 5650 -- The Entrepreneur and Venture Creation: Cr. 3
MGT 5740 -- Collective Bargaining: Cr. 3
MGT 5770 -- Advanced Human Resource Management: Cr. 3
MKT 5700 -- Retail Management: Cr. 3

UNDERGRADUATE COURSES

The following courses, numbered 0990-5999 and 6100-6999, are offered for undergraduate credit. Courses numbered 6000-6090 and 7000-9999 which are offered for graduate credit only may be found in the graduate bulletin. For interpretation of numbering system, signs and abbreviations, see page 504. Students must be admitted to the School of Business Administration or receive permission from an adviser in the School to enroll in courses numbered 4000 and above.

INFORMATION SYSTEMS MANAGEMENT COURSES (ISM)

3630 Business Information Systems. Cr. 3

Offered for undergraduate credit only. Open only to School of Business Administration upper division students; others by consent of instructor. The management oriented study of computer information systems in business; an overview of the manner in which information systems and information technology supports business processes, managerial decision making, and organizational strategy. (T)

4500 Business Administration Co-op Assignment. Cr. 0

Offered for S and U grades only. No degree credit. Open only to School of Business Administration Students; others by consent of instructor. Practical application of theory to on-the-job experience. Students will normally be assigned to cooperating business organization for internship periods of one semester. Must be elected by Professional Development Cooperative Program students during work semester. (Y)

4575 Introduction to Corporate Computer Network and IT Security (ISM 7575) Cr. 3

Investigation of a broad selection of contemporary issues in computer security. Exposure to the spectrum of security activities, methods, methodologies, and procedures including inspection and protection of information assets, detection of and reaction to threats to information assests, and examination of pre-and post-incident procedures, technical and managerial responses and an overview of the Information Security Planning and Staffing fuctions; includes many topics for Security+ exam by CompTIA. (Y)

4990 Directed Study in Information Systems and Manufacturing. Cr. 1-3 (Max. 6)

Prereq: ISM 5820; ISM 5992; ISM 5860; ISM 5994; minimum 3.0 g.p.a.; consent of instructor prior to enrollment; consent of chairperson of major department. Open only to Business Administration upper division students; others by consent of instructor. Advanced readings and research or tutorial under the supervision of a faculty member in areas of special interest to the student and faculty member. (T)

5200 (ACC 5200) ERP Systems: Concepts and Planning. Cr. 3

Prereq: ACC 3010, ACC 3020, and ISM 3630. Enterprise Planning (ERP) systems comprise the primary software packages for the accounting, operational, and managerial activities of an organization. Role and function of ERP systems within organizations; analysis of major business processes and their implementation in ERP software; hands-on use of ERP packages for transaction processing and decision support; use of ERP for customer relationship management, supply chain management, and electronic commerce. (Y)

5820 Systems Analysis and Design. Cr. 3

Prereq: ISM 3630. Open only to School of Business Administration upper division students; others by consent of instructor. Structured, formal approach to information systems development. Analysis, logical requirements specification, general and detailed design, control, and implementation of information systems. Technical and managerial factors. (T)

5860 Data Communications and Networks. Cr. 3

Prereq: ISM 5820. Open only to School of Business Administration upper division students; others by consent of instructor. Data communication concepts and terminology, communication system design approaches, data communications standards, data communications software and hardware, network architecture, distributed management information systems. (Y)

5890 Internship in Information Systems. Cr. 3

Prereq: junior standing or above; 3.0 or above cumlative GPA; successful completion of minimum twelve credits in business course work at Wayne State; must have successfully completed ISM 3630 with a minimum C grade; approval of department chairperson. Offered for S and U grades only. Approved internship application form must be on file in the Office of Student Services prior to registration. Student must obtain internship position and complete application form before registration. Students perform assigned tasks and responsibilities in a professional manner under supervision of host-employer for a minimum 160 hours during the semester, abiding by the rules and regulations established by the employer and expected of all employees; student must satisfactorily complete all course requirements outlined in the internship program for the School of Business Administration. (T)

5900 (MGT 5900) Project Management. Cr. 3

Prereq: ISM 3630; MGT 2530. Open only to School of Business Administration upper division students; others by consent of instructor. Understanding and appreciation of the different knowledge areas of project management. Insight into identifying the inputs, tools, techniques and outputs to successfully manage projects. (Y)

5992 Database Systems. Cr. 3

Prereq: ISM 3630. Open only to School of Business Administration upper division students; others by consent of instructor. Importance of data in today's enterprise: theories, models, and techniques for designing, developing, creating and manipulating a database. Data modeling, physical database design, database implementation, introductory SQL. Lecture information is reinforced using practical exercises. Material Fee As Indicated In The Schedule of Classes (Y)

5994 Software Tools for Business Applications. Cr. 3

Prereq: ISM 5820. Open only to School of Business Administration upper division students; others by consent of instructor. Application of software to business information processing and decision-making. Alternative programming languages, non-procedural languages and application generators, customizing application packages. Role of the end-user. (Y)

6997 Information Systems Policy and Management. Cr. 3

Prereq: ISM 5820. Must be elected in final sixteen credits of ISM curriculum. Open only to School of Business Administration upper division students; others by consent of instructor. Offered for undergraduate credit only. Within overall structure of the systems approach, this capstone course integrates the managerial, technical, and strategic planning and control concepts; and concepts and methodologies necessary for management of information projects. (Y)

MANAGEMENT COURSES (MGT)

2530 Management of Organizational Behavior. Cr. 3

Prereq: PSY 1010 or 1020. Applied issues in management examined through a focus on the organization and its external environment, group functions and processes, and employee attitudes and behaviors. (T)

4500 Business Administration Co-op Assignment. Cr. 0

Offered for S and U grades only. No credit toward degree. Must be elected by Professional Development Co-operative Program students during work semester. Opportunity to put theory into practice

on the job. Students will normally be assigned to cooperating business organizations for internship periods of one semester. (T)

4990 Directed Study in Management. Cr. 1-3 (Max. 6)

Open only to upper division students admitted to School of Business Administration. Prereq: MGT 5530; MGT 5700; minimum 3.0 g.p.a.; consent of instructor prior to enrollment. Advanced readings and research or tutorial under the supervision of a faculty member in areas of special interest to student and faculty member. (T)

5510 Organizational Theory. Cr. 3

Prereq: MGT 2530. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. Offered for undergraduate credit only. Analysis of strategic pressures on the organization. Application of advanced concepts of structured organizational change to contemporary organizational design problems. (F,W)

5530 Advanced Organizational Behavior. Cr. 3

Prereq: MGT 2530. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. Offered for undergraduate credit only. Analysis and application of advanced organizational behavior concepts relevant to managing in a complex and changing environment. Topics include: leading and managing organizational change; solving workplace problems creatively; communicating effectively in a diverse work environment; building and empowering effective teams. (F,W)

5540 Managing Diversity. Cr. 3

Prereq: MGT 2530 or senior standing. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. Offered for undergraduate credit only. Managing an increasing diverse work force from an organizational or structural perspective. Students complete a case study of an organizational setting. (I)

5650 The Entrepreneur and Venture Creation. Cr. 3

Prereq: ACC 3010; FIN 3290; MGT 2530; MKT 2300. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. Offered for undergraduate credit only. Nature of entrepreneurship and the role of the entrepreneur in society. Focus on the critical factors and special problems associated with the process of creating new business ventures. Emphasis on development of a business plan. (Y)

5700 Human Resource Management. Cr. 3

Prereq: MGT 2530 or consent of instructor. Open only to upper division students admitted to school of Business Administration; others by consent of instructor. Offered for undergraduate credit only. Theory, policies, procedures and practices in employment relationships. Topics: strategic HRM, legal environment of HRM, equal employment opportunity, job analysis and design, employment planning, recruitment, selection, training and development, performance appraisal, compensation and benefits, labor relations, health and safety. Managerial and policy implications; linkages between HRM practices and organizational effectiveness. (T)

5740 Collective Bargaining. Cr. 3

Prereq: MGT 2530 or consent of instructor. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. Offered for undergraduate credit only. Development of union-management relationships, including legal environment of labor relations; philosophy and practice of collective bargaining, major challenges facing unions and employers today. A bargaining simulation is normally utilized. (Y)

5770 Advanced Human Resource Management. Cr. 3

Prereq: MGT 5700. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. Offered for undergraduate credit only. In-depth study of contemporary human resource practices. Specific personnel techniques discussed and analyzed through applications. (F,W)

5790 Internship in Management. Cr. 3

Prereq: junior standing or above; 3.0 or above cumlative GPA; successful completion of minimum twelve credits in business course work at Wayne State; must have successfully completed MGT 2530 with a minimum "C" grade; approval of department chairperson. Approved internship application form must be on file in the Office of Student Services prior to registration. Student must obtain internship position and complete application form before registration. Offered for S and U grades only. Students perform assigned tasks and responsibilities in a professional manner under supervision of host-employer for a minimum 160 hours during the semester, abiding by the rules and regulations established by the employer and expected of all employees; student must satisfactorily complete all course requirements outlined in the internship program for the School of Business Administration.. (T)

5900 Project Management. (ISM 5900) Cr. 3

Prereq: ISM 3630; MGT 2530. Open only to School of Business Administration upper division students; others by consent of instructor. Understanding and appreciation of the different knowledge areas of project management. Insight into identifying the inputs, tools, techniques and outputs to successfully manage projects. (T)

6890 Strategic Management and Business Policy. Cr. 3

To be taken after completion of core curriculum and as one of the last five courses toward bachelor's degree. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. Offered for undergraduate credit only. Prereq: contact adviser at 313-577-4510 for consent to register for this class. Managing the firm as an integrated unit under conditions of uncertainty. Integration of concepts and skills covered in previous specialized courses. (T)

6995 Seminar in Management. Cr. 3

Prereq: MGT 5530 and MGT 5700, six additional credits in courses applied to the management major. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. Offered for undergraduate credit only. Advanced topics in organizational behavior, and human resource management from strategic and global perspective. (T)

Marketing and Supply Chain Management

Office: 3rd Floor, Prentis Building; 577-4525
Chairperson: Fred Morgan

Professors

Richard F. Beltramini, Abhijit Biswas (Kmart Chair in Marketing), Hugh M. Cannon (Adcraft Club/Simons- Michelson Professor in Advertising), Frank Carmone (Emeritus), J. Patrick Kelly (Emeritus), Fred Morgan, Edward A. Riordan (Emeritus), Jone M. Rymer (Emeritus), Attila Yaprak

Associate Professors

John D. Beard (Emeritus), Timothy Butler, George C. Jackson (Emeritus), K.S. Krishnan, James T. Low (Emeritus), Louis L. Stern (Emeritus), Jeffrey Stoltman, John Taylor, Harish Verma, David L. Williams.

Assistant Professors

Sujay Dutta, Abhijit Guha, Andrea H. Tangari, Tingting Yan

Senior Lecturers

William Burrell, David Huff, William Jones

Lecturers

Susan W. Hood, Kevin Ketels

Degree Programs

BACHELOR OF ARTS in Business Administration
with majors in: Global Supply Chain Management, and Marketing

BACHELOR OF SCIENCE in Business Administration
with majors in: Global Supply Chain Management, and Marketing

Bachelor's Degrees with a major in Global Supply Chain Management

This major focuses on the management of the flow of goods and information from the source of raw materials through the channels of distribution to the final consumer, and beyond, to recycling and disposal. In today's highly competitive environment, the management of transportation, inventory, product planning and scheduling, and information flows are ever more critical to an organization's ability to satisfy customers and create a competitive advantage. Whether sourcing from non-domestic suppliers, outsourcing business functions, or attempting to market goods and services to consumers in other areas of the world, today's business leaders need a detailed understanding of all the challenges and opportunities arising from a supply chain that is fundamentally global. Required courses include:

GSC 5600 -- Supply Chain and Distribution Strategy: Cr. 3
GSC 5620 -- Global Supply Chain Management: Cr. 3
GSC 5650 -- Strategic Procurement: Cr. 3
GSC 5690 -- Principles of Quality Management: Cr.3
GSC 6997 -- Global Supply Chain Analysis and Planning: Cr. 3

Plus one of the following:

FIN 5320 -- Principles of International Business Finance: Cr. 3
GSC 5680 -- Operations Strategy in a Global Environment: Cr. 3
GSC 5996 -- Advanced Topics in Operations Management: Cr. 3
GSC 5890 -- Internship in Global Supply Chain Management: Cr. 3
ISM 5200 -- ERP Systems: Concepts and Practice: Cr. 3
ISM 5820 -- Systems Analysis and Design: Cr. 3
ISM 5992 -- Database Systems: Cr. 3
MKT 5700 -- Retail Management: Cr. 3
MKT 5750 -- International Marketing Management: Cr. 3
MKT 5460 -- Sales Management: Cr. 3
MGT 5740 -- Collective Bargaining: Cr. 3

Students are advised to take an Internship in Supply Chain Management through:

GSC 5890 -- Internship in Global Supply Chain Management: Cr.3.

Students preparing for global employment opportunities in supply chain management should consider electing foreign language courses. Students who wish to earn the Bachelor of Arts degree may utilize their electives toward satisfying the Bachelor of Arts foreign language requirements.

Bachelor's Degrees with a Major in Marketing

Admission Requirements: Students who meet the University requirements for regular admission (see page 24) are eligible for admission to the School of Business Administration.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 122 credits including satisfaction of the degree requirements (see page 70), as well as requirements for one of the specializations listed below. All course work must be completed in accordance with the academic procedures of the University and the School which apply to this degree; see sections beginning on pages 18, 36, and 69.

Marketing Major

The marketing major is designed to prepare students for a variety of careers in marketing. As a complement to the basic major, students may elect to pursue specializations in advertising and marketing management. Furthermore, within the marketing management specialization, students can develop customized specializations such as international marketing, personal selling or retailing.

Note that course offerings in support of marketing specializations are subject to demand. If they are not available at times convenient for individual student registrations, students can make appropriate substitutions in consultation with their adviser.

All students majoring in marketing must complete the requirements of their specializations and subsequently take MKT 6996, Marketing Policy.

Advertising/Marketing Communications

This specialization prepares students for work in a wide variety of businesses, advertising agencies, public institutions, and other organizations. It may serve as a background for people who plan to work in the advertising/marketing communications industry, or for general marketing jobs where promotional issues play a particularly prominent role.

Required courses include:

MKT 5490 -- Principles of Advertising: Cr. 3
MKT 5410 -- Marketing Research and Analysis: Cr. 3
MKT 5450 -- Consumer Behavior: Cr. 3
MKT 6996 -- Marketing Policy: Cr. 3

Two electives chosen from the following:

MKT 5500 -- Advertising Copy: Cr. 3
MKT 5510 -- Advertising Media Planning: Cr. 3
MKT 5520 -- Public Relations of Business: Cr. 3
MKT 5850 -- Integrated Marketing Communications Strategy: Cr. 3

Marketing Management Specialization

This specialization provides students with broad exposure to the discipline of marketing management. In addition to the general focus on marketing management, the marketing management specialization provides a vehicle for designing a program directed toward a specific occupation or industry such as, health care, marketing in the arts, and sports marketing.

Required courses include:

MKT 5410 -- Marketing Research and Analysis: Cr. 3
MKT 5450 -- Consumer Behavior: Cr. 3
MKT 6996 -- Marketing Policy: Cr. 3
Three elective courses from a Departmental list

UNDERGRADUATE COURSES

The following courses, numbered 0990-5999 and 6100-6999, are offered for undergraduate credit. Courses numbered 6000-6090 and 7000-9999 which are offered for graduate credit only may be found in the graduate bulletin. For interpretation of numbering system, signs and abbreviations, see page 504. Students must be admitted to the School of Business Administration or receive permission from an adviser in the School to enroll in courses numbered 4000 and above.

GLOBAL SUPPLY CHAIN MANAGEMENT COURSES (GSC)

3600 Operations and Supply Chain Management. Cr. 3

Prereq: B A 2300. Analysis of production and supply chain systems and identification of problems and solutionin such systems. Topics include: forecasting, production planning and scheduling, quality control, cost control and inventory control. (T)

4500 Co-op in Global Supply Chain Management. Cr. 0

Prereq: student in Professional Development Co-op Program; must be elected in work semester. Offered for S and U grades only. No credit towards degree. No credit after former BLG 4500. Opportunity to put theory into practice on the job. Students normally assigned to an organization for one semester. (T)

4990 Directed Study in Global Supply Chain Management. Cr. 1-3

Prereq: GSC 5620; minimum 3.0 g.p.a; consent of instructor prior to enrollment. Advanced readings and research or tutorial under supervision of faculty member. (T)

5600 Supply Chain and Distribution Strategy. Cr. 3

Prereq: MKT 2300. Open only to students admitted to School of Business Administration; others by consent of instructor. Management of the movement of raw materials and finished products including the development of transportation strategies and objectives, and the selection of modes and carriers. Emphasis upon the interface of transportation policies with production and marketing plans. (F)

5620 Global Supply Chain Management. Cr. 3

Prereq: MKT 2300. Open only to students admitted to School of Business Administration; others by consent of adviser. Management of flow of materials and information from source of raw materials through the supply chain to the consumer, and beyond to disposal and recycling. An emphasis on global dimensions of the supply chain. (F,W)

5650 Strategic Procurement. Cr. 3

Open only to upper division students in School of Business Administration; others by consent of adviser. Offered for undergraduate credit only. Principles of the purchasing function. Topics include: negotiating, relationship to the supply chain, quality issues, supplier section, quantity and delivery, and price determination. Strategic, ethical, legal, international issues. (Y)

5680 Operations Strategy in a Global Environment. Cr. 3

Prereq: GSC 3600 or consent of instructor. Open only to students admitted to School of Business Administration; others by consent of instructor. Offered for undergraduate credit only. Analysis of problems in production/operations management. Application of quantitative models to the solution of these problems. Topics covered are decision analysis, aggregate systems, inventory control, material requirements planning and PERT and CPM; emphasis on competing in a global marketplace, quality management. (I)

5690 Principles of Quality Management. Cr. 3

Prereq: B A 2300. Statistical quality control including process capability, control charts, and acceptance sampling procedures. Procedures for measurement of dimensional tolerance. Computer-based data collection and analysis. (Y)

5890 Internship in Global Supply Chain Management. Cr. 3

Prereq: Junior Status or higher, GPA of 3.00 or higher, completed a minimum of 12 credits hours of business courses at WSU and completed GSC 3600 with a minimum of "C" grade. Offered for S and U grades only. Student works a minimum of 160 hours. (T)

5996 Advanced Topics in Operations Management. Cr. 3

Prereq: GSC 3600; and B A 3400; or consent of instructor. Offered for undergraduate credit only. Analysis of problems in production operations management and their solutions. Topics include quality control, statistical control models, aggregate scheduling and facility layout planning within context of continuous improvement philosophies. (Y)

6997 Global Supply Chain Analysis and Planning. Cr. 3

Prereq: GSC 5600 and GSC 5620. Open only to students admitted to School of Business Administration; others by consent of adviser. Application and synthesis of concepts to solve problems encountered in the management of the supply chain. (W)

MARKETING COURSES (MKT)

2300 Marketing Management. Cr. 3

Prereq: ECO 2010. Planning the marketing program within social, economic and legal environments. Market segmentation and behavior, market systems and strategy, international marketing. (T)

3300 Marketing Management for Engineers. Cr. 3

Open only to students admitted to Engineering Entrepreneurial Certificat Program. Meets with MKT 2300. (T)

4500 (MGT 4500) Business Administration Co-op Assignment. (ACC 4500) (FIN 4500) Cr. 0

Offered for S and U grades only. No credit toward degree. Must be elected by Professional Development Co-operative Program students during work semester. Opportunity to put theory into practice on the job. Students will normally be assigned to cooperating business organizations for internship periods of one semester. (T)

4990 Directed Study in Marketing. Cr. 1-3 (Max. 6)

Open only to upper division students admitted to School of Business Administration. Prereq: MKT 5490; MKT 5410; MKT 5450; minimum 3.0 g.p.a.; consent of chairperson prior to enrollment. Advanced readings and research or tutorial under the supervision of a faculty member in areas of special interest to student and faculty member. (T)

5410 Marketing Research and Analysis. Cr. 3

Prereq: MKT 2300; B A 3400 or ISM 3400 or ISM 4400. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. Methods of gathering and analyzing data which will facilitate the identification and solution of marketing problems. Planning the project, data sources for exploratory and conclusive research. Questionnaire construction, sample design, and design of marketing experiments. (T)

5450 Consumer Behavior. Cr. 3

Prereq: MKT 2300. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. Concepts and theories to explain consumer and organizational buyer behavior. Application of this understanding to marketing management and public policy decision making. (T)

5460 Sales Management. Cr. 3

Prereq: MKT 2300. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. Organization and direction of a sales organization including selection, training, compensation, supervision, motivation, budgets, quotas, territories, and sales analysis. (T)

5490 Principles of Advertising. Cr. 3

Prereq: MKT 2300. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. Basic elements of advertising research, media, and creative strategies, including integrated marketing communications. Applications include development of advertising for local business organizations. (T)

5500 Advertising Copy. Cr. 3

Prereq: MKT 5490 or consent of instructor. Open only to students admitted to School of Business Administration; others by consent of instructor. Principles of effective advertising copy and application in consumer and industrial advertisements. Exercises in writing, criticizing, testing, and revising magazine, newspaper, radio, television, outdoor and direct mail advertisements. (F,W)

5510 Advertising Media Planning. Cr. 3

Prereq: MKT 5490 or consent of instructor. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. Influence of marketing, creative and media objectives upon media planning. Information systems, budgeting approaches, media characteristics, media models, schedule construction, execution, and auditing. (F,W)

5520 Public Relations of Business. Cr. 3

Open only to upper division students admitted to School of Business Administration. Philosophy of public relations of business, history of public relations, study of public opinion, the public relations process, tools of communication, uses of mass media in public relations work, and analysis of methods employed in establishing sound public relations programs. (T)

5700 Retail Management. Cr. 3

Prereq: MKT 23000. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. Retailing concepts and problems. Competitive structure, store location, organization, buying, inventory control, sales promotion, pricing, credit policy, customer services, research and franchising. (F,W)

5750 International Marketing Management. Cr. 3

Prereq: MKT 2300. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. (Y)

5820 Marketing in the Automotive Industry. Cr. 3

Prereq: MKT 2300. Open only to upper division students admitted to School of Business Administration; others by consent of instructor. Offered for undergraduate credit only. Topics include: history, brand management, customer perception of satisfaction and quality, organizational issues. Corporate, retail, and wholesale levels. (Y)

5840 Special Topics on Economic Emerging Markets. (SLA 5840) Cr. 3

Open only to upper division students admitted to School of Business Administration. Issues in economic transition to a free-market economy in emerging markets. (Y)

5850 Integrated Marketing Communications Strategy. Cr. 3

Prereq: MKT 2300. Open only to students admitted to School of Business Administration; others by consent of instructor. Application of basic advertising skills to development of a fully-integrated marketing communications program for a major national or international business; research, media, creative, and promotion strategies. (T)
Offered for S and U grades only. Open only to upper division marketing students. Offered for undergraduate credit only. Required paper (minimum ten pages) discussing: problem or opportunity facing sponsor organization; application of marketing concepts; outcomes relative to identified problem or opportunity. (T)

6996 Marketing Policy. Cr. 3

Prereq: MKT 2300; COM 3300; five additional courses in marketing concentration and core courses; written consent of instructor required. Open only to upper division marketing majors. Offered for undergraduate credit only. Capstone course in the marketing sequence; includes four components designed to develop skills in planning of development of strategies to solve marketing problems. (T)

COLLEGE OF EDUCATION

DEAN: Carolyn Shields

Foreword

The College of Education at Wayne State University is located in, and serves the needs of, one of the nation's largest metropolitan areas. Thus, the College reflects the dynamic character of urban life, and, in its concern with urban problems, places great faith in education as the means by which human circumstances can be improved. To this end, the College prepares educators who have the knowledge, commitment and competence to help young people achieve academic success, preserve individuality, develop democratic values, and realize self-fulfillment.

Professional field experiences are an important aspect of the preparation program; they bring the prospective teacher face-to-face with the realities of the classroom, the school and the community, as well as provide opportunities for participation in the study, research and analysis of contemporary educational issues. These field experiences are scheduled in numerous school districts and cultural institutions throughout the metropolitan Detroit area.

As society has been altered by such factors as the development of knowledge, technological advances and population growth, the purposes and processes of education have changed. New technologies of instruction are evolving rapidly and offer the prospective teacher many opportunities for developing a high level of teaching competence. Problems generated in our urban society are complex, and those related to education are no exception. Yet, the opportunities for curriculum innovation, experimentation and leadership have never been greater.

Accreditation

Wayne State University is accredited by the North Central Association of Colleges and Secondary Schools. The College of Education is currently undergoing the process necessary for accreditation through the Teacher Education Accreditation Council (TEAC).

Degrees and Certificates

BACHELOR OF ARTS in Education
with majors in the following areas:

- Art Education
- Career and Technical Education— Secondary
- Elementary Education
- English Education— Secondary
- Foreign Language - Secondary
- Health Education
- Kinesiology with concentrations in:
  - Exercise and Sport Science
  - Kinesiology Pedagogy
- Mathematics Education— Secondary
- Science Education— Secondary
- Social Studies Education— Secondary
- Special Education— with concentration in:
  - Cognitive Impairment
- Speech Education — Secondary

BACHELOR OF SCIENCE in Education
with majors in the areas listed above
(with the exception of Foreign Language)

POST-BACHELOR'S TEACHING CERTIFICATES
With majors and minors in:

- Elementary Education – with concentrations in:
  - Bilingual-Bicultural Education
  - Early Childhood Education
- Secondary Education – with concentrations in:
  - Bilingual-Bicultural Education
  - Career & Technical Education
  - English Education
  - Foreign Language Education
  - Health Education
  - Mathematics Education
  - Science Education
  - Social Studies Education
  - Speech
- K-12 Education – with concentrations in:
  - Art Education K-12
  - Dance K-12
  - Kinesiology K-12
  - Music - Instrumental K-12
  - Music – Vocal K-12

MASTER OF ARTS IN TEACHING Majors

- Elementary Education — with concentrations in:
  - Bilingual-Bicultural Education (minor)
  - Early Childhood Education
  - Elementary Education
  - Mathematics Education
  - Science Education
  - Social Studies Education
  - Special Education (K-12 state certification)
- Secondary Education — with concentrations in:
  - Art Education (K-12 state certification)
  - Bilingual-Bicultural Education (minor)
  - Career and Technical Education
  - English Education
  - Foreign Language Education
  - Kinesiology (K-12 state certification)
  - Mathematics Education
  - Science Education
  - Social Studies Education
  - Speech

MASTER OF ARTS with majors in:

- Counseling
- Counseling Psychology
- School and Community Psychology
- Sports Administration – with concentrations in:
  - Interscholastic Athletic Administration
  - Intercollegiate Athletic Administration
  - Professional Sports Administration
  - Commercial Sports Administration
- Rehabilitation Counseling and Community Inclusion

MASTER OF EDUCATION with majors in

- Art Education – with concentrations in:
  - Art Education
  - Art Therapy
- Bilingual-Bicultural Education — with concentrations in:
  - English as a Second Language
  - Bilingual/Bicultural Education
- Career and Technical Education
- Counseling
- Early Childhood Education
- Educational Leadership
- Educational Psychology
- Elementary Education — with concentrations in:
  - Early Childhood Education
  - Language Arts and Reading
  - Mathematics Education
  - Science Education
  - Social Studies Education
- English Education (Secondary) — with concentrations in:
  - English Education
  - English as a Second Language
- Evaluation and Research

Foreign Language Education (Secondary) with concentrations in:
- Foreign Language Education
- English as a Second Language

Health Education
Instructional Technology
Kinesiology – with concentrations in
- Exercise and Sport Science
- Physical Education Pedagogy
- Wellness Clinician

Mathematics Education
Reading
Science Education
Social Studies Education— Secondary
Special Education — with concentrations in:
- Autism
- Cognitive Impairment
- Emotionally Impaired
- Learning Disabilities

EDUCATION SPECIALIST CERTIFICATES with majors in:

Counseling with concentrations in:
- Counseling
- Rehabilitation Counseling and Community Inclusion

Curriculum and Instruction — with concentrations in:
- Bilingual-Bicultural Education
- Career and Technical Education
- Early Childhood Education
- Elementary Education
- English Education
- Mathematics Education
- Science Education
- Secondary Education
- Social Studies Education

General Administration and Supervision
Instructional Technology
Reading
Special Education

DOCTOR OF EDUCATION and DOCTOR OF PHILOSOPHY with majors in:

Counseling
Curriculum and Instruction — with concentrations in:
- Art Education
- Bilingual-Bicultural Education (Ed.D. only)
- Career and Technical Education
- Early Childhood Education
- Elementary Education
- English Education— Secondary
- Foreign Language Education— Secondary
- K-12 Curriculum
- Mathematics Education
- Science Education
- Secondary Education
- Social Studies Education— Secondary

Educational Leadership and Policy Studies
Educational Psychology (Ph.D. only) — with concentrations in:
- Learning and Instructon Scciences
- School Psychology

Evaluation and Research
Instructional Technology
Reading, Language and Literature (Ed.D. only)
Special Education

Academic Regulations

For complete information regarding academic rules and regulations of the University, students should consult the General Information section of this bulletin, beginning on page 5. The following additions and amendments pertain to the College of Education.

Normal Program Load

The normal undergraduate student load is sixteen credits per semester. Only in exceptional cases is a student allowed to elect a heavier program. Approval of the adviser and authorization by the Assistant Dean of the Division of Academic Services must be secured in those cases where the student petitions to carry more than eighteen credits within a *full* semester.

If a significant portion of a student's time is spent in outside work, corresponding adjustments must be made in his/her college schedule. .

Admission

College of Education Level 1

Admission to the College of Education is based on two levels. Students are admitted directly into the College of Education Level 1 from high school or another institution of higher learning by completing an undergraduate admission application to the University, selection of a College of Education program on the admission application, and acceptance to Wayne State University. Level 1 admission is processed by the University Office of Admission, Welcome Center, 42 W. Warren Ave., P.O. Box 02759, Detroit, Michigan 48202; telephone 313-577-3577. Admitted Level 1 students work on fulfilling University General Education Requirements, College Requirements, and requirements for admission to Level 2. Most students during Level 1 also begin taking courses in their teaching major and minor.

College of Education Level 2

Admission to the College of Education Level 2 program requires a separate College application, which is available in Room 469, College of Education or online at http://www.coe.wayne.edu/as/certification/level2 app.pdf. Students complete the Level 2 application when all Level 2 admission requirements have been fulfilled. These requirements vary by program and students are encouraged to meet with an adviser in Academic Services (Room 469, Education Building) to review requirements specific to their program. Admission to Level 2 is not competitive and students meeting all requirements will be admitted. During Level 2 students work on the Professional Sequence in their program.

Transfer of College within the University

A student in another college of Wayne State University who wishes to transfer to the College of Education makes application directly to the Division of Academic Services (Room 469, Education Building). Students must be in good academic standing in order to be eligible for this transfer

Readmission Following an Interruption in Residence

Undergraduate students whose attendance at Wayne State has been interrupted for three or more years will be required to apply at the College of Education Division of Academic Services for readmission to the College. Deadline dates for such applications are the same as those for regular admission to the College. In instances of prolonged absences of five years or more, it may be necessary to revalidate credits, either through examinations or refresher courses, within the student's major and the professional education sequences.

Attendance

Regularity in attendance and performance is necessary for success in college work. *Although there are no officially excused absences as far as College policy is concerned, the conscientious student is expected to explain absences to the instructor.* Such absences may be due to illness; to participation in inter-college activities certified by the sponsoring faculty member; or other similar types of absence for which the student can present to the instructor evidence that he/she was engaged in authorized University activities. Each instructor, at the beginning of the course, will announce his/her attendance requirements.

Criminal History Check

Michigan Public Act 68 of 1993 Sec. 1230 requires public and non-public schools to conduct a criminal history check of new teachers, school administrators, school psychologists and other personnel required to hold State Board of Education approvals. Students interested in becoming certified teachers must supply a statewide criminal history check prior to admission or transfer to the College of Education and again prior to applying for certification. Additional criminal history checks may be required at the discretion of the College. A criminal history check, by name, without fingerprints may be accessed for a fee at http://apps.michigan.gov/ICHAT/

Any person seeking admission to a teacher certification program who has been convicted of any offence must provide certified copies of all documents relative to his/her conviction, including the Judgment of Sentence from the court(s) in which the matter was adjudicated and a narrative describing each incident from his/her perspective for review by a committee in the College of Education. Persons determined by the criminal history check to have been convicted of any offence and who do not provide required information at the time of application or transfer will have their admission/certification delayed or denied. After review by the College of Education Committee, the applicant will be notified in writing of the Committee's decision.

Note the State Board of Education Teacher Certificate Code:
R 390.1201 Certificates; denial, suspension, or revocation.

1) The superintendent of public instruction may refuse to grant or renew, or may suspend for a fixed term, or revoke, or may impose reasonable conditions on, a teaching certificate or state board approval granted pursuant to these rules for the following reasons:

a) Fraud, or material misrepresentation, concealment or omission of fact in the application for, or the use of, a teaching certificate or state board approval.

b) Conviction of an offense listed in MCL 380.1535a or MCL 380.1539b.

2) The superintendent of public instruction may refuse to grant or renew a teaching certificate or a state board approval for failure or ineligibility of the applicant to meet the criteria for the applicable certification or state board approval.

Dean's List

The College of Education Dean's List is a means of recognizing undergraduate students who have excelled academically in a given semester. The Dean's List will be compiled for each semester in the calendar year. Inclusion requires a 3.75 g.p.a. for students enrolled for twelve or more semester credits (full-time). Students registered for six to eleven semester credits (half-time) must earn a 4.00 g.p.a. Students registered for fewer than six semester credits are not eligible and students who receive marks of 'I,' 'WN,' 'WP,' 'WF,' 'N,' or 'U' are not eligible.

Students will be notified of inclusion in the Dean's List by electronic and written communication. Citation of the Dean's List will be posted to the student's record of academic standing. In addition, the Dean's List will be displayed in the College of Education for each term and posted on its website.

Graduating with Distinction

Wayne State University bestows upon students completing the baccalaureate degree three separate designations for scholastic excellence reflected in the cumulative grade point average: Cum Laude, Magna Cum Laude, and Summa Cum Laude. Graduation with distinction will be indicated on the student's diploma and on the transcript.

Graduation with Distinction will recognize at each graduation the top twenty percent of students in each College who have earned the highest grade point average in their Colleges, with the following approximate distribution:

Summa Cum Laude: Top five percent

Magna Cum Laude: Next five percent

Cum Laude: Next ten percent

Specific minimum grade point averages will be determined each year in the following manner: based on the grade point average distributions of the previous year's senior class, the grade point average cutoffs for each College will be established to provide for recognition of the top eighteen to twenty per cent of the graduating students. Graduation with distinction will not be awarded in cases of any g.p.a. less than 3.0.

The criteria for Graduation with Distinction include:

1. A minimum of sixty credits in residence at Wayne State University.

2. A qualifying minimum grade point average (calculated as explained above) on all course work at Wayne State University must be completed by the end of the semester of graduation. (For notation in the commencement program, the grade point average on all course work completed prior to the semester of graduation will be used.)

Probation Policy and Withdrawal

For an explanation of matriculation Levels 1 and 2 referenced below, see page 91.

(Level 1 - University Policy)

Effective Fall Term 1988, an undergraduate student whose cumulative g.p.a. falls below 2.00 will be placed on Academic Probation. An Academic Probation status is placed on the student's record and the student shall be permitted to register only after consultation with, and approval has been granted by, a designated University Adviser.

The probation status, which blocks registration, may be changed up to the day before classes begin for any given term. Registration for students with a probation status will not be permitted by the advising staff once classes have begun. Because such registration is permitted for one term only, if the student continues on academic probation, they must meet with an adviser each term to permit registration for a future term.

A student shall be given two subsequent terms for enrollment on probationary status. At the conclusion of the two terms, a student who has not achieved a cumulative g.p.a. of at least 2.00 shall be excluded from his/her program. A student excluded from the University may not apply for readmission or reinstatement for one calendar year. Reinstatement is not guaranteed and the application may be denied.

Academic Probation indicates that a student needs to reassess his/her educational priorities, investigate support services, or adjust study habits and techniques. It is important to recognize the warning signs of academic difficulty early in the term so one can seek the appropriate help or make adjustments to their course load or study habits. There are many resources on campus to assist students with probationary status.

(Level 2 - College Policy)

If, at any time, an undergraduate's g.p.a falls below 2.50 in Level 2 years of the College of Education, the student is automatically placed on probation. If the general average is acceptable but work in professional courses, especially in student teaching is unsatisfactory, the student may be placed on probation. Before registering for subsequent work in the College, a student on probation must secure approval from their Level 2 adviser. The College reserves the right to ask a student to withdraw at any time from specific courses or from the College entirely, if progress does not warrant continuance.

Residency Requirement

Applicants for a degree from the College of Education must complete at least thirty credits as a registered student in the College. The student must be in residence (enrolled in a course(s) at Wayne State University) during the semester in which he/she completes requirements for the degree and certificate.

Transferred Credits

College credits earned at accredited institutions other than Wayne State University may be transferred by an undergraduate to apply toward meeting requirements for degrees and teaching certificates in the College, provided 1) the student has been accepted as a matriculated student in the College, 2) the grades received in courses where transfer is desired have been satisfactory, and 3) credits so earned are applicable to the student's curriculum.

A maximum of sixty-four semester credits from a community college may be applied toward the degree, however, all credit that is transferable will appear on the Wayne State University transcript. Community college students must complete a minimum of sixty semester credits at Wayne State University.

Students currently enrolled or returning students who have taken courses at another institution, should forward official transcripts to:

Wayne State University
Undergraduate Admissions
Attention: Transfer Credit Unit
PO Box 02759
Detroit, MI 48202-0759

In general, a maximum of fifteen credits may be earned by correspondence and/or extension courses and applied toward an undergraduate degree.

An applicant for a degree from the College must complete at least thirty credits as a registered student in the College.

Students in Level 2 must consult their adviser prior to registering for any course outside of Wayne State University to discuss the limitations of transferring credits. During the senior year, no transfer credits will be accepted.

When the student has a degree from an accredited institution and is meeting the requirements of the College for a Michigan Provisional Teacher's Certificate, some credits may be applied toward the certificate by transfer but at least fifteen credits must be completed at Wayne State.

Academic Services

Office: 469 Education; 313-577-1601
Assistant Dean: Janice Green
Graduate Advising: Paul Johnson, Cynthia Ward, Kevin Williams
Undergraduate Advising: Fawne Allossery, Janet Andrews, Ebony Green, Cassandra Tackett
General Advising: Sherry Cormier-Khun (Macomb University Center), LaSondra Dawn (Undergraduate & Graduate)

Purposes

The Academic Services Office is responsible for admitting undergraduate students to the programs of the College of Education, maintaining all student files, processing and certifying that degree and teaching certificate requirements have been met, and assisting graduates in securing professional positions. As the initial contact point for prospective students at all degree levels, the Office provides information and advice concerning programs offered, admission procedures, teacher certification, degree requirements, and regulations and policies pertaining to the College and the University.

Services to Students

ADVISING: Students seeking admission information should contact Academic Services by calling (313) 577-1601, via e-mail at askcoe@wayne.edu, or by attending open advising every Tuesday from 9:00 a.m. to 4:00 p.m. in room 489 Education. Advisers in the Academic Services Office serve as advisers for Level 1 students. In addition, the Academic Services Office advises in-service teachers working for professional certification and those seeking additional certificate endorsements.

Each student admitted to the College of Education at the undergraduate Level 2 is assigned to a faculty member who acts as the adviser. The adviser guides the student in the selection of courses and counsels the student in solving problems.

EDUCATION PLACEMENT OFFICE: This office serves graduates of the College who have completed initial teacher-preparation or advanced graduate programs, and in-service teachers enrolled either currently or previously in the University. All persons qualifying for teachers' certificates are urged to register with this office.

Close contact is maintained with school systems in Michigan and in other states. Attempts are made to keep informed of current trends in teacher supply and demand. College and university staff vacancies for professional positions throughout the United States are also listed with this office.

Scholarships

Scholarships are available to students enrolled in the College of Education whose cumulative grade point average is a minimum 3.0 (unless stated otherwise). Interested students may obtain additional information at www.coe.wayne.edu.

Alumni Association

The College of Education Alumni Association (formerly Detroit Teachers College Alumni Association) was organized in 1893 in connection with the Detroit Normal Training School. In the years since its origin, its membership has continually increased.

The aims of the Association, as set forth in its constitution, are (a) to foster a spirit of loyalty to the College, (b) to raise the standards of the teaching profession, (c) to assist professionally and financially those who need help, (d) to keep alive the spirit of real fellowship, and (e) to encourage worthwhile contacts between the student body and the Alumni Association. In addition to being supportive of the University and meeting the needs of the membership through appro-

priate programs, the Association, in recent years, has addressed itself to ways in which it can be of service to the broader community, recognizing that only through this commitment can it be a viable force in an urban university setting.

The Alumni Association has been generous in its gifts to the College. A gift provided complete furnishings for two rooms in the College of Education building — the Alumni Conference Room and the Faculty Lounge. The Alumni Association provides scholarships for deserving students, sponsors an event in honor of the twenty-five and fifty-year graduates of the College, honors both alumni and faculty with awards and recognition, and supports the work of the Dean in carrying forward many activities of mutual interest and concern. In becoming active members of the Association, the graduates of the College have ample opportunity to uphold and develop the best movements and ideals set forth by educational leaders and to lead in professional friendliness among all teachers.

COLLEGE OF EDUCATION DIRECTORY

Dean of the College of Education:
Carolyn Shields: Room 441, Education Building; 313-577-1620

Interim Associate Dean, Research:
Sharon Field: Room 441, Education Building; 313-577-1620

Assistant Dean, Academic Services:
Janice Green: Room 489, Education Building; 313-577-1605

Interim Assistant Dean, Administrative and Organizational Studies:
R. Craig Roney: Room 341, Education Building; 313-577-0902

Assistant Dean, Kinesiology, Health, and Sport Studies:
Sarah Erbaugh: Room 261, Matthaei Building; 313-577-6210

Assistant Dean, Teacher Education:
R. Craig Roney: Room 241, Education Building; 313-577-0902

Interim Assistant Dean, Theoretical and Behavioral Foundations:
R. Craig Roney: Room 341, Education Building;
313-577-0902

Assistant to the Dean:
Cam Liebold: Room 441, Education Building; 313-577-3284

Website: http://www.coe.wayne.edu/

Kinesiology, Health, and Sport Studies

Office: 261 Matthaei Building; 313-577-4265
Assistant Dean: Sarah J. Erbaugh
Website: http://www.kinesiology.wayne.edu

Professors

Hermann-J. Engels, Jeffrey J. Martin

Associate Professors

Sarah J. Erbaugh, Mariane Fahlman, Randall J. Gretebeck, Qin Lai, Nathan A. McCaughtry, Bo Shen

Assistant Professors

Yun S. Choi, Suzanna R. Dillon, Noel Kulik, Anne Murphy, Peter A. Roberts, John C. Wirth

Lecturers

Judith S. Anderson, Janne Postma, Steven P. Singleton, Laurel Whalen

Degree and Certificate Programs

BACHELOR OF SCIENCE in Education with a major in kinesiology

BACHELOR OF SCIENCE in Education with a major in health education

BACHELOR OF ARTS in Education with a major in kinesiology

BACHELOR OF ARTS in Education with a major in health education

MASTER OF EDUCATION with a major in health education

MASTER OF EDUCATION with a major in kinesiology and concentrations in exercise and sport science, kinesiology pedagogy, and wellness

MASTER OF ARTS IN TEACHING with a major in Secondary Education and concentration in kinesiology pedagogy

MASTER OF ARTS with a major in sports administration and with concentrations in interscholastic athletic administration, intercollegiate athletic administration, professional sports administration, and commercial sports administration

The Division of Kinesiology, Health and Sport Studies provides courses at the undergraduate level in several professional areas: kinesiology – teacher certification, exercise and sport science, and health education – teacher certification. The Division also provides programs at the Master's level in all three areas. Additionally, the Division offers courses in driver education and lifestyle fitness activities. The latter program is designed to serve the general student population; courses are open to both undergraduate and graduate students.

Courses in these areas may be used to meet degree and curricular requirements of the various Schools and Colleges of the University. Students are advised to consult their academic advisers in their respective Schools or Colleges prior to registration.

Bachelor of Science in Education with a major in Kinesiology

Admission Requirements: Undergraduate Kinesiology students entering Wayne State University, either from high school or transferring from other universities or colleges, are admitted directly into the College of Education/Level 1. General Education courses are taken concurrently with Kinesiology requirements. Students must apply for formal admission to the College of Education Level 2, Room 469 Education Building, when they have completed fifty-three credits and must have met all the criteria listed below. Upon application, students should request admission into the Kinesiology major program.

1. Completion of fifty-three semester credits (includes twelve credits in the major).

2. A minimum cumulative grade point average of 2.50.

3. Completion of Intermediate Composition.

4. Completion of BIO 2870, Anatomy and Physiology (Cr. 5 with lab).

5. Completion of University Math Competency.

(Requirements 6-10 below do not apply to Exercise & Sport Science Majors.)

6. Completion of KIN 3610, 3620 and 3630.

7. A passing score on each of the three sections of the State Basic Skills portion of the Michigan Test for Teacher Certification (MTTC) (http://www.mttc.nesinc.com).

8. A copy of a negative TB test (within the last three years).

9. Verification of forty hours of successful group work with children. The State defines a group as three or more children (not your own) between the ages of three and eighteen. Students are reminded to find a group work experience that is compatible to the age group they plan to teach. The group work experience needs to be recent (within the last five years) at the time of admission to Level 2.

10. A current (within the last six months) statewide criminal history check: (http://www.michigan.gov/ichat).

11. ESS STUDENTS ONLY-Completion of all ESS Level 1 courses required.

12. Up-to-date transcripts from each undergraduate school attended.

13. A signed Plan-of-Work between student and major advisor must be submitted with Level 2 application.

14. Once the above requirements are fulfilled, students must complete a Level 2 Application form to be submitted to the College of Education (available in Room 489, College of Education or online at http://www.coe.wayne.edu/as/Admissions.html).

15. Students with complete applications will be invited to attend a mandatory College of Education Orientation, which is the final requirement for admission to Level 2.

Admission questions should be directed to the Division of Academic Services, College of Education, 469 Education, phone (313) 577-1601.

Post Degree: Students should follow the procedures for application and file a Post Degree Form in Room 469 Education Building.

DEGREE REQUIREMENTS: A minimum of 124 credits are required for this degree: a minimum of forty credits in general education (including satisfaction of the University General Education requirements, see page 18); forty-five credits in kinesiology; eight credits in health, anatomy, and physiology; and nineteen credits in education courses for the teacher certification track, or a minimum of twenty credits in education courses for the exercise science track. Students in the teacher certification track must develop a minor or a second major. Electives to complete the 124 credit requirement may be used in any area. All course work must be completed in accordance with the academic procedures of the College of Education and University

governing undergraduate scholarship and degrees; see sections beginning on pages 18, 36, 91 and 106. All major, minor, education courses, and BIO 2870 must be completed with grades of 'C' or better and an overall 2.5 grade point average, to meet College graduation requirements. Course changes may occur through periodic curriculum revision and students are urged to consult assigned advisers prior to each registration period to insure that all requirements are met.

Teacher Certification Track: This degree track prepares students for careers in teaching K-12 Physical Education. Specific goals of this track include: acquisition of skills in and knowledge of a variety of movement activities, including fundamental motor skills, dance, fitness, adventure and leisure activities; the ability to apply knowledge about human movement acquired from its subdisciplines to the teaching of kinesiology; the ability to analyze and evaluate individual human motor performance in a variety of age groups and skill levels; and the capacity to systematically evaluate one's own teaching performance and to plan, implement and manage effective lessons.

Exercise and Sport Science Track: This degree track is designed to provide self-directed students with a specialized background for graduate-level study and professional work in the field of exercise and sport science. This track is basic to careers in such fields as adult fitness, corporate fitness, exercise physiology, athletic training, cardiac rehabilitation, and recreation and leisure; and it is prerequisite to the necessary post-graduate study or additional certification requirements of the field. (For additional information, please see Division website: http://www.kinesiology.wayne.edu

General Education Requirements

(Required with each option)

BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4

KINESIOLOGY PEDAGOGY TRACK
(All courses required)
Level 1 Courses:

BIO 2870 -- Anatomy and Physiology: Cr. 5
H E 2330 -- First Aid and CPR: Cr 3.
KIN 1991 -- Professional Perspectives in Physical Education: Cr. 2
KIN 3400 -- Lifespan Growth and Development: Cr. 3
KIN 3550 -- (WI) Motor Learning and Control: Cr. 3
KIN 3580 -- Biomechanics: Cr. 3
KIN 3610 -- Elementary Movement Education and Dance: Cr. 3
KIN 3620 -- Sports Education; Cr. 3
KIN 3630 -- Fitness and Adventure Education: Cr. 3
KIN 5580 -- Pediatric Exercise Physiology: Cr. 3
Two Lifestyle Fitness Activities Courses (LFA 1190 and 1200 are highly recommended): Cr. 4

Level 2 Courses:

KIN 4510 -- Cultural Issues in Teaching PE: Cr. 3
KIN 4440 -- Methods in Phys. Ed. for Elementary School Children I: Cr. 3
KIN 4450 -- Methods in Physical Ed. for Elementary School Children II: Cr. 3
KIN 4460 -- Methods in Phys. Ed. for Secondary School Students: Cr. 3
KIN 5400 -- Inclusion in Physical Education: Cr. 3
KIN 5530 -- Technology and Assessment in Kinesiology: Cr. 3

Total Kinesiology credits: 45

PROFESSIONAL EDUCATION REQUIREMENTS
Level 1 Course

EDP 3310 -- Educational Psychology: Cr. 3

Level 2 Courses:

KIN 5780 -- Student Teaching and Seminar I: Cr. 8
KIN 5790 -- Student Teaching and Seminar II: Cr. 5
RLL 4431 -- Teaching Reading: Middle and Secondary Subjects: Cr. 3

Total credits: 19

EXERCISE AND SPORT SCIENCE TRACK
REQUIRED COURSES
Level 1 Courses:

H E 3440 -- Nutrition and Health Education: Cr. 3
KIN 1991 -- Professional Perspectives in Kinesiology: Cr. 2
KIN 2010 -- Psycho-Physiological Foundations: Cr. 3
KIN 3400 -- Lifespan Growth and Development: Cr. 3
KIN 3540 -- Cultural Foundations of Kinesiology: Cr. 3
PHY 1020 -- (PS) Conceptual Physics The Basic Science: Cr. 3

Level 1 OR Level 2 Courses:

H E 2310 -- Dynamics of Personal Health: Cr. 3
H E 2330 -- First Aid and CPR: Cr. 3
KHS 5520 -- Sport Psychology: Cr. 3
KHS 5523 -- Exercise Psychology: Cr. 3
KIN 3550 -- (WI) Motor Learning and Control: Cr. 3
KIN 3580 -- Biomechanics: Cr. 3

Level 2 Courses:

KIN 3570 -- Physiology of Exercise I: Cr. 3
KIN 5350 -- Exercise Science Internship: Cr. 2-4
KIN 5500 -- Evaluation and Measurement in Kinesiology and Health: Cr. 3
KIN 6320 -- Fitness Assessment and Exercise Prescription: Cr. 3
Total Required Credits: 48

ELECTIVES (22 credits)
With the consent of the advisor obtained prior to registration. Note that some courses which might be chosen can only be taken in Level 2. Students should consult their advisor for further information.

Bachelor of Arts in Education with a major in Kinesiology

The admission and degree requirements for the Bachelor of Arts are similar to those for the Bachelor of Science degree (as described above), with the exception that the student's work must include twelve credits in a foreign language. If two or more units of a foreign language are offered for admission, this requirement may be satisfied by completing eight credits in the same language beyond the freshman level.

Kinesiology Pedagogy Track: The following requirements apply to students in the teacher certification program:

1. Students must apply for and complete two semesters of student teaching/seminar, elementary and secondary levels.

2. Students must submit completed application forms by the appropriate application period deadline:

Term I (Fall Semester): September of the preceding academic year

Term II (Winter Semester): January of the preceding academic year.

Application forms for student teaching are obtained from the academic adviser. An appointment with the coordinator of student teaching is also required. Completed application forms MUST be submitted by the application period deadline in order to reserve a student teaching assignment.

3. Students must have a satisfactory health record and a tuberculosis test within six months before the assignment begins. A copy of the test results must be submitted with the application.

4. Students must meet the following conditions to qualify for student teaching:

a) Ninety-two credits must be completed (incomplete grade credits will not count).

b) 'C' or better grades must be earned in all major, minor, and professional education courses.

c) A 2.5 grade point average overall and in the major is required. The major g.p.a. includes all professional courses as well as BIO 2870.

d) Successful completion of the Michigan Test for Teacher Certification (MTTC), basic skills, and subject matter tests.

5. The following courses must be satisfactorily completed with a 'C' or higher grade. (An incomplete grade does not constitute satisfactory completion.): BIO 2870; EDP 3310; H E 2330; RLL 4431, KIN 1991, 3400, 3550, 3580, 3610, 3620, 3630, 4440, 4450, 4460, 4510, 5400, 5530 and 5580.

6. CPR and First Aid certification is required for placement and teacher certification.

Teaching Certification: Kinesiology

Students who complete all of the kinesiology and College of Education requirements may apply for a Michigan Secondary Provisional Teaching Certificate at the same time they apply for graduation. This certificate qualifies the holder to teach grades K-12 in his/her major and grades 6-12 in his/her minor subject. Initial certification is provisional for a six-year period. For further information contact the College of Education.

Kinesiology Pedagogy Minor

Future teachers seeking a physical education teaching position may find the kinesiology minor a valuable program option. This minor (listed below) may be elected by students completing any teaching major, however, students must complete the minor at the level appropriate for their particular teaching major and have approval of a kinesiology adviser, i.e., secondary majors complete the secondary course requirements, and elementary majors complete the elementary course requirements.

Students not involved in a teacher certification program may elect a kinesiology minor only after consultation with a program adviser.

KINESIOLOGY PEDAGOGY MINOR REQUIREMENTS – SECONDARY

Level 1 Courses:

BIO 2870 -- Anatomy and Physiology: Cr. 5
KIN 3400 -- Lifespan Growth and Development: Cr. 3
KIN 3550 -- (WI) Motor Learning and Control: Cr. 3
KIN 3610 -- Elementary Movement Education and Dance: Cr. 3
KIN 3620 -- Sports Education: Cr. 3
KIN 3630 -- Fitness and Adventure Education: Cr. 3
KIN 5580 -- Pediatric Exercise Physiology: Cr. 3

Level 2 Courses:

KIN 4460 - Methods in Physical Education for Secondary Students: Cr. 3
KIN 4510 - Cultural Issues in Teaching PE: Cr. 3
KIN 5400 -- Inclusion in Physical Education: Cr. 3
Total Credits: 32

– ELEMENTARY

Level 1 Courses:

BIO 2870 -- Anatomy and Physiology: Cr. 5
KIN 3400 -- Lifespan Growth and Development: Cr. 3
KIN 3550 -- (WI) Motor Learning and Control: Cr. 3
KIN 3610 -- Elementary Movement Education and Dance: Cr. 3
KIN 3620 -- Sports Education: Cr. 3
KIN 3630 -- Fitness and Adventure Education: Cr. 3
KIN 5580 -- Pediatric Exercise Physiology: Cr. 3

Level 2 Courses:

KIN 4440 -- Methods in Physical Education Elementary School Children I: Cr. 3
KIN 4450 -- Methods in Phys. Ed. for Elementary School Children II: Cr. 3
KIN 5400 -- Inclusion in Physical Education: Cr. 3
Total Credits: 32

Adapted Physical Education Endorsement

A program leading to State endorsement in Adapted Physical Education (SP endorsement) is available to physical education and special education majors. The program requires twenty-four credits in approved special education and adapted physical education courses. To be admitted the student must possess a valid Michigan teaching certificate in physical education or any area of special education, or be enrolled in one of the above programs. Endorsements will not be granted without a teaching certificate in physical education or special education. Physical Education and Special Education majors must consult with their advisers, prior to electing courses for this endorsement.

ENDORSEMENT REQUIREMENTS

KIN 5400 -- Inclusion in Physical Education: Cr. 3
KIN 5410 -- Physical Education for Students with Special Needs: Methods and Materials: Cr. 3
KIN 5420 -- Sports and Recreation. for Children with Special Needs: Cr. 3
KIN 5430 -- Practicum in Physical Ed. for the Exceptional Student: 2
SED 5030 -- Education of Exceptional Children: Cr. 3
SED 5110 -- Intro.: Cognitive Impairment and Ed. Interventions: Cr. 3
SED 5260 -- Effective Instructional Strategies for Exceptional Learners: Cr. 3
SED 5600 -- Support and Collaboration: Inclusive Teaching: Cr. 3

Total credits: 23

Bachelor of Science in Education with a major in Health Education

Admission Requirements: Undergraduate Health students entering Wayne State University, either from high school or transferring from other universities or colleges, are admitted directly into the College of Education Level 1 standing. General Education classes, along with the health major classes for Level 1 are taken concurrently. Students must apply to the College of Education for Level 2 standing when they have met the criteria listed below; (application - Room 489 Education Building). Upon application, students should request admission into the health program.

Criteria for Admission to Level 2 (no exceptions will be made):

1. Completion of fifty-three credits (includes a minimum of twelve credits in the major).

2. Cumulative grade point average of at least 2.5.

3. Completion of Intermediate Composition (IC) Requirement.

4. Completion of University Math Competency.

5. Passing score on each of the three sections of the Basic Skills section of the Michigan Test for Teacher Certification (MTTC) (http://www.mttc.nesinc.com).

6. A copy of a negative TB test less than three years old.

7. Verification of forty hours of successful group work with children. Group work with children is defined as three or more children (not your own) between the ages of three and eighteen. Students should seek group work with children in the age range they plan to teach. The group work experience should be within five years of applying to Level 2.

8. A current (within the past six months) statewide Criminal History Check (http://www.michigan.gov/ichat).

9. Up-to-date transcripts from each undergraduate school attended.

10. A signed plan of work between student and major advisor must be submitted with Level 2 application.

11. Once the above requirements are fulfilled, students must complete a Level 2 Application form to be submitted to the College of Education (available in Room 489, College of Education or online at http://www.coe.wayne.edu/as/Admissions.html

12. Attendance at a mandatory College of Education Level 2 Orientation.

Admission questions should be directed to the Division of Academic Services, College of Education, 469 Education, phone (313) 577-1601.

DEGREE REQUIREMENTS: A total of 124 credits are required for completion of this degree: a minimum of forty credits in General Education (for the University General Education requirements, see page 18); thirty-five core credits in health education (see below); a minimum of twenty credits in a selected minor; and thirty-three credits in professional education requirements (see below). All course work must be completed in accordance with the academic procedures of the College of Education and University governing undergraduate scholarship and degrees; see sections beginning on pages 18, 36, 91 and 106. All courses must be completed with grades of 'C' or better and an overall 2.5 grade point average, to meet College graduation requirements. Course changes may occur through periodic curriculum revision and students are urged to consult assigned advisers prior to each registration period to insure that all requirements are met.

Teacher Certification: The following requirements apply to students seeking teacher certification:

1. Students must complete one semester of student teaching/seminar at the secondary level.

2. Students must submit completed application forms by the appropriate application period deadline:

Term I (Fall Semester): September of the preceding academic year

Term II (Winter Semester): January of the preceding academic year.

Application forms for student teaching may be obtained from the College of Education website: http://www.coe.wayne.edu/. An appointment with the coordinator of student teaching is also required. Completed application forms MUST be submitted by the application period deadline in order to reserve a student teaching assignment.

3. Students must have a satisfactory health record and a TB test within six months prior to the time the assignment begins. Test results must be submitted with the application.

4. Students must have a current (within the last six months) Statewide Criminal History Check: (http://www.michigan.gov/ichat)

5. Students must meet the following qualifications:

a) Completion of ninety-two credits in course work (excluding courses with an 'I' — Incomplete mark).

b) All major, minor, and professional education courses must have been completed with a grade of 'C' or better.

c) A grade point average of at least 2.5 overall, as well as in the major (the major includes all professional courses).

d) Successful completion of the Michigan Test for Teacher Certification (MTTC), basic skills, and major/minor tests

6. Students must successfully complete the following courses: BIO 1510; H E 2310, 2320, 2330; H E 3300, 3330, 3440, 3500, 4340, 5440, 5500, 5620, 6430; KHS 5522, EHP 3600, BBE 5000, SED 5010, TED 2250, 2251, 6020, EDP 5480; and RLL 4431. (An incomplete grade does not constitute satisfactory completion.)

7. CPR and First Aid certification is required for placement and teacher certification.

Students who successfully complete all the College of Education and health education course requirements may apply for a Michigan Secondary Provisional Teaching Certificate at the time they apply for graduation. The Certificate qualifies the holder to teach health in grades 6-12; initial certification is provisional for a six-year period. (For further information, contact the College of Education.)

HEALTH EDUCATION MAJOR (Thirty-five credits)

Level 1 Courses:

H E 2310 -- Dynamics of Personal Health: Cr. 3
H E 2320 -- Dynamics of Community and Environmental Health: Cr 3
H E 2330 -- First Aid and CPR: Cr. 3
H E 3300 -- Health of the School Child: Cr. 3
H E 3440 or KHS 6540
-- Nutrition and Health Education: Cr. 3
(Prereq: H E 2310 or H E 3300)
-- Workshop in KHS: Cr. 3
(Prereq: H E 2310 or H E 3300)
H E 3500 -- Human Disease: Cr. 2
H E 4340 -- Family and Reproductive Health: Cr. 3
H E 5220 -- Health Behavior Change: Cr. 3
H E 5440 -- Mental Health and Substance Abuse: Cr. 3
(Prereq: H E 2310 or H E 3300)
KHS 5522 -- Health Psychology: Cr 3

Level 2 Courses:

H E 5500 -- Evaluation and Measurement in Kinesiology and Health: Cr. 3
H E 5620 -- Performance-Based Assessment in Health Education: Cr. 3
(prereq: fifteen credits in H E)

Health Education Major Total Credits: 35

PROFESSIONAL SEQUENCE COURSES

Level 1 Courses:

BBE 5000 -- Multicultural Education in Urban America: Cr. 2
EDP 5480 -- Adolescent Psychology: Cr. 3
EHP 3600 -- Introduction to the Philosophy of Education: Cr. 3
SED 5010 -- Inclusive Teaching: Cr. 2
TED 2250 -- Ethical issues in School and Society: Cr. 3
TED 2251 - Becoming a Professional Educator: Cr. 3
TED 6020 -- Computer Applications in Teaching I: Cr. 3

Level 2 Courses:

H E 3330 -- Methods in Teaching Health: Cr. 4
(Prereq: successful completion of fifteen credits
of Health Education and admission to Level 2)
H E 5780 -- Directed Student Teaching: Cr. 10
(Prereq: completion of all courses and passing score on
MTTC in major and minor)
H E 6430 -- (WI) School Health Curriculum: Cr. 3 (prereq: H E 3330 or 6500)
RLL 4431 -- Teaching Reading in Middle and Secondary Subject Areas: Cr. 3

Professional Sequence Total Credits: 39

Other Requirements:

Teaching Minor: minimum twenty credits

General Education Courses: forty credits

MINIMUM TOTAL CREDITS: 124

GENERAL EDUCATION REQUIREMENTS

Forty credits, which must include:

BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4

Bachelor of Arts in Education with a major in Health Education

Admission Requirements: Requirements for entry into the Bachelor of Arts in Education with a major in Health Education program are the same as for the Bachelor of Science with a Major in Health Education (see above).

DEGREE REQUIREMENTS: The degree requirements for the Bachelor of Arts are the same as for the Bachelor of Science program (see above), with one exception: the student's work must include twelve credits in a foreign language. If two or more credits in a foreign language are included as part of the requirements for admission, this requirement may be satisfied by completing eight credits in the same language beyond the freshman level.

Teacher Certification: see Bachelor of Science degree program, above.

Health Education Minor

Health education plays an important role in the promotion of health and the prevention of disease. A minor in health education provides opportunities for involvement in school health education, as well as an introduction to a career as a health education professional in a clinical or community setting.

In the State of Michigan, a commitment has been made to a comprehensive health education curriculum, the Michigan Model. Promoted by the State departments of public health and education, the Michigan Model has been adopted by an increasing number of schools. The secondary minor in health education qualifies individuals for a health teaching endorsement in grades 6-12. The elementary minor qualifies individuals for a health teaching endorsement in grades K-6. In addition, a minor in this field may be combined with nursing or other health science fields.

The requirements for a minor in Health Education include courses in five areas: 1) professional preparation; 2) physical health (classes need to be taken in a specific order); 3) mental health; 4) nutrition; 5) personal health; and 6) substance abuse. Students must see an adviser in Health Education to file a Plan of Work prior to electing courses.

MINOR REQUIREMENTS: A total of twenty-four credits is required for the completion of the Health Education minor, as follows:

Secondary Minor

Level 1 Courses:

H E 2310 -- Dynamics of Personal Health: Cr. 3
H E 3300 -- Health of the School Child: Cr. 3
H E 3440 or KHS 6540
-- Nutrition and Health Education: Cr. 3
(Prereq: H E 2310 or H E 3300)
-- Workshop in KHS: Nutrition: Cr. 3
(Prereq: H E 2310 or H E 3300)
H E 4340 -- Family and Reproductive Health: Cr. 3
H E 5440 -- Mental Health and Substance Abuse: Cr. 3
(Prereq: H E 3440)

Level 2 Courses:

H E 3330 or H E 6500
-- Methods in Teaching Health: Cr. 3
(Prereq: Completion of all Level 1 classes; Admission to College of Education Level 2; fifteen credits in H E)
-- Comprehensive School Health Education: Cr. 3
(Prereq: Completion of all Level 1 classes)
H E 5620 -- Performance-Based Assessment in Health Education: Cr. 3
(Prereq: fifteen credits in H E)
H E 6430 -- (WI) School Health Curriculum: Cr. 3
(Prereq: H E 3300 or H E 6500)

Elementary Minor

Same as above except students select the Elementary Methods class H E 3340: Health Education for the Elementary School Teacher: Cr. 3

Total credits: 24

Kinesiology Pedagogy Minor for Health Education Major – Secondary

Level 1 Courses:

BIO 2870 -- Anatomy and Physiology: Cr. 5
KIN 3400 -- Lifespan Growth & Development: Cr. 3
KIN 3550 -- (WI) Motor Learning and Control: Cr. 3
KIN 3610 -- Movement Education and Dance: Cr. 3
KIN 3620 -- Sports Education: Cr. 3
KIN 3630 -- Fitness and Adventure Education: Cr. 3
KIN 5580 -- Pediatric Exercise Physiology: Cr. 3

Level 2 Courses:

KIN 4460 -- Methods in Phys. Ed. for Secondary School Students: Cr. 3
KIN 4510 - Cultural Issues in Teaching PE: Cr. 3
KIN 5400 -- Inclusion in Physical Education: Cr. 3

Total credits: 32

Lifestyle Fitness Activities (LFA)

The Lifestyle Fitness Activities (LFA) program is an integral part of the Division; it provides students with the opportunity to enhance physical well-being and to acquire developmental skills, knowledge, and attitudes which can be utilized throughout life. Participation in these courses also enhances self-esteem, self-responsibility, and self-determination. LFA courses (see page 103) are offered to both undergraduate and graduate Wayne State students; however, these courses are not offered for graduate credit. LFA courses may also be elected by non-matriculated and visiting students.

UNDERGRADUATE COURSES

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the Graduate Bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

DRIVER EDUCATION COURSES (D E)

5730 Driver Task Analysis. Cr. 3

Prereq: valid Michigan driver's license. Preparation for students to become driver education instructors through the content knowledge and skills necessary to teach driver education. (F,W)

5740 Developing Classroom Instructional Knowledge in Driver Education. Cr. 3

Prereq: D E 5730. Second in series of four courses. Content, knowledge and skills for providing quality driver education classroom instruction, successful management of the classroom, and appropriate student evaluation. (F,S)

5750 Developing Vehicle Operational Skills. Cr. 3

Prereq: D E 5740. Third in series of four courses. Focus on preparing the prospective driver education teacher to conduct instruction which develops vehicle operation skills for the novice driver. (W,S)

5760 Seminar/Practicum in Driver Education. Cr. 3

Prereq: D E 5750. Last of sequence of four courses on preparation to become a driver education instructor. Practical classroom and behind-the-wheel instruction experience in an approved driver education program. (W,S)

HEALTH EDUCATION COURSES (H E)

2310 Dynamics of Personal Health. Cr. 3

Critical health issues relevant to both traditional and non-traditional college students today. In-depth study of varied health issues and applications to personal, family and community needs. (T)

2320 Dynamics of Community and Environmental Health. Cr. 3

Ecological factors associated with human health; environmental pollution and other health problems of communities; organized efforts to deal with them. Field trips. (B)

2330 First Aid and CPR. Cr. 3

Theory and practice of First Aid and CPR. Students can qualify for national certificates in First Aid and CPR. Material Fee As Indicated In The Schedule of Classes (T)

3300 Health of the School Child. Cr. 3

Health status and problems of school-age children. Role of teacher and schools in promoting healthy behavior. Emphasis on impact of institutional forces (e.g., family, media) on development of children's health beliefs and behavior. (T)

3330 Methods in Teaching Health. Cr. 3-4

Prereq: Admission to College of Education Level 2; H E 2310, H E 3300, H E 3440, H E 4340, H E 5440. Open only to health majors or minors. Principles, curriculum development, and techniques in teaching health at elemen-tary and secondary school levels. (T)

3340 Health Education for the Elementary School Teacher. Cr. 3

Introduction to the Michigan Model for Comprehensive School Health Education in the elementary school. (S)

3440 Nutrition and Health Education. Cr. 3

Prereq: H E 2310 or HE 3300. Relationships between dietary intake and health status in various populations. Role and responsibilities of health educators in nutrition programs. Concepts from health psychology applied to school and community approaches. (T)

3500 Human Disease. Cr. 2

Body system impairments from disease, injury or congenital abnormalities that relate to morbidity and mortality in the U.S. Signs, symptoms, causes, prevention, and treatment. (I)

3990 Individual Problems in Health. Cr. 1-3 (Max. 3)

Prereq: H E 2310 or 2320 and consent of instructor. Solving a specific personal health problem or studying a specific community health problem under the guidance of divisional staff. (T)

4340 Family and Reproductive Health. Cr. 3

Program planning, curriculum development and classroom teaching strategies in the areas of human sexuality, reproductive health and venereal disease, family planning and family health. Course will satisfy Michigan Department of Education requirements for teaching in these areas. (T)

5220 Health Behavior Change. Cr. 3

Principles of behavior modification; theories of health behavior and program planning as they relate to health promotion and wellness. (B)

5440 Mental Health and Substance Abuse. Cr. 3

Prereq: H E 2310 or H E 3300. Identification, treatment, and prevention of mental health/substance abuse problems. How school-age children and their families are affected by these problems; role of the teacher. (T)

5500 Evaluation and Measurement in Kinesiology and Health. (KIN 5500) Cr. 3

Prereq: Admission to College of Education Level 2. Elementary statistical methods and evaluative techniques applied to health, and kinesiology. Test construction and standard measurement approaches. (W)

5620 Performance Based Assessment in Health Education. Cr. 3

Prereq: Amisssion to College of Education Level 2. Fifteen credits in H E courses. Assessment and evaluative techniques applied to health education, including test construction and performance-based assessment. Designed to meet assessment and evaluative competencies required for entry-level health teachers in Michigan. (S)

5660 Mental Health. Cr. 3

Mental health, mental illness, stress and mental health delivery. Mental health examined from biological, psychological, social and political perspectives; focus on adolescent and mental health. (I)

5780 Directed Student Teaching. Cr. 10

Offered for S and U grades only. Prereq: admission to student teaching as listed in the undergraduate handbook. Secondary school teaching experience. (F,W)

6350 Health Education and the Nation's Health. Cr. 3

Introductory course for graduate health program. Current national health status; contributory factors including: policies, controversies, hazards, proposed solutions to problems in the health care system and delivery of health care. (B)

6420 Introduction to Health Education Program Design. Cr. 3

Prereq: graduate major in Health Education. Overview of health education program process in all practice settings. Introduction to needs assessment, objective writing, staff training, and evaluation in health education. (B)

6430 (WI) School Health Curriculum. Cr. 3

Offered for S and U grades only. Prereq: H E 3330 or H E 6500. Principles and application of school health programming. Philosophy and foundations of health education, conducting a needs assessment and design instruction based on the assessment, implementing and evaluating the instruction, implementation of skills in a secondary classroom, assessment of the process. Satisfies General Education program Writing Intensive requirement for health majors. (F,W)

6500 Comprehensive School Health Education. Cr. 3

Open only to major or minor in health education. Prereq: graduate standing; or H E 2310, H E 3300, H E 3440, H E 4340, H E 5440, and admission to College of Education Level 2. Overview of comprehensive school health education. Study of major comprehensive health curricula with intensive training in the Michigan Model. This class leads to certification to teach the Michigan Model in public schools. (B)

6530 Principles and Practice of Health Education and Health Promotion. Cr. 3

Prereq: graduate standing and H E 6420 or consent of instructor. Principles and application of health education programs in the community or health care setting. Consultation skills, marketing and motivational strategies within the role of the health educator. (B)

6550 Teaching Methods and Techniques in Health Education. Cr. 3

Strategies employed in dissemination of health information in the community and school system. Integration of cognitive skills, behavior change theory, and classroom management to produce effective health instruction. (I)

KINESIOLOGY COURSES (KIN)

1991 Professional Perspectives in Kinesiology. Cr. 2

Required upon admission to the professional curriculum. Introduction to the profession and academic dimensions of kinesiology. (F,W)

2010 Psycho-Physiological Foundations of Physical Activity and Health. (H E 2010) Cr. 3

Basic principles and skills in the field of exercise science. (F,W)

2560 Individual Problems in Kinesiology. Cr. 1-3 (Max. 4)

Prereq: consent of adviser and chairperson. Solving a specific problem under the guidance of the divisional staff. (F,W)

3400 (H E 3400) Lifespan Growth and Development. Cr. 3

Study of change in motor behavior from infancy to older adulthood. Competency in: ability to formulate a developmental perspective, knowledge of changing behavior across life-span, knowledge of factors affecting motor development, ability to apply knowledge in instructional and recreational settings. (I)

3540 (H E 3540) Cultural Foundations of Kinesiology. Cr. 3

Introduction to the sociology of physical education, sport, exercise, and health. (F,W)

3550 (WI) Motor Learning and Control. Cr. 3

Study of motor skill acquisition and motor control with applications to physical education. Focus on cognitive processes and neural mechanisms which contribute to motor learning and control. (I)

3570 Physiology of Exercise I. Cr. 3

Prereq: BIO 2870 or equiv. with grade of C or above; admission to College of Education Level 2. Basic physiological concepts as they relate to exercise and human performance. Practical applications incorporated into the laboratory component. (F,W)

3580 Biomechanics. Cr. 3

Prereq: BIO 2870 with grade of C or above. Application of knowledge of human physical structure and function in the analysis and appreciation of human movement; theory and practice of human movement analytic techniques. (F,W)

3610 Elementary Movement Education and Dance. Cr. 3

In-depth analysis of Graham's (2003) movement skill themes at all four developmental levels. Dance education K-12; movement exploration and creative dance at elementary level, and contemporary dance (swing, line dancing, etc.) for grades 6-12. (F)

3620 Sports Education. Cr. 3

Theory underlying the four main sports categories: invasion, net/wall, target, and field. Students learn one sport in each category in depth; and apply this knowledge to other sports in the category. (W)

3630 Fitness and Adventure Education. Cr. 3

Introduction to fitness and adventure education, K-12. Adventure content includes initiative, trust activities, and challenges at the elementary level, and larger, more sophisticated activities such as rock climbing, hiking and orienteering at the secondary level. Fitness education topics include fitness testing, concept instruction, and activity instruction (aerobics, yoga, jump rope activities, etc.). (S)

4440 Methods in Physical Education for Elementary School Children I. Cr. 3

Prereq: KIN 3610, KIN 3620, KIN 3630 with grades of C or above; admission to College of Education Level 2. Developmental approach to teaching elementary physical education in schools. Beginning movement concepts and fundamental motor skills that are developmentally appropriate for children to participate in games, gymnastics, dance, and fitness activities. Curriculum design and implementation of activities in practicum application. (F)

4450 Methods in Physical Education for Elementary School Children II. Cr. 3

Prereq: KIN 3610, KIN 3620, KIN 3630, and admission to College Level 2. Continuation of KIN 4440, focusing on a developmental approach to teaching elementary physical education in schools. Investigation of various teaching methods and styles using movement, themes, fundamental motor skills, games, gymnastics, dance and fitness activities. Implementation of developmentally appropriate activities in practicum application. (W)

4460 Methods in Physical Education for Secondary School Students. Cr. 3

Prereq: KIN 3610, KIN 3620, KIN 3630, and KIN 4440 with grades of C or better; admission to College of Education Level 2. Planning for instruction in physical education with emphasis on unit and lesson planning, teaching styles, principles of motor learning and developmental curriculum planning. (W)

4510 Cultural Issues in Teaching Physical Education. Cr. 3

Prereq: KIN 3610, KIN 3620, KIN 3630 with grades of C or above; admission to College Level 2. Integrated study of cultural forces affecting teachers and students in school physical education; draws on historical, philosophical, psychological, and sociological foundations of society, education, and physical education. (F)

5330 Principles of Athletic Training. Cr. 3

Prereq: BIO 2870 or equiv. Philosophy of athletic training and basic training room protocol. Theory of evaluation techniques, nutrition, emergency techniques. (B)

5340 Prevention, Care and Evaluation of Athletic Injuries. Cr. 3

Prereq: BIO 2870 or equiv. The training room: its purpose, equipment and management. Principles and techniques of treating sprains, strains, and other injuries of the locomotor system and of the skin; evaluation techniques for these injuries. Application of heat, water, massage, electrical stimulation, ultrasound, and special exercises. Basic first aid procedures; training table; observation and directed experiences. (B)

5350 Exercise Science Internship. Cr. 2-4 (Max. 8)

Prereq: KIN 6320, H E 2330; admission to College Level 2. Supervised experience in health and exercise programs with various populations at approved sites. (T)

5360 Senior Research Project. Cr. 4 (Max. 8)

Prereq: consent of instructor. Students conduct scientific research in exercise science; review of literature, data collection, assisting with data transformation, help with formal presentation of written or oral materials of findings from the study. (T)

5400 Inclusion in Physical Education. Cr. 3

Prereq: BIO 2870 or equiv. with grade of C or above; admission to College Level 2. Conditions that impair students' health, mental and/or physical functioning. Motor characteristics, developmental sequences associated with differently-abled individuals. Integration of individual education plan as part of curriculum practices. Transcending of school environment to prepare children and youth for lifelong activity. Review of adaptive physical education and special education terminology, legislation, and student placement models. (F,W)

5410 Physical Education for Students with Special Needs: Methods and Materials. Cr. 3

Prereq: KIN 5400; admission to College Level 2. Writing behavioral objectives for students with special needs. Adaptation of teaching methods and materials to meet the needs individuals with special needs in physical fitness, fundamental motor skills, individual and group games, and lifetime sports skills. (S)

5420 Sports and Recreation for Children with Special Needs. Cr. 3

Prereq: KIN 5400; admission to College Level 2. Implementation of appropriate physical education curriculum for students with special needs. Coaching and training techniques for working with students with special needs in school, recreational, and competitive sports. (W)

5430 Practicum in Physical Education for the Exceptional Student. Cr. 2

Prereq: KIN 5400, KIN 5410, KIN 5420; admission to College Level 2. Offered for S and U grades only. Directed fieldwork placement in teaching physical education to students with special needs in school, camp, sport, or recreational setting. Required for State of Michigan Approval in Teacher of Physical Education for the Handicapped. (F,W)

5500 Evaluation and Measurement in Kinesiology and Health. (H E 5500) Cr. 3

Prereq: admission to College of Education Level 2 Elementary statistical methods and evaluative techniques applied to health, physical education, and recreation. Test construction and standard measurement approaches. (W)

5510 Coaching Principles and Certification. Cr. 3

Specific topics on the coach and the athlete in areas of administration, motor learning, physical growth, motor skill acquisition, philosophy, psychology and sociology. (S)

5530 Technology and Assessment in Kinesiology. Cr. 3

Prereq: KIN 3610, KIN 3620; admission to College Level 2. Use of technology in physical education: computers, pedometers, heart rate monitors, personal digital assistants. Best current methods and activities for assessment in physical education. (W)

5550 Health and Physical Education for the Elementary School Teacher. Cr. 3

Required for Elementary Education program. Broad content knowledge of developmentally appropriate physical education and health education for children in grades K-6. (T)

5580 Pediatric Exercise Physiology: Concepts and Applications. Cr. 3

Prereq: BIO 2870 with grade of C or above. Contemporary physiological concepts as related to exercise and physical performance capacity in children, and their practical applications. (F,S)

5780 Student Teaching and Seminar I. Cr. 6-8 (FLD: 0; SMR: 0)

Prereq: consent of kinesiology student teaching coordinator. Offered for S and U grades only. Elementary experience in student teaching in the schools for students pursuing physical education teacher certification. Includes weekly seminar, covering topics related to teaching physical education in schools. (F,W)

5790 Student Teaching and Seminar II. Cr. 4-5

Prereq: consent of kinesiology student teaching coordinator. Offered for S and U grades only. Secondary experience in student teaching for students pursuing physical education teacher certification; includes weekly seminar. (F,W)

6310 (PSL 6010) Physiology of Exercise II. (P T 6310) Cr. 3

Prereq: KIN 3570. Metabolic, neuromuscular, cardiovascular, and respiratory adjustments to acute and chronic exercise in health and disease, including body composition and weight control, nutritional considerations, and the effects of different environments on exercise performance. (F)

6320 Fitness Assessment and Exercise Prescription. Cr. 3

Prereq: KIN 3570 or KIN 5580 or KIN 6310. Physiological principles of physical fitness, including health and fitness appraisal, body composition assessment, and exercise prescription guidelines. (W)

6410 Introduction to Sports Administration. Cr. 3

Current categories of competitive sports and athletics identified and analyzed to determine potential administrative positions in their structures and the qualifications necessary for each position. (F,W)

6610 Advanced Elementary Movement Education and Dance. Cr. 3

Advanced study of elementary movement education through in-depth analysis of Graham's (2003) movement skill themes, as well as of dance education K-12. Students investigate research supporting inclusion of movement education and dance in quality physical education programs. (B)

6620 Advanced Sports Education. Cr. 3

Advanced study of the theory underlying the four main sport categories: invasion, net/wall, target, and field. Students investigate research on teaching of sport in quality physical education programs, and curriculum models including Teaching Games for Understanding Sport Education models. (W)

6630 Advanced Fitness and Adventure Education. Cr. 3

Advanced study of adventure and fitness education, K-12. Research supporting its inclusion in quality physical education programs. Elementary and secondary adventure education; elementary and secondary fitness education. Use of technology to enhance physical education and assessment. (S)

KINESIOLOGY, HEALTH, and SPORT STUDIES INTERDIVISIONAL COURSES (KHS)

5520 Sport Psychology. Cr. 3

History, personality, psychology of injury; theories of motivation, arousal, and anxiety; competition and cooperation, feedback, reinforcement and intrinsic motivation. Team dynamics, group cohesion, communication and leadership processes, psychological qualities and skills (such as goal setting, imagery, concentration). Unhealthy sport behaviors, burnout, over-training. Psychology of youth sport; character development. (W)

5521 Physical Education Psychology. Cr. 3

Research on teacher-affect, behavior, and cognition in the areas of teacher efficacy, stress, attitudes, knowledge, and class management. Student-related topics include motivation, efficacy/competence, attitude, self-esteem development, knowledge, affect, learned helplessness, meaningfulness, alienation in physical education. (F)

5522 Health Psychology. Cr. 3

Foundations of health, research methods, biological foundations of health/illness, stress, nutrition, obesity, eating disorders, substance abuse and health, cardiovascular disease, diabetes and health, exercise and cancer; HIV, AIDS, and health; pain management and patient behavior, complementary and alternative medicine, health psychology across the life span. (F)

5523 Exercise Psychology. Cr. 3

Quality of life, self-esteem, mood, stress management, personality and exercise, coping with injury, exercise models and theories, motivational determinants of exercise, strategies for exercise adherence, peak moments and common exercise concerns; gender, children/youth, and older adult exercise issues, exercise guidelines for promoting optimal mood states. (W)

5740 Facility Planning, Design and Construction. Cr. 3

Process of planning, design and construction from dream of a new facility through its completion and opening for business. Methods of working with architects, consultants, engineers and contractors to design and build sports and recreation facilities that optimally support the programs that will use them. Overview of latest concepts, trends, and innovations in activity-related facilities. (F)

6540 Workshop in Kinesiology, Health and Sport Studies. Cr. 1-3 (Max. 12)

Prereq: consent of adviser prior to registration. Exploration of topics of current interest for the profession. (S)

6550 Publicity, Promotion and Public Relations. Cr. 2

Practical marketing methods and procedures used in promotion of athletics and related fields. Development of proposals, workshops, public relations policies. (F)

6560 Media Design and Communication. Cr. 2

Prereq: basic computer/word processing skills. Fundamentals of graphic design and layout for publication; use of computers in promoting, marketing, and managing health, physical education, recreation, and sports programs. (W)

6570 Sports Marketing. Cr. 3

Concepts and principles of marketing as applied to sports. Topics include: structure of sports industry, sports markets and products, market research, and sports sponsorships. (F)

6600 Role of the Health Professional in Substance Abuse. Cr. 3

Health professional's role in identification, treatment and prevention of substance abuse. Basic drug terminology, theoretical perspectives in substance abuse; community and school environments. (W)

6640 Legal Issues in Health, Physical Education, and Recreation. Cr. 3

Identification and analysis of legal issues in the health, physical education, and recreation profession. Review of relevant litigation patterns. (Y)

6660 Risk Management in Physical Education and Sports. Cr. 3

Fundamentals of safety and liability and the risks involved in managing activity-related programs. Development of knowledge and skills to recognize potential litigation in management, supervision and administration. (F)

6661 Equity and Access in Sport. Cr. 2

Historical and contemporary sport and physical activity experience in context of race, socioeconomic class, gender, age, disability, and culture. (F)

6750 Fieldwork in KHS. Cr. 1-4 (Max. 8)

Prereq: consent of adviser. Professional experience in public or private institutions relevant to student's specialization. Supervision by professional supervisor and university faculty. Can be taken at any time during student's program. (F,W)

LIFESTYLE FITNESS ACTIVITIES COURSES (LFA)

1020 Individualized Skills Development Laboratory. Cr. 1-2 (Max. 4)

Open only to varsity athletes; varsity athletes may elect only once per year for one credit per sport during the term of competition. (F,W)

1100 Swimming: Elementary. Cr. 2 (Max. 4)

Fundamental skills and knowledge in aquatics for beginners. (T)

1190 Lifeguard Training. Cr. 2

Prereq: ability to swim 300 yards continuously in following order: 100 yards front crawl, 100 yards breaststroke, and 100 yards of either (or in combination) front crawl or breaststroke. Lifeguarding and water safety procedures. Leads to lifeguard training certification. (W)

1200 Theory and Practice of Aquatics: Water Safety Instructor. Cr. 2

Prereq: lifeguard certification; American Red Cross Level IV swimming skills (ability to swim 25 yards each of front crawl, back crawl, breaststroke, elementary backstroke, sidestroke; and 15 yards of butterfly). Instructional methods and techniques in aquatics, water safety and survival; swimming program development; pool and waterfront administration and management. Leads to Water Safety Instructor certification. (W)

1210 Pilates Matwork. Cr. 2 (Max. 4)

Total body exercise program using a series of floor exercises to increase strength, flexibility, stamina and concentration. Exercises are selected based on core strengths and stabilization methods. (T)

1220 Cardio-Fit Kickboxing. Cr. 2 (Max. 4)

Time-efficient workout that stimulates the cardiorespiratory and musculoskeletal systems. Structured routines for all fitness levels (basic, intermediate, advanced); utilizes only basic kickboxing techniques. (T)

1230 Sculpt, Stretch, and Tone. Cr. 2 (Max. 6)

Total-body resistance exercise program using hand weights, ankle weights, rubber tubing, adjustable step, and other flexible sources of resistance. High-repetition exercises concentrating on proper technique, body alignment, muscular development, sound biomechanical principles. (T)

1240 Step and Tone. Cr. 2 (Max. 4)

Cardiovascular and muscular endurance and strengthening program using the adjustable step, rubber tubing, and hand-held weights. Low-impact, high-intensity workout. Energy cost controlled by step height, music tempo, tubing tension, size of weights. (T)

1250 Zumba. Cr. 2 (Max. 4)

Zumba is a fusion of Latin and International music and dance themes; the routines feature easy-to-follow aerobic/fitness interval training with rhythms that tone and sculpt the body. (T)

1260 Step Aerobics. Cr. 2 (Max. 4)

Cardiovascular and muscular endurance program using the adjustable step; designed for a low-impact, high-intensity workout. Energy cost as controlled by step height, music, tempo, choreography. (T)

1270 Aquaerobics. Cr. 2 (Max. 4)

Cardiovascular and muscular endurance program using water resistance exercises performed to music; shallow water, low-impact; variable workout intensity, controlled by music tempo, choreography, and optional use of additional resistance devices. Swimming skills not necessary. (I)

1290 High-Low Aerobics. Cr. 2 (Max. 4)

Rhythmic exercise designed to improve cardiovascular capability. Emphasis on popular dance routines. Includes theoretical components concerned with monitoring heart rate, significance of oxygen uptake, establishing appropriate aerobic training zones, and implications for cardiovascular health. (I)

1300 Running: Techniques and Training. Cr. 2 (Max. 4)

Carefully controlled, personalized program activities designed to maintain or improve the level of cardio-respiratory conditioning of the participant; prescription for future levels of activity from the class experience. (I)

1310 Rock Climbing: Basic. Cr. 1 (Max. 2)

Prereq: good physical condition. Two Friday field trips required. Introduction to the basic principles and techniques of technical rock climbing. Field trips. (F,W)

1350 Pocket Billiards: Beginning. Cr. 2 (Max. 4)

Basic skills and technique; history, rules, equipment and game courtesy. (F,W)

1410 Golf. Cr. 2 (Max. 4)

Analysis and practice of fundamentals focused on development of correct form in the use of different clubs. (T)

1480 Yoga. Cr. 2 (Max. 4)
Yoga physical exercises to shape and strengthen the human body. Psychosomatic influences used to develop resistance against stress and to train the body and mind to relax. Utilization of autosuggestion to influence lifestyle. (F,W)

1530 Basketball: Fundamental Skills. Cr. 2 (Max. 4)
Analysis and practice of fundamental skills, team play, and rules of basketball. (IF,W)

1540 Basketball: Shooting Skills and Strategies. Cr. 2 (Max. 6)
Analysis and practice of intermediate and advanced shot-making skills and game strategies. (F,W)

1550 Wheelchair Basketball. Cr. 2
Priority enrollment given to movement impaired students. Development of fundamental wheelchair basketball skills and understanding basic components and strategies of the game. (I)

1600 Tennis: Beginning. Cr. 2 (Max. 4)
Analysis and practice of basic strokes, singles and doubles play, strategy, rule interpretation. (F,S)

1640 Weight Training and Fitness. Cr. 2 (Max. 4)
Analysis and practice of sound weight training techniques; discussion of principles that underlie effective resistance exercise programs leading to improved personal fitness. (T)

1710 Fencing: Beginning. Cr. 2 (Max. 4)
Analysis and practice of skills, rules, strategy, conduct of competitive means. (F,W)

1720 Fencing: Continuing. Cr. 2 (Max. 8)
Prereq: basic fencing skills. (F,W)

1770 Personal Defense. Cr. 2 (Max. 4)
Personal defense theory, increased defense awareness, anticipation and avoidance of confrontation, basic self-defense skills and techniques. (F,W)

1780 Tai Chi Chuan: Beginning. Cr. 2 (Max. 4)
An ancient Chinese exercise, Tai Chi is a series of postures and transitional movements, used to improve balance, strength, circulation, and relaxation. (F,W)

1790 Tai Chi Chuan: Continuing. Cr. 2 (Max. 8)
Prereq: basic Tai Chi Chuan skills. This course builds on basic knolwedge of Tai Chi Chuan and enables students to refine their movement and understanding of this sport. Continuation of PEA 1780. (F,W)

1800 Tae Kwon Do: Beginning. Cr. 2 (Max. 4)
Analysis and practice of fundamental skills, movements, and philosophy of Tae Kwon Do as a modern martial art and competitive sport. (F,W)

1810 Tae Kwon Do: Continuing. Cr. 2 (Max. 8)
Analysis and practice of more advanced skills of Tae Kwon Do as modern martial art, and especially as a competitive sport. (F,W)

1820 Aikido: Beginning. Cr. 2 (Max. 4)
Analysis and practice of fundamental skills, movements and philosophy of Aikido as a modern martial art. (F,W)

1830 Aikido: Continuing. Cr. 2 (Max. 8)
Prereq: basic Aikido skills. Analysis and practice of more advanced skills, techniques and philosophy of Aikido as a modern martial art. (F,W)

1992 Volleyball: Beginning. Cr. 2 (Max. 4)
Analysis and practice of skills, team play, strategy, rule interpretation. (F,W)

Teacher Education

Assistant Dean: R. Craig Roney
Office: 241 Education Building; 313-577-0902

Website: http://coe.wayne.edu/ted

Professors

Jazlin Ebenezer, Thomas Edwards, Janice Hale, Leonard Kaplan (Emeritus), Michael Peterson, R. Craig Roney, David Whitin, Phyllis Whitin,

Associate Professors

Poonam Arya, Navaz Bhavnagri, Kathleen Crawford-McKinney, Gina DeBlase, Sharon Elliott, Karen Feathers, Maria Ferreira, Steve Ilmer, Gerald Oglan, Jacqueline Tilles, Paula Wood

Assistant Professors

Viveka O. Borum, Holly Feen, David Grueber, Justine Kane, Mark J. Larson, Jennifer Lewis, Asli Ozgun-Koca, Margarita Machado-Casas, Bob Pettapiece, Kathryn Roberts, Sally K. Roberts, Marc H. Rosa, Jo-Ann Snyder, Geralyn Stephens, Ebony E. Thomas, Marshall Zumberg, Ava Zeineddin, Gregory Zvric

Lecturers

Oscar Abbott, Elsie Babcock, Mary Brady, James Brown, KristyBrugar, Placidia Frierson, Anna Miller,Julie Osburn, Anne Williamson

Director, Office of Field Experiences

Sharon Sellers-Clark

Degree and Certificate Programs

BACHELOR OF ARTS IN EDUCATION
with majors in the following areas (all of the baccalaureate degree programs listed below lead to Michigan Provisional Certification):

Art Education
Career and Technical Education
Elementary Education
English Education — Secondary
Health Education — Secondary
Kinesiology - with concentrations in:
  Exercise and Sports Science
  Mathematics Education — Secondary
Science Education — Secondary
Social Studies Education— Secondary
Special Education— with concentration in:
  Cognitive Impairment
Speech Education— Secondary

BACHELOR OF SCIENCE IN EDUCATION
with majors in the areas listed above

MASTER OF ARTS IN TEACHING
with majors in:

Elementary Education with concentrations in:
  Bilingual-Bicultural Education
  Early Childhood Education
  Language Arts Education
  Mathematics Education
  Science Education
  Social Studies Education
  Special Education (K-12 State Certification

Secondary Education— with concentrations in:
- Art Education
- Bilingual-Bicultural Education (minor)
- Career and Technical Education
- English Education
- Foreign Language Education
- Kinesiology
- Mathematics Education
- Science Education
- Social Studies Education

MASTER OF EDUCATION with majors in:

Art Education with a concentration in:
- Art Education
- Art Therapy

Bilingual-Bicultural Education with a concentration in:
- Bilingual-Bicultural Education
- Bilingual-Bicultural Education / English as a Second Language

Career and Technical Education
Early Childhood Education
Elementary Education with concentrations in:
- Early Childhood Education
- Language Arts and Reading
- Mathematics Education
- Science Education
- Social Studies Education

English Education (Secondary) with concentrations in
- English Education
- English as a Second Language

Foreign Language Education (Secondary) with concentrations in:
- Foreign Language (Secondary)
- Foreign Language / English as a Second Language

Mathematics Education
Reading
Science Education
Social Studies Education (Secondary)
Special Education with concentrations in:
- Autism Spectrum Disorders
- Cognitive Impairment
- Emotional Impairment
- Learning Disabilities

EDUCATION SPECIALIST CERTIFICATE

Curriculum and Instruction with concentrations in:
- Art Education
- Bilingual-Bicultural Education
- Career and Technical Education
- Early Childhood Education
- Elementary Education
- English Education
- Foreign Language Education — Secondary (K-12 Curriculum)
- Mathematics Education
- Science Education
- Secondary Education
- Social Studies Education

Reading
Special Education

ED.D. AND PH.D. DEGREE MAJORS

Curriculum and Instruction— with concentrations in:
- Art Education
- Bilingual-Bicultural Education (Ed.D. only)
- Career and Technical Education
- Early Childhood Education
- Elementary Education
- English Education— Secondary
- Foreign Language Education— Secondary
- K-12 Curriculum
- Mathematics Education
- Science Education
- Secondary Education
- Social Studies Education (Secondary)

Reading, Language and Literature (Ed.D. only)
Special Education

Post-degree programs are also available to those who wish to qualify for elementary or secondary certification in the above named areas (except in Special Education) but who do not wish to enter a Master of Arts in Teaching degree program.

Combined programs in secondary education are available in the following curriculum areas in which students complete requirements leading to baccalaureate degrees in the College of Liberal Arts and Sciences or the College of Fine, Performing and Communication Arts, and the teaching certificate requirements in the College of Education:

COLLEGE OF LIBERAL ARTS AND SCIENCES

Biology, Chemistry, Economics, English, French, German, History, Italian, Mathematics, Political Science, Physics, Spanish

COLLEGE OF FINE, PERFORMING and COMMUNICATION ARTS

Dance, Music, Speech Communication

Laptop Computers

The College of Education recommends that each initial teacher certification candidate own a laptop computer. In purchasing a laptop, students are advised to consult with the Director of the Education Technology Center, Dr. Mary Waker, m.waker@wayne.edu, regarding recommended laptop models.

Teacher certification candidates use laptops to develop their portfolios, to create multi-media projects to demonstrate knowledge, to create and listen to audio and visual files, and to participate in group projects using collaborative tools. Most importantly, however, by using computers and other technologies to progress successfully through their own academic programs, prospective teachers learn how to use technology as a tool for teaching and learning, skills that are critical to effective teaching in classrooms today. A teacher who possesses innovative technology knowledge and skills for classroom application is an attractive employment candidate to any school district.

BACHELOR'S DEGREE REQUIREMENTS

Admission: Level 1

— Entry to the College of Education

All students intending to pursue a teaching curriculum who enter the University directly from high school, or transfer from other colleges are directly admitted by the University Admissions Office into the College of Education in Level 1 status.

Admission is through the University Office of Admissions, Welcome Center, 42 W. Warren Ave., P.O. Box 02759, Detroit, Michigan 48202; telephone: 313-577-3577.

For information regarding application procedures, admission requirements and fees please refer to the General Information section of this bulletin, page 24.

Admission: Level 2

— Entry to Advanced Professional Education Sequence

The standards listed below apply to those students entering the College of Education at Level 2: those working for a secondary or elementary school teaching certificate; those in a combined degree program; and those previously admitted at the freshman or sophomore level to the College of Education.

Eligibility for admission is based on the following criteria:

1. Satisfactory completion of fifty-three semester or eighty quarter credits of course work with an overall grade point average of 2.5 or above. In addition, the grade point average for any courses taken at Wayne State University must be 2.5 or above. This course work should generally conform to the Level 1 courses prescribed by the College for students who expect to prepare for teaching. The quality of work, especially in the major area, must indicate a strong potential for success in a teacher-education program.

2. Mathematics Competency Requirements: All Education students must satisfactorily complete the University mathematics competency requirement prior to admission (see page 19).

3. Intermediate Composition Competency Requirement: All Education students must satisfactorily complete the University intermediate composition competency requirement prior to admission (see page 19).

4. Michigan Test for Teacher Certification (MTTC): All students must pass the MTTC Basic Skills Test #96 prior to admission. Scores must be sent directly from the testing agency to WSU. For information and test dates please visit the MTTC website: http://www.mttc.nesinc.com/.

5. Physical Health: Definite standards of health must be met by all students entering the College. All students are required to present a negative tuberculosis (T.B.) test prior to admission.

6. Group Work Experience: All students must have verifiable successful group work (forty hours) experience with children.

7. Criminal History Check: All students must submit a current (within the last 6 months) statewide Criminal History Check. (http://apps.michigan.gov/ICHAT/Home.aspx).

8. Elementary Education: Students seeking admission to Elementary Education must complete MAT 1110 and MAT 1120 or have appropriate prerequisite math course in progress.

9. Special Education: Students seeking admission to Special Education must have completed the following courses: MAT 1110 or have appropriate prerequisite math course in progress, PSY 1010, PSY 2400, SED 5030, and (BIO 1030 or BIO 1050 or BIO 1500 or BIO 1510 or SCE 5010).

10. Secondary Education: Students seeking admission to Secondary Education must have twelve semester credits completed in the major

11. Specific Prerequisites or other special requirements of the curriculum area for which the student is applying.

College Level 2 Admission Application

Upon completion of a minimum of fifty-three semester credits of college course work and all other Level 2 admission requirements, students who intend to teach should apply for College of Education Level 2 standing. Applicants who have completed college work in institutions other than Wayne State must first apply for admission through the University Office of Admissions, Welcome Center, 42 W. Warren Ave., P.O. Box 02759, Detroit, Michigan 48202; telephone: 313-577-3577. Students who intend to receive degrees from other colleges in the University AND a teaching certificate from the College of Education must apply to the Combined Program through Academic Services, 469 Education Building. All applicants to Level 2 must attend an orientation session.

BACHELOR'S DEGREE REQUIREMENTS Leading to Michigan Provisional Certification

Candidates for the Bachelor of Arts or Bachelor of Science degree in Education must complete at least 124 credits in course work with a minimum grade point average of 2.5. No grade below a 'C' may be used to meet requirements specific to elementary or secondary education, the major, the minor (including the planned program/comprehensive major), or professional education courses; a grade of 'C-minus' is not acceptable.

The following outline presents the general distribution of credits to be fulfilled by the student's choice of curricula from the subsequent program descriptions, below. NOTE: Some programs require more than 124 credits; note also the addendum cited below for the Bachelor of Arts degree.

1. Forty credits in preprofessional coursework including 6-8 credits in English to fulfill Basic and Intermediate Composition requirements and courses specified by individual program areas.

2. Completion of the appropriate professional education sequence.

3. Completion of majors and minors appropriate to the student's intended level of certification.

4. Three credits in hygiene, first aid, health of the school child, or comprehensive school health education.

5. Completion of University General Education Requirements (see page 18).

6. Michigan Test for Teacher Certification:

a) *Elementary Education:* Elementary Education Test. Examination in major subject area is also highly recommended in order to teach grades 6-8.

b) Special Education (Cognitive Impairment): Elementary Education and Cognitive Impairment Tests.

c) *Secondary Education:* Tests in major and minor subject areas.

7. Successful completion of First Aid and Adult and Child CPR as verified by the Certification Office from a provider approved by the Michigan Department of Education.

BACHELOR OF ARTS in EDUCATION Language Requirement: In addition to the above requirements, the Bachelor of Arts degree requires completion of a foreign language through the intermediate level.

Bachelor's Degree Programs in Elementary Education Leading to K-8 Certification

The elementary certificate qualifies the holder to teach all subjects in kindergarten through grade five and all K-8 subjects in a self-contained classroom. Additionally, the major and minor subjects may be taught in the sixth through eighth grade if the teacher has passed the MTTC subject test.

Admission Requirements: see above, page 106.

DEGREE REQUIREMENTS: The following requirements in various curricular areas supplement the degree requirements outlined above.

LEVEL 1 REQUIREMENTS (K-5 all subjects, K-8 self contained certification): The following courses and course options are required of all students seeking K-8 certification, regardless of selection of major and minor studies. The courses listed below include General Education requirements and courses for the required Planned Program/Comprehensive Major. Some of these courses may also satisfy the University General Education Requirements and requirements in the major and minor (see page 18), but the dual application of any course to both College and University General Education categories cannot be used to reduce the total degree requirement below 124 credits. No grade below 'C' may be used to meet requirements specific to elementary education, the major, the minor (including the planned minor), or professional education courses; a grade of 'C-minus' is not acceptable.

GENERAL EDUCATION REQUIREMENTS

AMERICAN SOCIETY AND INSTITUTIONS:

P S 1010 or P S 1030
-- (AI) American Government: Cr. 4
-- (AI) The American Governmental System: Cr. 3

COMPUTER LITERACY

(see General Education Requirements, page 20)

CRITICAL THINKING

(see General Education Requirements, page 20)

FOREIGN CULTURE

(see General Education Requirements, page 18)

HISTORICAL STUDIES

HIS 1000 or HIS 1300 or HIS 1400
-- (HS) World Civilization to 1500: Cr. 3-4
-- (HS) Europe and the World: 1500-1945: Cr. 3-4
-- (HS) The World Since 1945: Cr. 3-4

LIFE SCIENCES:

PSY 1010 -- (LS) Introductory Psychology : Cr. 4

MATHEMATICS (Two Courses)

MAT 1110 and 1120 -- Mathematics for Elementary School Teachers I & II: Cr. 6
Successful completion of MAT 1110 taken at WSU meets the University Mathematics Competency Requirement. See General Education Requirements for alternate ways to meet math requirements.

ORAL COMMUNICATION

(see General Education Requirements, page 20)

PHILOSOPHY and LETTERS

(see General Education Requirements, page 21)

PHYSICAL SCIENCES

(see General Education Requirements, page 21)

SOCIAL SCIENCES - BASIC (SS) COURSE

GPH 1100 -- (SS) World Regional Patterns: Cr. 4

VISUAL PERFORMING ARTS

AED 5050 -- (VP) Integrating the Arts into the Elementary Classroom: Cr. 3

WRITTEN COMMUNICATION

-- see General Education Requirements, page 19

COLLEGE OF EDUCATION PLANNED PROGRAM/ COMPREHENSIVE MAJOR

CHILDREN'S LITERATURE:

ELE 3200 -- Literature for Children: Cr. 3

U.S. HISTORY (Two courses)

HIS 2040 - United States to 1877: Cr. 3-4
HIS 2050 - United States Since 1877: Cr. 3-4

MICHIGAN HISTORY

HIS 2240 - History of Michigan: Cr. 3-4

ECONOMICS (one of the following)

ECO 1000 -- (SS) Survey of Economics: Cr. 3-4
ECO 2010 -- (SS) Microeconomics: Cr. 3-4
ECO 2020 -- (SS) Macroeconomics: Cr. 3-4

LIFE SCIENCE (one of the following)

BIO 1030 -- (LS) Biology Today: Cr. 3-4
BIO 1050 -- (LS) An Introduction to Life: Cr. 3-4
BIO 1500 -- Basic Life Diversity: Cr. 3-4
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3-4
SCE 5010 -- Biological Sciences for Elementary & MS Teachers: Cr. 3

PHYSICAL SCIENCE

SCE 5020 -- Physical Science for Elementary & MS Teachers: Cr. 3

EARTH/SPACE SCIENCE

SCE 5030 - Earth/Space Science for Elementary & MS Teachers: Cr. 3

HEALTH AND PHYSICAL EDUCATION

KIN 5550 -- Health and PE for the Elementary School Teacher: Cr. 3

TEACHER EDUCATION (Two Courses)

TED 2250 -- Ethical Issues in School and Society: Cr. 3
TED 2251 -- Becoming a Professional Educator: Cr. 3

EARLY CHILDHOOD FIELD EXPERIENCE

All students enrolling in the Early Childhood program must have a Minor in Early Childhood.

TED 5780 -- Directed Teaching and Conference: Cr. 8

EARLY CHILDHOOD FINAL FIELD EXPERIENCE

ELE 6080 -- Preprimary Goals and Practice: Cr. 3
TED 5790 -- Student Teaching & Conference for Special Groups: Cr. 5
(ELE 6080 and TED 5790 must be taken concurrently.)

FIELD COURSES (Off-Campus):

Courses listed below are taken in public schools in the Detroit metropolitan area. All of the courses in the professional sequence must be completed before entering TED 5780.

The following courses must be taken prior to TED Pre-Student Teaching:

ELE 3320 -- Teaching Reading I: Emergent Literacy: Cr. 3
Methods course (See advisor)

PRE-STUDENT TEACHING

TED 3550 -- (WI) Teaching: Research, Theory, & Practice: Cr.5
TED 3550 requires completion of TED 2251, ELE 3320, and one of the Elementary Methods courses (prerequistite)

FINAL FIELD EXPERIENCE

TED 5780 -- Directed Teaching and Conference: Cr. 10

LEVEL 2 COURSES

BBE 5000 -- Multicultural Education in Urban America*: Cr. 2
EDP 3310 -- Educational Psychology: Cr. 3
ELE 3300 -- Teaching Language Arts: Preprimary-8: Cr. 3
ELE 3400 -- Teaching Mathematics: Preprimary-8:(prereq: MAT 1110) Cr. 3

ELE 3500 -- Teaching Science: Preprimary-8: Cr. 3
ELE 3600 -- Teaching Social Studies: Preprimary-8: Cr. 3
ELE 6070 -- Family, Community, and School Partnerships: Cr. 3
RLL 4430 -- Teaching Reading II: Comprehension Preprimary -8 (Prereq: ELE 3320): Cr. 3
*SED 5010 -- Inclusive Teaching: Cr. 2
*TED 6020 -- Computer Applications in Teaching I: Cr. 3

Students seeking elementary certification must meet major/minor requirements according to the curriculum guide.

MAJOR AREAS OF STUDY (K-5 all subjects, K-8 self-contained Certification)

LANGUAGE ARTS GROUP MAJOR
(Minimum Thirty-seven credits)

COM 1500 -- Survey of Mass Communications: Cr. 3
COM 2500 -- Oral Interpretation of Literature: Cr. 3
EED 6210 -- Language, Literacy & Learning: Cr. 3
EED 6310 -- Young Adult Literature: Cr. 3
ELE 3200 -- Literature for Children: Cr. 3
ENG 2390 or ENG 5480
-- (IC) Introduction to African American Literature (AFS 2390): Cr. 4
-- Topics in African American Literature: Cr. 3
ENG 2800 -- Techniques of Imaginative Writing: Cr. 4
ENG 3010 -- (IC) Intermediate Writing: Cr. 3
ENG 3110 -- (PL) English Literature to 1700: Cr. 3
ENG 3120 -- (PL) English Literature after 1700: Cr. 3
ENG 3140 -- (PL) Survey of American Literature: Cr. 3
ENG 3700 -- Structure of English: Cr. 3

FOREIGN LANGUAGE MAJOR (Thirty to Thirty-five Credits)

Elementary certification is offered with majors in the following languages: Chinese, French, Italian, and Spanish. Courses lower than 3000 will not be counted for a major in Foreign Language. Computation of the major includes only those courses taken in college beginning at the 3000 level. The courses must include grammar, literature, culture, and conversation. Courses taught in English about the culture or language will not apply in this category. Students may be required to complete lower level courses as prerequisites to courses at the 3000 level or above.

Students who major in a language are advised to minor in English or in a second foreign language.

Completion of Foreign Language courses is not sufficient for teacher certification. Students must score at the Advanced Low Level in French, Italian, Spanish, or at the Intermediate High Level in Chinese, as measured by the Oral Proficiency Interview (OPI) from the American Council on the Teaching of Foreign Languages and pass the Michigan Test for Teacher Certification in the appropriate subject area.

Students should consult an adviser in Room 469, College of Education for specific course requirements.

MATHEMATICS MAJOR (Minimum Thirty-two Credits)

MAE 5100 -- (MAT 5180) Geometry for Middle School Teachers: Cr. 3
MAE 5110 -- (MAT 5190) Number Theory for Middle School Teachers: Cr. 3
MAE 5120 -- (MAT 5120) Abstract Algebra for Middle School Teachers: Cr. 3
MAE 5130 -- Problem Solving for Middle School Teachers: Cr. 3
MAT 1110 -- Mathematics for Elementary School Teachers I: Cr. 3
MAT 1120 -- Mathematics for Elementary School Teachers II: Cr. 3
MAT 1800 -- Elementary Functions[1]: Cr. 4
MAT 2010 -- Calculus[1] I: Cr. 4
MAT 2860 -- Discrete Mathematics: Cr. 3
STA 1020 or MAT 2210
-- Elementary Statistics: Cr. 3
-- Probability and Statistics for Teachers: Cr. 4

INTEGRATED SCIENCE GROUP MAJOR (Forty-three Credits)

AST 2010 -- (PS) Descriptive Astronomy: Cr. 4
AST 2011 -- Descriptive Astronomy Lab: Cr. 1
BIO 1030 -- (LS) Biology Today: Cr. 3
BIO 1050 -- (LS) Introduction to Life: Cr. 4
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
CHM 1000 -- (PS) Chemistry and Your World: Cr. 4
CHM 1020 -- (PS) Survey of General Chemistry I: Cr. 4
CHM 6740 -- Laboratory Safety: Cr. 2
GEL 1010 -- (PS) Geology: The Science of the Earth: Cr. 4
PHY 1020 -- (PS) Conceptual Physics: The Basic Science: Cr. 3-4
SCE 5010 -- Biological Sci. for Elementary & Middle School Teachers: Cr. 3
SCE 5020 -- Physical Sci. for Elementary & Middle School Teachers: Cr. 3
SCE 5030 or SCE 5040
-- Earth/Space Sci. for Elementary & Middle School Teachers: Cr. 3
-- Field Course Exploring the Natural Environment: Cr. 3

SOCIAL STUDIES GROUP MAJOR (Thirty-six Credits)

ECO 2010 -- (SS) Principles of Microeconomics: Cr.3- 4
ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 3-4
GPH 1100 -- (SS) World Regional Patterns: Cr. 4
GPH 2200 -- Geography of Michigan: Cr. 3
HIS 1000 -- (HS) World Civilization to 1500 Cr. 3-4
HIS 1300 -- (HS) Europe and the World: 1500-1945: Cr. 3-4
HIS 2040 -- United States to 1877: Cr. 3-4
HIS 2050 -- United States Since 1877: Cr. 3-4
HIS 2240 -- History of Michigan: Cr. 3-4
P S 1030 -- (AI) The American Governmental System: Cr. 3
P S 3070 -- Michigan Politics: Cr. 4

MINOR AREAS OF STUDY (Elementary Endorsements)

Additional endorsement areas available to elementary students:

BILINGUAL-BICULTURAL MINOR (Twenty-four Credits)

Note: Students must demonstrate superior proficiency (speaking, reading, and writing) in a non-English language as measured by the Oral Proficiency Interview (OPI) and Writing Proficiency Test (WPT) from the ACTFL.

BBE 5000 -- Multicultural Education in Urban America: Cr. 2
BBE 5500 -- Introduction to Bilingual/Bicultural Education: Cr. 3
BBE 6560 -- Teaching Methods in Bilingual/Bicultural Ed.: Cr. 3
BBE 6590 -- Culture and Language in BBE: Cr. 3
BBE 6600 -- Internship in Bilingual/Bicultural Teaching: Cr. 4
BBE 6850 -- Applied Linguistics: Issues in Bilingual Education: Cr. 3
LED 6520 -- Teaching English as Second/Foreign Language: Methods I: Cr. 3
LED 6555 -- Integration of Language and Content in Language Teaching: Cr. 1-3
RLL 6700 -- Second Language Literacy Development K-12: Cr. 3

EARLY CHILDHOOD SPECIALIZATION
(Minimum Twenty-four Credits)

Note: With the exception of ELE 3200 and PSY 3430, these courses may not be taken prior to admission to Level 2 the College of Education.

EDP 5450 or PSY 3440 (PSY 3440 is the preferred course)
-- Child Psychology: Cr. 3
-- Psychology of Child Behavior and Development: Cr 3
ELE 3200 -- Literature for Children: Cr. 3
ELE 6020 -- Seminar in Early Childhood: Cr. 3
ELE 6040 -- Role of Content Areas in Early Childhood Education: Cr. 3
ELE 6070 -- Family, Community and School Partnerships: Cr. 3
ELE 6080 -- Preprimary Goals and Practices: Cr. 3
ELE 6340 -- Teaching Reading in Early Childhood Education: Cr. 3
PSY 3430 -- Infant Development: Cr. 3
ENG 5720 -- Linguistics and Education: Cr. 3

1. May be elected while in the College of Liberal Arts and Sciences.

ENGLISH AS A SECOND LANGUAGE MINOR
(Minimum 24 credits) A major or minor in English is strongly recommended with an ESL Minor.

The minor is completed after admission to Level 2.

Prior to taking courses for this minor, students must contact Dr. Marc Rosa at (313) 577-0902 or through e-mail at ae4976@wayne.edu for an appointment.

BBE 5000 -- Multicultural Education in Urban American: Cr. 2
BBE 6600 -- Internship in Bilingual/Bicultural Teaching: Cr. 2
BBE 6850 -- Applied Linguistics: Issues in Bilingual Ed: Cr. 3
LED 6520 -- Teach. English as a Second/Foreign Language: Methods I: Cr. 3
LED 6510 -- Second Language Acquisition and Teaching Grammar: Cr. 3
LED 6555 -- Integration of Language & Content in Teaching: Cr. 2
LED 6565 -- Assessment in Language Teaching: Cr. 3
LED 6580 -- Culture as the Basis for Language Teaching: Cr. 3
RLL 6700 -- Second Language Literacy Development K-12: Cr. 3

LANGUAGE ARTS GROUP MINOR (Twenty-six Credits)

COM 1500 -- Survey of Mass Communications: Cr. 3
COM 2500 -- Oral Interpretation of Literature: Cr. 3
ENG 2800 -- Techniques of Imaginative Writing: Cr. 4
ENG 2390 -- (IC) Introduction to African-American Literature (AFS 2390): Cr. 4
ENG 3010 -- (IC) Intermediate Writing: Cr. 3
ENG 3140 -- (PL) Survey of American Literature: Cr. 3
EED 6210 -- Language, Literacy and Learning: Cr. 3
ELE 3200 -- Literature for Children: Cr. 3

FOREIGN LANGUAGE MINOR (Twenty to Twenty-four Credits)

Elementary certification is offered with minors in the following languages: Chinese, French, Italian, Latin, and Spanish. Courses numbered lower than 3000 will not be counted for a minor in Foreign Language. Computation of the minor includes only those courses taken in college beginning at the 3000 level and the courses must include grammar, literature, culture, and conversation. Courses taught in English about the culture or language will not apply in this category. Students may be required to complete lower level courses as prerequisites to courses at the 3000 level or above.

Completion of Foreign Language courses is not sufficient for teacher certification. Students must score at the Advanced Low Level in French, Italian, Spanish, or at the Intermediate High Level in Chinese, as measured by the Oral Proficiency Interview (OPI) from the American Council on the Teaching of Foreign Languages (ACTFL), and pass the Michigan Test for Teacher Certification in the appropriate subject area.

Students should consult an adviser in Room 469, College of Education for specific course requirements

HEALTH EDUCATION MINOR (Twenty-four Credits)
(For additional endorsement only)

H E 2310 -- Dynamics of Personal Health: Cr. 3
H E 3300 -- Health of the School Child: Cr. 3
H E 3340 -- Health Education for the Elementary School Teacher: Cr. 3
(Prereq: completion of 18 semester credits in Health)
H E 3440 -- Nutrition & Health Education: Cr. 3
H E 4340 -- Family and Reproductive Health: Cr. 3
H E 5440 -- Mental Health and Substance Abuse: Cr. 3
H E 5620 -- Performance Based Assessment in Health Education: Cr. 3
(Prereq: completion of 15 semester credits in Health)
H E 6430 -- (WI) School Health Curriculum: Cr. 3 (Prereq: H E 3340)

Students who minor in Health Education should contact Dr. Steven Singleton at (313) 577-4265 for advising.

MATHEMATICS MINOR (Twenty-three Credits)

MAE 5100 -- Geometry for Middle School Teachers I: Cr. 3
MAE 5110 -- (MAT 5190) Number Theory for Middle School Teachers: Cr. 3
MAE 5120 -- Abstract Algebra for Middle School Teachers: Cr. 3
MAT 1110 -- Mathematics for Elementary School Teachers I: Cr. 3
MAT 1120 -- Mathematics for Elementary School Teachers II: Cr. 3
MAT 1800 -- Elementary Functions: Cr. 4
MAT 2010 -- Calculus I: Cr. 4

MIDDLE-LEVEL PROFESSIONAL SPECIALIZATION MINOR
(Minimum Twenty-four Credits plus Field Experience)

CED 6700 -- Role of Teacher in Guidance: Cr. 2
EDP 5480 -- Adolescent Psychology: Cr. 3
ELE 6070 -- Family, Community and School Partnerships: Cr. 3
TED 3550 or TED 5150 or TED 5160
-- (WI) Teaching: Research, Theory and Practice: Cr. 5
-- Analysis of Elementary School Teaching: Cr. 3-6
-- (WI) Analysis of Middle and Secondary School Teaching: Cr. 3
TED 5250 -- Teaching the Emerging Adolescent:Middle Level: Cr. 3

Two methods courses from two different disciplines with the approval of the MLE (Middle Level Endorsement) Adviser: Cr. 6

Field Experience (credit does not count toward endorsement): A field experience is required in Grades 6-8.

INTEGRATED SCIENCE GROUP MINOR (Twenty-eight Credits)

AST 2010 -- (PS) Descriptive Astronomy: Cr. 4
AST 2011 -- Descriptive Astronomy Lab: Cr. 1
BIO 1030 -- (LS) Biology Today: Cr. 3-4
CHM 1000 -- (PS) (ST) Chemistry and Your World: Cr. 4
CHM 6740 -- Laboratory Safety: Cr. 1-2
GEL 1010 -- (PS) Geology: The Science of the Earth: Cr. 4
PHY 1020 -- (PS) Conceptual Physics: The Basic Science: Cr. 4
SCE 5010 -- Biological Sci. for Elementary & Middle School Teachers: Cr. 3
SCE 5020 -- Physical Sci. for Elementary & Middle School Teachers: Cr. 3

KINESIOLOGY (PHYSICAL EDUCATION) MINOR
(Thirty-two Credits) (For additional endorsement only)

BIO 2870 -- Anatomy and Physiology: Cr. 5 (Prereq: BIO 1510)
KIN 3400 -- Lifespan Growth & Development: Cr. 3
KIN 3550 -- (WI) Motor Learning & Control: Cr. 3
KIN 3610 -- Elementary Movement Education and Dance: Cr. 3
KIN 3620 -- Sports Education: Cr. 3
KIN 3630 -- Fitness and Adventure Education: Cr. 3
KIN 4440 -- Methods in Phys. Ed. for Elementary School Children I: Cr. 3
KIN 4450 -- Methods in Phys. Ed. for Elementary School Children II: Cr. 3
KIN 5400 -- Inclusion in Physical Education: Cr. 3
KIN 5580 -- Pediatric Exercise Physiology: Cr. 3

Students must contact the Kinesiology Department for advising: for appointments call: 313-577-4265. Some courses may be taken only after admission to the College of Education Level 2.

Bachelor's Degree Programs in Secondary Education Leading to Grades 6 - 12 Certification

The secondary education curriculum leads to a bachelor's degree in education and secondary school teaching certification in the major and minor areas listed below. Whereas this degree is granted by the College of Education, students also have the option of earning secondary school certification in conjunction with a bachelor's degree from the College of Fine, Performing and Communication Arts or the College of Liberal Arts and Sciences. For information regarding these combined degree programs, see page 190 and 280, respectively.

Admission Requirements: see page 106.

DEGREE REQUIREMENTS: The following requirements in various curricular areas supplement the degree requirements outlined above (see page 106).

LEVEL 1 REQUIREMENTS: The following courses and course options are required of all students seeking secondary (grades 6-12) certification regardless of selection of major or minor studies. Some of these courses may also satisfy the University General Education Requirements, but the dual application of any course to both College

and University General Education categories cannot be used to reduce the total degree requirement below 124 credits.

No grade below 'C' may be used to meet requirements specific to secondary education, the major, the minor (including the planned minor), or professional education courses; a grade of 'C-minus' is not acceptable.

GENERAL EDUCATION REQUIREMENTS

AMERICAN SOCIETY and INSTITUTIONS:

*P S 1010 or P S 1030 (P S 1030 required for Social Studies majors)
-- (AI) American Government: Cr. 4
-- (AI) The American Governmental System: Cr. 3

COMPUTER LITERACY

(see General Education Requirements, page 20)

CRITICAL THINKING

(see General Education Requirements, page 20)

ORAL COMMUNICATION

(see General Education Requirements, page 20)

FOREIGN CULTURE

(see General Education Requirements, page 18)

HISTORICAL STUDIES

(see General Education Requirements, page 22)

LIFE SCIENCES (elect two):

*PSY 1010 -- (LS) Introductory Psychology (Required Course): Cr. 4
*BIO 1030 or BIO 1050 or BIO 1510
-- (LS) Biology Today: Cr. 3-4
-- (LS) An Introduction to Life: Cr. 3-4
-- (LS) Basic Life Mechanisms: Cr. 4

MATHEMATICS COMPETENCY

(see General Education Requirements, Page 19)

NATURAL SCIENCE

(Three courses required: PSY 1010; one Biology course -- see approved list; and one Physical Science course. One of these courses must include an approved laboratory.)

PHILOSOPHY and LETTERS

(see General Education Requirements, page 21)

PHYSICAL SCIENCES (One Course)

(see General Education Requirements, page 21)

SOCIAL SCIENCES - BASIC (SS) COURSE

(see General Education Requirements, page 18)

VISUAL PERFORMING ARTS

(see General Education Requirements, page 21)

WRITTEN COMMUNICATION (Two Courses)

Basic Composition (BC) -- see General Education Requirements, page 19
Intermediate Composition (IC) -- see General Education Requirements, page 19

COLLEGE OF EDUCATION REQUIREMENTS

(one of the following H E courses)

H E 2310 -- Dynamics of Personal Health: Cr. 3
H E2330 -- First Aid and CPR: Cr. 3
H E 3300 -- Health of the School Child: Cr. 3
H E 6500 -- Comprehensive School Health Education: Cr. 3

TED 2250 - Ethical Issues in School and Society: Cr. 3
TED 2251 -- Becoming a Professional Educator: Cr. 3

LEVEL 2 EDUCATION REQUIREMENTS (Grades 6-12 Certification)

The following courses may be taken only after admission to the College of Education Level 2 and are required of all students seeking secondary (grades 6-12) certification. The selection of courses to fulfill the methods requirements is predicated on the student's choice of major/minor.

The following courses may be taken in Level 1 or 2 status:

BBE 5000 -- Multicultural Education in Urban America: Cr. 2
SED 5010 -- Inclusive Teaching: Cr. 2
TED 6020 -- Computer Applications in Teaching I: Cr. 3

The following courses may be elected at any time *after* admission to Level 2 and must be completed *prior to* TED 5780:

EHP 3600 -- Introduction to the Philosophy of Education: Cr. 3
EDP 5480 -- Adolescent Psychology: Cr. 3
RLL 4431 -- Teaching Reading in Middle & Secondary Subject Areas: Cr. 3
TED 5160 -- (WI) Analysis of Middle and Secondary School Teaching (Coreq: TED 5650): Cr. 3
TED 5650 -- Pre-Student Teaching Field Experience for Secondary Majors (Coreq: TED 5160): Cr. 5
Teaching methods in the major, two courses: Cr. 3 (6 req.)
Teaching methods in the minor course: Cr. 3

TEACHING METHODS (Two Courses in the major subject area and one course in the minor subject area.)

CAREER AND TECHNICAL EDUCATION

CTE 5410 -- Teaching Methods for the Career and Technical Ed. Classroom I: Cr. 3
CTE 6993 -- Teaching Methods for the Career and Technical Ed. Classroom II: Cr. 3

ENGLISH EDUCATION

EED 5200 -- Methods of Teaching English: Grades 7-12: Cr. 3
EED 6120 or EED 6330
-- English Composition in the Secondary Schools: Cr. 3
-- Teaching Literature in Secondary Schools: Cr. 3

FOREIGN LANGUAGE EDUCATION (6-12) (Foreign Language Major Required. All three courses must be completed). Consult an advisor for additional course requirement.

LED 6520 -- Teaching English as Second/Foreign Language: Methods I: Cr. 3
LED 6530 -- Teaching English as Second/Foreign Language: Methods II: Cr. 3

FOREIGN LANGUAGE EDUCATION (K-12) (All three courses must be completed)

LED 6500 -- Teaching World Languages in Elementary and Middle Schools: Methods III: Cr. 3
LED 6520 --Teaching English as a Second Language/Foreign Language: Methods I: Cr. 3
LED 6530 -- Teach. English as a Second /Foreign Language: Methods II: Cr. 2-3

MATHEMATICS EDUCATION (Consult a Mathematics Education adviser for possible substitutions and additional courses.)

MAE 5150 -- Methods & Materials of Instruction -- Secondary School Math.: Cr. 3
MAE 6050 -- Teaching Mathematics in Middle Grades: Cr. 3

SCIENCE EDUCATION: INTEGRATED SCIENCE

SCE 5060 -- Methods & Materials of Instruction: Secondary Science I: Cr. 3
SCE 6030 -- Advanced Studies in Teaching Science: Junior High & Middle School: Cr. 3

SCIENCE EDUCATION: SINGLE SUBJECT

SCE 5060 -- Methods & Materials of Instruction: Secondary Science I: Cr. 3
SCE 5070 -- Methods & Materials of Instruction: Secondary Science II: Cr. 3

SOCIAL STUDIES EDUCATION

SSE 6710 -- Methods & Materials. of Instruction:
Secondary Social Studies: Cr. 3
SSE 6720 -- Teaching the Interdisciplinary Knowledge of Social Studies: Cr. 3
SSE 6730 -- New Perspectives in Social Studies Education: Cr. 3

SPEECH EDUCATION

COM 6060 -- Teaching Communication at the Secondary Level: Cr. 3
EED 6210 -- Language, Literacy & Learning: Cr. 3

The Academic Major and Minor and the Michigan Test for Teacher Certification (MTTC) subject area tests must be completed prior to student teaching.

FINAL FIELD EXPERIENCE

TED 5780 -- Directed Teaching and Conference: Cr. 10

MAJOR AREAS OF STUDY (Grades 6-12 Certification)

Students seeking secondary certification for grades 6-12 must complete one of the following majors:

ENGLISH MAJOR (Thirty-one Credits)

ENG 2200 -- (PL) Shakespeare: Cr. 3
ENG 2390 -- (IC) Introduction to African American Literature (AFS 2390): Cr. 4
ENG 2530 or ENG 2540
-- Literature and Identity: Cr. 3
-- Literatures of the World: Cr. 3
ENG 3110 -- (PL) English Literature to 1700: Cr. 3
ENG 3120 -- (PL) English Literature after 1700: Cr. 3
ENG 3140 -- (PL) Survey of American Literature: Cr. 3
ENG 5450 or ENG 5420
-- Modern American Literature: Cr. 3
-- American Literature: 1865-1914: Cr. 3
ENG 5720 -- Linguistics and Education: Cr. 3
ENG 5730 -- English Grammar: Cr. 3
ENG 6010 -- Tutoring Practicum: Cr. 3

FOREIGN LANGUAGE MAJORS (Thirty to Thirty-two Credits)

Secondary certification is offered with majors in the following languages: Chinese, French, German, Italian, Latin, Russian, and Spanish. Courses numbered lower than 3000 will not be counted for a major in Foreign Language. Computation of the major includes only those courses taken in college beginning at the 3000 level. The courses must include grammar, literature, culture, and conversation. Courses taught in English about the culture or language will not apply in this category. Students may be required to complete lower level courses as prerequisites to courses at the 3000 level or above.

Students who major in a language are advised to minor in English or in a second foreign language.

Completion of Foreign Language courses is not sufficient for teacher certification. Students must score at the Advanced Low Level in French, German, Italian, or Spanish, or at the Intermediate High Level in Chinese or Russian, as measured by the Oral Proficiency Interview (OPI) from the American Council on the Teaching of Foreign Languages, and pass the Michigan Test for Teacher Certification in the appropriate subject area.

Students should consult an adviser in Room 469, College of Education for specific course requirements.

MATHEMATICS MAJOR (Forty-one Credits)

MAT 2010 -- Calculus I: Cr. 4
MAT 2020 -- Calculus II: Cr. 4
MAT 2030 -- Calculus III: Cr. 4
MAT 2250 -- Elementary Linear Algebra: Cr. 3
MAT 2210 -- Probability and Statistics for Teachers: Cr. 4
MAT 2860 -- Discrete Mathematics: Cr. 3
MAT 5000 -- Fundamental Concepts of Mathematics & Proof Writing: Cr. 3
MAT 5070 or MAT 5400 or MAT 5520
-- Advanced Calculus: Cr. 4
-- Elementary Theory of Numbers: Cr. 3
-- Introduction to Topology: Cr. 3
MAT 6140 -- Geometry: An Axiomatic Approach: Cr. 3
MAT 6170 -- Alg.: Ring Theory Through Exploration, Conjecture, & Proof. Cr. 4
MAE 6200 -- (MAT 6200) Teaching Arithmetic, Algebra and Functions from an Advanced Perspective: Cr. 3
MAE 6210 -- (MAT 6210) Teaching Geometry, Probability & Statistics & Discrete Math. from an Advanced Perspective: Cr 3

SECONDARY SCIENCE MAJOR — SINGLE DISCIPLINE and INTEGRATED SCIENCE

Students who major in biology (thirty-seven credits), chemistry (thirty-eight credits), earth/space science (thirty-six credits), or physics (thirty-seven credits) must follow the minimum requirements established by the College of Education, which include a total of fifty to fifty-two credits in science and eight credits in mathematics. Students should consult a current curriculum guide for specific courses. Curriculum guides are available in room 469, College of Education.

INTEGRATED SCIENCE MAJOR (61 credits):

BIOLOGY (five courses for twenty credits)

BIO 1500 -- Basic Life Diversity: Cr. 4
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
BIO 2200 -- (LS) Introductory Microbiology: Cr. 4
BIO 3070 -- Genetics: Cr. 4
BIO 6210 -- Ecology / Evolution: Cr. 4

CHEMISTRY (four courses, plus labs for seventeen credits)

CHM 1220 -- (PS) General Chemistry I: Cr. 4
CHM 1230 -- Lab (concurrently with CHM 1220): Cr. 1
CHM 1240 -- Organic Chemistry I: Cr. 4
CHM 1250 -- Lab (concurrently with CHM 1240): Cr. 1
CHM 2220 -- Organic Chemistry II: Cr. 3
CHM 2230 -- Lab (concurrently with CHM 2220): Cr. 1
CHM 6740 -- Laboratory Safety: Cr. 2

PHYSICS (three courses, plus corequisite labs for twelve credits)

PHY 2130 -- (PS) General Physics: Cr. 3
PHY 2131 -- General Physics Lab: Cr. 1 (coreq: PHY 2130)
PHY 2140 -- General Physics: Cr. 3
PHY 2141 -- General Physics Lab: Cr. 1 (coreq: PHY 2140)
PHY 3310 -- Modern Physics Lab: Cr. 1 (coreq: PHY 5015
PHY 5015 -- Nonclassical Physics for Educators: Cr. 3

EARTH/SPACE SCIENCE (three courses, plus lab for twelve credits)

AST 2010 -- (PS) Descriptive Astronomy: Cr. 4
AST 2011 -- Descriptive Astronomy Lab: Cr. 1 (coreq: AST 2010)
GEL 1010 -- (PS) Geology: The Science of the Earth: Cr. 4
GEL 1370 -- Meteorology: The Study of Weather: Cr. 3

Additional Requirements

MAT 1800 -- Elementary Functions: Cr. 4
Elective in: Mathematics: Cr. 2; OR Computer Science: Cr. 2

SECONDARY SOCIAL STUDIES — Individual Disciplines:

Economics Major (Thirty Credits): See an adviser in Academic Services, College of Education, for specific course requirements.

History Major (Thirty-three Credits): See an adviser in Academic Services, College of Education, for specific course requirements.

Political Science Major (Thirty Credits): See an adviser in Academic Services, College of Education, for specific course requirements.

SECONDARY SOCIAL STUDIES GROUP MAJOR (Thirty-six Credits)

This major includes four disciplines: economics, geography, history, and political science. The major must include at least two courses from each of these areas. The recommended distribution of courses is as follows:

ECO 2010 -- (SS) Principles of Microeconomics: Cr. 3-4
ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 3-4
GPH 1100 -- (SS) World Regional Patterns: Cr. 4
GPH 2200 -- Geography of Michigan: Cr. 3
HIS 1000 -- (HS) World Civilization to 1500: Cr. 3-4
HIS 1300 -- (HS) Europe and the World, 1500-1945: Cr. 3-4
HIS 2040 -- The United States to 1877: Cr. 3-4
HIS 2050 -- United States since 1877: Cr. 3-4
HIS 2240 -- History of Michigan: Cr. 3-4
P S 1030 -- (AI) The American Governmental System: Cr. 3
P S 3070 -- Michigan Politics: Cr. 4

SPEECH EDUCATION MAJOR
(Thirty-four Credits beyond COM 1010)

A minor in English is strongly encouraged with this major.

Required Courses: (COM 1010 is a prerequisite for this major)

COM 1500 -- Survey of Mass Communication: Cr. 3
COM 2110 -- (CT) Argumentation and Debate: Cr. 3
COM 2170 -- Persuasive Speaking (Prereq: COM 1010): Cr. 3
COM 2200 -- Interpersonal Communication: Cr. 3
COM 1600 or COM 2280 or COM 5300
-- Intro. to Audio, TV, and Film Production: Cr. 3
-- Photojournalism: Cr. 3
-- Desktop Publishing: Cr. 4
COM 2500 -- Oral Interpretation of Literature. Cr 3.
COM 3270 -- Group Communication and Human Interaction: Cr. 3
COM 3400 -- (WI) Theories of Communication: Cr. 4
COM 4040 -- Diversity in Interpersonal Communication: Cr. 3
COM 4130 -- Communication Ethics: Cr.3
(Capstone course to be taken in last twenty-one credits)
COM 6070 -- Directing Forensics: Cr. 3

Total: 34 credits

MINOR AREAS OF STUDY
(Grades 6-12 Certification)

Students seeking secondary certification for grades 6-12 must complete one of the following minors:

BILINGUAL/BICULTURAL MINOR (Twenty-four Credits)

Note: Students must demonstrate superior proficiency (speaking, reading, and writing) in a non-English language as measured by the Oral Proficiency Interview (OPI) and Writing Proficiency Test (WPT) from the ACTFL.

BBE 5000 -- Multicultural Education in Urban America: Cr. 2
BBE 5500 -- Introduction to Bilingual/Bicultural Education: Cr. 3
BBE 6560 -- Teaching Methods in Bilingual/Bicultural Ed.: Cr. 3
BBE 6600 -- Internship in Bilingual/Bicultural Teaching: Cr. 2
BBE 6850 -- Applied Linguistics: Issues in Bilingual Education: Cr. 3
BBE 6590 -- Culture and Language in BBE: Cr. 3
LED 6520 -- Teaching English as Second/Foreign Language Methods I: Cr. 3
LED 6555 -- Integration of Language and Content in Language Teaching: Cr. 2
RLL 6700 -- Second Language Literacy Development K-12: Cr. 3

ENGLISH MINOR (Twenty-five Credits)

ENG 2200 -- (PL) Shakespeare: Cr. 3
ENG 2390 -- (IC) Intro. to African American Lit. (AFS 2390): Cr. 4
ENG 2530 or ENG 2540
-- Literature and Identity: Cr. 3
-- Literatures of the World: Cr. 3
ENG 3110 or ENG 3120
-- (PL) English Literature to 1700: Cr. 3
-- (PL) English Literature after 1700: Cr. 3
ENG 3140 or ENG 5450
-- (PL) Survey of American Literature: Cr. 3
-- Modern American Literature: Cr. 3
ENG 5720 -- Linguistics and Education: Cr. 3
ENG 5730 -- English Grammar. (LIN 5730): Cr. 3
ENG 6010 -- Tutoring Practicum: Cr. 3

ENGLISH AS A SECOND LANGUAGE MINOR
(Minimum 24 credits) A major or minor in English is strongly recommended with an ESL Minor.

The minor is completed after admission to Level 2.

Prior to taking courses for this minor, students must contact Dr. Marc Rosa at (313) 577-0902 or through e-mail at ae4976@wayne.edu for an appointment.

BBE 5000 -- Multicultural Education in Urban American: Cr. 2
BBE 6600 -- Internship in Bilingual/Bicultural Teaching: Cr. 2
BBE 6850 -- Applied Linguistics: Issues in Bilingual Ed: Cr. 3
LED 6510 -- Second Language Acquisition and Teaching Grammar: Cr. 3
LED 6520 -- Teach. English as a Second/Foreign Language: Methods I: Cr. 3
LED 6555 -- Integration of Language & Content in Teaching: Cr. 2
LED 6565 -- Assessment in Language Teaching: Cr. 3
LED 6580 -- Culture as the Basis for Language Teaching: Cr. 3
RLL 6700 -- Second Language Literacy Development K-12: Cr. 3

FOREIGN LANGUAGE MINORS
(Twenty to Twenty-one Credits)

Secondary certification is offered with minors in the following languages: Chinese, French, German, Italian, Latin, Russian, and Spanish. Courses numbered lower than 3000 will not be counted for a minor in Foreign Language. Computation of the minor includes only those courses taken in college beginning at the 3000 level and the courses must include grammar, literature, culture, and conversation. Courses taught in English about the culture or language will not apply in this category. Students may be required to complete lower level courses as prerequisites to courses at the 3000 level or above.

Completion of Foreign Language courses is not sufficient for teacher certification. Students must score at the Advanced Low Level in French, German, Italian, or Spanish, or at the Intermediate High Level in Chinese or Russian, as measured by the Oral Proficiency Interview (OPI) from the American Council on the Teaching of Foreign Languages (ACTFL), and pass the Michigan Test for Teacher certification in the appropriate subject area.

Students should consult an adviser in Room 469, College of Education for specific course requirements

SECONDARY MATHEMATICS MINOR
(Minimum thirty-one Credits)

MAT 2010 -- Calculus I: Cr. 4
MAT 2020 -- Calculus II: Cr. 4
MAT 2210 -- (MAT 6150) Probability and Statistics for Teachers: Cr. 4
MAT 2250 -- Elementary Linear Algebra: Cr. 3
MAT 2860 -- (MAT 6130) Discrete Mathematics: Cr. 3
MAT 5000 -- Fundamental Concepts of Mathematics & Proof Writing: Cr. 3
MAT 5420 or MAT 6170
-- Algebra I: Cr. 4
-- Algebra: Ring Theory: Exploration, Conjecture, & Proof. Cr. 4

MIDDLE LEVEL ENDORSEMENT (Minimum Twenty Credits)
(also see the MLE site: http://ted.coe.wayne.edu/mle/minor.html*)*

CED 6700 -- The Role of the Teacher in Guidance: Cr. 2
EDP 5480 -- Adolescent Psychology: Cr. 3
ELE 6070 -- Family, Community & School Partnerships: Cr. 3
TED 5250 -- Teaching the Emerging Adolescent: Middle Level: Cr. 3
TED 3550 or TED 5150 or TED 5160
-- (WI) Teaching: Research, Theory and Practice: Cr. 5
-- Analysis of Elementary School Teaching: Cr. 3-6
-- (WI) Anal. of Middle & Secondary School Teaching: Cr. 3

Two methods classes from two different disciplines with the approval of the MLE (Middle Level Endorsement) Adviser: Cr. 6

Field Experiences (credit does not count towards endorsement): A field experience in grades 6-8 is required

SCIENCE MINOR — SINGLE DISCIPLINE (Twenty Credits)

Some science courses may require advanced courses in mathematics or science. Placement testing may also be required for courses in mathematics and chemistry. Please consult the course listing sec-

tions of the University Bulletin for prerequisite requirements prior to registering for science and mathematics courses.

Students are advised to begin fulfilling the requirement in mathematics as early as possible.

The minimum-credit requirement for Single-Subject Science Minors does not include the additional requirements in lab safety (except in the Chemistry minor) or mathematics.

Integrated Science is not available as a minor. Please see page for the Integrated Science Major.

BIOLOGY MINOR (Minimum twenty-eight credits)

BIO 1030 -- (LS) Biology Today: Cr. 3
BIO 1500 -- Basic Life Diversity: Cr. 4
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
BIO 2200 -- (LS) Introductory Microbiology: Cr. 4
BIO 2870 -- Anatomy and Physiology: Cr. 5
BIO 3070 -- Genetics: Cr. 4
BIO 4130 -- (WI) General Ecology: Cr. 4
BIO 4200 -- Evolution: Cr. 3

Additional Requirements:

CHM 6740 -- Laboratory Safety: Cr. 2
MAT 1800 -- Elementary Functions: Cr. 4

CHEMISTRY MINOR (Minimum twenty-six credits)

CHM 1000 -- (PS) Chemistry and Your World: Cr. 4
CHM 1220 -- (PS) General Chemistry I: Cr. 4
CHM 1230 -- General Chemistry I Lab: Cr. 1 (coreq: CHM 1220)
CHM 1240 -- Organic Chemistry I: Cr. 4
CHM 1250 -- Organic Chemistry I Lab: Cr. 1 (coreq CHM 1240)
CHM 2220 -- Organic Chemistry II: Cr. 3
CHM 2230 -- Organic Chemistry II Lab: Cr. 2 (coreq: CHM 2220)
CHM 2280 -- General Chemistry II: Analytical Chemistry: Cr. 3
CHM 2290 -- General Chemistry II Lab: Cr. 2 (coreq: CHM 2280)
CHM 6740 -- Laboratory Safety: Cr. 2

Additional Requirement:

MAT 1800 -- Elementary Functions: Cr. 4

EARTH/SPACE SCIENCE MINOR
(GEOLOGY & ASTRONOMY) (Minimum: twenty-four credits)

AST 2010 -- (PS) Descriptive Astronomy Cr. 4
AST 2011 -- Descriptive Astronomy Lab): Cr. 1 (coreq: AST 2010)
GEL 1010 -- (PS) Geology: The Science of the Earth: Cr. 4
GEL 1020 -- Interpreting the Earth: Cr. 4
GEL 1370 -- Meteorology: The Study of Weather: Cr. 3
GEL 2130 -- Mineralogy: Cr. 4
GEL 3400 or GEL 3160
-- Principles of Sedimentology & Stratigraphy: Cr. 4
-- Petrology: Cr. 4

Additional Requirements:

CHM 6740 -- Laboratory Safety: Cr. 2
MAT 1800 -- Elementary Functions: Cr. 4

PHYSICS MINOR (Minimum twenty-two credits; note coreq labs)

PHY 2130 -- (PS) General Physics: Cr. 3
PHY 2131 -- General Physics Lab: Cr. 1 (coreq: PHY 2130)
PHY 2140 -- General Physics: Cr. 3
PHY 2141 -- General Physics Lab: Cr. 1 (coreq: PHY 2140)
PHY 3310 -- Modern Physics Lab: Cr. 1 (coreq: PHY 5015)
PHY 5015 -- Nonclassical Physics for Educators: Cr. 3
PHY 5200 -- (WI) Classical Mechanics I: Cr. 2
PHY 1040 or PHY 5010
-- (PS) Einstein, Relativity and Quanta. A Conceptual Intro: Cr. 3
-- Astrophysics and Stellar Astronomy: Cr. 3
PHY 3100 -- (PS) The Sounds of Music: Cr. 4

Additional Requirements:

CHM 6740 -- Laboratory Safety: Cr. 2
MAT 1800 -- Elementary Functions: Cr. 4

ECONOMICS MINOR (Minimum twenty-two credits)

ECO 2010 -- (SS) Principles of Microeconomics: Cr. 3-4
ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 3-4
ECO 5300 or ECO 5310
-- International Trade: Cr. 4
-- International Finance: Cr. 4
ECO 5400 -- Labor Economics: Cr. 4
ECO 5410 -- Economics of Race & Gender: Cr. 4
ECO 5550 -- Economics of Health Care: Cr. 4

HISTORY MINOR (Minimum twenty-two credits)

HIS 1000 -- (HS) World Civilization to 1500: Cr. 3
HIS 1300 -- (HS) Europe and the World: 1500-1945: Cr. 3
HIS 1400 -- The World Since 1945: Cr. 3
HIS 2040 -- United States to 1877: Cr. 3
HIS 2050 -- United States Since 1877: Cr. 3
HIS 2240 -- History of Michigan: Cr.3-4
HIS 3140 or HIS 3150
-- African American History I: 1619-1865: Cr. 3
-- African American History II: 1865 - Present: Cr. 3

POLITICAL SCIENCE MINOR (Minimum: twenty credits)

P S 1010 -- (AI) American Government: Cr. 4
P S 2810 -- World Politics: Cr. 4
P S 3020 -- Political Parties and Elections: Cr. 4
P S 3040 -- Legislative Process: Cr. 4
P S 3070 -- Michigan Politics: Cr. 4

SPEECH MINOR
(Minimum: twenty-one credits)

COM 1010 -- (OC) Basic Speech: Oral Communication: Cr. 3
(COM 1010 is prerequisite to all of the following COM courses)
COM 1500 -- Survey of Mass Communication: Cr.3
COM 2110 -- (CT) Argumentation and Debate: Cr. 3
COM 2170 -- Persuasive Speaking: Cr. 3
COM 2200 -- Interpersonal Communication: Cr. 3
COM 2500 -- Oral Interpretation of Literature: Cr. 3
COM 4130 -- Communication Ethics: Cr. 3
COM 6070 -- Directing Forensics: Cr. 3

Bachelor's Degree Programs in Special Education

The special education curriculum leads to a bachelor's degree in education and certification in the area of cognitive impairment.

Admission Requirements: see page 106.

DEGREE REQUIREMENTS: The following requirements in various curricular areas supplement the degree requirements outlined above (see page 106). The entire program in Special Education requires a minimum of 140 credits.

LEVEL 1 REQUIREMENTS: The following courses are required of all students seeking special education certification. Some of these courses may also satisfy the University General Education Requirements (see page 18), but the dual application of any course to both College and University General Education categories cannot be used to reduce the total degree requirement below 124 credits.

No grade below 'C' may be used to meet any requirement specific to Special Education, the Special Education major, or the professional sequence.

GENERAL EDUCATION REQUIREMENTS

(see Elementary Education above)

SPECIAL EDUCATION COMPREHENSIVE MAJOR

CHILDREN'S LITERATURE

ELE 3200 -- Literature for Children: Cr. 3

U.S. HISTORY (Two courses)
HIS 2040 -- United States to 1877: Cr. 3-4
HIS 2050 -- United States Since 1877: Cr. 3-4

MICHIGAN HISTORY
HIS 2240 -- History of Michigan: Cr. 3-4

DEVELOPMENTAL PSYCHOLOGY
PSY 2400 -- Developmental Psychology: Cr. 4

ECONOMICS (one of the following)
ECO 1000 -- (SS) Survey of Economics: Cr. 3-4
ECO 2010 -- (SS) Microeconomics: Cr. 3-4
ECO 2020 -- (SS) Macroeconomics: Cr. 3-4

LIFE SCIENCE (one of the following)
BIO 1030 -- (LS) Biology Today: Cr. 3-4
BIO 1050 -- (LS) An Introduction to Life: Cr. 3-4
BIO 1500 -- Basic Life Diversity: Cr. 3-4
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3-4
SCE 5010 -- Biological Sci. for Elementary & MS Teachers: Cr. 3

PHYSICAL SCIENCE
SCE 5020 -- Physical Science for Elementary & MS Teachers: Cr. 3

EARTH/SPACE SCIENCE
SCE 5030 -- Earth/Space Science for Elementary & MS Teachers: Cr. 3

HEALTH AND PHYSICAL EDUCATION
KIN 5550 -- Health and PE for the Elementary School Teacher: Cr. 3

TEACHER EDUCATION (Two Courses)
TED 2250 -- Ethical Issues in School and Society: Cr. 3
TED 2251 -- Becoming a Professional Educator: Cr. 3

LEVEL 2 EDUCATION REQUIREMENTS (Special Education)

The following courses are required of all students seeking special education endorsements and may be taken only after admission to the College of Education Level 2.

The following courses may taken in Level 1 or 2 status:
BBE 5000 -- Multicultural Education in Urban America: Cr. 2
EDP 3310 -- Educational Psychology: Cr. 3
ELE 6070 -- Family, Community and School Partnerships: Cr. 3

The following courses must be taken prior to TED 3550 Pre-Student Teaching:
ELE 3320 -- Teaching Reading I: Emergent Literacy: Cr. 3
Method course (see Level 2 advisor)

PRE-STUDENT TEACHING EXPERIENCE
ELE 3320 -- Teaching Reading I: Emergent Literacy: Cr. 3
(Coreq: TED 3550)
TED 3550 -- (WI) Teaching: Research, Theory and Practice: Cr. 5
(Coreq: ELE 3320)

The following courses may be elected at any time *after* admission to the College of Education Level 2 and must be completed *prior to* taking TED 5780:
ELE 3300 -- Teaching Language Arts: Preprimary-8: Cr. 3
ELE 3400 -- Teaching Mathematics: Preprimary-8: Cr. 3
ELE 3500 -- Teaching Science: Preprimary-8: Cr. 3
ELE 3600 -- Teaching Social Studies: Preprimary-8: Cr. 3
RLL 4430 -- Teaching Reading II: Comprehension. Preprimary-8: Cr. 3
(Prereq: ELE 3320)

ELEMENTARY FIELD EXPERIENCE
TED 5780 -- Directed Teaching and Conference: Cr. 5

FINAL FIELD EXPERIENCE
TED 5790 -- Student Teaching & Conference for Special Groups: Cr. 8
SED 6010 -- Seminar in Special Ed. Teaching and Disabilities: Cr. 2

MAJOR AREAS OF STUDY (Special Education)

Students pursuing a bachelor's degree in education leading to an endorsement in Cognitive Impairment must complete the following major. The courses cited in the major with the exception of ECE 6100 or TED 6020, and SED 5030 can be taken only after admission to the Special Education Program Level 2.

COGNITIVE IMPAIRMENT (Thirty-two Credits)
ECE 6100 or TED 6020
-- Enabling Technology: Cr. 4 (College of Engineering)
-- Computer Applications in Teaching I: Cr. 3
SED 5030 -- Education of Exceptional Children: Cr. 3
SED 5040 -- Language Acquisition and Intervention.: Cr. 2
SED 5060 -- Developing Observation and Assessment Skills: Cr. 3
SED 5090 -- Transitions for Students with Disabilities: Cr. 3
SED 5110 -- Mental Impairments and the Cognitive Process: Cr. 3
SED 5130 -- Curriculum and Instructional Strategies: Cognitive Impairments: Cr. 3
SED 5140 -- Behavior Management: Positive Behavior Support: Cr. 3
SED 5260 -- Instructional Strategies for Exceptional Learners: Cr. 3
SED 5600 -- Support and Collaboration for Inclusive Teaching: Cr. 3
SED 6010 -- Seminar in Special Education Teaching: Cr. 3

Bachelor's Degree Programs in Visual Arts Education Leading to Grades K-12 Endorsement

VISUAL ARTS EDUCATION (K-12 CERTIFICATION)

This program is designed to provide professional preparation for individuals who seek K-12 certification in visual arts education. Students in this program receive the Michigan Secondary Provisional Teaching Certificate. It is recommended that students plan their coursework in advance with an adviser as accurately as possible to avoid extra courses or conflicts.

The program for visual arts education consists of University General Education Requirements (Competency Requirements and Group Requirements) for which see page 18: College Requirements; a teaching major of visual arts education with foundational, intermediate, and advanced studio coursework; and a sequence of professional education courses including one semester of half-day student teaching and one semester of full-day student teaching. The policy of the College of Education is to provide teaching experiences in both an urban and a suburban setting.

For specific course selections students should consult the College of Education adviser in room 469, Education Building.

Post-Baccalaureate Program in Visual Arts Education

The visual arts major for Post Bachelor Certification totals fifty-seven credits (forty-eight credits prior to admission to the program and nine additional credits in Advanced Studio Courses after admission). Potential students should consult an adviser in room 469 Education to discuss program requirements.

Bachelor's Degree Programs in Career and Technical Education

Career and Technical education programs are offered in four curricular areas:

1) Business, Management, Marketing & Technology
a) as a thirty-six credit major (minor required) or
b) as a fifty credit comprehensive major (no minor required)

2) Marketing Education (minor required)

3) Health Occupations (Second Academic Major required)

4) Trade & Industry (Second Academic Major required)

These specializations are offered as majors in many community colleges and this major should be completed prior to admission to the College of Education. For further information, consult a career and technical education program coordinator in the College of Education.

All of the programs offered under these generic headings lead to two kinds of certification: secondary school certification, and vocational certification with required work experience.

All students in career and technical education must complete an academic major or minor as listed above, a vocational endorsement, the baccalaureate degree, and have two years (4,000 hours) of recent and relevant work experience (within the past five years) in an occupation related to the vocational endorsement.

Admission Requirements: In addition to the regular admission procedures (see page 106), each applicant must have a personal interview with a career and technical education adviser and complete a Plan of Work.

DEGREE REQUIREMENTS: Career and technical education programs follow the degree requirements outlined on page 106.

LEVEL 1 REQUIREMENTS: Students seeking a bachelor's degree in career and technical education must complete the preprofessional requirements outlined on page 109.

LEVEL 2 EDUCATION REQUIREMENTS: Students in career and technical education programs must complete the professional education requirements outlined on page 110.

CREDIT BY EXAMINATION: Credit in some occupational areas may be earned through competency examinations. Consult the CTE Program Coordinator for further information.

MICHIGAN TEACHING CERTIFICATES

The Michigan Department of Education issues two basic teaching certificates: elementary and secondary. The elementary certificate authorizes an individual to teach all subjects in grades kindergarten through five, major and minor subject areas in grades six through eight, and all subjects in grades K-8 in a self-contained classroom. The secondary certificate authorizes an individual to teach his/her major and minor subject areas in grades six through twelve. Some majors such as art, kinesiology, and music cover all grades, kindergarten through twelve.

Elementary and secondary certificates are issued in two stages. The provisional certificate is issued first and is valid for five and a half to six years after the date of issuance. After three years of successful teaching, the completion of a master's degree or accumulation of eighteen semester credits in a planned program of study earned after the issuance of the provisional certificate, and an additional reading requirement, a teacher may apply for a professional certificate which must be renewed every five years. The teacher must complete six semester credits of approved college courses or eighteen State-approved Continuing Education Units (CEUs) during each five-year period in order to retain professional certification.

Certification Requirements

Most secondary certificates require an academic major and an academic minor in subject areas such as English, mathematics, science, or social studies, approved for teaching in grades six through twelve by the State Board of Education. An elementary certificate requires a minimum of one academic major and the planned minor.

Students are recommended for certification after earning a bachelor's degree from a regionally-accredited institution and completing a specified sequence of professional courses in the College of Education. Holders of a bachelor's degree may also earn a teaching certificate in a post-bachelor certification program or Master of Arts in Teaching program. Additional information about these programs can be obtained from the Office of Academic Services in rooms 469 Education.

Provisional Certificates

Teaching certificates as listed below are granted with the bachelor's degree upon the completion of the four-year program. They are also granted to students who hold a bachelor's or master's degree upon completion of a specified professional sequence, and to holders of either of the provisional certificates listed below who wish to qualify for the other. (In the following text "self contained" means that all subjects are taught primarily by one teacher rather than teaching only one subject in subject-specific classrooms.)

Elementary Provisional Certificate for K-5 all subjects, K-8 self contained

1. The candidate must have graduated with a bachelor's degree from an approved or accredited teacher education institution.

2. Students seeking elementary certification must meet major/minor requirements according to the curriculum guide - see academic advisor. All Elementary Programs must include the Planned Program.

3. Completion of a professional education sequence is required.

Secondary Provisional Certificate for Grades Six through Twelve

1. The candidate must have graduated with a bachelor's degree from an approved or accredited teacher education institution.

2. The academic background must include a single subject major or a group major, and one minor in subjects or subject fields in which the applicant expects to teach.

3. Completion of a professional education sequence is required.

Certification for Post-Baccalaureate Students

A college graduate holding the bachelor's or master's degree may qualify for a teaching certificate by completing a Master of Arts in Teaching degree program, or by completing a recognized post-degree program. See the Wayne State University Graduate Bulletin for general requirements for the Master of Arts in Teaching degree. The student may need to supplement previous degree work in order to satisfy major and minor provisions of the Michigan certification code.

Five-Year Professional Certificate

This certificate is for holders of provisional certificates who have taught successfully for three years in an area of certification after the issue date of their provisional certificate, have completed eighteen credits in a planned course of study after the issue date of their provisional certificate or have a master's degree and completed an additional reading requirement. (For a student who is admitted to a program leading to a master's degree, in an area related to K-12 education or support services, the first eighteen credits are considered a planned program. Students not seeking a master's degree should consult with an adviser in 469 Education Building regarding an appropriate planned course of study.)

Teachers of K-12 subjects: art, dance, music and kinesiology may present experience at any grade level from kindergarten through grade 12.

All candidates for an elementary five-year professional certificate must have completed the following in order to qualify: 1) six credits in reading instruction in either their undergraduate or post-graduate preparation three of which must be reading in the content areas, and 2) a three-credit course in the diagnosis and remediation of reading disabilities and differentiated instruction. This course must include field experiences. Consult an adviser in Room 469 Education Building for specific requirements.

All candidates for a secondary five-year professional certificate must have completed in their undergraduate or post-graduate preparation a three-credit course in reading in the content areas as well as a

three credit graduate course in the diagnosis and remediation of reading disabilities and differentiated instruction. This course must include field experiences. Consult a counselor in Room 469 Education Building for specific requirements.

Endorsements

Teaching endorsements may be added to any certificate. An individual may add endorsements by completing requirements for academic majors and/or minors in accordance with State regulations. An individual holding an elementary certificate may also earn an endorsement to teach at the secondary level, and vice versa. When adding an additional endorsement, the individual must also pass the Michigan Test for Teacher Certification in that subject area.

Holders of certificates who wish to add an additional teaching endorsement must consult an adviser in the Division of Academic Services, 469 or 489 Education Building. Application for an endorsement must be made within five years after endorsement requirements have been met. State examinations must be passed for all new endorsements.

Bilingual/Bicultural Endorsement

The Bilingual/Bicultural Endorsement certifies a teacher who is qualified to teach classes of bilingual children. Students holding existing certificates may add a bilingual endorsement by demonstrating superior proficiency in a non-English language and by completing a twenty-credit planned program. Information and referral to the appropriate adviser on requirements for this endorsement may be obtained in Room 469 or 489 Education Building.

Early Childhood Endorsement

The Early Childhood Endorsement certifies a teacher who is qualified to teach children ages birth to eight years. Students holding an elementary certificate may add an early childhood endorsement by completing a twenty-one-credit planned program. Information on requirements for this endorsement and referral to the appropriate adviser may be obtained in Room 469 or 489 Education Building.

Middle Level Endorsement

The Middle Level Endorsement is a twenty-credit planned program which adds an area of expertise for teachers who already hold a Michigan elementary or secondary teaching certificate. The endorsement extends Michigan teacher subject area certification to include grades five through nine. Information on this endorsement and referral to an adviser may be obtained in Room 469 or 489 Education Building.

English as a Second Language Endorsement

The English as a Second Language (ESL) Endorsement certifies a teacher who is qualified to teach learners with limited English proficiency. Students holding existing certificates may add an ESL endorsement by completing an twenty-credit planned program. Information and referral to the appropriate adviser may be obtained in Room 469 or 489 Education Building.

Student Teaching

Prerequisite requirements for student teaching eligibility are:

1. Admission to the College of Education.

2. Completion of course work in teaching major and minor(s) with grades of ‘C’ or better.

3. Passing of appropriate tests on the Michigan Test for Teacher Certification (MTTC).

4. Satisfactory completion of required courses in the professional education sequence with grades of ‘C’ or better.

5. Current negative tuberculosis test result.

NOTE: In addition to the above prerequisites, students completing certification requirements directly through the Michigan Department of Education or another university must complete a minimum of six semester credits in the Wayne State University College of Education prior to placement in a student teaching assignment.

Application Procedures:

Submit completed application forms including eligibility form and placement cards in person to the Student Teaching Office, 223 Education Building, prior to the deadline of the appropriate application period (see below).

Application Deadlines:

Apply during September (deadline September 30) for the following Fall semester.

Apply during January (deadline January 31) for the following Winter semester.

Advising Offices

Information, written descriptions of programs, and referrals to advisers may be obtained from the following advising offices: Art Education, Room 163, Art Building; Kinesiology, Room 260, Matthaei Building; Music Education, 1321 Old Main; all other programs, Room 469, Education Building. Level 1 students are advised by an adviser in the College of Education, Room 469.

Level II and MAT students are advised by an adviser in the Division of Teacher Education, 2nd Floor, College of Education.

UNDERGRADUATE COURSES

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

TEACHER EDUCATION DIVISION COURSES (TED)

2250 Ethical Issues in Schools and Society. Cr. 3
Exploration of teaching in schools in today's and tomorrow's society. Examination of the value of schooling in a democracy, recent reforms in education, ethical issues, the role of the family in education, the issue of social justice as it relates to education. (T)

2251 Becoming a Professional Educator. Cr. 3
Introduction to educational foundations and examination of the challenges and realities of teaching. Development of critical reflection skills through lesson plan and case study models. Mandatory field experience. (F,W)

3550 (WI) Teaching: Research, Theory and Practice. Cr. 5
Prereq: admission to College of Education. Offered for S and U grades only. Structure, function and purposes of schools in society and how they are affected by various philosophies of education, organization and management of classrooms, development of instructional goals, use of tests and other measures, and utilization of professional resources in the community. Coursework includes laboratory experiences in schools. (T)

3560 Pre-Student Teaching Field Experiences. Cr. 3 (Max. 6)
Prereq: admission to College of Education. Offered for S and U grades only. Second phase of pre-student teaching field experience. Work in classrooms is assigned and evaluated by both an experienced public school teacher and a university faculty member. (T)

5150 Analysis of Elementary School Teaching. Cr. 3-6

Prereq: admission to College of Education. Organization and management of classrooms. Lesson planning, teaching strategies and testing procedures. Work in classroom assigned by both an experienced public school teacher and a University faculty member. (F,W)

5160 (WI) Analysis of Middle and Secondary School Teaching. Cr. 3

Prereq: admission to College of Education; coreq: TED 5650. Overview of structure, function and purposes of middle and secondary school education. Development and analysis of instructional objectives. Organization and management of classrooms. Teaching strategies and assessment of learning. Exploration and utilization or resources in the community. (F)

5250 Teaching the Emerging Adolescent in Middle Level Education. Cr. 3

Prereq: admission to College of Education. Opportunities to examine best practices, curriculum and strategies of middle level education. (I)

5650 Pre-Student Teaching Field Experience for Secondary Majors. Cr. 3-5

Prereq: admission to College of Education; coreq: TED 5160. Offered for S and U grades only. Field experience in secondary school settings prior to full-time student teaching. (F,W)

5780 Directed Teaching and Conference. Cr. 1-12

Offered for S and U grades only. Prereq: admission to College of Education. Directed teaching in schools at level for which students are preparing for certification. Includes regular conference in which teaching methods in various fields are explored. (F,W)

5790 Student Teaching and Conference for Special Groups. Cr. 1-10 (Max. 10)

Prereq: admission to College of Education; admission to student teaching. Offered for S and U grades only. Directed teaching in schools at level for which advanced students are preparing for certification; discussion of educational issues. For students seeking endorsements in special areas; for example: special education, early childhood, art. (F,W)

5810 (DNC 5810) Creative Dance for Children. Cr. 3

Approaches to creative dance experiences for children stressing the development of aesthetic and kinesthetic awareness. Focus on comprehensive arts and curriculum related materials. (F)

5820 (DNC 5820) Creative Movement for the Pre-School Child I. Cr. 3

Creative dance activities; manipulative, musical, imaginative and kinesthetic approaches to movement. (F,W)

5830 (DNC 5830) Field Work in Creative Dance. Cr. 2-8

Prereq: DNC 5830 or consent of instructor. Supervised professional study in field settings. (T)

6020 Computer Applications in Teaching I. Cr. 3

Variety of hands-on experiences where technology is used as a tool to support instruction and assessment purposes in K-12 classrooms. Course activities introduce students to educational technology standards. (T)

6030 Computer Applications in Teaching II. Cr. 3

Prereq: TED 6020 or equiv. Use of computing resources to develop problem-solving strategies and multimedia applications for students in specific K-12 curriculum areas. (F,W)

6130 Developing Curriculum in the Affective Domain. Cr. 3

Philosophy and theory underlying the affective domain; the impetus and means of evaluative and analytical thinking used as a vehicle that provides teachers with instructional strategies in building K-12 curriculum. (Y)

6140 Local School Curriculum Planning. Cr. 1-6 (Max. 12)

For classroom teachers and teacher educators. Consideration of local problems in elementary and secondary school programs. Planning for better teaching and learning. (I)

6350 Analysis of Teaching in Urban Schools. Cr. 3

Inquiry-based clinical course designed to provide the fundamental elements necessary for teacher candidates to work in high priority urban schools. (S)

6370 Equitable Multicultural and Inclusive Learning Opportunities for All Diverse Learners in Urban Education Settings. Cr. 4

Clinical based course, using inclusive instructional practices for all students including, but limited to, students with disabilities, English Language Learners, and special populations such as: at-risk, and gifted and talented in inclusive urban settings. (F)

ART EDUCATION COURSES (AED)

5000 Introduction to Art Education. Cr. 3

Prereq: admission to College of Education. Design of developmentally appropriate and comprehensive art experiences, teaching strategies, and authentic assessment of student learning in art. History, theories and philosophies of visual arts education; contemporary trends and issues. Material Fee As Indicated In The Schedule of Classes (Y)

5020 Painting: Methods and Materials. Cr. 3 (Max. 9)

Methods, materials and processes suitable for teaching painting in the schools. Subject selection, composition, surface selection and preparation, mixing and application of paint, finishing, and presentation. Students develop basic skills in painting for personal artistic expression. Material Fee As Indicated In The Schedule of Classes (F)

5050 (VP) Integrating the Arts into the Elementary Classroom. Cr. 3

Introductory course: integration of visual arts, music, dance, and theatre into the teaching, learning and curriculum of the elementary classroom. Material Fee As Indicated In The Schedule of Classes (F,W)

5070 Methods and Materials of Sculptural Expression. Cr. 3

Required for certification in art education and prior to student teaching. Exploration of three-dimensional forms using various media; emphasis on sculptural concepts, materials, tools and techniques related to teaching sculpture on the elementary and secondary level. Material Fee As Indicated In The Schedule of Classes (Y)

5100 Topics in Art Education. Cr. 1-3 (Max. 9)

Prereq: admission to College of Education. Art experiences designed for the specific needs of special groups. Topics to be announced in Schedule of Classes . Material Fee As Indicated In The Schedule of Classes (I)

5150 Computer Graphics in the Classroom. Cr. 3

Introduction to digital media and the production of computer graphics by using drawing, painting, graphic design, animation, video and web techniques. (Y)

5160 Theory and Practice in Art Education. Cr. 3 (Max. 9)

Prereq: admission to College of Education; AED 5650; prereq. or coreq: student teaching. Development and analysis of instructional objectives in art education; organization and management of art classrooms; teaching strategies and assessment practices. (W)

5170 Fibers: Methods and Materials. Cr. 3 (Max. 9)

Comprehensive exploration of fiber-fabric art forms: applique, trapunto, stitchery, dyeing, soft sculpture, weaving, wrapping, hooking, and others. Student learns basic techniques and selects several

areas for in-depth study. Safety, special tools, materials, techniques and resources for teaching. For both beginning and advanced students; individual creative self-direction is essential for advanced study. Material Fee As Indicated In The Schedule of Classes (F)

5190 Light, Sound, Space and Motion. Cr. 3 (Max. 9)

Laboratory experiences in planning and producing animated films, instructional video, and slide/sound presentations. Students prepare storyboards, write scripts, prepare titles and credits, mark on film and slides, produce Super-8 animation, use 35mm camera on a copy stand, edit, splice film, record and synchronize sound tracks, and produce single-camera instructional video. Methods and materials for teaching film and video in schools, producing video aids, or producing film/slides/video for artistic expression. Material Fee As Indicated In The Schedule of Classes (W)

5230 Ceramics Education I. Cr. 3

An overview of handbuilding processes, various firing procedures including blackware and raku, decorating, glazing and equipment maintenance. Emphasis placed on the educational benefits and procedures for working with people of various ages and the management of materials for teaching. Material Fee As Indicated In The Schedule of Classes (Y)

5280 Printmaking: Methods and Materials Cr. 3 (Max. 9)

Studio exploration of relief, planographic, intaglio, and stencil processes as methods of reproduction for artistic expression. Examination of tools, methods and processes suitable for the classroom. Includes study in lithography, dry point, etching, calligraphy, woodcut, linocut, and photo screen processes. Material Fee As Indicated In The Schedule of Classes (W)

5360 Wood, Metal and Plastic: Methods and Materials. Cr. 2-3 (Max. 9)

Planning and production in wood, metal and plastic using power and hand tools. Processes suitable for production of adaptive devices or therapeutic activity. Materials and methods appropriate for schools. Work in a shop setting using power saws, torches, kiln, wood lathe, and a variety of hand tools. Material Fee As Indicated In The Schedule of Classes (W,S)

5650 Art Teaching Laboratory. Cr. 3

Prereq: admission to College of Education; AED 5000. Laboratory experience in teaching art to elementary, middle, and high school students. (F)

5690 Collage, Assemblage, and Multi-Media: Methods and Materials. Cr. 3

Prereq: A H 1110, A H 1120, ADR 1050, ADR 1060, ADE 1200, ADE 1210 or ADE 1230, ADR 2070, APA 2100, ASL 2150; undergrad. students must be Level II in the College of Education. History and methods of creating collage, assemblage, and multi-media art works. Integration of developmental issues, use of personal meaning and experience for lesson planning, unit planning, and work assessment strategies. Material Fee As Indicated In The Schedule of Classes (W)

5790 Applied Design in Visual Arts Education. Cr. 3

Prereq: ADR 1050, ADR 1060, ADE 1200, ADE 1210 or ADE 1230, ASL 2150, A H 1110, A H 1120; undergrad. students must be Level II in the College of Education. Integration of design history, design theories, and design practices. Background and experience for the art educator to create a curriculum based on the critical and creative thinking required in the design professions, such as architecture. Material Fee As Indicated In The Schedule of Classes (F,S)

5890 The Art of Indigenous Cultures: Inclusion in the K-12 Curriculum. Cr. 3

Prereq: A H 1110, A H 1120, ADE 1200; and ADE 1210 or ADE 1230; undergrad. students must be Level II, College of Education. Focus on non-Western, indigenous art forms, such as Balinese architecture, ceramics of Papua New Guinea, Aboriginal painting, Precolumbian culture, and Japanese gardens; means of integrating this content into the K-12 Curriculum. (W,S)

6120 Art for Special Groups: Animation. Cr. 1-3 (Max. 9)

Prereq: AED 5190. Planning and production of video and 16mm animation films. Various techniques: cel, pixilation, cutout, claymation, etch, drawing, video, kinestasis, light box, stop motion, computer. History and trends. Material Fee As Indicated In The Schedule of Classes (Y)

6150 Instructional Applications of Computer Graphics. Cr. 3

Instruction and laboratory experiences in the design, production, and application of computer graphics in the classroom and other educational settings. Programming experiences in animation, charts and graphs, and simple drawing techniques. Material Fee As Indicated In The Schedule of Classes (T)

6220 Drawing and Watercolor: Field Studies. Cr. 3 (Max. 9)

For beginning and advanced students' growth and development in watercolor techniques and the painting process. Field trip/work sessions at rural and urban sites to develop visual awareness and ability to select visual information for image formation. Slide lectures, demonstrations, critiques, discussions, individual assistance, analysis of the two-dimensional art process and study of unique approaches to teaching watercolor. Material Fee As Indicated In The Schedule of Classes (S)

6230 Ceramics Education II. Cr. 3 (Max. 9)

Emphasis is placed on throwing procedures, the use of various clay bodies, firing at various temperatures, making and using tools, ceramic history and its use and benefits in a school curriculum. Material Fee As Indicated In The Schedule of Classes (Y)

6250 Aspects of Ceramics. Cr. 3-9 (Max. 9)

Various aspects of ceramics chosen to develop the students' understanding of the potential for ceramic education. Topics to be announced in Schedule of Classes . Material Fee As Indicated In The Schedule of Classes (I)

6300 Explorations in Art Therapy. Cr. 3

Provides non-majors with introduction to art therapy, its history and development, and major approaches. (Y)

6320 Art Therapy: Introduction and Ethics. Cr. 3

Introduction to and ethics of art therapy practice. Material Fee as given in Schedule of Classes. (Y)

6340 Theory of Art Therapy. Cr. 3

Slide lectures, studio experiences, assigned readings, discussions, and critical evaluations in the history and literature of art therapy and closely-related fields. (Y)

6360 Aspects of Art Therapy. Cr. 1-12 (Max. 12)

Aspects of the use of art therapy chosen to develop students' breadth or depth in art therapy practice with various groups and settings. (Y)

BILINGUAL/BICULTURAL EDUCATION COURSES (BBE)

5000 Multicultural Education in Urban America. Cr. 2

Cultural, social, political and economic realities of our complex, pluralistic society in relation to our education system. Development of analytical and evaluative abilities of teachers to deal with racism, sexism, value clarification and the parity of power. Strategies for multicultural education. (T)

5020 Effective Involvement of Parents in School and Community. Cr. 3

Concepts of parenting and parent intervention. Determination of methods to maximize parent participation in the educational process of bilingual/bicultural students. (W)

5500 Introduction to Bilingual/Bicultural Education. Cr. 3

Survey of the history and legislative background of bilingual/bicultural education in the United States. Emphasis on the foundations, methods, concepts and theories of bilingual/bicultural education. (F)

5530 The Socio-Psychological Needs of Ethnocultural Communities. Cr. 3

Assessments of issues of concern to ethnocultural communities as a background for social services delivery and intervention. (F)

5550 Urban Education. Cr. 3

Language program implementation within the urban culture of the school, community, and state. (I)

6560 Teaching Methods in Bilingual/Bicultural Education. Cr. 3

Prereq: admission to a bilingual endorsement program. Utilization of traditional and innovative materials, techniques and methods in teaching elementary and secondary school subjects in a bilingual education program. (F)

6590 Culture and Language in Bilingual/Bicultural Education. Cr. 1-3

Research and application of multiculture activities for designing processes to bring language and culture, and instruction in English, into the classroom. (I)

6600 Internship in Bilingual/Bicultural Teaching. Cr. 2-12 (Max. 12)

Offered for S and U grades only. Internship in a bilingual, multicultural setting; assessment of the cultural, educational, and linguistic needs of students of limited English-speaking ability. (T)

6700 Seminar in Cultural Awareness. Cr. 3

Understanding intergroup relations and the appreciation of cultural diversity in a multicultural society such as the United States. Selected topics offered on a semester or yearly basis. (W)

6850 Applied Linguistics: Issues in Bilingual Education. Cr. 3

Current major models of applied English linguistics, contrasting linguistics with special reference to the comparison of English and linguistic minority languages. (W)

CAREER and TECHNICAL EDUCATION COURSES (CTE)

5410 Teaching Methods for the Career and Technical Education Classroom I. Cr. 3

Strategies and materials for the teaching of career/technical education subjects in a competency-based education setting. Teaching techniques, basic assessment, and evaluation as well as community and technological influences on teaching. (W)

6010 History and Principles of Career and Technical Education. Cr. 3

Overview of organization and administration at the federal, state, and local levels. Recent developments and their significance for school reform and improvement; business and industry linkages. (Y)

6110 Fundamentals for the Teacher Cadet Classroom I. Cr. 3

Prereq: secondary teaching certification or occupational certification. Review of history of the discipline and related curriculum trends; how social and cultural changes affect education; basic concepts of human growth. (T)

6120 Fundamentals for the Teacher Cadet Classroom II. Cr. 3

Prereq: secondary teaching certification or occupational certification. Teacher Cadet instructors reflect upon various aspects of teaching in preparation to instruct secondary students enrolled in Teacher Cadet program. (T)

6993 Teaching Methods for the Career and Technical Education Classroom II. Cr. 3

Special workshops and short term seminars in career and technical education subjects. (F,S)

6999 Coordination of Cooperative Occupational Education. Cr. 3

Philosophy and objectives of educational programs that provide for work experience. Student selection, on-the-job and in-school instruction, placement, coordination, advisory committees, and administration of such programs. (F)

EDUCATION COURSES (ED)

3990 Directed Study. Cr. 1-6 (Max. 6)

Prereq: written consent of adviser. Offered for S and U grades only. (T)

5998 Field Studies. Cr. 1-8 (Max. 8)

Prereq: consent of adviser or instructor. Supervised professional study in field settings. (T)

EDUCATIONAL HISTORY and PHILOSOPHY COURSE (EHP)

3600 Introduction to the Philosophy of Education. Cr. 3

Prereq: admission to College of Education. Leading philosophies of education as they bear upon education as a profession and as a discipline. (T)

EDUCATIONAL PSYCHOLOGY COURSES (EDP)

3310 Educational Psychology. Cr. 3

Prereq: admission to College of Education. Introductory course in educational psychology. Topics include, but are not limited to: child and adolescent development, cognitive and behavioral learning theories, information processing, motivation and evaluation. Includes study of exceptional children and those with cultural differences. (Y)

5430 School Violence and Conflict Resolution. Cr. 3

Conflict resolution and school violence as they relate to child growth and development and school organization and policies. (F)

5450 Child Psychology. Cr. 2-3

Prereq: admission to College of Education. Basic concepts, research findings and problems regarding child, pre-adolescent and early adolescent developmental needs as they apply to school and home environments; includes study of exceptional children and those with cultural differences. (T)

5480 Adolescent Psychology. Cr. 2-3

Prereq: admission to College of Education. Basic concepts, research findings and problems regarding early adolescent and adolescent developmental needs as they apply to school and home environments; includes study of exceptional children and those with cultural differences. (T)

5630 Research Readings in Applied Psychology. Cr. 2

Prereq: admission to school and community psychology, or counseling psychology program. Introduction to research methodology in school and community psychology and marriage and family therapy. (I)

6210 Foundations of Educational Psychology. Cr. 3

Introduction to current issues in educational psychology. Topics include, but are not limited to: child and adolescent development,

learning, motivation, information processing and evaluation. Includes study of the exceptional child and those with cultural differences. (F,W)

6220 Psychology of Exceptional Children. Cr. 3-4

Open only to students in school and community psychology program. Prereq: consent of department. Psychological aspects of cognitive and physical deficits in children; laboratory experience in differential diagnosis. Material Fee As Indicated In The Schedule of Classes (F)

ELEMENTARY EDUCATION COURSES (ELE)

3200 Literature for Children. Cr. 3

Literature appropriate for use with children from preprimary through middle school age. (T)

3300 Teaching Language Arts: Preprimary-8. Cr. 3

Prereq: admission to College of Education. Literacy theory and its application to language arts instruction in elementary and middle schools; reading, writing, speaking, listening, viewing, and visually representing. Implications of multiculturalism, special needs, and English language learners. (F,W)

3320 Teaching Reading I: Emergent Literacy. Cr. 3

Prereq: admission to College of Education. Theoretical foundations for literacy. Beginning reading and writing process; teaching strategies and instructional material. Organization and management of beginning reading programs. Evaluating literacy ability through formal and informal measures; reporting to parents and professionals. Implications of multiculturalism, special needs, and English-language learners. (F,W)

3400 Teaching Mathematics: Preprimary-8. Cr. 3

Prereq: admission to College of Education. Objectives, curriculum content, teaching strategies, evaluation of instruction materials. Teaching children with special needs. Reporting to and collaborating with coworkers and parents. (F,W)

3500 Teaching Science: Preprimary-8. Cr. 3

Prereq: admission to College of Education. Goals and significant areas of study in the elementary school science curriculum. Introduction to teaching resources including science activities, field trips, print and non-print materials. Material Fee As Indicated In The Schedule of Classes (F,W)

3600 Teaching Social Studies: PreK-8. Cr. 3

Prereq: admission to College of Education. Objectives, curriculum content and organization, teaching strategies, instructional materials. Evaluation of learning. Utilization of community resources. (F,W)

6010 (ELE 6010) Family Centered Collaboration in Early Childhood Intervention and Special Education. (O T 6150) (PSY 6010) (S W 6010) Cr. 3-4

Prereq: Level 2 admission to the College of Education. Theories, concepts and practices of family centered intervention services for young children with special needs. Team-building and cross-disciplinary communication and collaboration with families. (F)

6020 Seminar in Early Childhood. Cr. 3

Prereq: Level 2 admission to the College of Education. Educational programs for young children in child care centers, kindergartens, and the primary grades. Improved human relationships, choices for children, play as a way of learning. (Y)

6030 Assessment of Young Children in Educational Settings. Cr. 3

Prereq: Level 2 admission to the College of Education. Strategies for authentic assessments of young children in school and family educational settings. (Y)

6040 Role of Content Areas in Early Childhood Education. Cr. 2-8 (Max. 8)

Prereq: Level 2 admission to the College of Education. Child growth and development as related to the content areas within the early childhood years (birth to eight years). Appropriate subject matter, field experience, reference materials, audio-visual resources in the lives of young children. Topics to be announced in Schedule of Classes . (S)

6060 Community Contacts: Working with Families in Urban Settings. Cr. 3

Prereq: Level 2 admission to the College of Education. Programs and services within the community that assist families in improving educational services for the child. (Y)

6070 Family, Community and School Partnerships: Supporting Children's Learning. Cr. 3

Prereq: Level 2 admission to the College of Education. Theory and practice in joining families, communities, and schools in promoting children's learning, development and success in school. Strengths and needs of families in a diverse, multicultural society, teachers' roles in concert with other disciplines in supporting families and building partnerships, and connection with community resources. (Y)

6080 Preprimary Goals and Practices. Cr. 3

Prereq: Level 2 admission to the College of Education; coreq: TED 5790 or ED 5998. Topics related to development and learning of preschool child, role of teacher as facilitator, impact of family and community. (F,W)

6090 Introduction to Infant Mental Health Theory and Practice. Cr. 3

Prereq: Level 2 admission to the College of Education. Concepts of infant mental health theory and practice as a developmental framework for the observation, assessment and understanding of infant-parent behaviors and interactions as indicators of strengths and risks in the security of the attachment relationship. (Y)

6100 Planning and Implementing Preschool Curriculum. Cr. 3

Prereq: Level 2 admission to the College of Education. Planning, implementing, and evaluating all aspects of preschool curriculum: activities, routines, and working with staff and parents. (I)

6200 Children's Literature for New and Prospective Teachers. Cr. 3

Prereq: admission to MAT program or Limited License to Instruct program. Survey of literature for use with PS-8 children; literary and artistic aspects of children's literature and strategies for integrating literature into school curriculum. (T)

6290 Language Arts Instruction: Preprimary-8. Cr. 3

Prereq: admission to MAT degree program. Relates theory and research to language arts instruction in elementary and middle schools; reading, writing, speaking, listening, viewing, and visually representing. Implications of multiculturalism, special needs, and English language learners. (F,W)

6300 Language Arts Curriculum: Preprimary-8. Cr. 3

Prereq: admission to teacher certification program. Content of language arts programs. Objectives, procedures, materials, and organizational patterns. (T)

6310 Developmental Reading: Preprimary-8. Cr. 3

Prereq: admission to College of Education. Theoretical foundations for literacy, development of beginning reading and writing, and teaching strategies and materials. Evaluating literacy ability through formal and informal measures. Attention to multiculturalism, special needs, and english language learners. (F,W)

6320 Reading Curriculum: Preprimary-8. Cr. 3

The reading process; procedure, materials and organizational patterns used when teaching reading. (T)

6340 Teaching Reading in Early Childhood Education. Cr. 3

Prereq: Level 2 admission to the College of Education. Rationale for teaching reading and various reading skills to young children. Materials and methods for initial reading instruction. (Y)

6390 Mathematics Instruction: Preprimary-8. Cr. 3

Prereq: admission to MAT degree program. Developing mathematics skills in elementary and middle schools. Students plan, implement and evaluate learning experience with children under professional guidance. (F,W)

6500 Science Curriculum: Preprimary-8. Cr. 3

Prereq: admission to teacher certification program. Role of learning in science in the curriculum. Objectives, plans of organization for learning, resources materials. Overview of balanced program. Experiences with appropriate experiments, field trips, reference materials, audio-visual resources. Material Fee As Indicated In The Schedule of Classes (T)

6600 Teaching Social Studies: PreK-8. Cr. 3

Social studies program in elementary and middle schools emphasizing intellectual, social and affective development. Designing programs based on social priorities, modern socioeconomic, cultural, ethnic, political concepts. (T)

ENGLISH EDUCATION COURSES (EED)

5200 Methods of Teaching English: Grades 7-12. Cr. 3

Prereq: admission to College of Education. Introduction to the purposes and methods of teaching English composition and literature in grades seven through twelve. (T)

6120 English Composition in Secondary Schools. Cr. 3

Prereq: admission to College of Education. Analysis of modes of writing; relationship of grammar and composition; integration with literature and reading; approaches to group and individualized instruction; relation of composition to perception, cognition, critical thinking, motivation, and self-awareness. (F,W)

6210 Language, Literacy, and Learning. Cr. 3

Teaching of language, grammar, and usage in English language arts classrooms, based in sociocultural and sociolinguistic approaches to teaching literacy and language. (F,W)

6310 Young Adult Literature. (LIS 6530) Cr. 3

Standards for evaluating young adult literature. Selection of literature for individual students in relation to interest and reading ability. Use of classroom collections. Techniques for helping students read poetry, drama and fiction. (T)

6330 Teaching Literature in Secondary Schools. Cr. 3

Prereq: admission to College of Education. Structure of poetry, fiction and drama in relation to aesthetic, social, and psychological needs of secondary school students. Relationship of teaching methods to curriculum patterns. (T)

INSTRUCTIONAL TECHNOLOGY COURSES (I T)

5110 Technology Applications in Education and Training. (LIS 6360) Cr. 3

Prereq: admission to College of Education. Technological applications to education, training, and instruction within educational, industrial, and human services settings. Students examine, develop, and/or evaluate unique instructional programs. For educators and non-educators interested in exploring technological applications in education. (F,W)

5120 Producing Technology-Based Instructional Materials. (LIS 6370) Cr. 2-3

Prereq: admission to College of Education. Design and development of instructional media and materials for use in educational, industrial, and/or human services programs; development of computer-generated instructional materials. Also offered online. (F,S)

6110 Foundations of Instructional Systems Design. (LIS 6350) Cr. 4

Alternative systems models of instructional design; basic design principles, methods and techniques of pre-design analysis; instructional strategy selection and sequencing. Also offered online. (T)

6135 Technology Applications in School Administration. Cr. 3

Use of technology tools by school administrators; factors related to leadership and research in technology integration. Also offered online. (F,S)

6140 Designing Web Tools for the Classroom. Cr. 4

Design, development and evaluation of learning experiences using the World Wide Web. Student creates and evaluates learning activities using the Web; creation of personal learning portal. Basics of HTML and common authoring tools. Also offered online. (F,S)

6230 Internet in the Classroom. Cr. 4

Prereq: I T 6140. Students use a variety of tools from the read/write web and explore their potential for use in K-12 education. Students also examine the use of online learning in the K-12 classroom. (W,S)

LANGUAGE EDUCATION COURSES (LED)

5300 (CHI 5300) Teaching Chinese as a Second Language. Cr. 1-3

Prereq: CHI 3100 or equiv. Introduction to basic teaching grammar and sound rules and general teaching methodology. (W)

5810 (LGL 5810) Teaching Foreign Languages: Receptive Skills. (LED 7810) (LGL 7810) Cr. 3

Prereq: LED 5850 or consent of instructor. Latest research on acquisition of reading and listening skills in a foreign language. Difference between receptive and productive language use; how methods of foreign language teaching treat the instruction of the receptive skills. (B)

5820 (LGL 5820) Teaching Foreign Languages: Productive Skills. (LED 7820) (LGL 7820) Cr. 3

Prereq: LED 5850 or consent of instructor. Current research on acquisition of speaking and writing skills in a foreign language. Difference between productive and receptive language use; how various methods of foreign language teaching treat the instruction of productive skills. (B)

5830 (LGL 5830) Technology in the Foreign Language Classroom. (LED 7830) (LGL 7830) Cr. 3

Prereq: LED 5850 or consent of instructor. Types of current technology; review of research on effectiveness of language classroom technologies; evaluation of technologies; development of activities for use in classroom. (B)

5850 (LGL 5850) Foreign Language Instruction. (LED 7850) (LGL 7850) Cr. 3

Theoretical basis of second language teaching models; historical overview of methodologies; current trends in teaching of reading, writing, listening, speaking, and culture. Implications of methodology on materials, classroom techniques, and testing. (B)

5860 (LGL 5860) Foreign Language Testing. (LED 7860) (LGL 7860) Cr. 3

Prereq: consent of instructor. Means of assessing students' knowledge of a foreign language. Topics include: ACTFL Oral Proficiency

Interview; testing of reading, writing speaking and listening skills; means of testing grammar and culture; testing as it relates to program goals. (Y)

6500 Teaching World Languages in Elementary and Middle Schools: Methods III. Cr. 3

Approaches and techniques; review of theory and practice relevant to young learners. Students teach mini-lessons and prepare materials based on national standards and age-appropriate methodologies. (Y)

6510 Second Language Acquisition and the Teaching of Grammar. Cr. 3

Seminar and intensive review of major models of applied sociolinguistics and psycholinguistics; second language acquisition research and teaching of grammar in K-12 education. (Y)

6520 Teaching English as a Second Language/Foreign Language: Methods I. Cr. 3

Prereq: admission to College of Education. Methods and techniques; fundamental theory and practice; English as an international/intranational language. Students micro-teach lessons and prepare teaching materials which emphasize the listening and speaking language skills. (Y)

6530 Teaching English as a Second Language/Foreign Language: Methods II. Cr. 2-3

Prereq: admission to College of Education. Methods and techniques; English as an international/intranational language. Students micro-teach lessons and prepare teaching materials which emphasize the reading and writing language skills. (Y)

6555 Integration of Language and Content in Language Teaching. Cr. 1-3

Examination and evaluation of instructional strategies used to teach content and develop a second language in specific content/language area instruction. (Y)

6565 Assessment in Language Teaching. Cr. 1-3

Instruments, techniques, and strategies in the assessment, placement, and evaluation of second language instruction, including language learners in K-12 and post-secondary education. (Y)

6580 Culture as the Basis for Language Teaching. Cr. 2-4

Prereq: admission to College of Education. Culture examined in a multidisciplinary theoretical framework, to provide students with objective relativistic and holistic attitude about human diversity, enabling them to relate to pupils in urban areas. (B)

MATHEMATICS EDUCATION COURSES (MAE)

5100 (MAT 5180) Geometry for Middle School Teachers. Cr. 3

Prereq: MAT 1110 and 1120 or consent of instructor. No credit toward a major or minor for secondary mathematics teaching. MAE 5100 may be taken for graduate or undergraduate credit; MAT 5180 may be taken for undergraduate credit only. Development of Euclidean geometry as a mathematical system; related historical topics; introduction to other geometries; selected topics such as transformations and tesselations. (F,W)

5150 Methods and Materials of Instruction: Secondary School Mathematics. Cr. 3

Prereq: admission to College of Education; 19 credits toward secondary mathematics major or minor. To be elected before student teaching. Mathematics in secondary school; major concepts of secondary school mathematics; methods and instructional materials; classroom administration; modern trends. (Y)

6050 Teaching Mathematics in the Middle Grades. Cr. 3

Prereq: admission to College of Education. Creative use of resources and materials for improving the mathematics competencies of middle school and junior high school students; organizing the mathematics classroom for effective instruction; promising trends; related research. (Y)

6150 Special Topics. Cr. 1-6 (Max. 12)

Current issues and trends; areas of neglected content; curriculum proposals; related research. Topics to be announced in Schedule of Classes . (I)

6200 (MAT 6200) Teaching Arithmetic, Algebra and Functions from an Advanced Perspective. Cr. 3

Prereq: MAT 5120, 6170, or 6180; or consent of instructor. Students gain profound understanding of K-12 mathematics. Concepts underlying topics and procedures; their connections to higher mathematics. Teaching with Simplify; application of mathematical understanding to teaching practices. (Y)

6210 (MAT 6210) Teaching Geometry, Probability and Statistics, and Discrete Mathematics from an Advanced Perspective. Cr. 3

Prereq: completion of a major in mathematics or secondary mathematics education. Historical perspectives, common conceptions and misconceptions, applications, technology, and mathematical connections relative to teaching geometry (including trigonometry), probability and statistics, and discrete mathematics in secondary school. (Y)

6400 Elementary School: Mathematics Curriculum and Assessment. Cr. 3

Prereq: admission to M.Ed. program. Developing competence in school mathematics programs: objectives, procedures, materials, organizational patterns, evaluation. (T)

6450 Integrating Literature and Mathematics in the Elementary School. Cr. 3

Examining the potential of literature for exploration of various mathematical concepts and relationships. (S)

READING, LANGUAGE and LITERATURE EDUCATION COURSES (RLL)

4430 Teaching Reading II: Comprehension Preprimary-8. Cr. 3

Prereq: ELE 3320. Development of comprehension in literature and informational material. Instructional strategies and selection of material with emphasis on integrated instruction. Evaluation of comprehension through formal and informal measures; reporting to parents and other professionals. Implications of multiculturalism, special needs, and English language learners. (T)

4431 Teaching Reading in Middle and Secondary Subject Areas. Cr. 3

Reading in relation to subject matter instruction, including comprehension, study skills, diagnostic procedures and techniques for meeting individual needs. (T)

6120 Developmental Reading I: Comprehension Preprimary-8. Cr. 3

Prereq: ELE 6310. Development of comprehension in literature and informational material. Instructional strategies and selection of material for instruction with emphasis on literacy across the curriculum. Evaluation of comprehension through formal and informal measures; reporting to parents and other professionals. Implications of multiculturalism, special needs, and English language learners. (T)

6400 Practicum in Developmental Reading. Cr. 1-4 (Max. 4)

Identifying and solving field problems in developmental reading, management of reading instruction, the importance of reading in the content areas. (T)

6700 Second Language Literacy Development: K-12. Cr. 3

Prereq: LED 6520. Examination of theories, organizations and instructional strategies involved in second language literacy development, and their applications in the classroom. (F,S)

6801 Assessment and Differentiated Instruction for Diverse Learners: Pre-K-8. Cr. 3

Prereq: teacher holding provisional teaching certification at elementary level. Assessment of literacy competencies of diverse learners; use of assessments to plan and implement differentiated instruction in grades PreK-8. Implementation with students in field component; and evaluation. (T)

6802 Assessment and Differentiated Instruction for Diverse Learners: 6-12. Cr. 3

Prereq: teacher holding provisional teaching certification at secondary level. Assessment of literacy competencies of diverse learners; use of assessments to plan and implement differentiated instruction in grades 6-12. Implementation with students in field component; and evaluation. (T)

SCIENCE EDUCATION COURSES (SCE)

5010 Biological Sciences for Elementary and Middle School Teachers. Cr. 3-4

Significant biological principles, generalizations and understandings with relation to their use with children. Appropriate learning activities; experiments, field trips, text and reference materials, audio-visual resources, evaluation. Material Fee As Indicated In The Schedule of Classes (F,W)

5020 Physical Sciences for Elementary and Middle School Teachers. Cr. 3-4

Significant principles, generalizations and understandings in the physical and earth sciences with relation to their use with children. Appropriate learning activities including experiments, field trips, reference materials, audio-visual resources. Material Fee As Indicated In The Schedule of Classes (F,W)

5030 Earth/Space Science for Elementary and Middle School Teachers. Cr. 3-4

Principles, generalizations and understandings related to teaching earth/space science to children. Learning activities, field trips, technology, and evaluation. Material Fee As Indicated In The Schedule of Classes (T)

5040 Field Course Exploring the Natural Environment. Cr. 1-3

Field and laboratory study of local plants, animals, and the physical environment, including climate, geology and astronomy. Interrelationships emphasized; techniques for using the out-of-doors as a learning laboratory. Material fee as indicated in Schedule of Classes. (S)

5060 Methods and Materials of Instruction in Secondary School Science I. Cr. 3

Prereq: admission to College of Education. Role of science in the secondary curriculum. Problems and techniques of teaching science in the secondary schools; objectives, planning laboratory experiments, demonstrations, directed study, student projects, text and reference material, audio-visual resources, evaluation. Material Fee As Indicated In The Schedule of Classes (F)

5070 Methods and Materials of Instruction in Secondary School Science II. Cr. 3

Prereq: admission to College of Education; SCE 5060 recommended. Problems of selecting and organizing teaching-learning materials in secondary school science. Development of illustrative instructional units. Resources for professional growth of science teachers; professional literature and organizations. (W)

6030 Advanced Studies in Teaching Science in the Junior High and Middle School. Cr. 3

Prereq: admission to College of Education. Innovations and improvements in middle school and junior high school science teaching. Exploration of appropriate areas of study, development and selection of learning activities and materials; laboratory experiences in selected areas. (W)

6040 Advanced Studies in Teaching Science in the High School. Cr. 3

Emphasis on methods of teaching biology and the physical sciences in the high school. Recent curriculum studies, research, and current problems. Laboratory experiments, equipment, textual and reference material, audio-visual resources, and evaluation procedures. Material Fee As Indicated In The Schedule of Classes (S)

6080 Teaching Environmental Studies. Cr. 2-4

For teachers of all academic disciplines and from all school levels, as well as persons of other occupational interests. Environmental problems, possible solutions, and their implications for classroom teaching and curriculum. Material Fee As Indicated In The Schedule of Classes (S)

SOCIAL STUDIES EDUCATION COURSES (SSE)

6710 Methods and Materials of Instruction in Secondary Social Studies. Cr. 3

Prereq: admission to College of Education. Foundations of social studies instruction and curriculum; methods of teaching in middle and senior high school, including the use of state standards in the design of instruction, teaching approaches for the various social studies disciplines, their interdisciplinary application, diversity and appreciation of other cultures. (T)

6720 Teaching the Interdisciplinary Knowledge of Social Studies. Cr. 3

Building interdisciplinary knowledge and pedagogical skills in the social studies, including media literacy. (F)

6730 New Perspectives in Social Studies Education. Cr. 3

Prereq: admission to College of Education. Development of curricular lesson plans, unit plans, and other teaching strategies utilizing current approaches in social studies education. (W,S)

SPECIAL EDUCATION COURSES (SED)

5010 Inclusive Teaching. Cr. 2

Open only to undergraduate nonmajors. Strategies and techniques for teaching children and youth with differing academic, social-emotional, and sensory-physical abilities together in general education, using best instructional practices. (Y)

5030 Education of Exceptional Children. Cr. 3

Prerequisite or corequisite to all SED courses taken for major credit. General background and overview information concerning various classifications of exceptional children, youth and young adults, their role in society, and their education. (T)

5040 Language Acquisition and Educational Interventions for Students with Moderate to Severe Impairment. Cr. 2

Prereq. or coreq: SED 5030. Normal language-communication development and acquisition; how it may differ for persons with moderate to severe cognitive impairment. Emphasis on utilizing augmentative and alternative communication systems. (S)

5060 Developing Observation and Assessment Skills: Laboratory/Seminar. Cr. 3

Prereq. or coreq: SED 5030. Investigation and application of appropriate evaluative techniques for use with learners with mental impairments in an educational setting. (Y)

5090 Transitions for Students with Disabilities. Cr. 3

Prereq: SED 5030; admission to College of Education. Strategies for supporting students with disabilities and special needs making effective transition between schools and from school to adult life as engaged and effective community members. (Y)

5110 Introduction to Cognitive Impairment and Educational Interventions. Cr. 3

Prereq. or coreq: SED 5030; admission to College of Education Level 2. Characteristics, classifications, etiologies, evaluation and learning strategies for the improvement of the learning processes in learners with a cognitive impairment. (F,W)

5130 Curriculum and Instructional Strategies: Cognitive Impairments. Cr. 3

Prereq: SED 5030 and 5110; admission to College of Education. Specialized instructional approaches, evaluation, techniques, curriculum and instructional aids for educating children, youth, and young adults with cognitive impairments within the school and community. (Y)

5140 Behavior Management: Positive Behavior Support. Cr. 3

Prereq. or coreq: SED 5030 or equiv; admission to College of Education Level 2. Proactive approaches to dealing with behavioral challenges and social-emotional needs of children and youth; functional behavior analysis, behavior intervention plans. (Y)

5260 Effective Instructional Strategies for Exceptional Learners. Cr. 3

Prereq. or coreq: SED 5030. Effective instructional strategies for students with special needs; multi-level and differentiated instruction, scaffolding, multi-modal instruction. (F)

5600 Support and Collaboration for Inclusive Teaching. Cr. 3

Prereq: SED 5030, 5010, or 7050. Strategies for teaching students with a wide range of academic, social-emotional, and sensory-physical abilities together in general education classes. Emphasis on support, collaboration, and co-teaching. (I)

6000 Topics in Special Education. Cr. 1-6 (Max. 8)

Prereq: consent of instructor. Topics and issues for teachers, supervisors, and administrators that address the needs of infants/toddlers, children, youth, and/or adults who have developmental delays or disabilities, or other exceptionality. (I)

6010 Seminar in Special Education Teaching. Cr. 2

Prereq: admission to College of Education; coreq: student teaching in special education. Selected topics, problem solving, and reflection on experiences as a student teacher facilitating the learning of children with a mental and/or related disability. (F,W)

6021 Introduction to Autism Spectrum Disorder (ASD). Cr. 3

Historical and current research on etiology, identification, and characteristics of autism spectrum disorder (ASD), with professional and personal perspective. Focus on interventions and services, and quality of life outcomes for children, youth, and their families. (W)

6030 Autism Spectrum Disorder (ASD): Educational Interventions. Cr. 3

Research foundations for recommended instructional programs for children, youth, and adults with ASD. Focus on assessment and interventions designed for student achievement within the general curriculum, relationship-based transitions, and improved quality of life outcomes. (F)

6040 Introduction to Early Childhood Special Education. Cr. 3

History, philosophy, legislation, and "best practice" of early intervention and educational programs for young children, birth to eight years old, who have developmental delays or disabilities. (W)

6050 Language, Communication, Development, and Interventions. Cr. 3

Research foundations of language and communication development, as it applies to the developmental context of autism spectrum disorder for children, youth, and adults. Cross-disciplinary practices in assessment, design, implementation, and evaluation of relationship-based interventions. (F)

COLLEGE OF ENGINEERING

DEAN: Farshad Fotouhi

Foreword

College Mission Statement

The College of Engineering has three important missions: teaching, research, and outreach — serving the region, State and nation as part of an urban comprehensive research university. Students are prepared for professional practice, graduate study, lifelong learning, and for leadership roles in society. Faculty members develop the scientific and technological base for the engineering profession, and disseminate advanced technical knowledge to engineers, other professionals, and the public. A balance among the three missions is sought through a partnership built among students, faculty, staff, alumni, government, and private industry. This is achieved by maintaining an academic environment that is both intellectually stimulating and supportive of all of its constituents, regardless of race, gender, or ethnic background.

College Organization

The academic programs of the College of Engineering are organized into two Divisions: Engineering and Engineering Technology. The Division of Engineering includes six academic Departments: Biomedical Engineering, Chemical Engineering and Materials Science, Civil and Environmental Engineering, Electrical and Computer Engineering, Industrial and Manufacturing Engineering, and Mechanical Engineering. Programs leading to the Bachelor of Science, Master of Science, and Doctor of Philosophy degrees in engineering are offered by these departments except for Biomedical Engineering which offers graduate degrees only. Five programs leading to a Bachelor of Science in Engineering Technology and a Master of Science in Engineering Technology are offered in the Division of Engineering Technology.

The Profession of Engineering

Engineering requires men and women of imagination who can plan and create. Their creations include lasers, transistors, communication networks, automotive safety devices, systems of spacecraft telemetry, and aids for the handicapped. Engineers design, simplify, refine and economize. They are pragmatists serving the needs of society through continual reconstruction and improvement of human surroundings. Engineers are responsible for the design and construction of energy generation and distribution systems, air and water pollution control projects, as well as transportation systems and the vehicles required by our mobile society. From the engineers must come anti-skid devices for automobiles, synthetic materials, biochemicals, fire-resistant homes and 'eyes' for the blind. The engineer's resources include an intimate knowledge of scientific laws and their applications to engineering problems as well as ability to use mathematics and computers and, above all, an imaginative and an inquiring mind.

Engineers can start their careers in many functional roles — designer, test engineer, manufacturing engineer, sales engineer, researcher, or a combination of these and other roles. Engineering has become a profession that often leads to executive management positions. As more and more of the decisions of management in government and business are based on technical considerations, engineers with the necessary background are called upon to make these choices. Engineers do not devote their attention solely to innovations in technology. In all of these roles they look beyond their inventions and conceptions to consider the societal effect of their work, including its economic, aesthetic, safety, and environmental aspects.

At present, the minimum education required for general competence in the practice of engineering is a bachelor’s degree in one of the fields of engineering. However, many engineering positions require an additional year or two of education at the graduate level leading to the master’s degree. Whenever possible, students are urged to continue their education to this point. For engineering research or teaching, and in some areas of practice, the doctoral degree is recommended. For further information about graduate programs in engineering, consult the Wayne State University Graduate Bulletin.

For all engineers, continuing professional competence in the midst of our constantly changing technology requires educational renewal and a life-long dedication to continuing education. The College offers seminars, institutes and off-campus programs to meet this need. In addition, regular College courses are available on an elective, post-degree basis.

The Engineering Technologist

The evolution of our civilization has always been closely associated with technology and science. Now, and in the future, this association will become even more important. New knowledge has inspired advances in technology, resulting in new career opportunities. Far-reaching developments in communications and instrumentation technology, highly sophisticated machine tools and manufacturing processes, new energy sources and new man-made materials, and computer applications have all revolutionized the techniques of industrial manufacturing and management.

This on-going expansion of scientific and engineering knowledge has changed the make-up of the engineering team through the inclusion of the engineering technologist. The engineering technologist, in cooperation with the engineer, organizes people, materials and equipment to design, construct, operate, maintain and manage technical engineering projects. He or she should have a commitment to that technological progress which will create a better life for everyone. Because of the increasing challenges in this information age, it is no longer possible for one person to master all of the knowledge and skills necessary to execute technical projects. Quite often, a team effort is required -- with each member of the team highly trained in a specific area. Today’s engineering teams involve engineers and engineering technologists and may also include technicians, scientists, physicians, craftsmen, and other specialists.

Engineering technology supports engineering activities through a combination of scientific and professional knowledge with technological skills and concentrates on the industrial applications of engineering. Because of the extensive variety of functional opportunities, and the wide variety of industrial enterprises available to the engineering technologist, there has been a great deal of specialization. An engineering technologist can specialize in three related ways: discipline, function and industry. For example, the discipline could be mechanical, the function could be design, and the industry could be automotive; or the discipline could be electrical, the function field installation, and the industry electric power generation. Through its undergraduate and graduate programs, the Division of Engineering Technology allows students to gain the specialization that they desire to contribute to interdisciplinary teams as engineering technologists.

College Facilities

The College of Engineering's facilities include five separate buildings with almost 300,000 square feet of classroom, office, and laboratory space. The newest of these is the Marvin I. Danto Engineering Development Center, featuring research and educational space that is dedicated to interdisciplinary work in areas of nanotechnology, automotive engineering, urban infrastructure, and alternative energies. Among the College's facilities are multimedia classrooms, a comprehensive computer center, electronics and machine shops, student project space, dedicated teaching laboratories, and sophisticated research laboratories. The four multimedia classrooms support innovative course delivery techniques, including interactive distance learning with classrooms at a variety of sites within Wayne State, at other colleges and universities, and at industrial sites. The PACE Teaming Center is designed to promote interdisciplinary project work with links to real-world engineering problems. The computer facilities

include dedicated computer graphics, design, and personal computing hardware and software.

The Division of Engineering Technology is housed in a dedicated building of approximately 24,000 square feet, located at 4855 Fourth Street.

The undergraduate laboratories provide facilities in such areas as computer graphics, fluid mechanics, thermal sciences, system dynamics, statistical computation and materials science. Some specific laboratories associated with departmental engineering specializations include: chemical measurements; chemical unit operations; materials testing and processing; electron microscopy; optical metallography; soil mechanics; environmental and hydraulic engineering; roadway and building materials; structural modeling; analog and digital communications systems; computer systems; control systems; analog circuits; digital systems; microcomputers and microprocessor applications; power systems; electronics; optics; computer vision; artificial neural networks; integrated circuits fabrication; automotive engineering; human factors engineering; computer aided manufacturing; robotics; sand casting and testing; and stress analysis. These laboratories are used for instructional and research purposes along with such research facilities as a molecular beam laboratory; a clean room facility for device materials research; a biomechanics accelerator and impact laboratory; an acoustics and noise control laboratory; and a structural behavior laboratory. All of these are available for experimentation and research in connection with the undergraduate curricula on a college-wide basis.

The College provides support for the various instructional and research laboratories in the construction, modification, repair, calibration and installation of experimental equipment. In addition, the College offers sophisticated assistance in the design of electronic and instrumentation equipment and devices. Qualified students are encouraged to use these facilities under the supervision of trained professionals.

Many undergraduate and graduate students pursue their studies in the College while working in local industry, either full-time or part-time, where unique research facilities unavailable on campus may be found. In such situations, students are encouraged to pursue their college-credit research at the employment site, where they work under the joint supervision of their faculty advisor and a company representative. Such research can take the form of undergraduate directed study courses, Master of Science theses, or Ph.D. dissertations.

Accreditation

In addition to the accreditation of Wayne State University by the North Central Association of Colleges and Secondary Schools, all of the undergraduate programs of the Division of Engineering leading to a Bachelor of Science degree are accredited by the Engineering Accreditation Commission (EAC) of ABET Inc. The Electrical/Electronic Engineering Technology program and the Mechanical Engineering Technology program, offered by the Division of Engineering Technology, are accredited by the Technology Accreditation Commission (TAC) of ABET. Program accreditation is based upon careful, periodic appraisal of the faculty, curriculum, and facilities of the College. This approval provides assurance of an up-to-date, high quality education pertinent to the engineering profession. Such accreditation is recognized by other universities, prospective employers, and state professional licensing agencies

DIVISION OF ENGINEERING (undergraduate)

Bachelor of Science Programs in

- Chemical Engineering
- Civil Engineering
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering

are accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1150, Baltimore MD 21202-4012 (Telephone 410-347-7700).

DIVISION OF ENGINEERING TECHNOLOGY (undergraduate)

Bachelor of Science Programs in

- Electrical/Electronic Engineering Technology
- Mechanical Engineering Technology

are accredited by the Technology Accreditation Commission of ABET, 111 Market Place, Suite 1150, Baltimore MD 21202-4012 (Telephone 410-347-7700)

Location of the College

The College is located in the heart of Detroit, Michigan, renowned as a center of automotive engineering and production. The Michigan economy is in transition, with new focus on the emerging fields of biomedical and alternative energy technologies. This industrial center provides a wealth of examples of modern engineering practice and opportunities to explore the latest in vehicle design and production, automation design, transportation planning, telemetry, hydraulic and pneumatic controls, electric power generation, and computer design and production. The research and educational strengths of Wayne State's College of Engineering mesh well with the traditional and new engineering industries within Michigan, preparing students for those fields. The many industries of southeastern Michigan provide engineering students with rich and varied work experiences through full or part-time employment or through the Cooperative Education Program described on page 135.

The College is affiliated with the eleven other schools and colleges of the University which, with its 30,000 students, provides a broad selection of educational opportunities on an interdisciplinary basis.

DEGREE PROGRAMS

Division of Engineering Degrees

BACHELOR OF SCIENCE in:

- Biomedical Engineering
- Chemical Engineering
- Civil Engineering
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering

UNDERGRADUATE CERTIFICATE Program in:

- Control Systems

MASTER OF SCIENCE in:

- Biomedical Engineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Electrical Engineering
- Electric-drive Vehicle Engineering
- Engineering Management
- Industrial Engineering
- Manufacturing Engineering
- Materials Science and Engineering
- Mechanical Engineering

DOCTOR OF PHILOSOPHY in:

- Biomedical Engineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Electrical Engineering
- Industrial Engineering

Materials Science and Engineering
Mechanical Engineering

GRADUATE CERTIFICATE Programs in:

Alternative Energy Technologies
Electric-drive Vehicle Engineering
Polymer Engineering

Division of Engineering Technology Degrees

BACHELOR OF SCIENCE in:

Computer Technology
Construction Management
Electrical/Electronic Engineering Technology
Electric Transportation Technology
Electromechanical Engineering Technology
Manufacturing Engineering Technology
Mechanical Engineering Technology
Product Design Engineering Technology

MASTER OF SCIENCE in Engineering Technology

College of Engineering Directory

Dean: Mumtaz Usmen, Ph.D.
Room 1150, Engineering Building; 313-577-3775
Associate Dean—Academic Affairs: R. Darin Ellis, Ph.D.
Room 1172, Engineering Building; 313-577-3040
Associate Dean—Student Affairs and Minority Programs:
Gerald Thompkins, Ph.D. Room 1170, Engineering Building;
313-577-3780
Associate Dean—Research: : Simon Ng, Ph.D.
Room 1164, Engineering Building; 313-577-3861
Director of Alumni and Corporate Relations: Katora Cole
Room 1158, Engineering Building; 313-577-1306
Business Manager: Scott Frump
Room 3100, Engineering Building; 313-577-3817
Career Planning and Placement: Diane Grimord, Coordinator,
Cooperative Education, 1001 Faculty/Administration
Building; 313-577-3390
Engineering Technology: C.P. Yeh, Ph.D, Director
4855 Fourth Street; 313-577-0800
Biomedical Engineering: Albert I. King, Ph.D., Chairperson
818 West Hancock; 313-577-1344
Chemical Engineering and Materials Science:
Charles Manke, Ph.D., Chairperson
Room 1100, Engineering Building; 313-577-3800
Civil and Environmental Engineering: Carol Miller, Ph.D.,
Chairperson; Room 2100, Engineering Building; 313-577-3789
Electrical and Computer Engineering: Yang Zhao, Ph.D.,
Chairperson; Room 3100, Engineering Building; 313-577-3920
Graduate Certificate Program in Alternative Energy Technology:
K.Y. Simon Ng, Ph.D., and Jerry Ku, Ph.D., Co-Directors
Room 1100 Engineering Building; 313-577-3800
Graduate Certificate Program in Polymer Engineering:
Guanzhao Mao, Ph.D., Director,
Room 1100, Engineering Building; 313-577-3800
Industrial & Manufacturing Engineering:
Leslie Monplaisir, Ph.D., Chairperson
Room 2143, Manufacturing Engineering Building; 313-577-3821
Mechanical Engineering: Walter Bryzik, Ph.D., Chairperson
Room 2100, Engineering Building; 313-577-3845
Bioengineering Center: King-Hay Yang, Ph.D., Director
818 W. Hancock; 313-577-1344
Center for Automotive Research: Naiem Henein, Ph.D., Director
Room 2121, Engineering Building; 313-577-3887

College-Wide Faculty

James Anderson, Adjunct Professor of Engineering Ventures

Website: http://www.eng.wayne.edu/

Facilities

The Engineering Building is located at 5050 Anthony Wayne Drive.

The Marvin I. Danton Engineering Development Center is located on Warren Avenue

The Engineering Technology Building is located at 4855 Fourth Street.

The Bioengineering Center is located at 818 W. Hancock

The Manufacturing Engineering Building is located at 4815 Fourth Street.

Mailing address for all offices:
College of Engineering
Wayne State University
5050 Anthony Wayne Drive
Detroit, MI 48202

Student Organizations

The Engineering Student-Faculty Board coordinates and is responsible for all organized student activities in the College. In addition, it sponsors certain college-wide programs, including the College of Engineering Open House.

Chi Epsilon, a national civil engineering honor society, was founded at the University of Illinois in 1922. The forty-eighth chapter of the society was installed at Wayne State University on May 11, 1956. Election to membership is based on scholarship, character, practicality, and sociability for undergraduate and graduate students and professional eminence for members of the profession.

The Engineering Graduate Students Association provides engineering graduate students with both educational and recreational activities through technical seminars, plant tours, and cultural and other events.

The Engineering Technology Student Organization is an umbrella organization representing all of the students in the Division of Engineering Technology. It was founded in the Fall of 1987.

Eta Kappa Nu, a national electrical engineering honorary society, was founded at the University of Illinois in 1904. Election to this society is based on demonstrated outstanding ability, as evidenced by scholarship and individual achievement. The Delta Alpha Chapter was installed at Wayne State University on January 18, 1960.

The National Society of Black Engineers (NSBE): The mission of this society is to increase the number of culturally responsible black engineers who excel academically, succeed professionally and positively impact the community.

Pi Tau Sigma is a national mechanical engineering honorary society founded in 1915 at the University of Illinois and at the University of Wisconsin to 'foster the high ideals of the engineering profession.' Students who have shown promise of becoming outstanding leaders in the mechanical engineering field are elected to membership. The Tau Phi Chapter was installed at Wayne State University on May 20, 1960.

The Society of the Sigma Xi is a national society devoted to the encouragement of research in science, pure and applied, and to the recognition of achievement in those fields. Undergraduates of high scholastic standing in two or more departments of pure or applied science and who have shown the promise of ability to conduct original investigations in those fields may be nominated by the faculty for election to associate membership in the Wayne State University Chapter. Graduate students may be nominated to membership on the basis of demonstrated research ability and high scholarship.

The Society of Hispanic Professional Engineers (SHPE), Inc., is a non-profit organization dedicated to increasing the participation of Hispanic professionals and college students in the fields of engineering and science.

The Society of Women Engineers student chapter is an educational service organization dedicated to making known the need for women engineers and encouraging young women to consider an engineering profession. The Wayne State University student chapter was founded in 1973.

Tau Alpha Pi is a national honor society for engineering technology, extending recognition and honor to the highest four per cent of an institution's total engineering technology students. The Beta Michigan Chapter of Tau Alpha Pi was founded in the Winter of 1989.

Tau Beta Pi is a national honorary engineering society that was founded at Lehigh University in 1885. By election to membership, the society recognizes that the member has conferred honor on his or her Alma Mater through distinguished scholarship and exemplary character as an undergraduate or through attainment in the field of engineering after graduation. The Michigan Epsilon Chapter of Tau Beta Pi was installed at Wayne State University on March 10, 1951.

Theta Tau, a national professional engineering fraternity, was established at the University of Minnesota in 1904. Epsilon Beta, the twenty-seventh student chapter, was founded on May 19, 1951, at Wayne State University.

Student branches of professional societies add much to the education of their members. Many outstanding engineers from the community come to the campus each year to address meetings of the branches. Other activities include social meetings and trips to important engineering projects. Student branches of the following professional societies have been active on the campus for many years:

American Institute of Chemical Engineers
American Society of Civil Engineers
American Society of Mechanical Engineers
Biomedical Engineering Society
Engineering Society of Detroit, Student Chapter
Institute of Electrical and Electronics Engineers
Institute of Industrial Engineers
Michigan Society of Professional Engineers
Society of Automotive Engineers
Society of Manufacturing Engineers

Scholarships and Financial Aid

An increasing number of scholarships are granted each year to undergraduate students in the College of Engineering. The scholarships differ greatly in their specifications: some stress high scholarship, others place emphasis on financial need or campus citizenship. Engineering students are also eligible for the general University scholarships granted each year. An annual competition for College of Engineering scholarships is held each winter for awards that will be available for the next academic year. Applications are due in January. Inquiries about the College scholarships, as well as about other opportunities, should be directed to the Associate Dean for Student Affairs of the College of Engineering. Scholarship information and applications are available at www.eng.wayne.edu.

Numerous loans and grants (including Grants in Aid and National Direct Student Loans) as well as work-study programs are available through the Office of Student Financial Aid. Information and applications can be obtained through their Website at http://www.financial-aid.wayne.edu.

Division of Engineering Bachelor of Science

Undergraduate Program Goals

The overall goal of the undergraduate engineering degree programs at Wayne State University is to prepare students for success in their immediate and long-term professional careers as engineering practitioners as well as for pursuing graduate and professional studies and lifelong learning. Therefore the programs seek to ensure that all Wayne State engineering students:

1) Possess a fundamental understanding of mathematics, basic sciences, discipline-specific engineering sciences, and engineering design, and that they will have the ability to apply this knowledge to identify, formulate, and solve complex engineering problems.

2) Have practical engineering laboratory experiences in which they will design and conduct experiments.

3) Are able to use computers as communications, computational, and design tools.

4) Have an understanding of the uncertainties involved in engineering systems and the role of the probabilistic and statistical techniques in dealing with uncertainty.

5) Possess strong skills in written and oral communication.

6) Have a strong design experience throughout the curriculum that includes identification, formulation and solution of open-ended problems. This design experience will also enable them to work in a multidisciplinary team environment.

7) Have an understanding of ethics and professionalism as well as of the professional issues germane to engineering practice.

8) Be educated in a variety of social sciences, arts, and humanities in order to broaden their horizons, to sensitize them to contemporary issues, to enable them to better understand the global and societal context of technical issues, and to prepare them for effective interaction with others.

Undergraduate programs in the Division of Engineering are divided into three phases. All students must complete the professional program in order to earn their Bachelor of Science degree. The majority of students begin their engineering curriculum through the preprofessional program, which allows them to complete a limited number of courses while demonstrating their academic preparedness for the professional program. Students who require additional background in math and science before entering the preprofessional program enter the College through the Engineering Bridge Program and progress to the preprofessional program upon successful completion of a defined set of foundational courses.

Recommended High School Preparation

In order to place sufficient emphasis on the English, mathematics, physics, and chemistry required for normal progress in engineering, restrictions are placed on the fifteen acceptable units of high school credit. The recommended high school preparation for admission to the College of Engineering is:

English: 4 units
Algebra: 2 units
Plane and Solid Geometry: 1.5 units
Trigonometry: 0.5 unit
Physics: 1 unit
Chemistry: 1 unit
Social Science or Foreign Language: 2 units
Electives: 3 units

An incoming freshman with this background enters the preprofessional program if he or she earns satisfactory scores on the placement examinations in mathematics, chemistry and English (see below).

Students who are interested in pursuing a degree in engineering but who may not have the requisite background in science and mathematics, as demonstrated by their high school record, ACT or SAT scores, or placement exam results, will be admitted to the Engineering Bridge Program (see below). This program is designed to provide students with the necessary background to proceed into and succeed in the preprofessional and professional programs in the engineering major of their choice.

Admission

Admission to the undergraduate programs in the Division of Engineering, College of Engineering, is dependent upon high school grade point average (g.p.a.) and ACT or SAT scores for those students entering directly from high school, and upon grade point average and level of curriculum completion for transfer students from community colleges or other universities. The following admissions criteria are used to place students in the professional, preprofessional, and Engineering Bridge programs.

PROFESSIONAL PROGRAM ADMISSION

Freshmen with a 3.5 or above high school g.p.a., both cumulative and in math and science, along with a Math ACT score of at least twenty-six or a Math SAT score of at least 650, are eligible for admission to the professional engineering program of their choice. The final requirement for direct admission to the professional program is placement into at least MAT 2010, CHM 1225, and ENG 1020 on the required placement examinations (see below).

Students who have completed at least the equivalent of the following set of courses may apply to transfer into the professional program of their choice: MAT 2010, 2020, 2030; CHM 1225/1230; PHY 2175, 2185; and ENG 1020. For direct admission to the professional program as a transfer student, a minimum 3.0 grade point average in college-level courses (overall as well as in math and science) is required, and the listed courses must each have been completed with grades no lower than a 'C.'

Students who do not meet the minimum requirements for admission to the professional program may be admitted to the preprofessional program as follows.

PREPROFESSIONAL PROGRAM ADMISSION

Students entering the College directly from high school will be admitted to the preprofessional program if they have earned at least a 2.5 overall g.p.a., a 3.0 in their science and math courses, and a minimum score of twenty-two on the Math ACT or 550 on the Math SAT. In addition, placement into the preprofessional program requires placement into at least MAT 1800, CHM 1225, and ENG 1020 on the required placement exams (see below).

Students who have completed at least twelve credits of college-level coursework may be admitted to the preprofessional program if they have a minimum of a 2.5 overall g.p.a. and a 3.0 in math and science courses. Students must also have placed into, or transferred the equivalent of, MAT 1800, CHM 1225, and ENG 1020 (see below for descriptions of placement exam requirements). If fewer than twelve credits of college-level work have been completed, students must also submit their high school transcripts and ACT or SAT results.

The purpose of the preprofessional program is to provide students with the first 1.5 to 2 years of engineering instruction, including math and science, and prepare them for the professional program. Permission to transfer to a professional program will be granted to students who successfully complete this set of courses in accordance with the rules governing such matriculation, as described below.

ENGINEERING BRIDGE PROGRAM ADMISSION

Students who meet the requirements for University admission but do not meet the academic record or placement requirements of the preprofessional or professional programs will be admitted to the Engineering Bridge Program, as described below under 'Academic Programs.'

Matriculation

Entering Freshmen: Upon the receipt of notification of admission by the University Admissions Office, entering freshmen should contact the Office of the Associate Dean for Student Affairs regarding obligations and activities prior to the beginning of classes. All new students must meet with an academic advisor before registering for their first semester of classes in order to review the engineering program requirements and develop a suitable plan of study. Students should plan on attending an Engineering Orientation session, scheduled in concordance with University Orientation, as early as possible to allow maximum flexibility in course scheduling. Students must take their placement exams and receive their results before attending an orientation session - allow at least seven days for the test results to post following the exam.

Transfer Students: For the student who has attended another institution and who has been admitted to the Division of Engineering, the amount of advanced standing will be determined by the College and will depend upon the quantity and quality of the degree work completed prior to enrollment in this institution. Whether all, or only in part, such transferred credit may be applied toward a degree at Wayne State depending on the requirements of the curriculum chosen. No grade below a 'C' may be transferred into the College to satisfy a degree requirement. The student should consult the department undergraduate program director or the Associate Dean for Academic Affairs if he or she has any questions on their transfer status.

Course equivalency tables, designed to provide initial guidance, are available at http://www.transfercredit.wayne.edu. The decision of the Department and the College regarding the acceptance of transfer credit to be applied to the undergraduate degree in engineering is final and supersedes the published transfer tables. Any request for reconsideration of the evaluation of transfer credits accepted by the College of Engineering should be made in writing within one year of the date of the student's first enrollment in the College of Engineering, or within one year of the date of the evaluation if the latter is made subsequent to the student's enrollment in the College of Engineering.

WayneDirect Program: The College of Engineering encourages students who are considering beginning or have begun their post-secondary education at a community college to participate in the WayneDirect program. Through this program, students may obtain early admission to Wayne State, receive advising from WSU Engineering academic advisors, utilize WSU services, and ease their transition to the University.

WayneDirect students are encouraged to register for WSU courses that support their engineering curriculum but are not offered at their community college. Each undergraduate program has developed a recommended course sequence for WayneDirect community colleges that includes the appropriate scheduling for these dual enrollment courses. These sequences are available on the College website*:* http://www.eng.wayne.edu/

WayneDirect students are required to complete all math and science courses in a sequence at a single institution (either the community college or WSU). This policy results from the slight differences in course organization between schools and will insure that WayneDirect students cover all of the anticipated learning objectives. The course sequences (with WSU course numbers) are:

Mathematics: MAT 2010, 2020, 2030, and 2150 (or MAT 2250 and 2350).

Physics: PHY 2170 or 2175 (with PHY 2171 for students planning on majoring in electrical engineering), and PHY 2180 or 2185.

Chemistry (for students planning on majoring in chemical engineering): CHM 1225/CHM 1230 (or former CHM 1070 and CHM 1080 with labs), CHM 1240/1250, and CHM 2220/2230. NOTE: Students majoring in programs other than Chemical Engineering may transfer the equivalent of CHM 1070 to satisfy their chemistry requirement.

WayneDirect students must comply with the entrance requirements established between the institutions, including completion of at least fifty credits of course work or an associate's degree at the community college before full transfer to Wayne State, and maintaining an overall g.p.a. of at least 2.0. WayneDirect students must also comply with University and College policies regarding placement examinations (or allowed transfer credit for placement) and minimum grades. Academic policies that are specific to Wayne Direct students are described below, as appropriate.

WayneDirect students are encouraged to meet with advisors at both their community college and in the College of Engineering at Wayne State on a regular basis to ensure that they remain on track.

Transfer of Credit after Matriculation: After enrolling at Wayne State University, all technical courses and prerequisites to technical courses must be taken at the University. Other selected courses may qualify for transfer credit; advance approval via a Michigan Uniform Guest Permit is required. This Guest Permit must be endorsed by the student's home department or the Associate Dean for Academic Affairs in order for the credit to apply towards the degree. Students should consult their advisor for specific departmental rules for transfer of credit. Students enrolled through the WayneDirect program may take courses at both their community college and Wayne State, as described above, following discussion with their academic advisors.

Transfer of College within the University: A student in another college of Wayne State University who wishes to transfer to the College of Engineering makes application directly to the Division of Engineering. The application is best made in person to the academic advisor of the planned major. This application for transfer should be made as soon as the student decides to work toward an engineering degree and as soon as all admission requirements are met, since delay may cause serious prerequisite problems and loss of credit. Students must be in good academic standing in order to be eligible for this transfer.

ACADEMIC PROGRAMS

The College of Engineering has developed a series of programs to meet the needs of all students who are interested in pursuing a degree in engineering. Students are admitted into the program appropriate to their academic preparation, as described above.

Engineering Bridge Program

The Bridge Program is designed for those students who are interested in pursuing a degree in engineering but who may need some additional foundational work in mathematics and science in order to obtain the requisite background to succeed. (See 'Engineering Bridge Program Admission,' see page 131.) Bridge students participate in the following two-semester sequence of courses with a cohort of students:

Fall Semester

B E 1001 -- Engineering Bridge Mentorship I: Cr. 0
B E 1050 -- Introduction to the Engineering Profession: Cr. 2
MAT 1050 -- (MC) Algebra with Trigonometry II: Cr. 7
PHY 1020 -- (PS) Conceptual Physics: Cr. 4

Winter Semester

B E 1002 -- Engineering Bridge Mentorship II: Cr. 0
B E 1060 -- Introduction to Engineering Practice and Design: Cr. 1
CHM 1040 -- Chemistry Skills and Reasoning: Cr. 4
ENG 1010 -- Basic Writing: Cr. 4
MAT 1800 -- Elementary Functions: Cr. 4
MAT 1990 -- Precalculus Workshop: Cr. 2

In order to progress from the Bridge Program to the preprofessional program, a student must complete each of the required courses with a grade of 'C-minus' or higher and an overall grade point average of at least 3.0. Only two substandard grades (see page 137) are permitted within the Bridge requirements if a student wishes to remain in the College. Students receive close attention from the engineering advisors so that early intervention may be arranged for students who face academic difficulties. As part of this course work, each Bridge student meets on a weekly basis with an engineering mentorship group to provide an opportunity for discussion and peer support.

Students who place into MAT 0993 must complete this course in addition to those listed above. This requirement will delay completion of the Bridge Program until the end of the spring/summer semester. Students who place into MAT 0993 should work closely with their academic advisor to develop a three-semester plan of courses to satisfy the Bridge requirements.

Preprofessional Engineering Programs

Students in the preprofessional programs complete thirty-five to forty-five credits of their engineering curriculum, depending on their intended major. This program consists of the following courses that are required of all Division of Engineering students:

B E 1200, 1300, 1310
CHM 1225, 1230
ENG 1020
MAT 2010, 2020, 2030
PHY 2175, 2185 (PHY 2170/2171 for ECE majors)

Most departments also require that students complete one or more 2000-level courses within their department (contact the program advisor for more information).

An inspection of the various engineering curricula (available at http://www.eng.wayne.edu or from the departmental advisors) will reveal that the first three semesters in all of the programs are quite similar, thus affording students some opportunity to postpone commitment to a specific degree program without subsequent loss of credit, although variations do begin to appear in the sophomore year. In general, students entering the preprofessional program are encouraged to register in one of the degree granting departments. However, if still uncommitted as to a particular curriculum, the student may register as an 'undecided student'. If the undecided status is elected, the student is encouraged to pursue career counseling during the first year in the preprofessional program. When a decision is reached, the student is assigned to the appropriate department. The planning of a program of study is carried out in conference with a departmental advisor. Students are encouraged to meet with their advisor whenever there may be a need to do so. This contact should be sought at least once each term for registration purposes.

In order to be admitted to the professional program of their choice, a student must complete the preprofessional courses with no grade lower than a 'C-minus' and a College grade point average for these courses of at least 2.5. Calculation of this preprofessional g.p.a. will include the grades earned in all courses listed above in addition to departmental pre-professional requirements. The required courses may have been completed at Wayne State or transferred from another institution. If a course was completed at Wayne State, the highest WSU grade will be included in this g.p.a. calculation. For courses taken only outside of WSU, the highest grade earned at another institution will be factored into the College's calculation of the preprofessional g.p.a. However, transfer grades are not included in the calculation of the official University g.p.a. In addition, each student must satisfy the University's General Education Critical Thinking requirement, either through examination or identified classes, see page 18, prior to being accepted into the professional program. Students in the preprofessional program may opt to complete MAT 2150,

B E 2100, and B E 2550 or defer them until after acceptance into the professional program; however, they will not be included in the calculation of the preprofessional grade point average. The specific preprofessional requirements, and information on calculating the preprofessional g.p.a., are provided in the Engineering Preprofessional Handbook, available at www.eng.wayne.edu.

Students who do not satisfy these preprofessional requirements will become ineligible to enter the professional program and are prohibited from enrolling in professional level (3000- and 4000-level) engineering courses. Students enrolled in the preprofessional program who fail to meet the 2.5 g.p.a. requirement after completion of the preprofessional courses will be required to meet with the Associate Dean for Academic Affairs and their academic advisor to develop a contract of study. Students will be required to repeat courses, in compliance with Division rules, to demonstrate greater academic mastery and thereby elevate their g.p.a. These courses must be taken at Wayne State University. Such students may be required to repeat certain courses and/or may be required to complete additional courses that may NOT count for credit toward an engineering degree. These additional requirements are designed to improve the student's mathematics, science, engineering science, and English abilities. If, after completion of the agreed-upon contract of study, the student's cumulative College grade point average has not increased to at least 2.5, he or she will be excluded from the College of Engineering.

Professional Engineering Programs

Students must qualify for the professional program in order to complete their advanced engineering courses and apply for their bachelor's degrees. Only students in the professional program in Engineering may register for 3000- and 4000-level engineering courses and, as an undergraduate, 5000-level technical electives. Exceptional students may be granted direct admission to the professional program – the majority of students will progress through the preprofessional program first.

Students directly admitted to a professional engineering program must maintain a g.p.a. of 2.5 or above and must earn a grade of 'C-minus' or better in all course work included in the freshman and sophomore years of their program. Transfer students who qualify for direct admission to the professional program must complete their remaining preprofessional requirements (including Critical Thinking) within two semesters of enrolling at Wayne State. Students who do not meet these requirements will be transferred to the preprofessional program. Such students are eligible to return to a professional program under the conditions described above under 'Preprofessional Engineering Programs.' Students admitted to the College of Engineering prior to the Winter 2004 semester must maintain an overall as well as a College g.p.a. (as calculated by Division of Engineering rules) of at least 2.3 in these first two years of their program to retain their professional program status.

Honors Options

Students who qualify, either as incoming freshmen or continuing students, may opt to pursue Engineering Honors and/or University Honors as they complete their Bachelor of Science degree. Students interested in pursuing University Honors will be enrolled in both the College of Engineering (primary College) and the Irvin D. Reid Honors College (secondary College). Students should work closely with both their Engineering and Honors advisor to select courses, as some special arrangements have been made for Engineering students. In order to graduate with University Honors, students must maintain a minimum grade point average of 3.5 and must complete at least thirty-six credits of honors designated courses (please refer to the University Honors College requirements). To qualify for Engineering Honors in addition to University Honors, twenty-four credits of this coursework must include the following:

B E 2550 -- Basic Engineering IV: Numerical Methods and Computer Programming: Honors section: Cr. 3
B E 5998 -- Engineering Honors Thesis: Cr. 4
HON 42XX -- Honors Seminar that will satisfy AI, FC, HS, or VP General Education Requirements: Cr. 3-4
Eight credits of honors designated courses within the major department. Students should consult their department advisor for more information.

The additional credits of honors courses can be taken in any department, either as honors designated or honors option sections. Students can obtain a list of courses that will also satisfy College requirements (such as MAT 2010 or ECO 2010) from their advisor. Students may elect to pursue only Engineering Honors through the listed twenty-four credits of requirements without completing the requirements for University Honors.

Placement and Qualifying Examinations

All entering freshmen must take the placement examinations in mathematics, chemistry and English. Transfer students who do not have transfer credit equivalent to MAT 2010, CHM 1225/1230, and ENG 1020 (with a grade of 'C' or higher) must take the appropriate placement examination. Consult the Office of Testing, Evaluation, and Student Life Research Services for information regarding the schedule for the examinations (http://www.testing.wayne.edu; 698 Student Center; 313-577-3400).

— Chemistry

The sequence of chemistry courses for the engineering student normally begins with CHM 1225 and 1230. Qualification for CHM 1225 and 1230 requires a satisfactory score on the Chemistry Placement Examination. If a student is not properly prepared to consider placement in CHM 1225 and 1230, direct entry into CHM 1040 is permissible.

— English

All entering freshmen and transfer students shall determine their aptitude in English composition by taking the English Placement Examination unless they have earned credit equivalent to ENG 1020 through transferred courses, AP examinations, or the CLEP program. Students whose score on the English Placement Examination indicates a need for additional instruction and practice in writing must elect and pass ENG 1010 before they can enroll in ENG 1020.

— Mathematics

The sequence of mathematics courses for the engineering student normally begins with MAT 2010. For admission to MAT 2010, a qualifying examination must be passed. The placement examination must be taken by all students who have not transferred in the equivalent of MAT 2010, completed with at least a grade of 'C', or through AP credit. Students may apply to take the placement examination for either MAT 1800 or MAT 2010 depending upon their preparation in mathematics. The MAT 1800 Placement Examination is based upon one and one-half years of high school algebra and one year of high school geometry. The MAT 2010 Placement Examination is based upon a total of three and one-half to four years of college preparatory mathematics covering algebra, plane and solid geometry and trigonometry.

Failure to qualify for MAT 2010 may result in the student being placed in a lower level course such as MAT 0993, 1050, or 1800, depending upon the student's performance. Engineering students who qualify at the MAT 0995/1050 level are required to take MAT 1050 instead of MAT 0995. In addition, students are required to take the seven-credit, PREP version of MAT 1050 in order to obtain a stronger foundation in mathematical problem solving. Requests for exceptions to this requirement (allowing students to complete the five-credit version of MAT 1050) must be made to the Associate Dean for Academic

Affairs. Engineering students who do not take the Mathematics Placement Examination prior to registration for the first semester of the freshman year must enroll in MAT 0993

Emerging Scholars and Rising Scholars Programs: All engineering students who place into MAT 1800 or MAT 2010 are required to apply to the Emerging Scholars Program. Students who place into MAT 0993 are required to apply to the Rising Scholars Program. These are enhanced mathematics programs that provide additional experience in mathematical applications and problem solving, better preparing students for engineering problem solving. Details on these programs can be found in the Department of Mathematics section, page 372.

Degree Requirements

The normal program of study for each of the degrees awarded in the Division of Engineering requires from 125 to 136 credits. Of the total credits for the degree, at least thirty-four credits must be completed as resident credits in the degree program of the College. Departments may impose additional requirements.

Although the curriculum plans of the departmental sections shown in the following pages indicate a four-year program, many students will require additional time to complete all degree requirements. The national average time required for students to complete an engineering degree is approximately 4.5 years after beginning the calculus sequence (MAT 2010). Completion of the degree requirements in four years requires the election of an average of seventeen credits each term during the academic year. A student who enters the Cooperative Education Program will require longer. Students may attend the University on either a full-time or part-time basis (twelve credits are considered by the University as a minimum full-time load).

Since Wayne State University students frequently pursue degrees on a part-time basis, many require much more than 4.5 years to complete all degree requirements. The actual amount of time required will depend upon the student's academic preparedness and the amount of time available for academic activities. The maximum load that a student carries should be consistent with the student's ability and available time. However, since a credit (credit hour) is defined as one class hour requiring about two hours of preparation per week carried through a semester, the fifteen to twenty-one credit programs shown in the curricular plans represent a full forty-hour academic work week. A three-hour laboratory period is generally regarded as the equivalent of one credit. Students who wish to graduate in four calendar years but who wish to schedule sixteen or fewer credits per semester may accomplish this by deferring certain courses until the spring or summer term. Students should check with their advisors regarding the courses that can best be taken in Spring/Summer term. Students who do not follow the sequence as outlined by their department must make sure that all course prerequisites are satisfied.

Specific requirements for these bachelors degrees may be found in the departmental sections for this College. These requirements are in effect as of the publication date of this bulletin; however, students should consult an academic advisor for verification of current requirements. Interim updates will be provided in the College's Preprofessional Handbook and departmental Undergraduate Handbooks. The following discussion concerns generic aspects common to all Bachelor of Science engineering programs.

— General Education Requirements

All students must satisfy the General Education Requirements of the University, as described on page 18. In some cases, the College prescribes a more limited set of alternatives than permitted by the University in order to meet accreditation requirements. Students are cautioned to observe College restrictions when selecting courses to satisfy General Education Requirements as follows (the two-letter codes at the margin indicate General Education categories, for definitions, see page 19):

COLLEGE REQUIREMENTS

AI: Any AI course (Only 3 credits count towards degree requirements)
BC: ENG 1020 or 1050
CL: B E 1200
CT: Competency exam (or pass PHI 1050)
FC: Any (FC) course (Only 3 credits count towards degree requirements)
HS: Any HS course (Only 3 credits count towards degree requirements)
IC: ENG 3050
LS: BIO 1510 (I E students may also select PSY 1010)
MC: Completion of math sequence
OC: ENG 3060
PL: PHI 1120
PS: CHM 1225/1230 (plus lab) (also meets laboratory science requirements)
SS: ECO 2010 *or* 2020 (Only 3 credits count towards degree requirements; I E students may select any SS course)
VP: Any VP course (Only 3 credits count towards degree requirements)
WI: Program-specific capstone course (See program requirements)

— Basic Science Requirement

In order to meet accreditation requirements, all undergraduate engineering students are required to complete at least fifteen credits of basic science courses, including Chemistry 1225 and 1230, Physics 2170/2175 and 2185. These courses are required in all of the engineering curricula, and it should be noted that certain curricula require the completion of prescribed science laboratories and/or additional chemistry and physics courses.

In addition, each student must elect a basic or advanced science course. Students should consult with their advisor for the current list of acceptable courses. Selection of BIO 1510 will satisfy this requirement concurrently with the Life Science requirement described below.

— Critical and Analytic Thinking Requirement

All undergraduates must satisfy the General Education Critical and Analytic Thinking requirement. Engineering students are encouraged to satisfy this requirement by taking the Critical and Analytic Thinking Competency Examination. Students who fail this examination are required to pass PHI 1050; however, credit earned by successful completion of this course will not count toward the total credits required for an engineering degree. This requirement must be satisfied before a student is admitted to the professional program of their major.

— English Competency and Proficiency

See the General Education Requirements (page 18) regarding University proficiency and competency requirements.

Communication Skills: In addition to the basic composition course ENG 1020, six credits in communication skills (ENG 3050 and 3060 – Technical Communication I and II) are required of all Engineering students, and these satisfy the Intermediate Composition (IC) and Oral Communication (OC) requirements of the University.

— Humanities and Social Science Requirement

Engineering today extends far beyond technical decisions. Far-reaching effects of man-made technology require the engineer to be aware of and sensitive to his or her social responsibilities. Courses involving the engineer in sociological, economic, and aesthetic study are incorporated into the engineering program in order to insure an understanding beyond technical problems, which will enable the

complete engineer to make value judgments concerning the impact of this technology upon society.

The College has, therefore, included a program in the social sciences and the humanities as a part of all engineering curricula. This program is integrated with the non-science portion of the University's General Education Program, which requires a student to elect one course from each of six categories. See page 18 for a complete description of the General Education Requirements. The Engineering Division imposes requirements in addition to the University-wide restrictions on some of the courses that satisfy General Education Requirements. These restrictions are described above and are shown in the degree requirements for each engineering program.

— Life Science Requirement

All undergraduate students are required to satisfy the General Education Life Science Requirement. Students who wish to satisfy this requirement simultaneously with the basic or advanced science requirement described above must take BIO 1510. Industrial engineering students may also elect PSY 1010 to satisfy both the life science and basic science requirement simultaneously. Students may satisfy the Life Science requirement with any LS-designated course if they elect an additional basic or advanced science course as described above.

— Mathematics Requirement

Engineering students use mathematics as a tool in all engineering and science courses in their college curricula, as well as later upon entry into the engineering profession. All prospective engineering students are encouraged to complete the number of units of mathematics stipulated in the section entitled Recommended High School Preparation, see page 130. Ideally, engineering students elect the first course in calculus (MAT 2010) in their first freshman term; however, many incoming students are not prepared to begin the mathematics program with calculus, and additional foundational coursework is necessary to strengthen the student's background. This foundational coursework is not included in the total credits required for an engineering degree. All students entering the Division of Engineering with no transfer credit in calculus must take the Mathematics Placement Examination (see above).

Technical Electives

Technical electives may be chosen from a selection of course offerings of the College of Engineering and the advanced science and mathematics courses of the College of Science. Other courses, such as advanced courses in the School of Business Administration, may be elected with the prior approval of the undergraduate program director. The purpose of the technical elective is to increase the depth or breadth of one's professional knowledge. Courses should be selected so as to meet this objective. Engineering courses elected as technical electives are normally selected at the 5000-level. These courses are open to both undergraduate and graduate students. Technical electives require the approval of a student's department and should be discussed with his or her academic advisor.

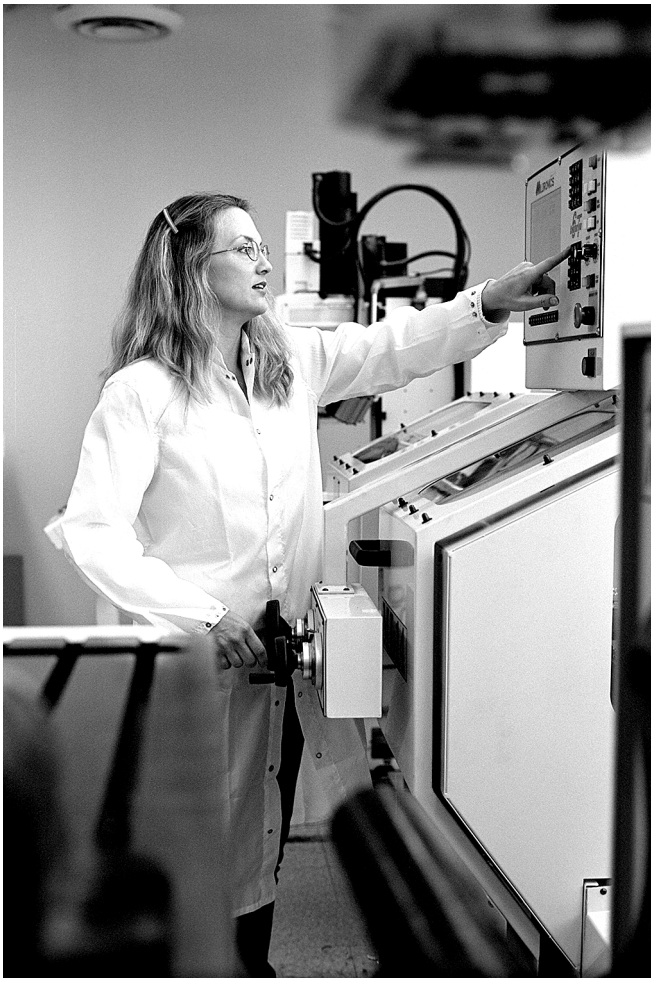
Cooperative Education Program

Students who wish to enrich their education with on-the-job engineering experience may enroll in the Cooperative Education Program. In this program, full-time study terms are alternated with full-time work assignments in cooperating industries. The program may be entered at the beginning of the junior year. Special cooperative programs are available on a limited basis and provide special arrangements in the definition of the work-study period. For further information, consult the Co-op Coordinator at the Career Planning and Placement Office.

Most of the work assignments are in the Metropolitan Detroit area on a commuting basis; however, job opportunities are available in other cities and states. The Co-op program is available in all undergraduate engineering curricula.

Each Co-op student may enroll for one academic course while on work assignment. This must be done with the approval of the student's advisor and Co-op supervisor. Following each work assignment, the student may elect to enroll in B E 3510 or CHE 3510 for one credit. Election of the course requires the completion of a report on the work experience to the department advisor and to the Co-op Coordinator. This credit for work will not be counted toward graduation unless permission is specifically recommended by the department chairperson. Students are automatically enrolled for a zero credit course (B E 3500) each term that they are on a Co-op assignment to insure that the experience appears on their transcript.

A brief evaluation report covering each work assignment is to be submitted to the Co-op Coordinator, whether there has been enrollment in the above one credit courses or not. The student's performance on the job is rated by his/her industrial supervisor. Salaries and other benefits are paid for the time spent on each work assignment. For details and enrollment procedures, contact the Co-op Coordinator in the Career Planning and Placement Office.



ENGINEERING ENTREPRENEURSHIP

Undergraduate Certificate Program

Engineers today must be trained not only to solve problems but to participate in bringing new ideas and products to market. Knowledge and skills in entrepreneurial marketing, finance, business law, product liability, intellectual property and management have increasingly become valuable assets for engineering students interested in starting or working as part of a new business venture. This certificate program will train engineering students in the entrepreneurial skills required to commercialize new ideas, technologies and products. The Engineering Entrepreneurship Certificate Program allows students to take courses in entrepreneurial marketing, finance, law and management in combination with the traditional engineering courses in their major. Students also have the opportunity to put their learning into action by way of an entrepreneurial Capstone project in their field of study.

Admission Requirements: Students must be concurrently enrolled in or have completed an undergraduate degree (B.S.) in engineering with a minimum of a 2.0 cumulative major g.p.a. Students currently pursuing a B.S. in engineering must have completed at least sixty credits of undergraduate coursework and be enrolled in the professional engineering program of their discipline.

Certificate Requirements: To earn a Certificate in Engineering Entrepreneurship, students must complete 15-16 credits including the following courses:

C E 5810 -- Legal Aspects of Engineering and Construction: Cr. 3
FIN 3290 -- Business Finance: Cr. 3
MKT 2300 -- Marketing Management: Cr. 3
MGT 5650 - Entrepreneur and Venture Creation: Cr. 3

Capstone project or another applied learning project completed in one of the following courses (3-4 credits):

CHE 4800 -- (WI) Chemical Process: Integration: Cr. 3
C E 4995 -- (WI) senior Design Project: Cr. 3
ECE 4600 -- Capstone Design I: Cr. 4
I E 4800 and I E 4880
-- Engineering Design I: Cr. 2
-- Engineering Design II: Cr. 2
ME 4500 -- (WI) Mechanical Engineering Design II: Cr 4

All students must earn at least a grade of 'C' in each of the courses to be applied towards the Certificate and complete the coursework with an overall g.p.a. of at least 2.0. Students concurrently enrolled in an engineering undergraduate program will be governed by overall policy on substandard grades for students pursuing a B.S. degree (see Substandard Performance, page 137). Students who have completed a B.S. degree and are pursuing only the Certificate will be allowed one substandard grade, with a subsequent successful repeat of the course, during completion of this program.

Division of Engineering Academic Regulations

For complete information regarding academic rules and regulations of the University, students should consult the General Information section of this Bulletin, beginning on page 5. The following additions and amendments pertain to the Division of Engineering within the College of Engineering.

Registration

All Division of Engineering undergraduate students are required to meet with their Engineering advisor a minimum of once per academic year in order to discuss their academic progress and curriculum. It is strongly recommended that these meetings take place before each semester's registration. (See page 39 for information relating to registration.) Special attention should be paid to course pre- and corequisites as well as College grade requirements in prerequisites. It is the student's responsibility to ensure that all prerequisite and corequisite requirements are satisfied. Students will be removed from courses entered without satisfying these requirements. Students may also be required to repeat courses for which they have not completed the necessary prerequisites, following fulfillment of those prerequisites (even though a grade of 'C' or above has been earned in the course). Students wishing to receive a waiver of pre- or corequisite requirements must submit an Academic Petition *prior* to registering for the affected course.

Some courses may be offered only once a year; others may have multiple sections running every semester. The University Schedule of Classes, published at http://www.classschedule.wayne.edu prior to each semester, shows when and where the classes will meet and outlines registration procedures and times.

Attendance

Regular attendance in classes is necessary for success in college work. Excessive unexcused absences may result in a student failing a course. The student should arrange with the course instructor in advance for all predictable absences. Absences due to illness or conditions beyond the student's control should be reported as soon as possible via phone or e-mail to the instructor, and substantiating documentation provided upon the student's return to class.

Dean's List of Honor Students

A student who achieves a term grade point average of 3.5 or more, based on a program of twelve credits or more, is cited by the Dean for distinguished scholarship and is included on the Dean's List of Honor Students.

'AGRADE' Program

Accelerated Graduate Enrollment: The College of Engineering enables academically superior undergraduate seniors to enroll simultaneously in undergraduate and graduate programs and apply a maximum of sixteen credits toward both an undergraduate and graduate degree in the student's major field. Students who elect the 'AGRADE' Program may expect to complete the bachelor's and master's degrees in one additional year of full-time study.

To be eligible, applicants must have completed a minimum of ninety credits of course work applied towards the engineering degree and be accepted in the professional program of their major. The minimum grade point averages for acceptance into the program are a 3.4 in engineering and not less than a 3.6 g.p.a. in their department of specialization, as computed by the rules of the Division of Engineering. See the departmental advisor for further details.

Conduct

Each student is subject to official regulations governing student activities and student behavior. Furthermore, it is the responsibility of each student to adhere to the principles of academic integrity. Academic integrity means that a student is honest with him/herself, fellow students, instructors, and the University in matters concerning his or her educational endeavors. Thus, a student should not falsely claim the work of another as his/her own, or misrepresent him/herself so that the measures of his/her academic performance do not reflect his/her own work or personal knowledge.

If there are reasonable grounds to believe that a student has disregarded the regulations or student responsibilities, he or she may be disciplined. Such discipline may include failure in the course, suspension or dismissal, but no dismissal will be directed without reasonable opportunity for an appropriate hearing. A description of the University's Student Due Process Policy and a discussion of academic integrity can be found at http://www.doso.wayne.edu/judicial/index.htm.

Academic Probation

A student is considered to be on academic probation whenever his or her cumulative grade point average, or his or her grade point average in the College of Engineering, falls below 2.0. A student may also be placed on probation whenever his or her academic performance is deemed unsatisfactory. For a first occurrence of academic probation, a student should meet with his or her academic advisor to discuss what steps should be taken to remedy the academic deficiencies and have the academic hold released. In the case of any subsequent occurrence of probation, either in consecutive or non-consecutive semesters, the student is required to meet with the Associate Dean for Academic Affairs or for Student Affairs before the academic hold will be released. While on probation, a student may not represent the College of Engineering in student activities.

A student on probation is expected to remove the grade point deficiency promptly. If, at the end of the first semester on probation, the student's cumulative grade point average has not increased to at least 2.0, he or she will be excluded from the College. For part-time students, a semester will be considered to consist of twelve consecutive credits. If the student's cumulative g.p.a. reaches at least 2.0 by the end of the first semester after being placed on probation, he or she will be returned to regular status. Multiple occurrences of probation in non-consecutive semesters will also result in the student's exclusion from the College. A student may also be refused the privilege of registering in the Division for irresponsible attendance and performance in class, regardless of any probationary status.

Following exclusion from the Division of Engineering, the privilege of registering in the Division will be withheld for at least one calendar year. Class work taken at any institution during the period of exclusion may not be considered for transfer toward an engineering degree from this Division.

A student who has been refused the privilege of registering in the Division may request a re-consideration of his or her status by the Academic Standards Committee (ASC) after the one-year exclusionary period. He or she should not make the request, however, unless evidence can be provided of changes in academic preparation or circumstances that will substantially increase the likelihood of academic success. A formal written request for reconsideration must be presented to the Associate Dean for Academic Affairs. Students who plan to petition for readmission are encouraged to request a meeting with the ASC as early as possible during the exclusion period to discuss what changes may provide an opportunity for readmission. In no case is readmission to the College of Engineering guaranteed.

Division of Engineering Rules for Calculating Grade Point Average

The Division of Engineering computes Departmental and College grade point averages using rules that differ from those used to compute the cumulative grade point average on the official University transcript. These rules are provided in detail in the Preprofessional Handbook. The Departmental g.p.a. includes all courses taken within the major department. The College g.p.a. includes all engineering courses and those courses that are prerequisite to an engineering course. The preprofessional g.p.a. is calculated to determine eligibility for admission to the professional program. Preprofessional requirements that have been satisfied through transfer credit will be included in the assessment of the preprofessional g.p.a.; however, they will not be included in the official University g.p.a. or final calculation of the College or Department g.p.a. Courses taken as part of the Bridge Program will not be included in the calculation of the Departmental or College g.p.a. once a student enters a preprofessional program.

For students admitted to the College of Engineering for the Winter 2004 semester or later, repeated courses will not be included in the grade point average calculations (following standard University regulations). The new grade will replace the old grade in the g.p.a. calculation, but only a maximum of five repeated courses will be allowed (see Repeating Courses, below).

For students admitted to the College of Engineering prior to Winter 2004, the inclusion of repeated courses in the grade point calculation follows different rules. When a course is repeated, the new grade will replace the previous grade unless the student exceeds the maximum number of repeats: one repeat for each thirty-four credits completed at Wayne State University. After the maximum number of repeats is exceeded, both grades are used in computing the student's grade point average.

Substandard Performance

If a grade below 'C-minus' is received in course to be applied towards the degree, the student will be required to repeat that course in the next semester in which it is available. The course must be repeated and a satisfactory grade earned before the next course in the sequence is taken. Students may be required to repeat courses and will be administratively withdrawn from courses when they have not satisfied course prerequisites. Courses that are not specifically required for the degree (e.g. AI, FC, HS, and VP courses or technical electives) may be repeated or a different course may be chosen to satisfy that requirement. If a different course is selected, the first grade will not be replaced in the calculation of the g.p.a.

A course in which a grade below 'C-minus' has been earned may not be subsequently passed by special examination.

Auditing Courses: Undergraduate students may elect to formally audit a course that interests them. In order to audit a course, a student must register for the class and pay the appropriate tuition. However, this course will not apply towards any degree requirements. Any course that has been completed for audit may not be subsequently enrolled in for credit, nor may credit be obtained by special examination.

No course taken to satisfy an engineering program requirement may be elected on a Pass-Fail ('P'-'NP') basis.

Repeating Courses: Courses in which a grade lower than a 'C-minus' is earned must be repeated no later than the next regular (i.e., fall or winter) semester in which the course is offered. Exceptions to this rule must be approved by the Undergraduate Program Director or the Associate Dean for Academic Affairs.

Students will be allowed one repeated course for a substandard grade for every twenty-four credits earned at Wayne State University, up to a maximum of five repeated courses. If a student must repeat a subsequent course in order to complete their degree, he or she will

be excluded from the College. Students who elect to repeat a course to improve their understanding of the material even though a satisfactory ('C-minus' or higher) grade was received will not have this counted towards allowed repeats.

WayneDirect students are given the option of including their community college record in the allowed number of repeated courses. Each WayneDirect student must make this choice at the time of their full enrollment at Wayne State. Full details on the two repeat options for WayneDirect students are provided in the College's Preprofessional Handbook.

Students admitted to the College prior to the Winter 2004 semester will not be limited in the number of allowed repeats; however, a limited number of repeats will have the new grade replace the old in the grade point calculation (see Division of Engineering Rules for Calculating Grade Point Average, above).

When repeating a course, failure for the third time to pass it with at least a 'C-minus' grade constitutes grounds for refusing a student further registration in the Division of Engineering.

Courses taken at Wayne State and intended to apply to a Wayne State degree must be completed at this University. Exceptions to this policy require that prior written approval be secured from the student's department chairperson and the Associate Dean for Academic Affairs in order to take the course at another designated institution.

Students are directed to page 36 for University policies related to repeating courses and credit by special examination. See also 'Division of Engineering Rules for Calculating Grade Point Average,' above.

Withdrawal From Courses

General rules governing withdrawal from courses and changes of program can be found on page 40. Courses from which a student withdraws, such that a mark of WP, WF, or WN appears on the transcript, are counted as an attempt at the course and are taken into account when assessing the allowed number of repeats. If a student feels that circumstances beyond their control (e.g. family emergency, change of work schedule) justify the withdrawal, a written petition may be submitted to the Associate Dean for Academic Affairs before the end of the semester in which the course was taken. If the petition is approved, it will be noted in the student's advising record that the course will not be counted towards Engineering repeat allowances.

Graduation

Students must apply for graduation at the beginning of the semester in which they plan on completing their degree requirements. At graduation, the University requires a minimum 2.0 grade point average in the total residence credit. Additionally, the Division of Engineering requires a minimum 2.0 for both the College and the Departmental grade point average. The student's total g.p.a., as well as departmental grade point average, is calculated using the Division of Engineering rules described above.

Graduates with a minimum of sixty credits in residence at Wayne State University and a grade point average of at least 3.0 may qualify for a special diploma under the following conditions:

Summa Cum Laude: Student must have a grade point average in the 95th percentile of the College of Engineering graduating class.

Magna Cum Laude: Student must have a grade point average in the 90th percentile of the graduating class.

Cum Laude: Student must have a grade point average in the 80th percentile of the graduating class.

Commencement: Each year, commencement exercises are held May. *College Order of the Engineer* and *Professional Order of Engineering Technology* ceremonies will be held in both December and May to induct graduates into these organizations.

Guests

A student attending another engineering college who wishes to take course work at Wayne State for the purpose of credit transfer to the home institution may be admitted as a guest student for one term. This is done by applying through the University Office of Admissions using either the Application for Undergraduate Admission or the Graduate Guest Application. These applications require certification by an official of the home institution. For information on graduate guest admission and visiting doctoral guests, see the Wayne State University Graduate Bulletin. Guest students are expected to have met the listed prerequisite requirements for courses in which they wish to enroll. Students wishing to register for 3000- or 4000-level engineering classes must first receive permission from the department that teaches the course.

The Michigan Conference of Engineering Deans has entered into an agreement endorsing the exchange of guest privileges between ABET-accredited engineering program in Michigan. For further information call the Engineering Dean's Office; 313-577-3040.

Concurrent and Second Degree

In accordance with the University requirements, students may earn a Bachelor of Science in engineering concurrently with or subsequent to another bachelor's degree at Wayne State University. Such students must complete at least thirty credits beyond those applied toward the first degree and must also satisfy all departmental and College course requirements. These students must meet College of Engineering - ABET General Education objectives; consult an Engineering academic advisor to review these requirements.

Minors

A number of undergraduate programs within the University allow students to pursue a minor in the field. Engineering students may elect to complete a minor through another school or college in conjunction with their Bachelor of Science in Engineering. This minor will generally require course credit in addition to that required for the engineering degree.

Professional Registration

An additional mark of engineering competence is the successful completion of examinations for professional registration given by each state. Upon being registered in a state, the engineer may legally provide engineering services to the public of that state. Many of the states have reciprocity agreements for transfer of registration. In Michigan, the State Board of Registration for Professional Engineers offers the registration examination in April and November of each year. Graduates at the bachelor's degree level are qualified and urged to take Part I of the examination, Fundamentals of Engineering, immediately upon graduation or at the examination just preceding graduation. Application forms are available in the Dean's office.

ALTERNATIVE ENERGY TECHNOLOGIES (AET)

The following courses are open to undergraduate students and may apply towards technical elective credit. Applicability to a particular degree program should be confirmed with a student's academic advisor. For interpretation of numbering system, signs and abbreviations, see page 504.

5110 (EVE 5130) Fundamental Fuel Cell Systems. (M E 5110) (CHE 5110) Cr. 4

Prereq: senior standing in science or engineering discipline. Various types of fuel cells, materials properties of electrodes and polymeric membranes, and electrochemical mechanisms. Reforming of various types of hydrocarbon fuel to hydrogen, and reforming technology. (F)

5120 (M E 5120) Fundamentals of Alternative Energy Technology. Cr. 4

Prereq: senior standing in science or engineering discipline. Input-output analysis, thermodynamic efficiency and availability, energy balances, economics and environmental considerations. Fuel cell examined from energy efficiency perspective. Photovoltaics, wind power, biomass conversion technologies. (W)

5150 (EVE 5150) Advanced Energy Storages. Cr. 4

Open only to engineering graduate students and undergraduates with senior standing; others by consent of instructor. Fundamentals of all major energy storage methods, including storage of energy as heat, in phase transitions and reversible chemical reactions, and in organic fuels and hydrogen; principles of energy storage in mechanical, electrostatic and magnetic systems. (F,W)

5250 (M E 5250) Alternative Energy Technology System and Design. (EVE 5700) (AET 5250) Cr. 4

Prereq: AET 5120 or consent of instructor. Topics such as: batteries, flywheels, capacitors, motors, controllers, power management, heat dissipation, systems containment, manufacturing processes, systems dynamics. Lectures and design projects. (F)

5310 (EVE 5120) Fundamentals of Battery Systems for Electric and Hybrid Vehicles. Cr. 4

Prereq: Open only to Engineering graduate students and undergraduates with senior standing, others by consent of instructor. Fundamental electrochemistry and engineering aspects for electric propulsion batteries, including lead acid, nickel metal hydride, and lithium ion technologies. (W)

5325 (ECE 5325) Smart Sensors and Fuel Cells. Cr. 4

Prereq: senior standing in science or engineering discipline. Signal conditioning circuits, AD/DA conversions, and decision-making circuits suitable for custom integrated circuit solutions to create a smart fuel cell. Introduction of smart sensors for monitoring hydrogen, oxygen, and other gases in a fuel cell system. (F)

5330 (EVE 5430) Modeling and Control of Power Electronics and Electric Vehicle Powertrains. (ECE 5330) Cr. 4

Prereq: senior standing in science or engineering discipline. Basic methodologies for modeling, control system design, system coordination, and optimization of renewable power sources and power electronics systems. (B)

5410 (C E 5410) The Hydrogen Economy and Hydrogen Infrastructure Needs. (M E 5850) Cr. 4

Prereq: senior standing in science or engineering discipline. The post-fossil fuel energy paradigm, in context of the developing hydrogen infrastructure; analysis of government reports and scientific literature; discussion regarding the championed (and contested) vision of a global Hydrogen Economy. (W)

5420 (C E 5420) Transportation Energy Choices. (M E 5870) Cr. 4

Prereq: senior standing in science or engineering discipline. Technological innovations and barriers impacting energy production, storage, and conversion in transportation applications. Fuel life cycle case studies (bioethanol, syncrude, etc.). (W)

5600 (I E 6405) Alternative Energy Product Realization System. (EVE 5600) Cr. 4

Prereq: senior standing in science or engineering discipline. Identification of a strategy for application of technology in the marketplace; application development, integration into vehicle production, concurrent engineering manufacturing issues, quality and testing in manufacturing. (F)

5640 Energy and the Environment. (EVE 5640) Cr. 4

Prereq: senior standing in engineering or math-based science program. Sustainability problems of our present energy systems and of potential solution in utility and transportation sectors. Energy evolution and decarbonization process from fossil fuels. Impacts of greenhous gas emissions. Principles of renewable energy systems. (F)

5700 (CHE 5700) Process and Materials Safety for Alternative Energy Technology. Cr. 4

Prereq: senior standing in science or engineering discipline. Fundamentals concerning fires and explosions, control strategies to prevent accidents, fault tree analysis to optimize control strategies, and risk analysis. Regulations and standards relevant to the design, manufacture, and operation fo fuel cell and reforming processes. (W)

5810 (EVE 5810) Power Management for Advanced Energy Storage Systems and its Applications. Cr. 4

Prereq: ECE 4470. Operating principles and modeling of energy storage techniques; control and power management, power electronic converters, electric machines, and power systems; power management strategies of hybrid energy systems including HEV and alternative energy systems. (F,W)

BASIC ENGINEERING COURSES (B E)

The following courses in basic engineering are of a general nature and are used by students in all of the Division of Engineering disciplines. The B E courses which require admission to the Army ROTC program (xx01 and xx02) are designed specifically for that purpose and interested students should consult the program on page 497. For interpretation of numbering system, signs and abbreviations, see page 504.

NOTE: All 3000- and 4000-level courses are open only to students admitted to the professional engineering programs.

1001 Engineering Bridge Mentorship Program Participant I. Cr. 0

Open only to students in Engineering Bridge Program. Offered for S and U grades only. Students must register for both Fall and Winter semesters to successfully complete the Bridge Program. Coreq: B E 1050. Required peer mentorship program for Engineering Bridge students. (T)

1002 Engineering Bridge Mentorship Program Participant II. Cr. 0

Open only to students in Engineering Bridge Program. Offered for S and U grades only. Coreq: B E 1060. Required peer mentorship program for Engineering Bridge students. (W)

1050 Introduction to the Engineering Profession. Cr. 2

Open only to freshman or transfer students. Required of all Engineering Bridge students. This course introduces new engineering students to the profession and practice of engineering, the history of engineering, and its various disciplines. The importance of teams to the practice of engineering is demonstrated. (F)

1060 Introduction to Engineering Practice and Design. Cr. 1

Open only to Engineering Bridge students. Coreq: B E 1002. Teamwork and communication development based on exploration of professional opportunities for engineers. (W)

1101 Introduction to Officership. Cr. 1

Prereq: admission to Army ROTC or permission of Army ROTC. Classroom introduction to leadership, and the experiential examination of leadership, followership, decision-making, and group accomplishment of tasks. (B)

1102 Introduction to Leadership. Cr. 1

Prereq: admission to Army ROTC or permission of Army ROTC; B E 1101. Continuation of B E 1101; focus on communications, leadership, and problem-solving. The light infantry platoon and the troop leading process. (B)

1200 (CL) Basic Engineering I: Design in Engineering. Cr. 3

Prereq. or coreq: MAT 1800. Core principles of engineering practice: design, teamwork, professional ethics. Material Fee As Indicated In The Schedule of Classes (F,W)

1300 Basic Engineering II: Materials Science for Engineering Applications. Cr. 3

Prereq: CHM 1225 / CHM 1230; coreq: B E 1310; prereq. or coreq: B E 1200; PHY 2170 or PHY 2175; MAT 2020. Fundamentals of materials science; emphasis on how material properties and behavior affect engineering applications. (T)

1310 Materials Science for Engineering: Laboratory. Cr. 1

Coreq: B E 1300. Laboratory component of B E 1300. Material Fee As Indicated In The Schedule of Classes (T)

2100 Basic Engineering III: Probability and Statistics in Engineering. Cr. 3

Prereq. or coreq: MAT 2020. An introduction to application of probability theory and statistical methods in engineering, including design and manufacturing. (T)

2201 Innovative Tactical Leadership. Cr. 1

Prereq: admission to Army ROTC; B E 1102; physical training, special events, and 48 field training. Military organizational leadership with focus on leadership development and interpersonal group dynamics. (B)

2202 Leadership in Changing Environments. Cr. 2

Prereq: admission to Army ROTC; B E 1102; physical training, special events, and 48 Field Training Exercise. Challenges of leading in complex contemporary operational environments. Cross-cultural challenges of leadership applied to practical Army leadership tasks and situations. (B)

2550 Basic Engineering IV: Numerical Methods and Computer Programming. Cr. 3

Prereq: B E 1200, MAT 2030; prereq. or coreq: MAT 2150. Core principles of computer programming and applications in design and implementation of numerical methods to solve engineering problems. Material Fee As Indicated In The Schedule of Classes (T)

3000 Engineering Bridge Mentorship Program Leader. Cr. 0

Open only to students enrolled in professional engineering programs. Documentation of mentor participation in Engineering Bridge Program. (T)

3301 Leading Small Organizations I. Cr. 2

Prereq: admission to Army ROTC; physical training, special events, and 48 Field Training Exercise. Leadership development and interpersonal and group dynamics. Methods ov visualizing, planning and leading organizations to achieve set goals. (B)

3302 Leading Small Organizations II. Cr. 2

Prereq: B E 3301; admission to Army ROTC; physical training, special events, and 48 Field Training Exercise. (B)

3500 Co-Op Record. Cr. 0 (IND: 0)

Prereq: sophomore standing and consent of coordinator. Offered for S and U grades only. Open only to engineering students. Open only to students enrolled in professional engineering programs. Engineering practice under supervision in cooperative education program. (T)

3510 Co-Op Experience. Cr. 1 (Max. 4) (IND: 1)

Prereq: sophomore standing and consent of adviser. Offered for S and U grades only. Open only to students enrolled in professional engineering programs. Engineering practice under supervision in cooperative education program. Written report required. (T)

3900 National Design Competition Participant. Cr. 0

Prereq: consent of department. Offered for S and U grades only. For engineering undergraduates who are active team members in national engineering design competition projects. Satisfactory completion of this course will document active participation throughout the semester. (T)

4401 Leadership and Management. Cr. 3

Prereq: B E 3302; admission to Army ROTC; physical training, special events, and 48 Field Training Exercise; three and one-half hour of independent study with cadre mentor required per week. Multiple styles and theories of leadership; ethical decision making, especially as relating to changing organizational and individual behavior; accomplishing goals in resource-constrained enviromnents. (B)

4402 Military Professionalism and Professional Ethics. Cr. 3

Prereq: B E 4401; admission to Army ROTC; physical training, special events, and 48 Field Training Exercise; three and one-half hour of independent study with cadre mentor required per week. Evaluation and assessment of needs of subordinate units and individuals; near-term and short-term plans to address these needs. Analysis of a historical battle as well as analysis of moral and leadership dilemmas in history. (B)

5780 (B E 5780) Products Liability Introduction for Engineers. (M E 5780) (I E 5780) Cr. 1

Prereq: senior or graduate standing. Application of engineering practice to minimize products liability exposure. Stages of a products liability lawsuit; how engineers may be involved at different stages of the process. (Y)

5900 National Design Competition Projects. Cr. 1-4

Prereq: written consent of faculty adviser for the project. Primarily for engineering undergraduates who are dedicating a substantial amount of effort towards college-sponsored national design competition projects. (T)

5995 Special Topics in Engineering. Cr. 1-4

Prereq: enrollment in a professional engineering or graduate engineering program. Special topics not covered in other courses; topics announced in Schedule of Classes. (T)

5998 Engineering Honors Thesis. Cr. 1-4

Open only to undergraduate Engineering Honors students. Prereq: enrollment in a professional engineering program and consent of Associate Dean for Academic Affairs or Honors Program Director. Completion of required Honors Thesis. (T)

Biomedical Engineering

Office: 818 W. Hancock; 313-577-1344
Chairperson: Albert I. King
Associate Chairperson: Pamela VandeVord

Website: http://www.bme.wayne.edu

Professors

Gregory Auner, Cynthia Bir, John M. Cavanaugh, Robert Erlandson, E. Mark Haacke, Albert I. King, Howard Matthew, Sam Nasser, Dorothy A. Nelson, Robert Silver, King-Hay Yang

Associate Professors

Chaoyang Chen (Research), R. Darin Ellis, Michele Grimm, Rungaramanujam Kannan, Mahendra Kavdia, Guang Zhao Mao, David Oupicky, Weiping Ren, Pamela VandeVord, Liying Zhang (Research)

Assistant Professors

Michael Bey, Yeshitila Gebremichael, Zhifeng Kou, Abhilash Pandya, Yener Yeni

Adjunct Faculty

Paul Begeman, Norman Cheng, Cliff Chou, Ali Elhagediab, Richard Genik, James Kaltenbach, Tawfik Khalil, Robert Levine, John W. Melvin, Chantal Parenteau, Priya Prasad, Stephen Rouhana, Chris Van Ee, David Viano,

Degree Programs

BACHELOR OF SCIENCE in Biomedical Engineering

BRIDGE GRADUATE CERTIFICATE in Injury Biomechanics

MASTER OF SCIENCE in Biomedical Engineering

DOCTOR OF PHILOSOPHY with a major in Biomedical Engineering

Biomedical engineering (BME) is one of the fastest growing disciplines in engineering. This field has developed from the knowledge that engineering principles can be applied to better understand how the human body functions as well as the effect that outside forces have on it, whether they be diagnostic or traumatic. A biomedical engineer brings together traditional engineering principles with the life sciences in a completely integrated fashion. The result is an engineer who views the human body as a complex system, its diseases and injuries as breakdowns in that system, and medical interventions as design alternatives for the repair of the system. As the population ages and medical costs increase, biomedical engineers are required both to understand the mechanistic causes of injury and disease and to design and implement interventions to prevent and mitigate the suffering of individuals and to reduce the cost of medical care to society.

Wayne State has a long history with respect to biomedical engineering research. In 1939, faculty from the College of Engineering and School of Medicine began collaborating to investigate the mechanisms of injuries to the human body, and educational programs in the area of biomedical engineering have existed at Wayne State since the 1950's. They have developed from a few courses taken within traditional engineering departments to the graduate degree program in biomedical engineering, introduced in 1998. The Department of Biomedical Engineering, interdisciplinary between the College of Engineering and the School of Medicine, was established in 2002. Drawing upon the strengths of the biomedical engineering graduate program, the Department has established a new undergraduate program that accepted its first students for the Fall 2010 semester.

Bachelor of Science in Biomedical Engineering

Wayne State's undergraduate program in BME is built upon a strong foundation of engineering that integrates biomedical sciences early in the curriculum and continuously throughout subsequent coursework. In order to prepare students for careers and/or further education, traditional lectures are combined with problem-based and project-based learning to allow students to immediately apply their foundational knowledge to biomedical engineering challenges. From the first week of the program, through an ongoing partnership with the Medical School and affiliated hospitals, students are introduced to real world biomedical engineering problems and tools so as to develop a thorough understanding of the challenges faced in clinical medicine. All students are also encouraged to become actively involved in one of the research groups of the Department for which opportunities are available as early as freshman year. Before the junior year all students must select one of three concentrations for their undergraduate program: biomaterials, biomechanics, or biomedical instrumentation.

The program's objectives are to prepare graduates who, in two-three years after graduation, will be able to:

1) work in multidisciplinary teams to translate biomedical science to application;

2) Utilize engineering, mathematical, and biomedical tools to solve biomedical engineering problems and design biomedical engineering systems;

3) Continue their education in engineering or biomedical fields based on a strong underlying foundation in both areas of study.

The B.S.B.M.E. program is coordinated by the Undergraduate Program Chairperson with the assistance of the Departmental academic advisor. These individuals are available to support students in selecting courses, identifying research and internship opportunities, and discussing plans for after graduation. Students are encouraged to join and actively participate in the campus chapter of the Biomedical Engineering Society (BMES) for networking and professional development opportunities.

ADMISSION REQUIREMENTS: In addition to qualifying for admission to the College of Engineering, students interested in the B.S.B.M.E. program must file a secondary application (available at bme.wayne.edu/bsbme). Due to the challenging nature of biomedical engineering, the undergraduate BME program is highly selective and admits students who have a demonstrated ability in math and science. In addition, the program is structured as a cohort-based program - students progress through the four years as a group. Therefore, admission by transfer students requires completion of a minimum set of prerequisite courses. First year students are accepted for the fall semester only. Students wishing to join the program in the second or third year are accepted for the spring/summer semester in order to complete some required coursework before joining their cohort in the fall.

Freshman Admission: Students wishing to enter the program immediately following high school must have a minimum math/science g.p.a. of 3.5 and a minimum Math ACT score of 29. Students who have completed college-level coursework through dual enrollment programs will still be considered as freshmen. For full consideration for fall admission, including all scholarship opportunities, students must apply to the University and the BME Program by January 15. Following admission, students must confirm placement into at least Calculus I (MAT 2010) and General Chemistry (CHM 1225) through either testing (ACT, AP, or placement tests) or transfer credit. Admitted students who do not meet these criteria will have their admission deferred.

Transfer Admission: Students may apply to transfer into the program after completing college-level coursework at Wayne State or at another post-secondary institution. Transfer students may apply to join the program as part of a first year, second year, or third year cohort depending on the coursework that they have previously completed. The following are the minimum classes that must be completed for transfer students to join each cohort:

FIRST YEAR COHORT:

Placement into Calculus I, General Chemistry, and Basic Composition

SECOND YEAR COHORT:

Mathematics: Calculus I and Calculus II

Science: General Chemistry (w/ lab), Engineering Physics I, and Biology (w/ lab - equivalent to BIO 1510)

English: Basic Composition

THIRD YEAR COHORT:

Above courses plus:

Mathematics: Calculus III, Differential Equations, and Linear Algebra

Science: Engineering Physics II and Organic Chemistry I

Engineering: Basic Engineering Design, Introductory Programming Course, Materials Science, Statics, and Mechanics of Materials

General Education: At least two courses that meet BSBME requirements

Transfer students are accepted on a space-available basis. Prospective students are expected to have earned a minimum math/science g.p.a. of 3.5 in their college coursework. Transfer plans have been developed for community colleges in the Southeastern Michigan area and are available on the program website.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Science in Biomedical Engineering must complete 132 credits of coursework, including the University General Education requirements (see pages 18 and 134). All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on pages 18, 36, and 130. All prerequisite coursework must be completed; any waivers to listed prerequisite courses must be approved by the Undergraduate Program Chairperson. In compliance with the academic requirements of the College of Engineering, students must earn a grade of C- or higher in all courses applied to the B.S.B.M.E. degree requirements. The 8-semester curriculum for the program is provided below. Students interested in attending medical or dental school after graduation may add any remaining preprofessional requirements into their curriculum with minimal difficulty.

Biomedical Engineering Curriculum

FRESHMAN YEAR

First Semester

B E 1200 -- (CL) Basic Engineering I: Design in Engineering: Cr. 3
BME 1910 -- Biomedical Engineering Design Laboratory I: Cr. 1
CHM 1225 -- (PS) General Chemistry I: Cr. 3
CHM 1230 -- General Chemistry I Laboratory: Cr. 1
ENG 1020 -- (BC) Introductory college Writing: Cr. 4
MAT 2010 -- Calculus I: Cr. 4
Total Credits: 16

Second Semester

B E 1300 -- Basic Engineering II: Materials Science for Engineering App.: Cr. 3
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
BME 1920 -- Biomedical Engineering Design Laboratory II: Cr. 1
MAT 2020 -- Calculus II: Cr. 4
PHY 2175 -- (PS) General Physics : Cr. 4
Total Credits: 16

SOPHOMORE YEAR

First Semester

BME 2910 -- Biomedical Engineering Design Laboratory III: Cr. 1
CHM 1240 -- Organic Chemistry I: Cr. 4
MAT 2030 -- Calculus III: Cr. 4
M E 2410 -- Statics: Cr. 3
PHY 2185 -- General Physics II -- Electricity & Magnetism: Cr. 4
Total Credits: 16

Second Semester

B E 2100 -- Basic Engineering III: Probability & Stat. for Engineering App: Cr. 3
BME 2005 -- Introduction to Molecular & Cellular Biology: Cr. 3
BME 2920 -- Biomedical Engineering Design Laboratory IV: Cr. 1
ENG 3050 -- (IC) Technical Communication I: Reports: Cr. 3
MAT 2150 -- Differential Equations and Matrix Algebra: Cr. 4
ME 2420 -- Elementary Mechanics of Materials: Cr. 3
Total Credits: 17

JUNIOR YEAR

First Semester

B E 2550 -- Basic Engineering IV: Num. Meth. and Comp. Programming: Cr. 3
BME 3470 -- Biomedical Signals & Systems: Cr. 4
BME 3910 -- Biomedical Engineering Design Laboratory V: Cr. 1
CHE 3200 or ECE 3570
-- Fluid Flow & Heat Transfer: Cr. 4
-- Electronics: Cr. 4
ENG 3060 --(OC) Technical Communication II: Oral Presentations: Cr. 3
General Education Course: Cr. 3
Total Credits: 18

Second Semester

BME 3920 -- Biomedical Engineering Design Laboratory VI: Cr. 2
BME 4010 -- Engineering Physiology Lab: Cr. 2
BME 4X10 -- Introduction to Concentration Course: Cr. 3
BME 5010 -- Engineering Physiology: Cr. 4
BMS 6010 -- Responsible Conduct of Biomedical Research: Cr. 1
General Education Course: Cr. 3
Total Credits: 15

SENIOR YEAR

First Semester

BME 4910 -- Biomedical Engineering Capstone Design I: Cr. 3
BME Concentration Electives: Cr. 8
ECE 3570 or CHE 3200
-- Electronics: Cr. 4
-- Fluid Flow & Heat Transfer: Cr. 4
General Education Course: Cr. 3
Total Credits: 18

Second Semester

BME 4920 -- Biomedical Engineering Capstone Design II: Cr. 3
BME Concentration Elective: Cr. 4
General Education Courses: Cr. 9
Total Credits: 16

TOTAL PROGRAM CREDITS: 132

Honors and Accelerated Master's Program

All students in the BSBME program are encouraged to pursue their degree with Engineering and/or University Honors. Students can complete their requirements for Honors within the 132 credits required for the program. The required Honors thesis will satisfy the requirement for one of the technical electives.

Students who have earned at least a 3.5 g.p.a. through their junior year may apply to the Accelerated Masters Program. Through this program, students may earn their MS in Biomedical Engineering with one additional year of coursework (18 credits).

BIOMEDICAL ENGINEERING COURSES (BME)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

NOTE: All 3000- and 4000-level courses are open only to Engineering students.

1910 Biomedical Engineering Design Laboratory I. Cr. 1

Coreq: BE 1200. Open only to students enrolled in pre-biomedical enginering or Bachelor of Science in Biomedical Engineering program. Application of engineering principals to biomedical engineering problems through laboratory and design exercises. Semester 1 of a 6-semester sequence which includes working on a biomedical engineering team and basics of biomedical engineering design. (F)

1920 Biomedical Engineering Design Laboratory II. Cr. 1

Prereq: BME 1910; Coreq: BE 1300. Open only to students enrolled in pre-biomedical enginering or Bachelor of Science in Biomedical Engineering program. Application of engineering principals to biomedical engineering problems through laboratory and design exercises. Semester 2 of a 6-semester sequence which includes biomaterials testing, introduction to modeling, and more advanced tools for teaming and design. (W)

1925 Biomedical Engineering Design Laboratory: Jump Start I. Cr. 2

Prereq: consent of instructor. Laboratory and design exercises focusing on fundamental design processes for biomedical engineering and the application of materials science to BME. This course replaces the BME 1910 and BME 1920 sequence for students who transfer into the program in the 2nd or 3rd year of the curriculum. (S)

2005 Introduction to Molecular and Cellular Biology for Engineers. Cr. 3

Prereq: BIO 1510; CHM 1240. Basic understanding of fundamental molecular and cellular biology for engineering students; emphasis on biomedical and human applications. On-line lecture material. Includes a weekly virtual laboratory experience. (W)

2910 Biomedical Engineering Design Laboratory III. Cr. 1

Prereq: BME 1920 or BME 1925; Coreq: ME 2410, ENG 3050. Application of engineering principals to biomedical engineering problems through laboratory and design exercises. Semester 3 of a 6-semester sequence which includes analysis of musculoskeletal forces and gait and orthopaedic design. (F)

2920 Biomedical Engineering Design Laboratory IV. Cr. 1

Prereq: BME 2910; Coreq: B E 2010, BME 2005, M E 2420. Application of engineering principals to biomedical engineering problems through laboratory and design exercises. Semester 4 of a 6-semester sequence which includes tissue biomechanics, introduction to finite element modeling. (W)

3470 Biomedical Signals and System. Cr. 3

Prereq: BME 2005, PHY 2185, MAT 2150; Coreq: BE 2550. Mathematical, engineering, and computer techniques for describing and analyzing biomedical signals, including ECG, EEG, EMG, blood pressure, and tomographic images. (F)

3905 Biomedical Engineering Design Laboratory: Jump Start I. Cr. 2

Prereq: consent of instructor. Laboratory and design exercises focusing on applications of mechanical engineering, and statistics to biomedical engineering problems. This course replaces the BME 2910

and BME 2920 sequence for students who transfer into the program in the 3rd year of the curriculum. (F)

3910 Biomedical Engineering Design Laboratory V. Cr. 1

Prereq: BME 2920; Co-req: BE 2550, BME 3470. Application of engineering principals to biomedical engineering problems through laboratory and design exercises. Focus on measurement, analysis, modeling, and interaction with biomedical signals from living systems. Includes the parallel analysis patterns of fluid flow and electrical systems. Semester 5 of a 6-semester sequence. (F)

3920 Biomedical Engineering Design Laboratory VI. Cr. 2

Prereq: BME 3910. Application of engineering principals to biomedical engineering problems through laboratory and design exercises. Introduction to the capstone design process. Integration of the design process with the complete government regulation system for medical device design. Use of advanced CAE tools for analysis. Semester 6 of a 6-semester sequence. (W)

4010 Engineering Physiology Laboratory. Cr. 2

Prereq: BME 2005, BE 2010, BME 3470; Coreq: BME 5010. Measurement and analysis of physiological signals on living systems with focus on neural, cardiovascular, respiratory, and muscular systems. Will include a student-designed experiment on a physiological system. (W)

4210 Introduction to Biomechanics. Cr. 3

Prereq: CHE 3200, ME 2420; Coreq: BME 5010. Broad introduction to the application of mechanical engineering principals to biomedical engineering including: motion analysis, injury and forensic biomechanics, cardiovascular and pulmonary mechanics, and design of implants with mechanical functions. (W)

4310 Introduction to Biomaterials. Cr. 3

Prereq: CHE 3200, ME 2420; Coreq: BME 5010. Broad introduction to the field of biomaterials and its application to tissue engineering, implant design, controlled drug delivery, and designer materials for therapeutic use. (W)

4410 Introduction to Biomedical Instrumentation. Cr. 3

Prereq: BME 3470, ECE 3570; Coreq: BME 5010. Broad introduction to the use and design of instrumentation for biomedical applications, with both attention to both clinical and research use. Including filtering techniques, safety issues, special concerns for implanted and external systems. (W)

4910 Biomedical Capstone Design. Cr. 3

Prereq: BME 3920, senior standing. First of a two-semester sequence during which student teams will develop a design to address a biomedical engineering challenge. Will include discussions with clinical faculty, analysis of current solutions, and finalization of a conceptual design. (F)

4920 Biomedical Engineering Capstone Design II. Cr. 3

Prereq: BME 4910, senior standing. Second of a two-semester sequence. Students will develop and test a prototype of their biomedical engineering design. Will culminate in a public design expo to exhibit student designs. (W)

5005 Introduction to Cell Biology and Physiology for Engineers. Cr. 2

Undergrad. prereq: senior standing. Not offered for B.S.B.M.E. degree credit. Basic understanding of fundamental human physiology for engineering students; emphasis on body function. Web-based class. (T)

5010 (BME 5010) Engineering Physiology. (CHE 5100) (ECE 5100) (I E 5100) (M E 5100) Cr. 4

Prereq: BME 5005 or consent of instructor. Basic principles of human physiology presented from the engineering perspective. Bodily functions, their regulation and control discussed in quantitative terms and illustrated by simple mathematical models where feasible. (F,W)

5020 Computer and Mathematical Applications in Biomedical Engineering. Cr. 4

Prereq: proficiency in at least one programming language. Application of numerical methods in biomedical engineering. Data acquisition, reduction, and analysis using numerical methods and computer programming for such tasks. (F,W)

5030 Introduction to Molecular Biology for Engineers. Cr. 3

Prereq: BME 5005, BMS 6550 or former BMS 5550, or college-level cell biology course. Introduction to cell biology and molecular biology for engineers interested in biomedical engineering. (F,W)

5040 Fundamentals of Engineering Analysis. Cr. 2

Open only to students without an engineering background. Intensive, self-directed course in engineering analysis from Calculus I through linear algebra and differential equations. Analytical foundation for graduate study in biomedical engineering for students with non-engineering backgrounds. (F)

5130 Vehicle Safety Engineering. Cr. 4

Role of vehicle in road safety, occupation and pedestrian injury mechanisms, measures of vehicle safety performance, driver behavior and vehicle interface. Use of new technology to improve vehicle safety. (B:F)

5210 (BME 5210) Musculoskeletal Biomechanics. (M E 5160) Cr. 4

Prereq: BME 5010 or BMS 6550 or former BMS 5550. Structure and properties of the major tissue components of the musculoskeletal system and evaluation of how tissues combine to provide support and motion to the body. (B:F)

5250 Spine and Hip Fractures in the Elderly. Cr. 2

Etiology and sequela of age-related fracture. Methodologies for detection and treatment of osteoporosis. Predictors of fracture risk. (B)

5310 Device and Drug Approval and the FDA. Cr. 3

Prereq: BME 5010 or consent of instructor. Government regulations and industrial procedures that lead to device/drug approval. (B:S)

5370 (BME 5370) Introduction to Biomaterials. (M E 5180) (MSE 5180) Cr. 4

Prereq: B E 1300, BME 5010 or BMS 6550 or former BMS 5550. Introduction to study of both biological materials (bone, muscle, etc.) and materials for medical applications. Topics include tissue properties and effects of pathology, biocompatability, and design considerations. (B:W)

5380 (BME 5380) Biocompatability. (MSE 5385) Cr. 4

Prereq: BME 5010 or BMS 6550 or former BMS 5550. Wound healing and the tissue response to foreign materials. The organization, activation, and mechanisms of the immune system. Bioactive materials and the molecular basis for surface recognition and masking. (B:F)

5390 (BME 5390) Experimental Methods for Biomaterials. (MSE 5390) Cr. 2

Hands-on and demonstration exposure to laboratory techniques for the assessment of biological tissues and artificial biomaterials. (Y)

5510 Introduction to Clinical Engineering and Technology. Cr. 2

Open only to graduate students. Prereq: BME 5010. Fundamental topics, including evolution of clinical engineering, medical technology, risk management, patient safety, medical equipment planning. (W)

5530 (ECE 5370) Mechatronic System Design I. Cr. 4

Prereq: ECE 4600 or equiv.; written consent of instructor. Students work in small groups to design and build "smart" devices or systems, which will integrate sensors, digital logic and/or microprocessors, and

user interfacing; products will be requested by "clients" and the student will work in a cross-disciplinary team. (F)

5540 (ECE 5380) Mechatronic System Design II. Cr. 4

Prereq: ECE 4600 or equiv.; written consent of instructor. Continuation of BME 5530. (F)

5570 (BME 5570) Design of Human Rehabilitation Systems. (ECE 5170) (I E 5170) (M E 5170) Cr. 4

Prereq: senior standing. Design, fabrication and testing of customized hardware to aid handicapped patients. (F)

5730 Application Techniques in Biomedical Image Processing. Cr. 3

Prereq: BME 5010 or consent of instructor. Basic techniques associated with segmentation, registration, and co-registration of CT and MR images to extract critical information needed for advanced data analysis. (B)

5900 National Design Competition Projects. Cr. 1-4

Prereq: consent of instructor. Course allows BME students to participate in national projects competitions. (T)

5990 Directed Study. Cr. 1-4

Prereq: senior standing and written consent of program director. Independent projects on subjects in the field of biomedical engineering. (T)

5995 Special Topics in Biomedical Engineering I. Cr. 1-4

Topics as announced in Schedule of Classes. (I)

6130 Accident Reconstruction. Cr. 3

Prereq: BME 5040 or equiv. Passenger car and light truck behavior in collisions; recognition of roadway markings and vehicle damage used to analyze vehicle accidents and to use that evidence to reconstruct driver, vehicle and occupant dynamics at the time of the collision. (S)

6470 (ECE 6570) Smart Sensor Technology I: Design. (PHY 6570) Cr. 4

Prereq: B.S. degree in engineering or science. Introduction to various types of sensors and the design of basic analog VLSI circuit building blocks. (F)

6480 (BME 6480) Biomedical Instrumentation. (ECE 6180) (I E 6180) (M E 6180) Cr. 4

Prereq: ECE 3300, BME 5010 or BMS 6550 (or former BMS 5550), and BME 5020. Engineering principles of physiological measurements. Signal conditioning equipment, amplifiers, recorders and transducers. Recent advances. (F)

6500 (ECE 6100) Enabling Technology. (O T 6620) Cr. 3-4

Prereq: consent of instructor. Principles of application of enabling technology: across life stages, for differing ethnic and cultural backgrounds, for individuals with varying functional abilities. (Y)

6991 Internship in Industry. Cr. 1-4

Prereq: consent of graduate adviser. Industrial internship in biomedical engineering. (T)

Chemical Engineering and Materials Science

Office: 1100 W. Engineering Building; 313-577-3800
Chairperson: C.W. Manke

Website: http://www.eng.wayne.edu/che/

Professors

Y. Huang, R.H. Kummler, C.W. Manke, G. Z. Mao, H.W.T Matthew, S. Ng, S.K. Putatunda, E. W. Rothe

Associate Professors

S. da Rocha, R. Kannan, J. Potoff, S.O. Salley, G. Shreve

Degree Programs

BACHELOR OF SCIENCE in Chemical Engineering

GRADUATE CERTIFICATE in Polymer Engineering

MASTER OF SCIENCE in Chemical Engineering

MASTER OF SCIENCE in Materials Science and Engineering

DOCTOR OF PHILOSOPHY with a major in Chemical Engineering

DOCTOR OF PHILOSOPHY with a major in Materials Science and Engineering

Chemical Engineering

Chemical engineering applies the sciences of chemistry, biology, physics and mathematics in a synergistic way to develop new or improved technologies, products and processes for the benefit of mankind. The chemical engineering B.S. degree provides a strong technical background, from which graduates may enter into professional careers in fields such as petrochemical processing, energy, pharmaceuticals, medical devices, advanced materials, semiconductor processing, biotechnology, environmental control, natural and synthetic rubbers and plastics, surface coatings, food processing, cosmetics, and consumer products. Many chemical engineering undergraduates continue their studies in graduate programs (M.S. or Ph.D.) in chemical engineering, or in related disciplines such as materials science and biomedical engineering, in preparation for careers in research and development. Chemical engineering also provides excellent undergraduate preparation for professional programs in medicine (M.D.), law (J.D.), and business (M.B.A.).

The undergraduate program in chemical engineering includes studies in chemistry, mathematics, and physics, as well as an understanding of physical, biological and chemical systems and processes. Engineering science courses cover material and energy balances, transport phenomena, thermodynamics, reaction kinetics, separation processes, and dynamics, simulation, and control of systems and processes.

To address the diverse career interests of chemical engineering students, our program offers a choice of three integrated study plans for the B.S. degree: Product and Process Engineering option; Biological Engineering option; and Molecular Engineering and Nanotechnology option. The Product and Process Engineering option offers advanced courses and electives in design, control, chemical process safety, and other topics relating to chemical process engineering. The Biological Engineering option offers advanced courses in biology, biochemistry, and physiology, coupled with a senior research project and focused electives for chemical engineers interested in biotechnology and related fields. The Biological Engineering option is also

suitable for those interested in medical school or graduate study in biomedical engineering. The Molecular Engineering and Nanotechnology option includes research and coursework in advanced science and engineering topics related to these new fields, which form the knowledge base for development of novel sensors, smart materials, molecular interfaces, medical applications, and drug delivery technologies.

In addition to the Undergraduate Program Goals listed on page 130, the specific objectives of the chemical engineering B.S. program are:

1. Engineering Practice. Graduates of the B.S. in Chemical Engineering program will have the ability to successfully pursue professional employment in an entry-level position in chemical engineering or related disciplines.

2. Graduate Education. Graduates of the B.S. in Chemical Engineering program will be academically well-prepared to pursue graduate study in chemical engineering and related disciplines.

3. Science and Mathematics. Graduates of the B.S. in Chemical Engineering program will be able to apply fundamental knowledge in chemistry, physics, biology, mathematics, and engineering to practical problems in chemical engineering, and related disciplines.

4. Engineering Analysis. Graduates of the B.S. in Chemical Engineering program will be able to apply theoretical, computational, and experimental methods to solve engineering problems.

5. Design. Graduates of the B.S. in Chemical Engineering program will be able to apply principles and methods of chemical engineering to the design of chemical processes and products.

6. Communications. Graduates of the B.S. in Chemical Engineering program will be able to communicate effectively in oral and written technical presentations and reports.

7. Professionalism. Graduates of the B.S. in Chemical Engineering program will be aware of the social responsibility of engineers and the importance of ethics in the engineering profession.

8. Self-learning. Graduates of the B.S. in Chemical Engineering program will be able to acquire new knowledge through self-learning and continuing education, as needed in their professional careers.

9. Co-op and Undergraduate Research Experience. Graduates of the B.S. in Chemical Engineering program will have received opportunities to enrich their preparation for professional practice and/or graduate studies through co-op experience and internships, and through undergraduate research experiences.

10. Advanced Technical Knowledge. Through the program's curriculum options, graduates of the B.S. in Chemical Engineering program will have acquired in-depth knowledge in one of the following areas: Product and Process Engineering; Biological Engineering; Molecular Engineering and Nanotechnology.

Bachelor of Science in Chemical Engineering

Admission Requirements: see page 131.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Science degree must complete 131 credits in course work, including satisfaction of the University General Education Requirements (see pages 18 and 134), as outlined in the following curriculum. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on pages 18, 36, and 130. Non-engineering entries, cited below by subject rather than individual course number, indicate courses to be selected in fulfillment of the University General Education Requirements. Degree requirements shown in the curricula below are in effect as of the publication date of this Bulletin. Students should consult their advisers for verification of current requirements.

CURRICULAR OPTIONS

Product and Process Engineering Option

FRESHMAN YEAR

First Semester

B E 1200 -- (CL) Basic Engineering I: Design in Engineering: Cr. 3
CHM 1225 -- (PS) General Chemistry I: Cr. 3
CHM 1230 -- General Chemistry I Lab: Cr. 1
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
MAT 2010 -- Calculus I: Cr. 4
Total Credits: 15

Second Semester

B E 1300 -- Basic Engg. II: Materials Sci. for Engineering Applications: Cr. 3
B E 1310 -- Materials Science for Engineering: Lab: Cr. 1
CHM 1240 -- Organic Chemistry I: Cr. 4
CHM 1250 -- Organic Chemistry I Lab: Cr. 1
MAT 2020 -- Calculus II: Cr. 4
PHY 2175 -- (PS) General Physics: Cr. 4
Total Credits: 17

SOPHOMORE YEAR

First Semester

B E 2100 -- Basic Engg. III: Probability & Statistics in Engg.: Cr. 3
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3
MAT 2030 -- Calculus III: Cr. 4
PHI 1120 -- (PL) (EI) Professional Ethics: Cr. 3
PHY 2185 -- General Physics: Cr. 4
Total Credits: 17

Second Semester

CHM 2220 -- Organic Chemistry II: Cr. 3
CHE 2800 -- Material and Energy Balances: Cr. 4
ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 3
ENG 3050 -- (IC) Technical Communication I: Report Writing: Cr. 3
MAT 2150 -- Differential Equations and Matrix Algebra: Cr. 4
Critical Thinking (CT) Exam: Cr. 0
Total Credits: 17

JUNIOR YEAR

First Semester

B E 2550 -- Basic Engineering IV: Numerical Methods & Computer Programming: Cr. 3
CHE 3200 -- Fluid Flow & Heat Transfer: Cr. 4
CHE 3300 -- Thermodynamics: Chemical Equilibria: Cr. 4
ENG 3060 -- (IC) Technical Communication II: Writing & Speaking: Cr. 3
(HS) Historical Studies Elective: Cr. 3
Total Credits: 17

Second Semester

CHE 3220 -- Measurements Laboratory: Cr. 2
CHE 3400 -- Kinetics and Reactor Design: Cr. 4
CHE 3800 -- Mass Transfer and Separation Processes: Cr. 4
CHE 4260 -- Chemical Engineering Seminar: Cr. 0
CHM 5440 or CHM 5600 (Elect either CHM 5440 and 10 Technical Elective Credits, or CHM 5600 and 11 Technical Elective Credits)
-- Physical Chemistry II: Cr. 4
-- Survey of Biochemistry: Cr. 3
(AI) American Society and Institutions Elective: Cr. 3
Total Credits: 16-17

SENIOR YEAR

First Semester

CHE 3820 -- Chemical Engineering Laboratory: Cr. 2
CHE 4200 -- Product and Process Design: Cr. 3
CHE 4260 -- Chemical Engineering Seminar I: Cr. 0
CHE 4600 -- Process Dynamics and Simulation: Cr. 3
CHE 4860 -- Chemical Engineering Seminar II: Cr. 1
Chemical Engineering Technical Elective: Cr. 6
Total Credits: 15

Second Semester

Chemical Engineering Technical Electives: Cr. 4-5
CHE 4800 -- (WI) (ST) Chemical Process Integration: Cr. 3
CHE 6570 -- Safety in the Chemical Process Industry: Cr. 3
(FC) Foreign Culture Elective: Cr. 3
(VP) Visual & Performing Arts Elective: Cr. 3
Total Credits: 16-17

TOTAL PROGRAM CREDITS: 130-132

Molecular Engineering and Nanotechnology Option

FRESHMAN YEAR

First Semester

B E 1200 -- (CL) Basic Engineering I: Design in Engineering: Cr. 3
CHM 1225 -- (PS) General Chemistry I: Cr. 3
CHM 1230 -- General Chemistry I Laboratory: Cr. 1
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
MAT 2010 -- Calculus I: Cr. 4
Total Credits: 15

Second Semester

B E 1300 -- Basic Engg. II: Materials Science for Engineering Applications: Cr. 3
B E 1310 -- Materials Science for Engineering Lab: Cr. 1
CHM 1240 -- Organic Chemistry I: Cr. 4
CHM 1250 -- Organic Chemistry I Lab: Cr. 1
MAT 2020 -- Calculus II: Cr. 4
PHY 2175 --(PS) General Physics: Cr. 4
Total Credits: 17

SOPHOMORE YEAR

First Semester

B E 2100 -- Basic Engg III: Probability and Statistics in Engineering: Cr. 3
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3
MAT 2030 -- Calculus III: Cr. 4
PHI 1120 -- (PL) (EI) Professional Ethics: Cr. 3
PHY 2185 -- General Physics: Cr. 4
Total Credits: 17

Second Semester

CHE 2800 -- Material and Energy Balances: Cr. 4
CHM 2220 -- Organic Chemistry II: Cr. 3
ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 3
MAT 2150 -- Differential Equations and Matrix Algebra: Cr. 4
ENG 3050 -- (IC) Technical Communication I: Report Writing: Cr. 3
Critical Thinking (CT) Exam: Cr. 0
Total Credits: 17

JUNIOR YEAR

First Semester

B E 2550 -- Basic Engg. IV: Numerical Methods & Computer Programming. Cr. 3
CHE 3200 -- Fluid Flow and Heat Transfer: Cr. 4
CHE 3300 -- Thermodynamics: Chemical Equilibria: Cr. 4
ENG 3060 -- (IC) Technical Communication I: Writing and Speaking: Cr. 3
(HS) Historical Studies Elective: Cr. 3
Total Credits: 17

Second Semester

CHE 3220 -- Measurements Laboratory: Cr. 2
CHE 3400 -- Kinetics and Reactor Design: Cr. 4
CHE 3800 -- Mass Transfer and Separation Processes: Cr. 4
CHE 4260 -- Chemical Engineering Seminar, I: Cr. 0
CHM 5440 -- Physical Chemistry II: Cr. 4
MSE 5650 -- Surface Science: Cr. 3
Total Credits: 17

SENIOR YEAR

First Semester

CHE 3820 -- Chemical Engineering Laboratory: Cr. 2
CHE 4200 -- Product and Process Design: Cr. 3
CHE 4260 -- Chemical Engineering Seminar I: Cr. 0
CHE 4600 -- Process Dynamics and Simulation: Cr. 3
CHE 4860 -- Chemical Engineering Seminar II: Cr. 1
CHE 5811 -- Research Preparation II: Cr. 1
Chemical Engineering Technical Elective: Cr. 6
Total Credits: 16

Second Semester

CHE 6810 -- (WI) (ST) CHE Research Project: Cr. 4
Chemical Engineering Technical Electives: Cr. 6
(AI) American Society and Institutions Elective: Cr. 3
(FC) Foreign Culture Elective: Cr. 3
(VP) Visual and Performing Arts Elective: Cr. 3
Total Credits: 16

TOTAL PROGRAM CREDITS: 132

Biological Engineering Option

FRESHMAN YEAR

First Semester

B E 1200 -- (CL) Basic Engineering I: Design in Engineering Cr. 3
CHM 1225 -- (PS) General Chemistry I: Cr. 3
CHM 1230 -- General Chemistry I Lab: Cr. 1
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
MAT 2010 -- Calculus I: Cr. 4
Total Credits: 15

Second Semester

B E 1300 -- Basic Engg. II: Materials Science for Engineering Applications: Cr. 3
B E 1310 -- Materials Science for Engineering Lab: Cr. 1
CHM 1240 -- Organic Chemistry I: Cr. 4
CHM 1250 -- Organic Chemistry I Lab: Cr. 1
MAT 2020 -- Calculus II: Cr. 4
PHY 2175 -- (PS) General Physics: Cr. 4
Total Credits: 17

SOPHOMORE YEAR

First Semester

B E 2100 -- Basic Engg. III: Probability and Statistics in Engineering: Cr. 3
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
MAT 2030 -- Calculus III: Cr. 4
PHY 2185 -- General Physics: Cr. 4
PHI 1120 -- (PL) (EI) Professional Ethics: Cr. 3
Total Credits: 18

Second Semester

B E 2550 -- Basic Engg. IV: Numerical Methods & Computer Programming: Cr. 3
BIO 2600 -- Introduction to Cell Biology: Cr. 3

CHM 2220 -- Organic Chemistry II: Cr. 3
CHE 2800 -- Material and Energy Balances: Cr. 4
MAT 2150 -- Differential Equations and Matrix Algebra: Cr. 4
Critical Thinking (CT) Exam: Cr. 0
Total Credits: 17

JUNIOR YEAR

First Semester

CHE 3200 -- Fluid Flow and Heat Transfer: Cr. 4
CHE 3300 -- Thermodynamics: Chemical Equilibria: Cr. 4
CHM 5600 -- Survey of Biochemistry: Cr. 3
ENG 3050 -- (IC) Technical Communication I: Report Writing: Cr. 3
(HS) Historical Studies Elective: Cr. 3
Total Credits: 17

Second Semester

CHE 3220 -- Measurements Laboratory: Cr. 2
CHE 3400 -- Kinetics and Reactor Design: Cr. 4
CHE 3800 -- Mass Transfer and Separation Processes: Cr. 4
CHE 4260 -- Chemical Engineering Seminar I: Cr. 0
ENG 3060 -- (OC) Technical Communication II: Writing and Speaking: Cr. 3
(AI) American Society and Institutions Elective: Cr. 3
Total Credits: 16

SENIOR YEAR

First Semester

CHE 3820 -- Chemical Engineering Laboratory: Cr. 2
CHE 4200 -- Product and Process Design: Cr. 3
CHE 4600 -- Process Dynamics and Simulation: Cr. 3
CHE 4860 -- Chemical Engineering Seminar II: Cr. 1
CHE 5100 -- Engineering Physiology: Cr. 4
CHE 5811 -- Research PreparationII: Cr. 1
Chemical Engineering Technical Elective: Cr. 3
Total Credits: 17

Second Semester

CHE 6810 -- (WI) CHE Research Project: Cr. 4
Chemical Engineering Technical Electives: Cr. 2
ECO 2020 -- (SS) Principle of Macroeconomics: Cr. 3
(FC) Foreign Culture Elective: Cr. 3
(VP) Visual and Performing Arts Elective: Cr. 3
Total Credits: 15

TOTAL PROGRAM CREDITS: 132

UNDERGRADUATE COURSES

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

NOTE: All 3000- and 4000-level courses are open only to Engineering students.

CHEMICAL ENGINEERING COURSES (CHE)

2800 Material and Energy Balances. Cr. 0-4

Prereq: PHY 2170 or PHY 2175; MAT 2020 and CHM 1240. Material balances, stoichometry and simultaneous mass energy balances. Material Fee As Indicated In The Schedule of Classes (W)

3200 Fluid Flow and Heat Transfer. Cr. 4

Prereq: MAT 2020; PHY 2170 or PHY 2175; CHE 2800. Open only to students enrolled in professional engineering programs. Transient and steady state transport of momentum and heat in engineering systems. Analytical and empirical methods. Practical aspects of transport of materials and heat. Piping and pumping systems, metering, heat exchange theory, equipment costs. Material Fee As Indicated In The Schedule of Classes (F)

3220 Measurements Laboratory. Cr. 0-2

Prereq: ENG 3050; B E 2550; CHE 3200; B E 2100. Open only to students enrolled in professional engineering programs. Laboratory course in the principles and practice of measuring chemical, physical and thermodynamic properties of importance to chemical engineering problems. Technical reports. Material Fee As Indicated In The Schedule of Classes (W)

3300 Thermodynamics: Chemical Equilibria. Cr. 4

Prereq: CHE 2800, MAT 2020. Open only to students enrolled in professional engineering programs. Qualitative and quantitative treatment of homogeneous and heterogeneous phase and chemical equilibria. Use of chemical activities and activity coefficients relating ideal to actual systems. Use of reference states and excess properties of the prediction of equilibrium diagrams and the determination of feasibility of chemical reactions. Material Fee As Indicated In The Schedule of Classes (F)

3400 Kinetics and Reactor Design. Cr. 4

Prereq: B E 2550, CHE 3300, MAT 2150. Open only to students enrolled in professional engineering programs. Quantitative treatment of complex homogeneous and heterogeneous chemical reactions and the design of batch, stirred and flow reactor systems. Material Fee As Indicated In The Schedule of Classes (W)

3510 Co-op Experience. Cr. 1-3 (Max. 3)

Offered for S and U grades only. Open only to students enrolled in the professional engineering program. Prereq: CHE 4260. Presentation of oral and written report to peer group describing Co-op experience. Attendance required at the CHE and MSE seminar series for the semester. (T)

3800 Mass Transfer and Separation Processes. Cr. 4

Prereq: B E 2550; CHE 3200, CHE 3300. Open only to students enrolled in professional engineering programs. Quantitative treatment of separation processes in which there is simultaneous heat and mass transfer. Material Fee As Indicated In The Schedule of Classes (W)

3820 Chemical Engineering Laboratory. Cr. 0-2

Prereq: B E 2550, CHE 3400, CHE 3800; ENG 3060. Open only to students enrolled in professional engineering programs. Experimental study of chemical equilibria, reaction kinetics and rate processes. Laboratory case studies. Material Fee As Indicated In The Schedule of Classes (F)

4200 Product and Process Design. Cr. 3

Prereq: CHE 3800 and CHE 3400. Open only to students enrolled in professional engineering programs. The overall design of chemical products, systems, and processes. Economic analysis, computational design calculations, and optimization of design based on factors such as economics, environmental protection and waste minimization, and safety. (F)

4260 Chemical Engineering Seminar I. Cr. 0

Prereq: CHE 3200, CHE 3300; coreq: CHE 3220. Required for graduation. Offered for S and U grades only. Open only to students enrolled in professional engineering programs. (F,W)

4600 Process Dynamics and Simulation. Cr. 3

Prereq: CHE 3400, CHE 3800. Open only to students enrolled in professional engineering programs. Application of system dynamics and mathematical modeling to design and analysis of chemical processing systems. Material Fee As Indicated In The Schedule of Classes (F)

4800 (WI) Chemical Process Integration. Cr. 3

Prereq: CHE 4200. Open only to students enrolled in professional engineering programs. Application of engineering and science background to the design of chemical processes. Comprehensive problems deal with sources of data, design principles and optimization techniques. (F)

4860 Chemical Engineering Seminar II. Cr. 1

Prereq: CHE 4260. Required for graduation. Offered for S and U grades only. Open only to students enrolled in professional engineering programs. (F,W)

4990 Directed Study. Cr. 1-9 (Max. 9)

Prereq: consent of adviser. Open only to students enrolled in professional engineering programs. Students select a field of chemical engineering for advanced study and instruction. (T)

5050 Statistics and Design of Experiments. Cr. 3

Prereq: B E 2100, B E 2550; CHE 3800, CHE 3400. Application of modern statistical experimental design methods to improve effectiveness and success in experimental projects, in chemical industry manufacturing, and research and design. (W)

5100 (BME 5010) Engineering Physiology. (ECE 5100) (I E 5100) (M E 5100) Cr. 4

Prereq: BME 5005 or consent of instructor. Basic principles of human physiology presented from the engineering perspective. Bodily functions, their regulation and control discussed in quantitative terms and illustrated by simple mathematical models where feasible. (F,W)

5110 (CHE 5110) Fundamental Fuel Cell Systems. (AET 5110) (M E 5110) Cr. 4

Prereq: senior standing in science or engineering discipline. Various types of fuel cells, materials properties of electrodes and polymeric membranes, and electrochemical mechanisms. Reforming of various types of hydrocarbon fuel to hydrogen, and reforming technology. (F)

5350 (CHE 5350) Polymer Science. (MSE 5350) Cr. 3

Prereq. or coreq: MAT 2150. Fundamental relationships between chemical structure and physical properties of high polymers. Basic structures, states and transitions of polymers. Polymerization reactions and processes. Molecular weight, viscous flow and mechanical properties of polymers. Material Fee As Indicated In The Schedule of Classes (F)

5360 (CHE 5360) Polymer Processing. (MSE 5360) Cr. 3

Prereq: CHE 3200 or equivalent undergraduate fluid mechanics. A detailed analysis of polymer processing. Rheology of polymers, flow in tubes, calendering, extrusion, coating and injection molding. Material Fee As Indicated In The Schedule of Classes (W)

5600 (MSE 5600) Composite Materials. Cr. 3

Coreq: CHE 5350. Introductory course emphasizing a physical understanding of composites: fiber and polymer matrix properties, interfacial adhesion, manufacturing, elastic and strength properties of unidirectional and random laminae. Other topics include various performance properties and plastic design applications. (F)

5700 (CHE 5700) Process and Materials Safety for Alternative Energy Technology. (AET 5700) Cr. 4

Prereq: senior standing in science or engineering discipline. Fundamentals concerning fires and explosions, control strategies to prevent accidents, fault tree analysis to optimize control strategies, and risk analysis. Regulations and standards relevant to the design, manufacture, and operation of fuel cell and reforming processes. (W)

5809 Research Preparation I. Cr. 0

Prereq: CHE 3200, CHE 3300, and consent of instructor. Identification of a research topic for CHE 6810. (W)

5811 Research Preparation II. Cr. 1

Prereq: CHE 5809, consent of instructor (or CHE 3200, 3300). Preparation for Senior Research Project, CHE 6810. (T)

5995 Special Topics in Chemical Engineering I. Cr. 1-4 (Max. 8)

Prereq: senior standing. Maximum of eight credits in Special Topics in any one degree program. A consideration of special subject matter in chemical engineering. Topics to be announced in Schedule of Classes . (T)

5996 Chemical Engineering Research. Cr. 1-6

Prereq: consent of adviser. Open only to students enrolled in professional engineering programs. Research project. (T)

6100 (STE 6100) Introduction to Sustainable Engineering. (CHE 6100) Cr. 3

Social, environmental, economical, and technological perspectives relevant to the design, operation and management of engineering activities. Multiple perspectives addressed from a system sustainability view point. (Y)

6130 (NFS 6130) Food Preservation. Cr. 4

Prereq: senior standing; BIO 2200 and NFS 5130 or equiv. Basic food preservation methods and the underlying physical, chemical, bacteriological and organoleptic properties of foods to be preserved. Material Fee As Indicated In The Schedule of Classes (W)

6450 Biochemical Engineering. Cr. 3

Prereq: CHE 3400, 3800. An introductory study of the principles of chemical engineering, biochemistry and biology which are essential for the design of industrial systems involving biological transformations. (I)

6520 Chemodynamics: Environmental Transport. Cr. 3

Prereq: CHE 3300, 3400, 3800. Application of chemical engineering fundamentals and transport phenomena to study the movement and fate of chemicals within the environment (air, water, soil). (S)

6570 Safety in the Chemical Process Industry. Cr. 3

Prereq: CHE 3400, 3800. Fundamental and practical experience necessary for safe operation of a chemical process plant. Actual industrial case studies conducted under industry supervision. (W)

6610 Risk Assessment. Cr. 3

Prereq: MAT 2030, CHM 1240, B E 2100. Introduction to risk assessment in environmental hazard management with emphasis on the chemical industry, including hazard identification, exposure analysis and risk characterization. (F)

6810 (WI) Chemical Engineering Research Project. Cr. 4

Prereq: CHE 4200, CHE 5710, and written consent of adviser. Application of engineering and science background to the completion of a senior research project. Methods of research and analysis and interpretation of data. Preparation of a written research paper; oral presentation of research results. (W)

6997 Optimization of Chemical Processes. Cr. 3

Prereq: CHE 4200. The application of optimization techniques in the design and operation of chemical processes. (I)

MATERIALS SCIENCE COURSES (MSE)

5180 (BME 5370) Introduction to Biomaterials. (M E 5180) Cr. 4

Prereq: B E 1300, BME 5010 or BMS 6550 or former BMS 5550. Introduction to study of both biological materials (bone, muscle, etc.) and materials for medical applications. Topics include tissue properties and effects of pathology, biocompatability, and design considerations. (Y)

5350 (CHE 5350) Polymer Science. Cr. 3

Prereq. or coreq: MAT 2150. Fundamental relationships between chemical structure and physical properties of high polymers. Basic structures, states, and transitions of polymers. Polymerization reactions and processes. Molecular weight, viscous flow and mechanical properties of polymers. (F)

5360 (CHE 5360) Polymer Processing. Cr. 3

Prereq: CHE 3200 or equivalent undergraduate fluid mechanics. A detailed analysis of polymer processing. Rheology of polymers, flow in tubes, calendaring, extrusion, coating and injection molding. Material Fee As Indicated In The Schedule of Classes (W)

5385 (BME 5380) Biocompatibility. Cr. 4

Prereq: BME 5010 or BMS 6550 or former BMS 5550. Wound healing and the tissue response to foreign materials. The organization activation, and mechanisms of the immune system. Bioactive materials and the molecular basis for surface recognition Y masking. Biocompatability testing. (B)

5390 (BME 5390) Experimental Methods for Biomaterials. Cr. 2

Hands-on and demonstration exposure to laboratory techniques for the assessment of biological tissues and artificial biomaterials. Material Fee As Indicated In The Schedule of Classes (W)

5600 (MSE 5600) Composite Materials. (CHE 5600) Cr. 3

Coreq: MSE 5350. Introductory course emphasizing a physical understanding of composites: fiber and polymer matrix properties, interfacial adhesion, manufacturing, elastic and strength properties of unidirectional and random laminae. Other topics include various performance properties and plastic design applications. (F)

5650 Surface Science. Cr. 3

Prereq: B E 1300 and CHM 5440. An introduction to the science and technology of surface phenomena, including surface structure, surface energy, surface diffusion, crystal growth and selected applications of technological importance. (I)

Civil and Environmental Engineering

Office: 2100 E. Engineering Building; 313-577-3789
Chairperson: Carol Miller

Website: http://cee.eng.wayne.edu

Professors

T.K. Datta, G. Fu, C.J. Miller, M.A. Usmen

Associate Professors

C.D. Eamon, H.C. Wu

Assistant Professors

T.J Gates, S. McElmurry, P.T. Savolainen

Adjunct Faculty

A. Awad, N. Biswas, H. Cakan, M. Ghabrial, P. Maxwell, P. Nannapaneni, J. Sears, P. Sgriccia

Degree Programs

BACHELOR OF SCIENCE in Civil Engineering

MASTER OF SCIENCE in Civil Engineering

DOCTOR OF PHILOSOPHY with a major in Civil Engineering

Civil engineers apply the principles and techniques of engineering to the design and integration of complex systems. They have traditionally been leaders in many aspects of urban development and the urban crisis in America has brought into focus the profession of civil engineering and the responsibilities of its practitioners. The civil engineer is a leader in such diverse areas of concern as: the design and control of structural systems, including tall buildings, bridges and transportation systems necessary for urban development, commerce and industry; water resources planning and management; containment and treatment of hazardous wastes; design of collection and treatment systems for sanitary and storm sewage; water treatment and distribution systems; construction management; and the integration and management of public works projects designed to improve the urban infrastructure. Obviously, the responsibilities of the civil engineer directly involve the health, safety and welfare of the public.

The Civil and Environmental Engineering Department maintains laboratories for teaching and research in the areas of: structures/materials, transportation, hydraulics, geotechnical, geoenvironmental, infrastructure systems, and environmental engineering. Laboratories include facilities for testing structural components under static and dynamic loads; strain measurement; traffic simulation; and fluid flow. The Department and the University maintain excellent computer facilities for data acquisition and analysis, including several advanced software packages specific to civil engineering.

Bachelor of Science in Civil Engineering

Mission Statement: The mission of the Civil and Environmental Engineering Department is to provide high-quality, state-of-the-art educational and research programs. The Department strives for excellence in its academic programs, its research endeavors, and its university, community and professional service activities. The program is designed to prepare graduates for success in their immediate, as well as long-term, professional careers as practitioners, for obtaining a professional license, and for pursuing advanced studies and lifelong learning.

PROGRAM EDUCATIONAL OBJECTIVES:

The graduates of the Civil and Environmental Engineering Program, in their early careers, will be expected to:

1) apply their knowledge and skills as effective, productive civil engineers within private corporations, consulting engineering firms, and municipalities, as well as state and federal agencies dealing with analysis and design of modern civil engineering systems and processes;

2) work and communicate effectively with others on multidisciplinary teams to develop practical, technically-sound, cost-effective solutions to complex and diverse civil engineering problems;

3) maintain an active program of lifelong learning and continuing education while practicing civil engineering in an ethical and professionally responsible manner;

4) seek leadership roles as practitioners and become active members within professional and technical societies.

PROGRAM OUTCOMES:

Graduates of the Civil and Environmental Engineering Department will demonstrate the following skills and attributes when they receive their B.S. degrees:

a) the ability to apply knowledge of mathematics, science and engineering within the framework of solving civil engineering problems, including the analysis and design of structures, transportation systems, water treatment and supply systems, wastewater collection and treatment systems, as well as the geotechnical aspects of each.

b) the ability to design and conduct experiments, as well as collect and interpret experimental data, pertaining to civil engineering systems.

c) the ability to design a civil engineering system, system component or process which meets specific needs.

d) the ability to collaborate, communicate and work effectively with others on multidisciplinary terms.

e) the ability to identify, formulate and solve a range of civil engineering problems.

f) an understanding and appreciation of professional and ethical responsibility in the practice of civil engineering.

g) the ability to communicate effectively in both written and oral form.

h) a broad educational background which addresses the importance of global and societal factors as they affect and are affected by civil engineering systems.

i) an understanding of the importance of lifelong learning and continuing education.

j) knowledge of important contemporary issues within and outside the context of civil engineering.

k) the ability to use techniques, skills and modern engineering tools required for the practice of civil engineering.

l) an understanding of civil engineering professional practice issues such as: procurement of work, bidding versus quality-based selection processes, addressing public safety concerns in project design, how design professionals interact with the construction profession to construct a project, the importance of professional licensing and continuing education, and/or other professional practice issues.

The civil engineering curriculum has been designed to provide a broad education in the basic sciences, mathematics, and engineering sciences, civil engineering analysis and design, and their application to civil engineering practice. The courses in civil engineering may be considered as an array of groups, each representing an area of concern to contemporary society and industry. Technical electives may be selected from one of these major areas according to the student's particular interest or may be chosen from several areas in order to broaden one's knowledge. A student who contemplates continuing study at the graduate level should seek the advice of his/her faculty counselor in the selection of elective courses. Realizing the social implications of the practice of civil engineering, the program provides for the development of a background in economics, the social sciences, humanities, communication skills, ethics, and related non-technical areas.

Admission Requirements: see page 131.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Science degree must complete 132 credits in course work, including satisfaction of the University General Education Requirements (see pages 18 and 134), as outlined in the following curriculum. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on pages 18, 36, and 130. Non-engineering entries, cited below by subject rather than individual course number, indicate courses to be selected in fulfillment of the University General Education Requirements. The degree requirements shown in the curriculum below are in effect as of the publication date of this bulletin. Students should consult an academic adviser for verification of current requirements.

FRESHMAN YEAR

First Semester

B E 1200 -- (CL) Basic Engineering I: Design in Engineering: Cr. 3
CHM 1225 -- (PS) General Chemistry I: Cr. 3
CHM 1230 -- General Chemistry I Laboratory: Cr. 1
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
MAT 2010 -- Calculus I: Cr. 4
Total Credits: 15

Second Semester

B E 1300 -- Basic Engg. II: Material Science for Engineering Applications: Cr. 3
B E 1310 -- Material Science for Engineering: Lab: Cr. 1
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
MAT 2020 -- Calculus II: Cr. 4
PHY 2175 -- (PS) General Physics: Cr. 4
Any (AI) course: Cr. 3
Total Credits: 19

SOPHOMORE YEAR

First Semester

B E 2100 -- Basic Engineering III: Probability and Stat. in Engg.: Cr. 3
C E 2410 -- (M E 2410) Statics: Cr. 3
MAT 2030 -- Calculus III: Cr. 4
PHY 2185 -- General Physics: Cr. 4
Critical Thinking Exam: Cr. 0
Visual and Performing Arts (VP) elective* Cr. 3
Total Credits: 17

Second Semester

C E 2420 -- (M E 2420) Elementary Mechanics of Materials: Cr. 3
ECO 2010 or ECO 2020
-- (SS) Principles of Microeconomics: Cr. 4
-- (SS) Principles of Macroeconomics: Cr. 4
ENG 3050 -- (IC) Technical Communication I: Reports: Cr. 3
MAT 2150 -- Differential Equations and Matrix Algebra: Cr. 4
Civil Engg. Technical Elective: Cr. 3
Total Credits: 16

JUNIOR YEAR

First Semester

C E 3250 -- Applied Fluid Mechanics: Cr. 4
C E 4400 -- Structural Analysis Cr. 4
C E 4450 -- Civil Engg. Materials: Cr. 3
C E 4850 -- Engineering Economy: Cr. 3
PHI 1120 -- (PL) Professional Ethics: Cr. 3
Total Credits: 17

*.Students who wish to carry sixteen or fewer credits per semester may defer this course until the spring or summer term.

Second Semester

C E 4210 -- Intro. to Environmental Engineering: Cr. 4
C E 4410 -- Steel Design: Cr. 4
C E 4510 -- Introduction to Geotechnical Engineering: Cr. 4
C E 4600 -- Transportation Engineering: Cr. 4
Total Credits: 16

SENIOR YEAR

First Semester

C E 4420 -- Reinforced Concrete Design: Cr. 4
C E 4640 -- Transportation Design: Cr. 4
Design Elective: Cr. 4
Any (HS) course: Cr. 3
Total Credits: 15

Second Semester

C E 4995 -- (WI) Senior Design Project: Cr. 3
C E Technical Elective: Cr. 3
Design Elective: Cr. 4
ENG 3060 -- (OC) Technical Communication II: Writing & Speaking: Cr. 3
Any (FC) course: Cr. 3
Total Credits: 16

TOTAL PROGRAM CREDITS: 130

Humanities and Social Science Electives: See page 134 for socio-humanistic requirements.

Technical Electives: Civil Engineering students are required to complete at least six credits in technical electives. Applicable courses include CE 3010, CE 3070, any CE course at the 5000 or 6000 level, or other courses approved by the undergraduate program coordinator.

Design Electives: Students are required to complete two courses from the following selection: C E 5230, 5510, 5520, 5610, 6130, 6150, 6190, 6340, 6370, 6410, 6580, 6660, or other courses with approval of the undergraduate program coordinator.

CIVIL ENGINEERING COURSES (C E)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

NOTE: All 3000- and 4000-level courses are open only to Engineering students.

2410 (M E 2410) Statics. Cr. 3

Prereq: MAT 2020 and PHY 2175. Basic concepts and principles of statics with applications to Newton's Laws of Motion to engineering problems. Forces, moments, equilibrium, couples, free body diagrams, trusses, frames, fluid statics, friction, area and mass moment of inertia. (T)

2420 (M E 2420) Elementary Mechanics of Materials. Cr. 3

Prereq: M E 2410 or C E 2410. Elastic relationships between external forces acting on deformable bodies and the associated stresses and deformations; structural members subjected to axial load, torsion, and bending; column buckling; combined stresses; repeated loads; unsymmetrical bending. (T)

3010 Introduction to CAD in Civil Engineering. Cr. 3

Prereq: MAT 2020, B E 1200 or equiv. Open only to students enrolled in professional engineering programs. Principles of computer graphics and utilization of computers in the design process. Civil engineering applications of AutoCAD. (B)

3070 Surveying. Cr. 3 (LCT: 2;LAB: 3)

Prereq: PHY 2185 or consent of instructor. Open only to students enrolled in professional engineering programs. Principles of plane surveying; measurement of horizontal and vertical distance, directions and angles, traverses, areas. Material Fee As Indicated In The Schedule of Classes (I)

3250 Applied Fluid Mechanics. Cr. 4

Prereq: MAT 2030. Open only to students enrolled in professional engineering programs. Application of theoretical fluid mechanics to problems of special interest to civil engineers including pipe flow, open channel flow, forces on submerged bodies, and flow measurement. Laboratory component of course provides experimental verification of theories and computer visualization. Material Fee As Indicated In The Schedule of Classes (F)

4210 Introduction to Environmental Engineering. Cr. 4

Prereq: C E 3250. Open only to students enrolled in professional engineering programs. Introduction to environmental laws; reaction kinetics; principles of mass balances; plug-flow and completely stirred tank reactors; Stoke's Law; Streeter-Phelps oxygen sag curves; water chemistry; hydrologic cycle; population growth models; elements of soil waste management and air pollution. Material Fee As Indicated In The Schedule of Classes (W)

4400 Structural Analysis. Cr. 4

Prereq: C E 2410 AND C E 2420. Open only to students enrolled in professional engineering programs. Basic concepts of structural analysis; reactions, forces, and stresses in trusses and beams; influence lines; elastic deflections; introduction to indeterminate structures; computer applications. (F)

4410 Steel Design. Cr. 4

Prereq: C E 4400. Open only to students enrolled in professional engineering programs. First course in design of steel structures. Introduction to the concepts, requirements, and fundamental skills for steel building structural design. (W)

4420 Reinforced Concrete Design. Cr. 4

Prereq: C E 4400. Open only to students enrolled in professional engineering programs. First course in design of concrete structures. Design and analysis of reinforced concrete beams, columns, and other structural members; ACI code requirements, cost concerns, safety, industry practices; introduction to prestressed concrete. (F)

4450 Civil Engineering Materials. Cr. 3 (LCT: 2; LAB: 3)

Prereq: B E 1300, ENG 3050. Open only to students enrolled in professional engineering programs. Structure, composition and engineering properties of aggregates, cement concrete, asphalt, and asphalt concrete. Mix design, testing, and quality control. Nondestructive testing. Material Fee As Indicated In The Schedule of Classes (F)

4510 Introduction to Geotechnical Engineering. Cr. 4 (LCT: 3;LAB: 3)

Prereq. or coreq: C E 4450 and C E 3250. Open only to students enrolled in professional engineering programs. Composition, engineering properties and behavior of soils. Principles of soil mechanics. Experimental determination of engineering classification, strength and deformation characteristics of natural and artificially placed soils. Material Fee As Indicated In The Schedule of Classes (W)

4600 Transportation Engineering. Cr. 4

Prereq: B E 2100. Open only to students enrolled in professional engineering programs. Transportation functions; transportation systems including highways, railways and airways. Techniques of transportation systems analysis including optimization, network flows and queueing theory. Material Fee As Indicated In The Schedule of Classes (W)

4640 Transportation Design. Cr. 4

Prereq: C E 4600. Open only to students enrolled in professional engineering programs. A description of design elements of various system components of transportation; including the driver, vehicle and roadway. Traffic flow design elements including volume, density and speed; intersection design elements including delay, capacity and accident countermeasures and terminal design elements including inflow, outflow and circulation. (F)

4850 (I E 4850) Engineering Economy. Cr. 3

Open only to students enrolled in professional engineering programs. Economic analysis of engineering projects. Selection of appropriate interest rates and methods of analysis, analysis and evaluation of alternatives, depreciation and tax considerations, and use of accounting data in comparison of investment alternatives. Material Fee As Indicated In The Schedule of Classes (F)

4990 Directed Study. Cr. 1-4 (Max. 6)

Prereq: consent of chairperson. Open only to students enrolled in professional engineering programs. Supervised study and instruction in civil engineering. Written report required. (T)

4995 (WI) Senior Design Project. Cr. 3

Prereq: senior standing in civil engineering. Open only to students enrolled in professional engineering programs. Capstone design experience through civil engineering projects. Satisfies General Education Writing Intensive requirement. (W)

5220 Environmental Chemistry. Cr. 3

Prereq: senior standing as a major in a science or engineering discipline. Fundamentals of aqueous chemistry for environmental engineers and scientists. Basic chemistry, equilibria, kinetics and thermodynamics; includes acid/base reactions, precipitation/dissolution, oxidation/reduction reactions and partitioning. Material Fee As Indicated In The Schedule of Classes (B)

5230 Water Supply and Wastewater Engineering. Cr. 4

Prereq: C E 4210. Open only to students enrolled in professional engineering programs. Analysis and design of water supply and wastewater treatment systems; water distribution systems; treatment of municipal water supplies, including sedimentation, softening, filtration and disinfection; design of sanitary and storm sewers; primary, secondary and tertiary treatment plant design; sludge handling. Material Fee As Indicated In The Schedule of Classes (Y)

5350 Introduction to Structural Dynamics. Cr. 4

Prereq: M E 3400, C E 4400. Dynamic properties of structures,. Modeling of dynamic loads. Structural response to dynamic loading. Structural design requirements for dynamic loads. Fundamental techniques of dynamic system analysis. (W)

5370 Finite Element Analysis Fundamentals. Cr. 4

Prereq: C E 4400 or M E 5600. Matrix structural analysis, discretization of continuous structural systems, stress analysis. Commercial finite element software preprocessing for developing finite element models; postprocessing for evaluating analysis results. (F)

5410 (C E 5410) The Hydrogen Economy and Hydrogen Infrastructure Needs. (AET 5410) (M E 5850) Cr. 4

Prereq: senior standing in science or engineering discipline. The post-fossil fuel energy paradigm, in context of the developing hydrogen infrastructure; analysis of government reports and scientific literature; discussion regarding the championed (and contested) vision of a global Hydrogen Economy. (F)

5420 (C E 5420) Transportation Energy Choices. (AET 5420) (M E 5870) Cr. 4

Prereq: senior standing in science or engineering discipline. Technological innovations and barriers impacting energy production, storage, and conversion in transportation applications. Fuel life cycle case studies (bioethanol, syncrude, etc.). (W)

5510 Geotechnical Engineering I. Cr. 4

Prereq: C E 4510. Site investigation, site improvement, bearing capacity and settlement of shallow foundations, axial capacity and lateral deflection of deep foundations, design of conventional earth retaining walls, and basics of slope stability analyses. (F)

5520 Geotechnical Engineering II. Cr. 4

Prereq: C E 4510. Lateral earthpressure theories, design of conventional earth-retaining walls and of reinforced earth walls, anchored sheet-pile walls and cofferdams, fundamentals of soft-ground tunneling, two- and three-dimensional slope stability analyses, and static design of earth dams. (B)

5610 Highway Design. Cr. 4

Prereq: C E 4640. Application of standards, theory and practice in design of streets and highways. Design of streets and highways including cross section elements, shoulder and roadside features. Pavement design and rehabilitation work. (Y)

5810 Legal Aspects of Engineering and Construction. Cr. 3

Open only to seniors and graduate students. Business of contracting, construction, liabilities of owner, architect, engineer and contractor. Rights in land, boundaries and foundations. Case studies. Material Fee As Indicated In The Schedule of Classes (F)

5830 Business of Engineering. Cr. 3

Prereq: C E 4850. Defining the engineering company, creating the organization, support services, business development, project management, scheduling, budgeting and profitability, operations, financial management and risk management. (T)

5995 Special Topics in Civil Engineering I. Cr. 0-4

Prereq: consent of chairperson. Topics to be announced in Schedule of Classes . (I)

6010 Introduction to Construction Management. Cr. 3

Prereq: C E 4850 or consent of instructor. An introduction to the organization and management of design and construction firms. Organizational and managerial theories. Problems of organization management, operation and control of engineering systems, case studies. Material Fee As Indicated In The Schedule of Classes (W)

6050 Construction Cost Estimating. Cr. 3

Prereq: C E 4850. Estimating construction costs of engineering projects including materials, manhours, equipment and overhead. Emphasis on construction equipment, including productivity and planning. Bidding and bid documents. (B)

6060 Construction Techniques and Methods. Cr. 3

Prereq: C E 4450. Construction techniques and methods for excavation, foundations, concrete, wood, steel, masonry, heavy construction, wastewater treatment plants, highways and roads, high rise structures, bridges, and tunnelling projects. (B)

6130 Open Channel Hydraulics. Cr. 4

Prereq: C E 3250 or equiv. Theoretical development of equations governing flow in open channels. Application to real-world engineering problems involving water surface profiles, flood studies, and river. (W)

6150 Hydrologic Analysis and Design. Cr. 4

Prereq: C E 6130. Principles of surface water hydrology and their application for evaluation of floods and the design of surface runoff control system; watershed characteristics; design storms and SCS methods; unit hydrographs; hydrologic models; application of computer methods. (B)

6190 Groundwater. Cr. 4

Prereq: C E 3250. Historical background, aquifers and aquitards, saturated and unsaturated flow, sources of ground water contamination, artificial recharge of ground water, development of ground water basins and efficient use of ground water resources. (Y)

6210 (GEL 6210) Current Topics in Environmental Sciences. (C E 6210) Cr. 3

Prereq: PHY 2130/2140 or 2170/2180; CHM 1220 and 1230; GEL 1010 or C E 4210; and BIO 1500; or consent of instructor. Introductory course for senior undergraduate and graduate students in environmental science/engineering and geology. Emphasis on effects of environmental changes on human society. (B:W)

6270 (C E 6270) Environmental Management and Sustainable Development. (STE 6270) Cr. 4

Prereq: C E 4210. Engineering design and development within sustainability constraints; theoretical, regulatory, and practical implications; Detroit and global applications. (Y)

6330 Advanced Structural Analysis. Cr. 4

Prereq: C E 4410. Effect of axial loads on stiffness of flexural members. Buckling of trusses and rigid frames. Matrix method of analysis. Complex structures. Computer applications. (F)

6340 Bridge Design and Evaluation. Cr. 4

Prereq: C E 4420. Concepts, procedures, methods of design and condition evaluation for modern highway bridges, according to current specifications. Entire system is covered, including superstructure, substructure, and their connections. (B)

6370 Advanced Reinforced Concrete Design. Cr. 4

Prereq: C E 4420. Theory and design of two-way slabs, footings, retaining walls, shear walls, and composite beams using ultimate strength design. Precast and prestressed concrete fundamentals. (W)

6410 Advanced Steel Design. Cr. 4

Prereq: C E 4420. Advanced topics of structural steel design: thin walled rolled and built-up members, beam columns, lateral torsional buckling, steel fatigue design, connection details. Steel design project. (W)

6525 (U P 6520) Transportation Policy and Planning. Cr. 3

Introduction to the role of transportation in the planning process involving both regional and urban considerations. (Y)

6580 Geoenvironmental Engineering I. Cr. 4

Prereq: C E 4510. Properties and test methods for natural and synthetic materials used in landfills; analysis of chemical interactions, flow mechanisms, stability and settlement for the design of landfill components. (Y)

6660 Pavement Management Systems: Principles and Practices. Cr. 4

Prereq: C E 4640. Principles and practices of pavement management at the network and project level: serviceability, pavement design models, economic analysis, and priority programming. (Y)

Electrical and Computer Engineering

Office: 3100 W. Engineering Building; 313-577-3920
Chairperson: Yang Zhao
Website: http://www.ece.eng.wayne.edu

Professors

R. Arrathoon (Emeritus), G. Auner, R. F. Erlandson, X. Han, M.H. Hassoun, F. Lin, J. Meisel (Emeritus), M. B. Scherba (Emeritus), M. P. Shaw (Emeritus), D. Silversmith (Emeritus), H. Singh, P. Siy, L.Y. Wang, F. Westervelt (Emeritus), C.-Z. Xu, H. Ying, Y. Zhao

Associate Professors

I. Avrutsky, J. Liu, S.M. Mahmud, J. R. Woodyard, Y. Xu

Assistant Professors

A. Basu, M-C. Cheng, S. Jiang, A. Pandya, N. Sarhan

Adjunct Professors

M. Forrest, R. Gerhart, L. Rimai

Degree Programs

BACHELOR OF SCIENCE in Electrical Engineering

UNDERGRADUATE CERTIFICATE in Control Systems

MASTER OF SCIENCE in Computer Engineering

MASTER OF SCIENCE in Electrical Engineering

DOCTOR OF PHILOSOPHY with a major in computer engineering

DOCTOR OF PHILOSOPHY with a major in electrical engineering

In the field of electrical and computer engineering, basic physical and mathematical principles are utilized to develop new devices, technologies, and techniques of constantly broadening application. Examples are the development of smaller, cheaper, and more powerful computers, microprocessors, and other data processors, stemming from advances in solid-state and integrated circuit technology, and their utilization in a growing range of system applications; the growing use of data communications and sophisticated communication networks; the use of lasers, and the development of fiber optic and integrated optical devices for various applications ranging from optical data processing to communication; development of sophisticated control techniques, smart sensors, and transducers for advanced automation and electric power systems; the application of electronics to health care and diagnostics (such as noninvasive measurements and ultrasound imaging); and energy conversion devices.

The areas of study available in the Department include: solid-state devices, lasers, smart sensors, information sciences, digital circuits, computer engineering, integrated and active circuits, nanotechnology, biomedical electronics and systems, image processing, neural networks, and modern control theory. Programs of both experimental and theoretical study are available in all these areas, as well as other interdisciplinary programs through the Electrical and Computer Engineering Department.

A more detailed exposition of the research activities of the Department is available from the Departmental website: http://www.ece.eng.wayne.edu. Senior students are encouraged to partici-

pate in research activities by means of independent study projects and student assistantships. Graduate students normally participate in the research program as graduate teaching assistants and research assistants.

The College of Engineering laboratory building contains seven instructional laboratories for experimental work in control systems, analog circuits, digital systems, microcomputers, instrumentation, optics, and communication systems; these laboratories are an integral part of the instructional program. In addition, the Departmental faculty have eight research laboratories dealing with computer systems, multi-media systems, semiconductor device materials including a clean-room facility, opto-electronics, computation and neural networks, image processing, nanotechnology, telematics, and embedded systems. Computer facilities are available for student use; the College Computer Center as well as the University Computing Services Center are available to all students through individual student accounts.

Bachelor of Science in Electrical Engineering

In addition to the Undergraduate Program Goals listed on page 130, the specific objectives of the Bachelor of Science program in Electrical Engineering includes the following:

1) Graduates will understand relevant engineering and scientific principles underlying electrical and electronic technology and have the capability to apply theoretical, computational, and experimental methods to solve real engineering problems.

2) Graduates will have strong oral and written communication skills to interact with fellow engineers and non-technical personnel.

3) Graduates will have computer skills for effective use in engineering. They will possess a working knowledge of modern programming languages, as well as operating systems and software packages for design, analysis, and simulation.

4) Graduates will be able to work hands-on in laboratories with state-of-the-art facilities and equipment to accomplish assigned tasks and projects.

5) Graduates will be aware of the societal responsibility of engineers and the essential nature of high ethical standards of professional behavior.

6) Graduates will possess effective engineering design capability and an awareness of cost, environmental safety, accessibility, and other associated constraints in engineering design.

Admission Requirements: see page 131.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Science degree must complete 135 credits in course work, including satisfaction of the University General Education Requirements (see pages 18 and 134), as outlined in the following curriculum. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on pages 18, 36, and 130. The degree requirements shown in the curriculum below are in effect as of the publication date of this bulletin. However, students should consult an academic adviser for verification of current requirements.

In the freshman and sophomore years, the student acquires a foundation in the principles of science and mathematics required for the study of engineering. In addition, newly-revised general education studies are provided to ensure a well-rounded education. Basic concepts of electrical circuits, electronics, computers and electromagnetic fields are studied after prerequisite mathematics and science backgrounds are mastered. In the senior year, a choice of electrical and computer engineering electives permits the student to specialize in one or more areas. These electives are chosen under the guidance of a faculty adviser. Alternately, the student may elect the computer option, in which a planned program of computer engineering courses replaces the electives and a few of the required courses in the regular program.

Electrical Engineering Curriculum

FRESHMAN YEAR

First Semester

B E 1200 -- (CL) Basic Engineering I: Design in Engineering: Cr. 3
CHM 1225 -- (PS) General Chemistry I: Cr. 3
CHM 1230 -- General Chemistry I Laboratory: Cr. 1
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
MAT 2010 -- Calculus I: Cr. 4
Total Credits: 15

Second Semester

B E 1300 -- Basic Engg. II: Materials Science for Engineering Applications: Cr. 3
B E 1310 -- Materials Science of Engineering I Lab: Cr. 1
CSC 2000 -- Introduction to C++ Programming Language: Cr. 3
MAT 2020 -- Calculus II: Cr. 4
PHY 2170 -- (PS) General Physics: Cr. 4
PHY 2171 -- General Physics Laboratory: Cr. 1
Any (AI) Course -- American Society and Institutions: Cr. 3
Critical Thinking (CT) Exam: Cr. 0
Mathematics Proficiency Exam: Cr. 0
Total Credits: 19

SOPHOMORE YEAR

First Semester

B E 2100 -- Basic Engg. III: Probability and Statistics in Engineering: Cr. 3
ECO 2010 or ECO 2020:
--- (SS) Principles of Microeconomics: Cr. 4
--- (SS) Principles of Macroeconomics: Cr. 4
MAT 2030 -- Calculus III: Cr. 4
PHY 2185 -- General Physics: Cr. 4
Any (VP) Course -- Visual & Performing Arts: Cr. 3
Total Credits: 18

Second Semester

B E 2550 -- Basic Engg. IV: Numerical Methods and Computer Programming: Cr. 3
ECE 2610 -- Digital Logic I: Cr. 4
ECE 3300 -- Introduction to Electrical Circuits: Cr. 4
MAT 2150 -- Differential Equations and Matrix Algebra: Cr. 4
Critical Thinking (CT) Exam: Cr. 0
Total Credits: 15

JUNIOR YEAR

First Semester

ECE 3330 -- Electrical Circuits II: Cr. 4
ECE 3570 -- Electronics I: Cr. 4
ENG 3050 -- (IC) Technical Communication I: Report Writing: Cr. 3
Any (HS) course: Cr. 3
Total Credits: 14

Second Semester

ECE 3620 -- Introduction to Microcomputers: Cr. 4
ECE 4330 -- Linear Network and System Analysis: Cr. 4
ECE 4570 -- Electronics II: Cr. 4
ENG 3060 -- (OC) Technical Communication II: Writing and Speaking: Cr. 3
Any (FC) Course -- Foreign Culture: Cr. 3
Total Credits: 18

SENIOR YEAR

First Semester

Electrical, Computer or Biomedical Electronics & Systems Option Courses: Cr. 4
ECE 4340 -- Microcomputer-Based Instrumentation Lab: Cr. 2
ECE 4600 -- (WI) Capstone Design I: Cr. 4
ECE 4700 -- Introduction to Communication Theory: Cr. 4
PHI 1100 -- (PL) Contemporary Moral Issues: Cr. 3
Total Credits: 17

Second Semester

Electrical, Computer, or Biomedical Electronics & Systems Option Courses: Cr. 8
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3
ECE Electives: Cr. 4
Total Credits: 15

BIOMEDICAL ELECTRONICS and SYSTEMS OPTION

ECE 5100 -- Engineering Physiology: Cr. 4
ECE 6180 -- Biomedical Instrumentation: Cr. 4
ECE 5370 or ECE 5690 or ECE 5575 or ECE 6100:
-- Mechatronics System Design I: Cr. 4
-- Introduction to Digital Image Processing: Cr. 4
-- Introduction: Macro and Nano EMS: Cr. 4
-- Enabling Technology: Cr. 4

COMPUTER OPTION

ECE 4050 or ECE 5650:
-- Algorithms and Data Structures; Cr. 4
-- Network Programming for Engineers: Cr.4
ECE 5610 or ECE 5620 or ECE 5680:
-- Introduction to Parallel and Distributed Systems: Cr. 4
-- Embedded System Design: Cr. 4
-- Switching Circuits: Cr. 4
ECE 4680: Computer Organization and Design: Cr. 4

ELECTRICAL OPTION

ECE 4470 -- Control Systems I: Cr. 4
ECE 4800 -- Electromagnetic Fields and Waves I: Cr. 4
Elective in Electrical Option: Cr. 4

TOTAL PROGRAM CREDITS: 130

Substitution of a course not on this list requires approval of the department chairperson or delegated faculty adviser.

Course Material Fee: A course material fee is charged for laboratory courses using expendable materials.

Undergraduate Certificate in Control Systems

Control systems underlie the majority of any engineering system with an electronic or computer-based function -- from manufacturing procedures to automotive systems and consumer electronics. An enhanced knowledge of the design, programming, construction, analysis, and verification of control systems provides students with extensive tools applicable in many, diverse engineering fields. This certificate program provides students with a background in electrical or computer engineering with additional education, and documentation of qualifications, in this area.

Admission Requirements: Students must be concurrently enrolled in or have completed an undergraduate degree (B.S.) in engineering with a minimum of a 2.5 cumulative major g.p.a. Students currently pursuing a B.S. in engineering must have completed at least sixty credits of undergraduate coursework and be enrolled in the professional engineering program of their discipline. Students must document satisfactory completion of all prerequisite courses (or their equivalent) with a grade of 'C-minus' or higher.

PREREQUISITE BACKGROUND

ECE 3300 -- Introduction to Electrical Circuits: Cr. 3
ECE 3310 -- Electrical Circuits: Laboratory: Cr. 1
ECE 3330 -- Electrical Circuits II: Cr. 4
MAT 2010 -- Calculus I: Cr. 4
MAT 2020 -- Calculus II: Cr. 4
MAT 2030 -- Calculus III: Cr. 4
PHY 2185 -- General Physics: Cr. 4

CERTIFICATE REQUIREMENTS: Students interested in earning an Undergraduate Certificate in Control Systems must complete the following set of four courses (16 credits) as outlined in the following curriculum:

ECE 4330 -- Linear Network and System Analysis: Cr. 4
ECE 4470 -- Control Systems I: Cr. 4
ECE 5440 -- Computer-Controlled Systems: Cr. 4
ECE 5470 -- Control Systems II: Cr. 4

Program Standards: All students must earn at least a 'C-minus' in each of the courses to be applied towards the Undergraduate Certificate and complete the coursework (16 credits) with an overall g.p.a. of at least 2.0. Students concurrently enrolled in an engineering undergraduate program will be governed by overall policy on substandard grades for students pursuing a B.S. degree (one substandard grade allowed for every twenty-four credits completed at WSU). Students who have completed a B.S. degree and pursue only the Undergraduate Certificate will be allowed one substandard grade, with a subsequent successful repeat of the course, during completion of this academic program.

ELECTRICAL and COMPUTER ENGINEERING COURSES (ECE)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

NOTE: All 3000- and 4000-level courses are open only to students in a professional Engineering program.

2610 Digital Logic I. Cr. 0-4 (LCT: 3) (LAB:4)

Prereq: PHY 2185, CSC 2000. Introduction to Boolean algebra; switches, gates. Minimization of switching circuits, ROMs, PROMs, and PLAs. Flip-flops. Reduction and minimization of sequential machines. The state-assignment problem. Asynchronous sequential circuits. (T)

3300 Introduction to Electrical Circuits. Cr. 3 (LCT: 3)

Prereq: PHY 2185; prereq. or coreq: MAT 2150. Open only to students enrolled in professional engineering programs. Electrical quantities and waveforms; resistance and Ohm's law; networks and Kirchhoff's laws; network equivalents; nodal and mesh analysis; Thevenin's theorem and other network theorems. Sinusoidal steady-state response. First- and second-order systems. Introduction to sinusoidal steady-state response. (T)

3310 Electrical Circuits: Laboratory. Cr. 1 (LAB: 4)

Coreq: ECE 3300. Open only to students enrolled in professional engineering programs. Introduction to DC/AC circuits and electronic instrumentation with applications to measurements in simple electrical networks. Material Fee As Indicated In The Schedule of Classes (T)

3330 Electrical Circuits II. Cr. 4 (LCT: 4)

Prereq: ECE 3300 and ECE 3310, MAT 2150. Open only to students enrolled in professional engineering programs. Continuation of sinusoidal steady-state concepts from ECE 3300. Three-phase systems. Complex frequency concepts. Frequency response and S-plane. Resonant and coupled circuits. Two-port networks. (T)

3570 Electronics I. Cr. 4 (LCT: 3) (LAB:4)

Prereq. or coreq: ECE 3330. Open only to students enrolled in professional engineering programs. Graphical and small signal analysis of semiconductor devices; equivalent circuits; gain and bandwidth; multi-state and feedback amplifiers; special-purpose circuits. Material Fee As Indicated In The Schedule of Classes (T)

3580 Electronics Laboratory. Cr. 2 (LCT: 1;LAB: 3)

Prereq. or coreq: ECE 3570. Open only to students enrolled in professional engineering programs. Experimental investigation of semiconductor devices and their behavior in single-stage amplifier, pulse,

and power circuits. Design of simple single-state circuits. Material Fee As Indicated In The Schedule of Classes (T)

3620 Introduction to Microcomputers. Cr. 0-4

Prereq: B E 1200 and ECE 2610. Open only to students enrolled in professional engineering programs. Functional blocks of microcomputers, assembly language and machine code, applications of microcomputers and experimental demonstrations. Material Fee As Indicated In The Schedule of Classes (T)

3630 Digital Circuits Laboratory. Cr. 2 (LCT: 1; LAB: 3)

Prereq. or coreq: ECE 3610; prereq. or coreq: MAT 2150. Open only to students enrolled in professional engineering programs. Design of decoders and other combinatorial logic circuits, design of flip-flops, counters, shift registers, and other sequential logic circuits. Choice of logic families, interfacing different logic families. Material Fee As Indicated In The Schedule of Classes (T)

4050 (ECE 4050) Algorithms and Data Structures. (CSC 5050) Cr. 4

Prereq: knowledge of C or C++ programming. Open only to students enrolled in professional engineering programs. Introduction to problem solving methods and algorithm development; data abstraction for structures such as stacks, queues, linked lists, trees, and graphs; searching and sorting algorithms and their analysis. (Y)

4330 Linear Network and System Analysis. Cr. 4 (LCT: 4)

Prereq: ECE 3330. Open only to students enrolled in professional engineering programs. Laplace transform for complete solution of linear network or system response. Homogeneity, superposition, and time invariance properties. Convolution; Fourier analysis of periodic signals; discrete-time signals, difference equations, and z-transform methods. Formulation of equilibrium equations for electromechanical systems. Linear incremental concepts. (T)

4340 Microcomputer-Based Instrumentation Laboratory. Cr. 2 (LCT: 1;LAB: 3)

Prereq: ECE 2610, ECE 3570, and ECE 3330. Open only to students enrolled in professional engineering programs. Multipurpose personal-computer-based approach to real time instrumentation. Current interfacing and software used for data acquisition, transmission, analysis and report writing. Material Fee As Indicated In The Schedule of Classes (T)

4470 Control Systems I. Cr. 4 (LCT: 4)

Prereq: ECE 4330. Open only to students enrolled in professional engineering programs. System representations; feedback characteristics; time-domain characteristics; signal flow graph, Routh-Hurwitz criteria; Root Locus Plots; Nyquist criteria, Bode plots; PID, phase-lead and phase-lag controller design. (T)

4480 Systems and Control Laboratory. Cr. 2 (LCT: 1; LAB: 3)

Prereq: ECE 4470. Open only to students enrolled in professional engineering programs. Response of electromechanical devices and mechanisms in open- and closed-loop systems. D.c., a.c., and digital systems with cascade and feedback compensation techniques. Material Fee As Indicated In The Schedule of Classes (Y)

4570 Electronics II. Cr. 4 (LCT: 4)

Prereq: ECE 3300, PHY 3300, MAT 2150 for non-ECE students. Open only to students enrolled in professional engineering programs. Aspects of electrical properties of semiconductors, the physical electronics of P-N junction, bipolar, field effect transistors, and device fabrication technology essential to understanding semiconductor active devices and integrated circuits. Introduction to the behavior of semiconductor and electronics devices. (T)

4600 (WI) Capstone Design I. Cr. 4 (LCT: 4)

Prereq: ENG 3050, ECE 3620, senior standing. Open only to students enrolled in professional engineering programs. Design principles, subsystems of microcontrollers; designing products using microcontrollers, sensors and actuators. (T)

4610 Introduction to Logical Design of Computers. Cr. 4 (LCT: 4)

Prereq: ECE 3610, ECE 3570. Open only to students enrolled in professional engineering programs. Design of arithmetic units, counters, and registers. Design of core memories and semiconductor memories. Direct memory access circuits. Design of hardwired and microprogrammed control units. Design of a small computer. Introduction to VSLI design. (T)

4680 Computer Organization and Design. Cr. 4 (LCT: 4)

Prereq: B E 2100, ECE 2620, ECE 3610. Open only to students enrolled in professional engineering programs. Introductory course. Instruction set design, basic processor implementation techniques, hardwired and microprogrammed control, performance analysis, memory hierarchyy and cache design, pipelined processor design, I/O. (T)

4700 Introduction to Communication Theory. Cr. 4 (LCT: 4)

Prereq: B E 2100 and ECE 4330. Open only to students enrolled in professional engineering programs. Basic information transmission concepts. Spectral analysis. Transmission through linear networks. Sampling principles. Digital and analog communication signals and systems. The effect of noise in communication systems. Elementary decision theory. (T)

4800 Electromagnetic Fields and Waves I. Cr. 4 (LCT: 4)

Prereq: ECE 3330. Open only to students enrolled in professional engineering programs. Fundamentals of electromagnetic engineering, static electric and magnetic fields using vector analysis and fields of steady currents, Maxwell's equations and boundary value problems. Basic principles of plane waves, transmission lines and radiation. (T)

4850 Fiber Optics. Cr. 4 (LCT: 4)

Prereq: ECE 3330. Open only to students enrolled in professional engineering programs. Light-wave fundamentals, optical fibers and waveguides, basic optical transmitters and receivers, couplers and switches, basic fiber optic networks, optic link design. (T)

4990 Directed Study. Cr. 1-4 (Max. 4) (IND: 1)

Prereq: senior standing; written approval of proposed study outline by adviser and chairperson prior to registration. Open only to students enrolled in professional engineering programs. Supervised study and instruction in a field selected by the student. (T)

5001 Advanced Design in Electrical and Computer Engineering. Cr. 4

Open only to students in AGRADE or Honors program. Design concepts and techniques; design, fabricate and test prototypes; current status of the technology; final written report. (T)

5002 Research Projects in Electrical and Computer Engineering. Cr. 4

Open only to AGRADE or Honors students. Prereq: written consent of instructor. Individual or team research projects. Literature survey on current topic; proposal for projects; final written report required. (T)

5020 (CSC 6620) Matrix Computation I. Cr. 4 (LCT: 4)

Prereq: CSC 2110 or equiv.; and B E 2550 for engineering students. Background matrix algebra; linear system sensitivity; basic transformations; Gaussian elimination; symmetric systems; positive definite systems; Householder method for least squares problems; unsymmetric eigenvalue problems; the QR algorithm. (I)

5100 (BME 5010) Engineering Physiology. (CHE 5100) (I E 5100) (M E 5100) Cr. 4 (LCT: 4)

Prereq: BME 5005 or consent of instructor. The basic principles of human physiology presented from the engineering viewpoint. Bodily functions, their regulation and control discussed in quantitative terms and illustrated by simple mathematical models when feasible. (F,W)

5120 Artificial Neural Systems I. Cr. 4

Prereq: ECE 4330. Introduction to theory, architecture and application of artificial neural systems. Supervised, unsupervised and reinforcement learning in single- and multiple-layer neural networks. Associative neural memory recording and retrieval dynamics. Self-organizing maps. Learning capacity and generalization. (F)

5170 (BME 5570) Design of Human Rehabilitation Systems. (I E 5170) (M E 5170) Cr. 4

Prereq: senior standing. Design, fabrication and testing of customized hardware to aid handicapped patients. (F)

5310 Active Filters. Cr. 4 (LCT: 4)

Prereq: ECE 4330, ECE 4340. Introduction to active filter design. Basic concepts in filter theory. Op. Amp. and applications. Active-RC filter synthesis. Multiloop feedback design. Computer-aided design and sensitivity optimization. (Y)

5325 (ECE 5325) Smart Sensors and Fuel Cells. (AET 5325) Cr. 4

Prereq: senior standing in a B.S. program. Study of a multi-domain simulation program which enables engineers to study complex systems such as fuel cells, mems, aand utomotive power distribution systems. (F)

5330 (ECE 5330) Modeling and Control of Renewable Power Sources and Power Electronics. (AET 5330) Cr. 4

Prereq: senior standing in science or engineering discipline. Basic methodologies for modeling, control system design, system coordination, and optimization of renewable power sources and power electronics systems. (W)

5370 (ECE 5370) Mechatronic System Design I. (BME 5530) Cr. 4

Prereq: ECE 4600 or equiv.; written consent of instructor. Students work in small groups to design and build "smart" devices or systems. These products will integrate sensors, digital logic and/or microprocessors, and user interfacing. The products will be requested by a "client" and students will work as part of a cross-disciplinary team. (F)

5380 (ECE 5380) Mechatronic System Design II. (BME 5540) Cr. 4

Prereq: ECE 4600 or equiv.; written consent of instructor. Students work in small groups to design and build "smart" devices or systems. These products will integrate sensors, digital logic and/or microprocessors, and user interfacing. The products will be requested by a "client" and the students will work as part of a cross-disciplinary team. (W)

5410 Power Electronics and Control. Cr. 4 (LCT: 3)

Prereq: ECE 4330. Control of electric energy using solid-state devices, diodes, thyristors, triacs; mathematical analysis of circuits containing these devices; power converters and control; solid-state drives for motor control. (I)

5430 Electric Energy Systems Engineering. Cr. 4 (LCT: 4)

Prereq: ECE 4330. Transmission capacity, load characteristics, power frequency control. Energy system component analysis and modeling. Steady-state analysis, load-flow problem and algorithms, optimal dispatch. Transient stability by simulation and direct methods. (I)

5440 Computer-Controlled Systems. Cr. 4

Prereq: ECE 4470 or CHE 4600 or M E 4420 or former M E 5540. Introduction to z-transform and sampling theory. Digital controller design using both transfer function techniques and state space methods. Implementation aspects of computer-controlled systems. (Y)

5470 Control Systems II. Cr. 4 (LCT: 4)

Prereq: ECE 4470. State space representation of systems; stability and Liapunov methods, controllability and observability, pole placement design using state feedback, observer design, optimal control, linear quadratic regulators, Kalman filter. (Y)

5500 Current Electronic and Photonic Materials Technology. Cr. 4

Prereq: ECE 4570, B E 1300 and B E 1310, or consent of instructor. Introduction to new and innovative technologies for electronic and photonic materials synthesis and processing. New semiconducting materials. Growth of single crystals of semiconducting materials. Semiconducting material processing techniques. (F)

5510 Electronic and Photonic Materials Laboratory. Cr. 2

Prereq: ECE 5500 and written consent of instructor. Laboratory experience in state-of-the-art techniques for electronic and photonic materials synthesis, processing, and characterization. (W)

5550 Solid State Electronics. Cr. 4 (LCT: 4)

Prereq: ECE 4570, ECE 4800, or consent of instructor. Physical basis for the opto-electric properties of solids with particular emphasis on semiconductors. Basic principles associated with solid-state devices. Extrinsic and intrinsic semiconductors. Behavior of P-N junctions, bi-polar and field-effect transistors. PC-based simulation of device characteristics using the PC1D simulator. (Y)

5575 Introduction to Micro and Nano Electro Mechanical Systems. Cr. 4

Prereq: senior or graduate student in engineering or written consent of instructor. Introduction of fabrication technologies and designs of fundamental Micro/Nano Electro Mechanical Systems (MEMS/NEMS). (W)

5610 Introduction to Parallel and Distributed Systems. Cr. 4

Prereq: CSC 2000. Fundamentals of parallels and distributed systems. Programming experience in both computing environments. (F,W)

5620 Embedded System Design. Cr. 4 (LCT: 4)

Prereq: ECE 4600 or consent of instructor. Microcontroller architecture and its subsystems. Wired and wireless protocols for vehicular networking applications. Design and implementation of real-time embedded systems. (F,S)

5630 Microcomputer Laboratory. Cr. 2 (LAB: 2)

Prereq: ECE 4340, ECE 4600. Study of interrupt structures, interfacing with teletypes, floppy disks, cassettes, keyboards and displays, testing and evaluation of microprocessors. Design and development of complete digital systems using a microprocessor development system. Material Fee As Indicated In The Schedule of Classes (T)

5640 (CSC 6280) Real-Time and Embedded Operating Systems. Cr. 3

Prereq: CSC 4420 and CSC 4421. Operating system design for real-time and embedded systems. Focus on scheduling, synchronization, communication, and process and memory management for time-critical and resource-constrained applications. (I)

5650 Computer Networks and Programming. Cr. 4

Prereq: CSC 2000; junior standing or above. Fundamentals of computer networks. TCP/IP and Internet protocols. Mobile and wireless networking. Network programming. (W)

5680 Computer-Aided Logical Design and FPGAs. Cr. 4 (LCT: 4)

Prereq: ECE 4680. Threshold, symmetric functions, and iterative networks. Multivalued and fuzzy logic. Complex sequential machine realization. State equivalence and minimization. Automata and linear machines. State identification and fault detection. (T)

5690 Introduction to Digital Image Processing. Cr. 4

Prereq: B E 2500, ECE 4330, ECE 4050, or equiv. Concepts of digital image processing from an operational perspective, with good exposure to theory. Accessibility of DIP to engineering. Detailed review of current techniques. (F)

5700 Analog and Digital Communication Circuits. Cr. 4 (LCT: 4)

Prereq: ECE 4570 and ECE 4700. Amplitude, frequency, pulse modulation and digital modulation. Detection, operational amplifiers; introduction to linear integrated circuits. Digital modulation. (I)

5730 Communications Laboratory. Cr. 2 (LAB: 2)

Prereq: ECE 4700; coreq: ECE 5700. Analog and digital modulation techniques, pulse code modulation, delta modulation, FSK, PSK and ASK, data communication, signal processing. Material Fee As Indicated In The Schedule of Classes (Y)

5760 Fiber Optics Engineering Laboratory. Cr. 2

Prereq: ECE 4850. Laboratory study of basic components of fiber optic systems: fibers, semiconductor lasers and light emitting diodes, photodetectors, digital and analog receivers and transmitters, filters, and couplers. (Y)

5770 Digital Signal Processing. Cr. 4 (LCT: 4)

Prereq: ECE 4700. Analysis of discrete signals and systems. Applications to digital filtering, active filters, digital communication and encoding. (Y)

5870 Optical Communication Networks. Cr. 4 (LCT: 4)

Prereq: ECE 4700; 4850. Laser and detectors; modulation and demodulation; optical transmitters and receivers; optical filters; optical amplifiers; architecture and network control; multiaccess networks; FDDI networks, SONET/SDH, ATM, system performance. (Y)

5885 Security and Electronic Commerce. Cr. 4

Prereq: ECE 4050. Basic principles of computer security and cryptography; focus on electronic commerce applications. (W)

5990 Directed Study. Cr. 1-4 (Max. 4) (IND: 1)

Prereq: admission to M.S. program, written approval of proposed study outline by adviser and chairperson prior to registration. Supervised study and instruction in the field selected by the student. (T)

5995 Special Topics in Electrical and Computer Engineering I. Cr. 1-4 (Max. 8) (LCT: 1)

Prereq: written consent of instructor. Maximum of eight credits in Special Topics may be elected in any one degree program. Special subject matter in electrical and computer engineering. Topics to be announced in Schedule of Classes . (T)

6100 (ECE 6100) Enabling Technology. (BME 6500) (O T 6620) Cr. 3-4

Prereq: consent of instructor. Principles of application of enabling technology: across life stages, for differing ethnic and cultural backgrounds, for individuals with varying functional abilities. (W)

6180 (BME 6480) Biomedical Instrumentation. (I E 6180) (M E 6180) Cr. 4 (LCT: 4)

Prereq: ECE 3300, BME 5010 or BMS 6550 (or former BMS 5550), and BME 5020. Engineering principles of physiological measurements, signal conditioning equipment, amplifiers, recorders and transducers. Recent advances in instrumentation. (F)

6550 Solid State Devices for Wireless Communications. Cr. 4 (LCT: 4)

Undergrad. prereq: consent of instructor; grad. prereq: admission to master's program. High-speed semiconductor devices with emphasis on application for wireless communications. Si-Ge heterostructures and devices as alternative for the conventional Si technology. Advanced concepts on electronic properties and fabrication of heterostructures. Solid state devices in the microwave region. (Y)

6600 Engineering Software Design. Cr. 4 (LCT: 4)

Prereq: CSC 2220 or ECE 5620. Software engineering principles developed and integrated to identify, modify, extend, and apply computational and information-processing methods in a variety of systems applications. Structural analysis, design and programming is assumed and integrated into an engineering systems design context. (Y)

6640 Database Machines. Cr. 4 (LCT: 4)

Prereq: ECE 5620. Theory, design, and applications of database machines. Hardware implementation of database functions; search, sort, relation operations, and the like. (Y)

6660 Introduction to VLSI Systems. Cr. 4 (LCT: 4)

Prereq: ECE 4680. Survey of very large scale integrated circuit components and design procedures. MOS fabrication, MOS gates, circuit architecture, device design, manufacturing and interface techniques. Material Fee as given in Schedule of Classes. (T)

Industrial and Systems Engineering

Office: 2143 Manufacturing Engineering Building
4815 Fourth St.; 313-577-3821
Chairperson: Leslie Monplaisir

Website: http://www.ime.wayne.edu

Professors

Kenneth R. Chelst, Donald R. Falkenburg, Frank E. Plonka, Nanua Singh, Kai Yang

Professors - Research

Kenneth Riopelle

Associate Professors

Ratna Babu Chinnam, R. Darin Ellis, Olugbenga Mejabi, Leslie Monplaisir, Gary Wasserman

Associate Professors - Research

Julia Gluesing

Assistant Professors

Kyoung-Yun Kim, Ekrem Alper Murat, Qingyu Yang

Senior Lecturers

Dean Pichette

Executives in Residence

Jerry W. Leman

Degree Programs

BACHELOR OF SCIENCE in Industrial Engineering

MASTER OF SCIENCE in Industrial Engineering

MASTER OF SCIENCE in Manufacturing Engineering

MASTER OF SCIENCE in Engineering Management

DOCTOR OF PHILOSOPHY with a major in Industrial Engineering

The industrial engineer is a broadly-trained integration engineer, concerned with enabling complex systems to function effectively. Managing the inventory of a production facility, for example, involves issues of production and stocking policy, manufacturing equipment, human resources, customer demand, and supplier relationships. The industrial engineer must understand the interaction of the components of a system, and coordinate the flow of materials and information to effectively manage the operation. The industrial engineer plays an important role in defining information needs and developing strategies for decision-making based on incomplete knowledge. However, the skills of the industrial engineer have much greater application than to traditional production environments. In a growing service sector of the economy including health care delivery, public safety, air transportation, and banking, for example, issues of resource management, scheduling, quality of service, and systems design are important.

Traditionally, the manufacturing engineer was responsible for developing the process capability to realize the output of design engineering. Today the boundary between design and manufacturing engineering is becoming blurred; both groups work together in teams to assure the soundness of design and producibility of product. The manufacturing engineer must have an understand standing of the design process, but the special expertise that is brought by the manufacturing engineer is the knowledge and understanding of the production process.

Today's production is computer-based and provides flexibility through computer control. The manufacturing engineer is responsible for designing and implementing the cells and production lines which become the basic units of manufacture. Increasingly, such production units are becoming parts of an integrated factory system, and are not simply islands of automation. The manufacturing engineer must understand the multi-layered control architecture of the integrated factory, and the computer-based technologies which enable it.

The Department maintains laboratories in systems simulation, computer-aided manufacturing, human systems, and concurrent engineering design.

Bachelor of Science Degree in Industrial Engineering

Program Mission: The mission of the undergraduate Program in Industrial Engineering is to educate our students for leadership positions in a broad spectrum of employment including: manufacturing, supply chain management and logistics, health care, banking, information management, and related disciplines. In addition to the Undergraduate Program Goals the specific goals of the industrial engineering B.S. program include the following objectives:

Program Objectives: Building on skills developed in the academic program, and extended by experience and personal self-improvement, the graduates of our program have ability to:

1) Apply the tools and techniques of industrial engineering to make value-based decisions,

2) Identify opportunities and formulate solutions which integrate technological and human systems to create value, and

3) Provide leadership as a member of high performance teams in a diverse global business environment

Admission Requirement: see page 131.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Science degree must complete a minimum of 124 credits in course work, including satisfaction of the University General Education Requirements (see pages 18 and 134), as outlined in the following curriculum. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on pages 18, 36, and 130. Non-engineering courses, cited below by subject rather than by individual course numbers, indicate courses to be selected in fulfillment of University General Education Requirements. The degree requirements shown in the curriculum below are in effect as of the publication date of this bulletin. However, students should consult an academic adviser for verification of current requirements.

The Bachelor of Science degree programs are built on a strong core of common courses. In the junior and senior years, students must choose a concentration leading to either the manufacturing engineering degree or the industrial engineering degree. These options are described below.

The directed elective must be approved by the undergraduate adviser. A list of courses appropriate for the directed elective is available from the Department.

The Engineering Design Project course sequence (I E 4800 and 4880) is a capstone endeavor and is intended to build on and integrate the knowledge that the student has accumulated throughout the undergraduate program. It is intended to be taken in the student's last academic year, within forty credits of graduation. This sequence

is a year-long undertaking. Students enroll in I E 4800 (two credits) in their last Fall semester, and spend the term building their teamwork skills and selecting and planning their project. Practical, professionally-relevant projects are usually selected in concert with the Department's industrial partners. In the Winter semester, students enroll in I E 4880 (2 credits) and engage in an intensive effort to bring their industrial engineering skills and knowledge to bear on the problem. Students who intend to take the capstone sequence should first consult their academic adviser.

Project Requirements: In order to qualify to take I E 4800, students must be in the last year of his/her program (within forty credits of graduating) and have taken at least six of the required eight I E core courses: I E 3120, 4250, 4260, 4310 4330, 4420, 4560 and I E 4850. In order to register for I E 4880, students must have taken I E 4800 in the immediately previous term they must be finished with all eight I E core courses by the end of the semester in which they take I E 4880. Students are encouraged to meet with the industrial engineering program academic advisor for a plan of work to ensure they meet these requirements.

FRESHMAN YEAR

First Semester

B E 1200 -- (CL) Basic Engg. I: Design in Engineering: Cr. 3
CHM 1225 -- (PS) General Chemistry I: Cr. 3
CHM 1230 -- General Chemistry I Laboratory: Cr. 1
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
MAT 2010 -- Calculus I: Cr. 4
Total Credits: 15

Second Semester

B E 1300 -- Basic Engg. II: Materials Science for Engineering Applications: Cr. 3
B E 1310 -- Materials Science for Engineering Lab: Cr. 1
MAT 2020 -- Calculus II: Cr. 4
PHY 2175 -- (PS) General Physics: Cr. 4
American Institutions (AI) Elective: Cr.3
Total Credits: 15

SOPHOMORE YEAR

First Semester

B E 2100 -- Basic Engg. III: Probability and Statistics in Engineering: Cr. 3
MAT 2030 -- Calculus III: Cr. 4
PHY 2185 -- General Physics: Cr. 4
Engineering Breadth Option
Total Credits: 15

Second Semester

B E 2550 -- Basic Engg. IV: Numerical Methods & Computer Programming: Cr. 3
MAT 2150 -- Differential Equations and Matrix Algebra: Cr. 4
Social Sciences (SS) course: Cr. 3
Life Sciences (LS) course: Cr. 3
Visual and Performing Arts (VP) course: Cr. 3
Critical Thinking (CT) Exam: Cr. 0
Total Credits: 16

JUNIOR YEAR

First Semester

ENG 3050 -- (IC) Technical Communication I: Reports: Cr. 3
I E 3120 -- Work Design: Cr. 3
I E 4850 -- Engineering Economy: Cr. 3
PHI 1100 -- (PL) (EI) Contemporary Moral Issues: Cr.3
Historical Studies (HS) course: Cr. 3
Total Credits: 15

Second Semester

ENG 3060 -- (OC) Technical Communication II: Writing and Speaking: Cr. 3
I E 4250 -- Engineering Data Analysis: Cr. 3
I E 4420 -- Systems Simulation: Cr. 3
Engineering Breadth Option
Foreign Culture (FC) course: Cr. 3
Total Credits: 16

SENIOR YEAR

First Semester

I E Technical Elective: Cr. 3
I E Technical Elective: Cr. 3
I E 4260 -- Principles of Quality Control: Cr. 3
I E 4560 -- Operations Research: Cr. 3
I E 4800 -- Engineering Design I: Management: Cr.2
Directed Elective: Cr. 3
Total Credits: 17

Second Semester

I E Technical Elective: Cr. 4
I E Technical Elective: Cr. 3
I E 4310 -- (WI) Production Control: Cr. 3
I E 4330 -- Facilities Design: Cr. 3
I E 4880 -- (ST) Engineering Design II: Cr. 2
Total Credits: 15

TOTAL PROGRAM CREDITS: 124

INDUSTRIAL ENGINEERING (I E)

The following courses, numbered 0900-5999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

NOTE: All 3000- and 4000-level courses are open only to Engineering students.

1560 Operations Research: Deterministic Mathematical Models. Cr. 2

Introduction to mathematics of decision making in industry and government. (T)

1570 Operations Research: Probabilistic Models. Cr. 2

Course does not satisfy graduation requirements of any engineering degree. Prereq: consent of instructor. Mathematics of decision making in the face of uncertainty; using mathematical models to tackle real-world problems. (T)

3120 Work Design. Cr. 3

Prereq: B E 2100. Open only to students enrolled in professional engineering programs. Role of the human as an element of the work environment. Traditional issues of work standards, productivity analysis and occupational safety are introduced. Functional and organizational role of the worker; impact of emerging computer-based technologies on work design and implementation strategies. (F)

3450 (M E 3450) Manufacturing Processes I. Cr. 3

Open only to students enrolled in professional engineering programs. A study of manufacturing processes from a mechanical engineering design standpoint. Topics include: processing of metals, polymers, and ceramics, and computer-aided manufacturing. Material Fee As Indicated In The Schedule of Classes (Y)

3460 Manufacturing Processes Lab. Cr. 1

Prereq: enrollment in B.S.I.E. program. Laboratory to accompany I E 3450. (F)

4120 Introduction to Human Factors Engineering. Cr. 4

Prereq: B E 2100 or equiv.; program standing or consent of instructor. Current practice perspective on human capabilities and limitations as a component in engineering systems. Analysis and design of human-centered systems, with emphasis on applications. (W)

4250 Engineering Data Analysis. Cr. 3

Prereq: B E 2100. Open only to students enrolled in professional engineering programs. Advanced concepts for the analysis of vari-

ability in engineering problems, multivariate distributions, hypothesis testing, non-parametric statistics, point and interval estimation, fitting straight lines, goodness of fit tests, contingency tables and introduction to the analysis of variance. (W)

4260 Principles of Quality Control. Cr. 3

Prereq: B E 2100. Open only to students enrolled in professional engineering programs. Statistical quality control including process capability, control charts, and acceptance sampling procedures. Procedures for measurement of dimensional tolerance are introduced. Computer-based data collection and analysis. (Y)

4310 (WI) Production Control. Cr. 3

Prereq: I E 4560, ENG 3050. Open only to students enrolled in professional engineering programs. The design of production planning and control systems. Materials management, forecasting, planning, scheduling of production systems, the planning and scheduling for large scale projects and introduction to the design of computerized materials management systems. (W)

4330 Facilities Design. Cr. 3

Prereq: I E 3120, I E 4310, and I E 4850. Open only to students enrolled in professional engineering programs. Design of manufacturing, warehouse and material handling facilities. Use of analytic and computer-aided methods in the facilities design process. (W)

4410 Computer Aided Manufacture. Cr. 4

Prereq: B E 1200. Open only to students enrolled in professional engineering programs. The use of microprocessors in the design of computer-aided manufacturing systems. A design project involving software development and the construction of a physical simulation is required. (Y)

4420 Systems Simulation. Cr. 3

Prereq: B E 2100, B E 1200, B E 2550; and written consent of department chairperson. Open only to students enrolled in professional engineering programs. Systems modeling and discrete event simulation. Methodology applied to analysis and design of a broad range of systems including both production and service systems. Computer assignments and a term project are required. (Y)

4450 Concurrent Engineering Design. Cr. 4

Prereq: I E 3450. Open only to students enrolled in professional engineering programs. Integration of product and process design. Topics include: design for manufacture, design for assembly, material selection and producibility. Introduction to a strategic approach to product design which integrates technical aspects of product design with basic issues of manufacturing system design. (Y)

4500 Information Technology in Decision Support Systems. Cr. 3

Prereq: professional standing. Basic foundations: use of Visual Basics for Applications (VBA) for programming development skills, extending capabilities of solving complex management science models and business problems with spreadsheet modeling. (W)

4510 Information Technology in Decision Support Systems. Cr. 3

Prereq: professional standing. Computer programming with Visual Basic for Applications (VBA); programming development skills, solving complex management science models and business problems. (Y)

4560 Operations Research. Cr. 3

Open only to students enrolled in professional engineering programs. Prereq: B E 2100 and MAT 2150. An introduction to the philosophy of operations research. Formulation of linear programming models and their solution. Duality and sensitivity analysis. The transportation model. Introduction to probabilistic modeling and applications of queueing models. (F)

4700 Leadership in Manufacturing. Cr. 3

Prereq: enrollment in I E program. Leadership of individuals and teams in a unionized manufacturing environment. Technical elective for Production Leadership Management Program (PMPL) students. (F)

4710 Labor Relations in Manufacturing. Cr. 3

Prereq: enrollment in industrial engineering program. Knowledge and skills in administering labor agreements. Technical elective for Production Leadership Management Program (PMLP) students. (W)

4800 Engineering Design I: Project Management. Cr. 2

Prereq: written consent of instructor. Open only to students enrolled in professional engineering programs. Project selection, team building, and methodological preparation required for Engineering Design Project II. (Y)

4850 (I E 4850) Engineering Economy. (C E 4850) Cr. 3

Open only to students enrolled in professional engineering programs. Prereq: B E 2100. Economic analysis of engineering projects. Selection of appropriate interest rates and methods of analysis, depreciation, tax considerations, and use of accounting data in comparison of investment alternatives. Material Fee As Indicated In The Schedule of Classes (Y)

4880 Engineering Design II. Cr. 2

Prereq: I E 4800, senior standing, consent of instructor; coreq: I E 4330, I E 4310. Open only to students enrolled in professional engineering programs. Intensive design experience defined and executed by the student. Requires synthesis and application of skills and knowledge gained in the program. (W)

4990 Directed Study. Cr. 1-6

Prereq: senior standing; consent of chairperson; outline of proposed study approved by instructor and chairperson prior to election of course. Open only to students enrolled in professional engineering programs. Supervised study and instruction in a field selected by the student. (I)

5100 (BME 5010) Engineering Physiology. (CHE 5100) (ECE 5100) (M E 5100) Cr. 4

Prereq: BME 5005 or consent of instructor. The basic principles of human physiology presented from the engineering viewpoint. Bodily functions, their regulation and control discussed in quantitative terms and illustrated by simple mathematical models when feasible. (F,W)

5170 (BME 5570) Design of Human Rehabilitation Systems. (ECE 5170) (M E 5170) Cr. 4

Prereq: senior standing. Design, fabrication and testing of customized hardware to aid handicapped patients. (F)

5600 (I E 5600) Alternative Energy Product Realization System. (AET 5600) Cr. 4

Prereq: senior standing in science or engineering discipline. Identification of a strategy for application of technology in the marketplace; application development, integration into vehicle production, concurrent engineering manufacturing issues, quality and testing in manufacturing. (F)

5780 (B E 5780) Products Liability Introduction for Engineers. (M E 5780) Cr. 1

Prereq: senior or graduate standing. Application of engineering practice to minimize products liability exposure. Stages of a products liability lawsuit; how engineers may be involved at different stages of the process. (Y)

5995 Special Topics in Industrial Engineering. Cr. 1-4

Special subject matter in industrial engineering. Topics to be announced in Schedule of Classes . (I)

6000 Digital Automation. Cr. 4

Prereq: graduate standing in engineering or consent of instructor. Fundamentals of digital control and logic; integration and automation

solution technologies (barcode systems, vision systems, etc.); data acquisition. (S)

6180 (BME 6480) Biomedical Instrumentation. (ECE 6180) (M E 6180) Cr. 4

Prereq: ECE 3300, BME 5010 or BMS 6550 (or former BMS 5550), and BME 5020. Engineering principles of physiological measurements. Signal conditioning equipment, amplifiers, recorders and transducers. Recent advances. (I)

6210 Applied Engineering Statistics. Cr. 4

Prereq: B E 2100 or placement exam. No credit after I E 4250. Analysis of variability in engineering decision making; data analysis, probabilistic models, hypothesis testing, regression and analysis of variance. (F,W)

6220 Value Engineering. Cr. 4

Resource management; systematic approach to solving problems and making decisions; forcing latent capabilities to be applied to challenging assumptions; application of unbiased logic techniques to produce superior results. (S)

6240 Quality Management Systems. Cr. 4

Prereq: B E 2100 or placement exam. Design of quality management systems. Topics include: QFD, quality planning, business operating systems, TQM, standards, and auditing. Quality management tools such as PDCA and root case analysis. (W)

6250 Maintenance Engineering. Cr. 2

Prereq: I E 6210. Proven aspects of maintenance and asset management. Principles of measurement and analysis. Case studies and projects are emphasized. Topics include: maintenance strategy, organization, methodologies, information systems, training programs. (W)

6260 Quality Assurance and Control. Cr. 2

Prereq: B E 2100 or placement exam. Introduction to product assurance in engineering design and manufacturing. Topics include: SQC, acceptance sampling, process capability, control charts, variables data. (W)

6270 Engineering Experimental Design. Cr. 4

Prereq: I E 6210. The design of engineering experiments for manufacturing process analysis, human factors experimentation, societal systems analysis and life testing; basic experimental design models, blocking, factorial experiments, nested designs, covariance analysis, response surface analysis, estimation of effects. (F)

6310 Lean Operations and Manufacturing. Cr. 2

Fundamental theories and concepts in lean manufacturing, sixsigma, mistake proofing, problem solving, process management. Students develop competency in identifying causes and sources of waste in manufacturing, industrial, and business operations. (F,W)

6380 Engineering Logistics. Cr. 2-4

Principles of material handling systems. Material handling systems analysis and design. Interfacing material handling systems. Principles of robotics. Robotic applications in manufacturing. (Y)

6405 Integrated Product Development. Cr. 4

Product development process: product architectures, concurrent engineering. Integration of marketing, design, and manufacturing functions for product development. Design processes to account for various manufacturing and other business constraints. (F)

6415 Computer-Aided Design. Cr. 2

Product and computer-aided design; design for X and CAD software tools; development of product models using Pro-Engineer software. (F)

6420 Computer Aided Manufacturing and Lab. Cr. 4

Prereq: I E 6415. CAM and process planning. Principles of manufacturing planning and control. Design and integration of ASRS, AGVS, robotic systems in manufacturing. (W)

6425 Product Lifecycle Management and Sustainable Design. Cr. 4

Prereq: enrollment in graduate engineering program or consent of instructor. Introduction to current principles, practices and applications. (W)

6430 Computer Simulation Methods. Cr. 2

Coreq: I E 6310. The application of discrete, continuous and combined simulation methods to the solution of a variety of production and service systems problems. Computer simulation and a term project involving an application are required. (F,W)

6441 Advanced Facilities Design and Logistics. Cr. 2

Prereq: I E 6442. Qualitative approaches for making facility location, layout, vehicle routings, and inventory management decisions. Applicability of various algorithms to real world applications; case studies. (F)

6442 Facilities Design and Materials Flow. Cr. 2

Plant location theory, analysis of models of plant location. Models for determining plant size and time phasing. Design of manufacturing warehouse and material handling facilities. Use of analytical and computer-aided methods in the facilities design process. (F)

6450 (M E 6450) Advanced Manufacturing Processes and Methods. Cr. 4

Review of novel manufacturing processes, methods and systems; emphasis on optimum design for manufacturability, technical, economic, and industrial limitations. Elements of computer-aided manufacturing, and numerical methods application. (W)

6470 Stochastic System Modeling: Queuing and Simulation. Cr. 2

Description of queuing systems; analytical solutions; discrete events systems; modeling framework and object models; terminating and non-terminating systems; statistical analysis; case studies. (Y)

6490 Introduction to Systems Engineering in Design. (SYE 6840) Cr. 2

Open only to engineering majors. Introduction to the engineering and analysis of systems with process focus. (F)

6510 Information Systems for the Manufacturing Enterprise. Cr. 2

Methods for information flow modeling. Information needs of global manufacturer: design, testing, manufacture, and delivery. Partnership relation to suppliers via information. (F)

6610 Introduction to Six Sigma. Cr. 4

For Fall and Winter terms, open to non-I E majors only (I E majors should elect I E 7610); for Spring/Summer terms, no restrictions apply. For the working engineer who requires exposure to basic concepts of 6-Sigma and its work applications. (W,S)

6840 (MGT 6840) Project Management. (SYE 6840) Cr. 1-4

Principles of successful project management including: time and cost management, risk analysis, human resource management. Consideration of both operational and conceptual issues. Introduction to project management tools. (W,S)

6850 Manufacturing Strategies. Cr. 2

Prereq: graduate standing in engineering. Strategic approach to the management of manufacturing including: relationship to corporate strategy, operationalizing manufacturing concepts, impact of new technology and manufacturing concepts, impact of new technology and manufacturing as a competitive resource; case-studies approach. (Y)

6991 Industrial Internship. Cr. 1-3

Prereq: prior consent of department and supervisor in semester prior to internship assignment. Offered for S and U grades only. (F,W)

Mechanical Engineering

Office: 2100 W. Engineering Building; 313-577-3843;
Fax: 313-577-8789
Chairperson: Walter Bryzik; wbryzik@eng.wayne.edu
Associate Chairperson: Trilochan Singh; tsingh@wayne.edu
Director of Undergraduate Studies: J. Ku; jku@wayne.edu

Website: http://www.eng.wayne.edu/ME/

Professors

V.L. Berdichevsky, W. Bryzik, N. Chalhoub, C. N. DeSilva (Emeritus), N. A. Henein, R. A. Ibrahim, K. A. Kline (Emeritus), M.C. Lai, G.M. Newaz, R. A. Piccirelli (Emeritus), E. Rivin, H. Shapiro, T. Singh, C.A. Tan, D. Taraza, S.F. Wu

Associate Professors

E.O. Ayorinde, M. G. Koenig (Emeritus), J.C. Ku, E. C. Zobel (Emeritus), X. Wu

Assistant Professors

M. Jansons, J. S. Lee

Adjunct Professors

N. Gianaris, T. Khalil, A. Kovacs, Ali Ozbeki, Chunlie Xie

Degree Programs

BACHELOR OF SCIENCE in Mechanical Engineering

MASTER OF SCIENCE in Mechanical Engineering

DOCTOR OF PHILOSOPHY with a major in Mechanical Engineering

The opportunities and challenges in the field of mechanical engineering are many and diverse. The broad variety of career possibilities includes research and development, design analysis and synthesis, manufacturing and production engineering, testing, sales engineering, maintenance and administration. The challenge of a mechanical engineer may lie in the perfection of a device that will be duplicated a million-fold or in the control optimization of a single complex system of unique design. To prepare undergraduate students for these opportunities, the Wayne State University Mechanical Engineering curriculum is designed to give a basic core education in the humanities, mathematics, natural sciences, basic applied sciences, engineering fundamentals, and to provide advanced electives in many applied fields.

Fields of departmental expertise include such important areas as biomechanics, energy conversion, combustion engines, emissions controls, structural analysis, automatic controls, robotics, thermodynamics, continuum mechanics, fluid dynamics, vibrations, heat transfer, mechanisms, acoustics and noise control, design, machine tool design, manufacturing, laser diagnostics, and mechanics of composite materials. Research and teaching is carried out in all of these areas.

Bachelor of Science in Mechanical Engineering

The Bachelor of Science in Mechanical Engineering is accredited by the Accreditation Board for Engineering and Technology.

In addition to the Undergraduate Program Goals listed on page 130, the specific goals of the mechanical engineering B.S. program include the following:

Mechanical engineering B.S. graduates will be able to apply basic engineering principles to identify and solve problems, and to design, specify the manufacturing of, and evaluate the performance of mechanical systems and processes.

The following Program Objectives are broad in scope and describe the expected accomplishments of our graduates during the first few years after graduation, while Program Outcomes are narrower and describe what our students are expected to know and be able to do by the time of graduation.

PROGRAM EDUCATIONAL OBJECTIVES:

The objectives of the undergraduate program in Mechanical Engineering at Wayne State University are to provide the education and training that will enable its graduates to:

1) successfully pursue entry level engineering positions or additional degrees;

2) apply broad, fundamentals-based knowledge and up-to-date skills to perform professional work in mechanical engineering and related disciplines;

3) apply comprehensive design methodology pertaining to mechanical engineering, incorporating the use of design standards, realistic constraints, and consideration of the economic, environmental, and social impact of the design;

4) engage in professional service such as participation in professional societies, and to always consider professional ethics;

5) be committed to life-long learning activities through self-reliance, creativity and leadership.

ABET STUDENT OUTCOMES

It is expected that by the time of graduation, our B.S.M.E. students will have:

a) an ability to apply knowledge of mathematics, science, and engineering

b)an ability to design and conduct experiments, as well as to analyze and interpret data

c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability

d) an ability to function on multidisciplinary teams

e) an ability to identify, formulate, and solve engineering problems

f) an understanding of professional and ethical responsibility

g) an ability to communicate effectively

h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context

i) a recognition of the need for, and an ability to engage in life-long learning

j) a knowledge of contemporary issues

k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

In support of these educational objectives, faculty members will seek outstanding levels of achievement in their research and engineering practices. To further foster professionalism, the Department encourages students to be active participants in ASME, Pi Tau Sigma, SAE and other student professional organizations.

Admission Requirements: see page 131. The Department has an Academic Advisor and a Director of Undergraduate Studies. The former is responsible for assisting students with course selections and maintaining academic progress, and the latter is responsible for enforcing Departmental academic policy. Students are encouraged to meet with the Academic Advisor once every semester, for up-to-date

feedback on their academic progress and a review of course plans for the next semester or two. The student and advisor together plan a complete program of study, including electives, which meet Departmental requirements and the interests of the individual student.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Science degree must complete 135 credits in course work, including the University General Education Requirements (see pages 18 and 134), as outlined in the following curriculum. All prerequisites are strictly enforced for undergraduate courses; any deviation in prerequisites must be approved by the Director of Undergraduate Studies. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on pages 18, 36, and 130.

Evening courses and cooperative programs allow professionals working in local industry to pursue an undergraduate degree while continuing employment. The degree requirements shown in the curriculum below are in effect as of the publication date of this bulletin; however, students should consult an academic adviser for verification of current requirements.

Mechanical Engineering Curriculum

FRESHMAN YEAR

First Semester

B E 1200 -- (CL) Basic Engineering I: Design in Engineering: Cr. 3
CHM 1225 -- (PS) General Chemistry I: Cr. 3
CHM 1230 -- General Chemistry I Laboratory: Cr. 1
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
MAT 2010 -- Calculus I: Cr. 4
Total Credits: 15

Second Semester

B E 1300 -- Basic Engg. II: Materials Science for Engineering Applications: Cr. 3
B E 1310 -- Materials Science for Engineering: Lab: Cr. 1
MAT 2020 -- Calculus II: Cr. 4
M E 2050 -- Introduction to Computer-Aided Mechanical Drafting: Cr. 2
PHY 2175 -- (PS) General Physics: Cr. 4
Total Credits: 14

SOPHOMORE YEAR

First Semester

ECO 2010 or ECO 2020
-- (SS) Principles of Microeconomics: Cr. 4
-- (SS) Principles of Macroeconomics: Cr. 4
MAT 2030 -- Calculus III: Cr. 4
M E 2200 -- Thermodynamics: Cr. 3
M E 2410 -- Statics: Cr. 3
PHY 2185 -- General Physics: Cr. 4
Critical Thinking (CT) Exam: Cr. 0
Total Credits: 17

Second Semester

B E 2100 -- Basic Engg. III: Probability & Statistics in Engg. Applications: Cr. 3
B E 2550 -- Basic Engg. IV: Num. Methods & Computer Programming: Cr. 3
ENG 3050 -- (OC) Technical Communication I: Reports: Cr. 3
MAT 2150 -- Differential Equations and Matrix Algebra: Cr. 4
M E 2420 -- Elementary Mechanics of Materials: Cr. 3
Total Credits: 16

JUNIOR YEAR

First Semester

ENG 3060 -- (OC) Technical Communication II: Presentations: Cr. 3
ECE 3300 -- Introduction to Electrical Circuits: Cr. 3
ECE 3310 -- Electrical Circuits: Laboratory: Cr. 1
M E 3300 -- Fluid Mechanics: Theory and Lab: Cr. 4
M E 3400 -- Dynamics: Cr. 3
M E 3450 -- Manufacturing Processes I: Cr. 3
Total Credits: 17

Second Semester

M E 4210 -- Heat Transfer Theory and Lab: Cr. 4
M E 4150 -- Design of Machine Elements: Cr. 4
M E 4410 -- Vibrations Theory and Lab: Cr. 4
PHI 1100 -- (PL) Contemporary Moral Issues: Cr. 3
Visual and Performing Arts (VP) elective: Cr. 3
Total Credits: 18

SENIOR YEAR

First Semester

*M E 4300 -- Thermal Fluid Systems Design: Cr. 4
M E 5540 -- Dynamic Modeling & Control of Engineering System: Cr. 4
Mechanical Engineering Technical Elective: Cr. 4
Any (HS) course: Cr. 3
Any (AI) course: Cr. 3
Total Credits: 18

Second Semester

ANT 3150 -- (FC) Anthropology of Business: Cr. 4;
or any foreign language (FC) course through 2010: Cr. 3
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
*M E 4500 -- (WI) Mechanical Engineering Design II: Cr. 4
M E Technical Elective: Cr. 4
Total Credits: 14-15

TOTAL PROGRAM CREDITS: 129-130

Coherent Technical Electives

Two technical electives must be chosen from among the 5000-level courses offered by the Mechanical Engineering Department. Coherent Technical Electives are as follows:

VIBRATIONS AND ACOUSTICS

M E 5400 -- Dynamics II: Cr. 4
M E 5410 -- Vibrations II: Cr. 4
M E 5440 -- Industrial Noise Control: Cr. 4
M E 5460 -- Fundamentals in Acoustics and Noise Control: Cr. 4

CONTROL, DYNAMICS AND ROBOTIC SYSTEMS

M E 5400 -- Dynamics II: Cr. 4
M E 5410 -- Vibrations II: Cr. 4
M E 4420 -- Dynamic Modeling & Control of Engineering System (required): Cr. 4

BIOM ECHANICAL ENGINEERING

M E 5040 -- Finite Element Methods I: Cr. 4
M E 5100 -- (BME 5010) Engineering Physiology: Cr. 4
M E 5160 -- (BME 5210) Musculoskeletal Biomechanics: Cr. 4
M E 5170 -- (BME 5570) Design of Human Rehab. Systems (ECE 5170) (I E 5170): Cr. 4
M E 5180 -- (BME 5370) Intro. to Biomaterials (MSE 5180): Cr. 4

SOLID MECHANICS

M E 5040 -- Finite Element Methods I: Cr. 4
M E 5400 -- Dynamics II: Cr. 4
M E 5410 -- Vibrations II: Cr. 4
M E 5600 -- Advanced Mechanics of Materials: Cr. 4
M E 5620 -- Fracture Mechanics in Engineering Design: Cr. 4
M E 5700 -- Fundamentals of Mechanics: Cr. 4
M E 5720 -- Mechanics of Composite Materials: Cr. 4
M E 5730 -- Tribology and Lubrication Technology: Cr. 4

DESIGN AND MANUFACTURING

M E 5170 -- (BME 5570) Design of Human Rehabilitation Systems: Cr. 4
M E 5440 -- Industrial Noise Control: Cr. 4
M E 5470 -- Creative Problem Solving in Design and Manufacturing: Cr. 4
M E 5620 -- Fracture Mechanics in Engineering Design: Cr. 4

*. M E 4300 and M E 4500 cannot be taken in the same semester.

THERMAL/FLUID SCIENCE

M E 5210 -- Convective and Radiative Heat Transfer: Cr. 4
M E 5300 -- Intermediate Fluid Mechanics: Cr. 4
M E 5800 -- Combustion Engines: Cr. 4
M E 5810 -- Combustion and Emissions: Cr. 4
M E 5820 -- Thermal Environmental Engineering: Cr. 4

ENGINEERING ANALYSIS

M E 5000 -- Engineering Analysis I: Cr. 4
M E 5010 -- Engineering Analysis II: Cr. 4

In addition, students may choose to do directed study and research in an area of mutual interest to the student and a faculty member.

MECHANICAL ENGINEERING COURSES (M E)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

NOTE: All 3000- and 4000-level courses are open only to Engineering students.

2050 Introduction to Computer-Aided Mechanical Drafting. Cr. 2

Prereq: B E 1200 or consent of instructor. Introduction to CAD system using available software system at the college computer center, including AutoCAD. (F,W)

2060 Computer-Aided Engineering Economics and Problem Solving. Cr. 2

Prereq: B E 1200; prereq. or coreq: PHY 2175 and M E 2050. Introduction to engineering economic analysis and approaches for problem solving. Development of skills to work as part of a team. Contemporary issues. Material Fee As Indicated In The Schedule of Classes (Y)

2200 Thermodynamics. Cr. 3

Prereq: MAT 2020, PHY 2175, B E 1200; coreq: B E 1300. No credit after M E 2210. Transformation of heat energy to other energy forms. Basic concepts and laws of thermodynamics. Thermodynamic properties and processes for simple substances. Applications to power and refrigeration cycles. (F,W)

2410 Statics. (C E 2410) Cr. 3

Prereq: MAT 2020 and PHY 2175. Basic concepts and principles of statics with applications to Newton's Laws of Motion to engineering problems. Forces, moments, equilibrium, couples, free body diagrams, trusses, frames, fluid statics, friction, area and mass moment of inertia. (Y)

2420 Elementary Mechanics of Materials. (C E 2420) Cr. 3

Prereq: M E 2410 or C E 2410. Elastic relationships between external forces acting on deformable bodies and the associated stresses and deformations; structural members subjected to axial load, torsion, and bending; column buckling; combined stresses; repeated loads; unsymmetrical bending. (Y)

3300 Fluid Mechanics: Theory and Laboratory. Cr. 4

Prereq: M E 2200 or former M E 2210, B E 2550. Open only to students enrolled in professional engineering programs. Introduction to the nature and physical properties of fluids, statics, equation of motion, incompressible inviscid flow, dimensional analysis, incompressible one-dimensional compressible channel flow. Experiments to supplement lectures. (F,W)

3400 Dynamics. Cr. 3

Prereq: M E 2410, MAT 2150. Open only to students enrolled in professional engineering programs. Basic concepts and principles of dynamics with application of Newton's Laws of Motion to engineering problems. Kinematics and kinetics of particles and rigid and variable-mass bodies. Equations of motion, impulse-momentum, impact and work-energy principles. (F,W)

3450 (M E 3450) Manufacturing Processes I. (I E 3450) Cr. 3

Prereq. or coreq: C E 2400. Open only to students enrolled in professional engineering programs. A study of the field of manufacturing processes from a mechanical engineering design standpoint. Topics include: processing of metals, polymers and ceramics, and computer-aided manufacturing. Material Fee As Indicated In The Schedule of Classes (F,W)

4150 Design of Machine Elements. Cr. 4

Prereq: B E 2100, M E 3450; prereq. or coreq: M E 4410. Open only to students enrolled in professional engineering programs. Static body stresses, strain and deflection, failure theories, introduction to impact loading and fatigue. Design of common mechanical elements: threaded fasteners, rivets, welding and bonding, springs, lubrication and sliding bearings, rolling element bearings. Material Fee As Indicated In The Schedule of Classes (T)

4210 Heat Transfer: Theory and Laboratory. Cr. 4

Prereq: M E 3300, ENG 3050. Open only to students enrolled in professional engineering programs. Fundamental concepts and basic modes of heat transfer. General equation of heat conduction, steady state heat conduction on one and more dimensions. Transient heat conduction. Heat transfer by radiation, Kirchoff's law and the black body. Radiation between diffuse surfaces. Radiation from gases, vapors and flames. Introduction to heat convection; concept of heat transfer coefficient and Nusselt number. Lab experiments to supplement lectures. Material Fee As Indicated In The Schedule of Classes (F,W)

4250 Mechanical Engineering Design I. Cr. 4

Prereq: M E 3450; M E 4150 or former M E 3480; prereq. or coreq: M E 4410. Open only to students enrolled in professional engineering programs. Engineering analysis of design case histories through the application of familiar engineering principles and methods. Critical evaluation of previously designed systems, and recommendations for possible improvement, in written and oral student reports. (F,W)

4300 Thermal Fluid Systems Design. Cr. 4

Prereq: M E 4210; ENG 3060. Open only to students enrolled in professional engineering programs. (Note: M E 4300 and M E 4500 cannot be taken concurrently.) Design of thermal-fluid systems to meet system performance requirements, computer-aided design, system simulation, design optimization including investment economics. Material Fee As Indicated In The Schedule of Classes (F,W)

4410 Vibrations: Theory and Laboratory. Cr. 4

Prereq: M E 3400, ENG 3050. Open only to students enrolled in professional engineering programs. Fundamentals of dynamic principles, energy relation and Rayleigh's principle. Undamped and damped free vibration of one degree of freedom systems. Forced vibrations with harmonic excitation. Vibration isolation, critical speed of shafting. Experiments to supplement theory. Material Fee As Indicated In The Schedule of Classes (F,W)

4420 Dynamic Modeling and Control of Engineering System. Cr. 4

Prereq: M E 3400. Mathematical modeling of linear, lumped, time-invariant systems, open and closed loop systems, single-input-single-output system design using root locus method. (F,W)

4500 (M E 4500) (WI) Mechanical Engineering Design II. (M E 5500) Cr. 4

Prereq: M E 4250, ENG 3060, B E 2550. Open only to students enrolled in professional engineering programs. (Note: M E 4300 and

M E 4500 cannot be taken concurrently.) Students work in teams on a semester-long open-ended design project in which elements and subsystems are synthesized into larger systems. Formal written report required at the end of the project. Where applicable, hardware will be fabricated and tested. Material Fee As Indicated In The Schedule of Classes (F,W)

5000 Engineering Analysis I. Cr. 4

Prereq: MAT 2150 and senior standing. Applications of ordinary differential equations. The method of Frobenius, Bessel functions, Legendre polynomials. Orthogonality of characteristic functions. Fourier series and Fourier integrals. Characteristics and solutions of partial differential equations. Method of separation or variations. Applications to initial and boundary value problems in engineering. Material Fee As Indicated In The Schedule of Classes (F)

5010 Engineering Analysis II. Cr. 4

Prereq: MAT 2150 and senior standing. Basic operations of complex numbers. Analytic functions and Cauchy-Riemann conditions. Cauchy and Goursat theorem. Residue theorem. Conformal mapping and its applications. Schwarz-Christoffel transformation. Basic properties of the Laplace transformation. Convolution integral. Applications to mechanical and electrical engineering problems. Material Fee As Indicated In The Schedule of Classes (W)

5040 Finite Element Methods I. Cr. 4

Prereq: MAT 2150 or MAT 2350. Introduction to finite element methods. Review of equations from solid mechanics, variational methods, potential energy principles. Displacement-based formulation of bar, beam, plane strain and plane stress elements. Isoparametric element formulation. Assembly of elements and solution of global stiffness equations. Detailed examples of problems from structural analysis and solid mechanics. Computer laboratory sessions using the MSC/Nastran and Altair Hypermesh computer codes. (F,W)

5100 (BME 5010) Engineering Physiology. (CHE 5100) (ECE 5100) (I E 5100) Cr. 4

Prereq: BME 5005 or consent of instructor. The basic principles of human physiology presented from the engineering viewpoint. Bodily functions, their regulation and control discussed in quantitative terms and illustrated by simple mathematical models when feasible. (F,W)

5110 (CHE 5110) Fundamental Fuel Cell Systems. (M E 5110) (AET 5110) Cr. 4

Prereq: senior standing in science or engineering discipline. Various types of fuel cells, materials properties of electrodes and polymeric membranes, and electrochemical mechanisms. Reforming of various types of hydrocarbon fuel to hydrogen, and reforming technology. (F)

5120 (M E 5120) Fundamentals of Alternative Energy Technology. (AET 5120) Cr. 4

Prereq: senior standing in science or engineering discipline. Input-output analysis, thermodynamic efficiency and availability, energy balances, economics and environmental considerations. Fuel cell examined from energy efficiency perspective. Photovoltaics, wind power, biomass conversion technologies. (W)

5160 (BME 5210) Musculoskeletal Biomechanics. Cr. 4

Prereq: BME 5010 or BMS 6550 or former BMS 5550. Structure and properties of the major tissue components of the musculoskeletal system and evaluation of how tissues combine to provide support and motion to the body. (W)

5170 (BME 5570) Design of Human Rehabilitation Systems. (ECE 5170) (I E 5170) Cr. 4

Prereq: senior standing. Design, fabrication and testing of customized hardware to aid handicapped patients. (F)

5180 (BME 5370) Introduction to Biomaterials. (MSE 5180) Cr. 4

Prereq: B E 1300, BME 5010 or BMS 6550 (or former BMS 5550). Introduction to study of both biological materials (bone, muscle, etc.) and materials for medical applications. Topics include tissue properties and effects of pathology, biocompatability, and design considerations. (Y)

5210 Convective and Radiative Heat Transfer. Cr. 4

Prereq: M E 4210. Radiative processes and properties of solids. Radiative heat transfer among surfaces in an enclosure. Introduction to gas radiation. Derivation of the energy equation for laminar flows. Application of semi-empirical correlation for forced and free convection of laminar and turbulent flows. Some analytical methods for convective heat transfer. Heat exchange analysis. (F)

5250 (M E 5250) Alternative Energy Technology System and Design. (AET 5250) Cr. 4

Prereq: AET 5120 or consent of instructor. Topics such as: batteries, flywheels, capacitors, motors, controllers, power management, heat dissipation, systems containment, manufacturing processes, systems dynamics. Lectures and design projects. (F)

5300 Intermediate Fluid Mechanics. Cr. 4

Prereq: M E 3300. Introduction to continua. Integral and differential equations of motion. Ideal flow theory. Flow over blunt bodies. Introduction to boundary layer. Sound waves. Compressible flows. (F)

5330 Advanced Thermal Fluid System Design. Cr. 4

Prereq: M E 4210, ENG 3060, and senior standing in AGRADE program. Design of thermal fluid systems to meet system performance requirements, system simulation, design optimization and economics limitations. Material Fee As Indicated In The Schedule of Classes (F,W)

5360 Introduction to Computational Biofluidics and Heat Transfer. Cr. 4

Prereq: M E 3300, M E 4210. Basic numerical techniques for biofluidics and its applications. Use of techniques to improve surgical procedures; analysis of biofluidics applied to understanding disease. (F)

5400 Dynamics II. Cr. 4

Prereq: M E 3400. Kinematics and rigid bodies in space. Classical particle solutions: central force, motion on a surface of revolution, spherical pendulum. Energy and momentum integrals. Equations of motion in general rotating coordinate frames. Euler angles, angular momentum and kinetic energy of rigid bodies. Fixed point motion, steady solutions. Applications to spatial motions of rigid bodies. Hamilton's Principle and Lagrange's equations of motion. Material Fee As Indicated In The Schedule of Classes (F)

5410 Vibrations II. Cr. 4

Prereq: M E 4410. Multidegree-of-freedom systems. Eigenvectors and eigenvalues and orthogonality of normal modes. Mode-summation method. Solution to forced vibrations by Laplace transforms, numerical methods and Continuous Systems Modeling Program (CSMP). Rayleigh's principle and Dunkerley formula for approximate frequencies. Torsional geared and branched systems. Lagrange's equations. Vibration of continuous systems: longitudinal and transverse vibrations of beams; torsional vibrations, vibrating string and membranes. (F)

5425 Analysis of Vibration Movements and Instrumentation. Cr. 4

Prereq: M E 4410. Basic tools and instrumentation, such as spectral analyzers to measure and analyze vibration time histories of excitation and response signals (stationary or non-stationary) in the time and frequency domains. Fast Fourier transform, frequency time analyses. Material Fee As Indicated In The Schedule of Classes (B)

5440 Industrial Noise Control. Cr. 4

Prereq: senior standing or consent of instructor. Nature and origin of noise in mechanical systems and design for their control. Measurement of sound pressure levels, sound power levels, sound intensity levels, reverberation time, absorption coefficients of materials. (B:W)

5453 Automotive Manufacturing System and Processes. Cr. 4

Prereq: M E 3450 or M E 4250 or equiv. Understanding auto body development from sheet metal to assembly; process design principles and methodology. (Y)

5460 Fundamentals in Acoustics and Noise Control. Cr. 4

Prereq: senior or graduate standing. Videotapes and multimedia materials on sound generation, propagation and interaction with solid boundaries. Fundamental theories of sound radiation and control; solving practical engineering noise and vibration problems. (B:F)

5470 (M E 5470) Creative Problem Solving in Design and Manufacturing. (SYE 5470) Cr. 4

Coreq: M E 4250 or equiv. Concepts of laws of natural development of engineering systems. Algorithm for inventive (creative) problem-solving (AIPS-85). Creative use of physical and geometrical effects in design of mechanical and manufacturing systems. Concepts of strength, stiffness, vibratory effects, reliability in mechanical design. (W)

5500 (M E 4500) (WI) Advanced Engineering Design. (M E 5500) Cr. 4

Prereq: B E 2550, M E 4250, ENG 3060. Open only to AGRADE students. Team work on semester-long project, design concepts to be developed using various design theories, students perform patent literature search, design, fabricate and test prototypes. Final written report and public presentation required. Satisfies Writing Intensive course requirement. Material Fee As Indicated In The Schedule of Classes (F,W)

5580 Computer-Aided Mechanical Design. Cr. 4

Prereq: M E 4150 or former M E 3480 or graduate standing in mechanical engineering. Aspects of constraint-based solid modeling and parametric modeling using software such as Unigraphics, Solid Edge, I-DEAS, Pro-E. Building intelligent solid models, application to data management and sheet metal design. Introduction to computer-aided simulation and manufacturing. (S)

5600 Advanced Mechanics of Materials. Cr. 4

Statically indeterminate problems. Force method. Displacement methods. The three-moment equation. Euler formulas for columns. Column formulas for concentric and eccentric loadings. Energy methods and applications. Unsymmetrical bending of beams. Shear center. Bending of curved bars. Thick-walled cylinders. Torsion of non-cylinders. Rotating discs. Torsion of non-circular shafts. Membrane analogy. (W)

5610 Experimental Mechanics of Materials. Cr. 4

Experimental characterization of mechanical behavior. Instrumentation and measurement of load, strain, deflection, etc., characterization of creep, fracture toughness, dynamic-mechanical response (damping and vibration). Statistical analysis of data. (W)

5620 Fracture Mechanics in Engineering Design. Cr. 4

Linear and nonlinear fracture mechanics principles and their applications to structural design. Stress-intensity factors, J-integral, CTOD concepts to develop fracture control plans. (Y)

5700 Fundamentals of Mechanics. Cr. 4

Prereq: MAT 5070. Classical mechanics (Lagrangian and Hamiltonian applications); thermodynamics (derivation of thermodynamic laws from mechanics); continuum kinematics and basics of tensor analysis; continuum mechanics (basic laws; thermodynamics of continuum media; classical continuum models). Material Fee As Indicated In The Schedule of Classes (F)

5720 Mechanics of Composite Materials. Cr. 4

Prereq: senior standing. Analytical modeling of micromechanical and macromechanical behavior of composite materials. Stiffness, strength, hydrothermal effects, laminate analysis, viscoelastic and dynamic behavior. Experimental characterization of mechanical behavior. (F)

5730 Tribology and Lubrication Technology. Cr. 4

Friction, wear, and lubrication fundamentals: wear mechanisms, application of coatings, surface engineering fundamentals. (Y)

5780 (B E 5780) Products Liability Introduction for Engineers. (I E 5780) Cr. 1

Prereq: senior or graduate standing. Application of engineering practice to minimize products liability exposure. Stages of a products liability lawsuit; how engineers may be involved at different stages of the process. (Y)

5800 Combustion Engines. Cr. 4

Prereq: M E 2200 or former M E 2210 or equiv. Thermodynamics and cycle analysis of spark ignition, compression ignition, and gas turbine engines. Combustion processes in actual systems, performance characteristics, combustion abnormalities. Analysis of intake, fuel and exhaust systems. (F)

5810 Combustion and Emissions. Cr. 4

Prereq: M E 5800; or consent of instructor. Fundamentals of emission formation in combustion systems, wall quenching and imperfect combustion, unburned hydrocarbons, carbon monoxide, aldehydes, nitrogen oxides, species stratification in the combustion chamber, particulates. Effect of design parameters and engine operating variables on emission formation. Emission controls and instrumentation. (W)

5820 Thermal Environmental Engineering. Cr. 4

Prereq: M E 4210. Design and analysis of heating, ventilating and air-conditioning systems. Moist air properties calculations, heat transfer and transmission coefficients, heating load, cooling load, heating equipment and cooling equipment, duct design, fans, air distribution, systems design and analysis, refrigeration principles. (S)

5850 (C E 5410) The Hydrogen Economy and Hydrogen Infrastructure Needs. (M E 5850) (AET 5410) Cr. 4

Prereq: senior standing in science or engineering discipline. The post-fossil fuel energy paradigm, in context of the developing hydrogen infrastructure; analysis of government reports and scientific literature; discussion regarding the championed (and contested) vision of a global Hydrogen Economy. (F)

5870 (C E 5250) Transportation Energy Choices. (AET 5250) Cr. 4

Prereq: senior standing in science or engineering discipline. Technological innovations and barriers impacting energy production, storage, and conversion in transportation applications. Fuel life cycle case studies (bioethanol, syncrude, etc.). (F)

5900 National Design Competition Projects. Cr. 1-4 (Max. 6)

Prereq: written consent of director of undergraduate studies or graduate students' adviser. (T)

5990 Directed Study. Cr. 1-4 (Max. 6)

Prereq: senior or graduate standing; seniors: written consent of adviser and chairperson; graduates: written consent of adviser, chairperson, and Engineering Graduate Office for Master's students. Open only to seniors and graduate students. (T)

5992 Research Experiences for Undergraduates. Cr. 1-4 (Max. 6)

Prereq: written consent of instructor and director of undergraduate studies. (I)

5995 Special Topics in Mechanical Engineering I. Cr. 1-4 (Max. 8)

Prereq: consent of chairperson. Maximum of eight credits in special topics may be elected in any one degree program. Topics to be announced in Schedule of Classes . (I)

6180 (BME 6480) Biomedical Instrumentation. (ECE 6180) (I E 6180) Cr. 4

Prereq: ECE 3300, BME 5010 or BMS 6550 (or former BMS 5550), and BME 5020. Engineering principles of physiological measurements. Signal conditioning equipment, amplifiers, recorders and transducers. Recent advances. (F)

6450 (M E 6450) Advanced Manufacturing Processes and Methods. (I E 6450) Cr. 4

Prereq: M E 3450, B E 2550, or consent of instructor. Review of novel manufacturing processes, methods and systems; emphasis on optimum design for manufacturability, technical, economic, and industrial limitations. Elements of computer-aided manufacturing, and numerical methods application. (W)

6550 Modeling and Control of Dynamic Systems. Cr. 4

Prereq: M E 4420 or former M E 5540. Modeling and analysis of physical systems comprised of interconnected mechanical, electrical, hydraulic and thermal devices; bond graphs; introduction to state-space equations and closed loop system dynamics. Material Fee As Indicated In The Schedule of Classes (W)

6991 Internship in Industry. Cr. 1-4 (Max. 4)

Offered for S and U grades only. Written report describing internship experience. (T)

Division of Engineering Technology

Office: 4855 Fourth Street; 313-577-0800
Chairperson: Chih-Ping Yeh
Website: http://www.et.eng.wayne.edu/

Professors

Mulchand S. Rathod, Mukasa E. Ssemakula, Ece Yaprak,

Associate Professors

Satish Ketkar, Gene Liao

Assistant Professors

Wen Chen, Caisheng Wang

Part-Time Faculty

M. Sohail Ahmed, Abbas Enteshari, Randy Fang, David Fu, Bryce Grevemeyer, Ramarajan Ilankamban, Jean C. Lynn, Gopi K. Neelem, Boguslow Opalinski, Sandra Overway, Moise Sunda, Joseph Vaglica, Tommy White, Mark Zokvic

Degree Programs

BACHELOR OF SCIENCE in Computer Technology

BACHELOR OF SCIENCE in Construction Management

BACHELOR OF SCIENCE in Electrical/Electronic Engineering Technology

BACHELOR OF SCIENCE in Electric Transportation Technology

BACHELOR OF SCIENCE in Electromechanical Engineering Technology

BACHELOR OF SCIENCE in Manufacturing Engineering Technology

BACHELOR OF SCIENCE in Mechanical Engineering Technology

BACHELOR OF SCIENCE in Product Design Engineering Technology

MASTER OF SCIENCE in Engineering Technology

The Division of Engineering Technology was founded in 1973 and offers both undergraduate (upper-division: junior and senior level) and graduate programs. It stresses the applications of current technology to typical industrial problems. Entering students in the upper division program are assumed to have a background equivalent to an associate degree in engineering technology or in a related discipline. The program complements a community college education by providing more application-oriented analytical techniques. In the curriculum a close relationship is maintained between the theoretical principles taught in the classroom and their applications in corresponding laboratories.

Engineering technology is a profession closely related to engineering and deals with the application of knowledge and skill to industrial processes, production, and management. Technologists are organizers of people, materials, and equipment for the effective planning, construction and maintenance of technical facilities and operations. They are responsible for work requiring technical and practical knowledge. They can apply their abilities in using technical equipment, selling technical products, serving as manufacturers' technical representatives, or supervising varied construction projects and manufacturing processes. They work with engineers in many aspects of project

development, production planning, and final testing of industrial, military, or consumer products. Their talents are used in virtually every activity where technical expertise is required. They may be involved with electronic and mechanical instruments, experimental equipment, computing devices, tool design, manufacturing, or drafting.

Technical skills in the use of electronic equipment, machinery, tools, and drafting instruments are characteristic of this type of work. Thus, engineering technology students can find challenging employment in business and industry. Graduates of Wayne State's Engineering Technology program have been employed in areas such as manufacturing engineering, engineering production, marketing, maintenance, quality control, product testing, field engineering, consulting engineering, design, and technical supervision. Baccalaureate engineering technology graduates are often called technologists to distinguish them from baccalaureate graduates of engineering programs. However, the National Bureau of Labor Statistics does not have a category called 'technologist,' and consequently, many industrial job titles show little distinction between technologists and engineers. Graduates of Engineering Technology and Engineering programs complement each other in their skills and interests, and together with technicians and scientists, they form a technological team which has been able to produce an ever-increasing rate of technological advancement.

Bachelor of Science in Computer Technology

The Bachelor of Science in Computer Technology (B.S.C.T.) prepares students for professional work relating advancements in basic science to practical computer applications. This degree is an interdisciplinary program of study which provides a combination of professional courses in computer science, information systems, electronics, and information technology. The particular strengths of the program include: applied hands-on curriculum; hardware oriented laboratory experiences; scientific advancement merged with applications; and the various skills and knowledge required for the enhanced job market in this field. The computer technology program offers excellent prospects for professional positions in both business and industry where the sophistication and implementation of computers dominate a broad spectrum of employment opportunities. This region of the state has a large concentration of high technology firms which employ information system designers and application integrators. Classes are usually offered both during the day and in the evening.

Admission Requirements: The B.S.C.T. degree program is designed to admit students with an associate degree or equivalent course work in preparatory programs such as computer information systems, computer technology, data processing or closely related disciplines. A minimum grade point average (g.p.a.) of 2.5 is required for admission into the program. Students with a g.p.a. of 2.0 to 2.5 may be admitted as Pre-Engineering Technology students, and may be transferred into the B.S.C.T. program upon successful completion of pre-calculus (MAT 1800) and physical science courses, with a g.p.a. of 2.5 or above. A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus. It is recommended that this examination be taken prior to first registration at Wayne State; contact Testing, Evaluation, and Student Life Research Services (313-577-3400).

A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus. It is recommended that this examination be taken prior to first registration at Wayne State; contact Testing, Evaluation, and Research Services (313-577-3400)

Application for Undergraduate Admission form is required and may be requested from: Office of Admissions, Wayne State University, Detroit, Michigan 48202.

DEGREE REQUIREMENTS: To earn a B.S.C.T. degree, a minimum of 128 semester credits are required. University policy allows a maximum of sixty-four semester credits transferred from community colleges to Wayne State; a minimum of thirty semester credits must be earned from Wayne State University. Division policy mandates that at least twenty-four semester credits must be earned in Division courses.

In order to graduate, the University requires a minimum 2.0 g.p.a. in total resident credit, and the Division a minimum 2.0 g.p.a. in total coursework in the area of specialization; as well as satisfaction of all University Undergraduate General Education Requirements (see page 18).

Plan of Study: Due to wide variation in backgrounds of associate degree holders, as well as differing rates of progress of full- or part-time students, an individually-tailored plan of study will be developed for each student, in conjunction with a faculty adviser. Courses will be selected based on the student's academic preparation, course prerequisites, and proposed scheduling of courses.

Required Background: Any student deficient in any courses listed under Lower Division (Community College) Technical Transfer Credit will be required to remove the deficiency before completion of fifteen credits in basic science/mathematics and technical core courses.

'PROGRAM REQUIREMENTS: The Bachelor of Science in Computer Technology requires 128 credits as outlined below:

BASIC SCIENCE AND MATHEMATICS

E T 2160 -- (CL) Computer Applications for Engineering Technology: Cr. 2
MAT 1800 -- Elementary Functions: Cr. 4
MAT 3430 -- Applied Differential and Integral Calculus (E T 3430): Cr. 4
Physical Science (PS) elective (PHY 1020 recommended): Cr. 4
Life Science (LS) elective (PSY course recommended): Cr. 3
Total Credits: 17

B.S.C.T. TECHNICAL CORE

CSC 3750 -- Introduction to Web Technology: Cr. 3
CSC 4110 -- Software Engineering: Cr. 3
CSC 4111 -- Software Engineering Lab: Cr. 1
CSC 4420 -- Computer Operating Systems: Cr. 3
CSC 4421 -- Computer Operating Systems Lab: Cr. 1
CSC 4710 -- Information Systems Design: Cr. 3
E T 3850 -- Reliability and Engineering Statistics: Cr. 3
E T 3870 -- Engineering Economic Analysis: Cr. 3
E T 4999 -- (WI) Senior Project: Cr. 3
E T 5870 -- Engineering Project Management: Cr. 3
EET 3100 -- Advanced Digital Design: Cr. 3
EET 3720 -- Micro and Programmable Controllers: Cr. 3
EET 4100 -- Computer Hardware Design: Cr. 3
EET 5720 -- Computer Networking Applications: Cr. 4
CSC/EET Upper Division Technical Electives: Cr. 3
Total Credits: 42

LOWER DIVISION TECHNICAL TRANSFER CREDIT
(see page 177)

CSC 1100 -- (CL) Problem Solving and Programming: Cr. 3
CSC 1101 -- Problem Solving and Programming Lab: Cr. 1
CSC 2110 -- (CL) Computer Science I: Cr. 3
CSC 2111 -- Computer Science I Lab: Cr. 1
CSC 2200 -- Computer Science II: Cr. 3
CSC 2201 -- Computer Science II Lab: Cr. 1
EET 2100 -- Principles of Digital Design: Cr. 3
EET 2720 -- Microprocessor Fundamentals: Cr. 3
Other CIS/EET technology courses: Cr. 24
Total Credits: 42

COMMUNICATION REQUIREMENTS

(BC) Basic Composition course: Cr. 3
ENG 3050 -- (IC) Technical Communication I: Reports: Cr. 3
ENG 3060 -- (OC) Technical Communication II: Presentations: Cr. 3
Total Credits: 9

OTHER GENERAL EDUCATION REQUIREMENTS

American Society and Institutions (AI): Cr. 3
Critical and Analytic Thinking (CT) Competency Examination: Cr. 0
Foreign Culture (FC): Cr. 3
Historical Studies (HS): Cr. 3
Philosophy and Letters (PL): Cr. 3
Social Sciences (SS): Cr. 3
Visual and Performing Arts (VP): Cr. 3
Total Credits: 18

Total minimum semester credits for the B.S.C.T. degree: 128

Bachelor of Science in Construction Management

A professional construction manager is someone who co-ordinates all that goes into a construction project. The overall goal of a construction manager is to produce a financially sound project that is completed on time and meets the specific needs of the client as well as the codes put forth by governmental agencies. Responsibilities of a of a construction manager are: project planning, cost, time, safety, quality, and contracts. Working professionals seeking to advance their education, students interested in construction management, or seasoned employees looking to start their own companies often choose construction management to help achieve career goals. People with construction management degrees often work as project managers, superintendents, estimators, schedulers, or green construction/LEED specialists. Many people in the construction industry own and operate their own businesses.

The program offered in construction management specialization includes course work on construction project management, estimating, scheduling, safety, legal and professional aspects, specifications, computer applications and a capstone project. Additional courses from the Business School on accounting, marketing, and management complement the program. Co-op and internship opportunities are available to the students in summers as well as the academic year

Admission Requirements: This program is designed to admit students with an associate degree or equivalent course work in architectural technology, construction technology, and civil technology. A minimum grade point average (g.p.a.) of 2.5 is required for admission into the program. Students with a g.p.a. of 2.0 to 2.5 may be admitted as pre-engineering technology students, and may be transferred into the B.S.C.M. program upon successful completion of pre-calculus (MAT 1800) and physical science courses, with a g.p.a. of 2.5 or above. A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus. It is recommended that this examination be taken prior to first registration at Wayne State; contact Testing, Evaluation, and Student Life Research Services (313-577-3400).

A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus. It is recommended that this examination be taken prior to first registration at Wayne State; contact Testing, Evaluation, and Student Life Research Services (313-577-3400)

Application for Undergraduate Admission form is required and may be requested from: Office of Admissions, Wayne State University, Detroit, Michigan 48202.

DEGREE REQUIREMENTS: Candidates for the B.S.C.M. degree must earn a minimum of 128 credits, as outlined in one of the following major programs and including the University General Education requirements (see page 18). No more than sixty-four semester credits from community colleges can be transferred toward the baccalaureate degree at Wayne State. At least thirty credits must be earned from Wayne State, at least twenty-four of which must be in Division of Engineering Technology courses. All coursework must be completed in accordance with the academic procedures of the University and the College (see sections beginning on pages 18, 36, and 130) and must conform to Division academic standards.

At graduation, the University requires a minimum 2.0 grade point average in total resident credit. Additionally, the Division of Engineering Technology requires a minimum 2.0 g.p.a. in total work in the area of specialization. Satisfactory achievement in the Critical Thinking Competency Examination (administered by Testing, Evaluation, and Student Life Research Services) is required of each student.

PROGRAM REQUIREMENTS: The Bachelor of Science in Construction Management degree requires 128 credits as outlined in the following curriculum.

BASIC SCIENCE AND MATHEMATICS

CHM 1020 -- (PS) Survey of General Chemistry: Cr. 4
MAT 1800 -- Elementary Functions: Cr. 4
MAT 3430 -- Applied Differential and Integral Calculus (E T 3430): Cr. 4
PHY 2130 -- (PS) General Physics: Cr. 3
PHY 2131 -- General Physics Lab: Cr. 1
Life Sciences (LS) elective: Cr. 3
Total Credits: 19

BUSINESS AND MANAGEMENT

CMT 3050 -- Const. Bus. Accounting & Financial Management: Cr. 3
CMT 4030 -- Facility Management Principles: Cr. 3
ECO 2020 -- (SS) Principles of Macro Economics: Cr. 4
E T 3870 -- Engineering Economic Analysis: Cr. 3
PHI 1120 -- (PL) Professional Ethics: Cr. 3
Business Management Elective: Cr. 6
Total Credits: 21

CONSTRUCTION SCIENCE and CONSTRUCTION MANAGEMENT

CM T 3000 -- Construction Estimating and Bidding: Cr. 3
CMT 3010 -- Introduction to Construction Management: Cr. 3
CMT 3030 -- Construction Safety Management: Cr. 3
CMT 3020 -- Residential & Commercial Land Development & Design: Cr. 3
CMT 3040 -- Building Codes: Cr. 3
CMT 3060 -- Planning and Scheduling: Cr. 3
CMT 3070 -- Introduction to Green Construction: Cr. 3
CMT 3080 -- Advanced Computers in Construction: Cr. 3
CMT 4050 -- Construction Methods: Cr. 3
CMT 4070 -- Mechanical and Electrical Systems in Buildings: Cr. 3
CMT 4200 -- (WI) Senior Project: Cr. 3
CMT 4290 -- Internship: Cr. 0
Total Credits: 36

LOWER DIVISION TECHNICAL TRANSFER CREDIT
(see page 177)

Introduction to 2D and 3D CAD: Cr. 3
Soils and Foundations: Cr. 3
Applied Building Construction: Cr. 3
Construction Laws and Administration: Cr. 2
Other technology courses: Cr. 20
Total Credits: 31

COMMUNICATION REQUIREMENTS

(BC) Basic Composition course: Cr. 3
ENG 3050 -- (IC) Technical Communication I: Reports: Cr. 3
ENG 3060 -- (OC) Technical Communication II: Presentations: Cr. 3
Total Credits: 9

GENERAL EDUCATION REQUIREMENTS

Critical and Analytic Thinking (CT): Cr. 0
Western Civilization (HS): Cr. 3
American Society and Institutions (AI): Cr. 3
Foreign Culture (FC): Cr. 3
Visual and Performing Arts (VP): Cr. 3
Total Credits: 12

Total minimum semester credits for the EET program: 128

Bachelor of Science in Electrical/Electronic Engineering Technology

The Bachelor of Science in Electrical/Electronic Engineering Technology (B.S.E.E.T.) Program prepares students for diverse and dynamic careers in industry. Electrical/Electronic Engineering Technologists use the principals of science and math to solve problems in industry and business, both in the public and privatize sectors. They work alongside engineers, independently, as well as in a supervisory capacity. This field is in touch with a wide and growing range of applications of technology, and therefore has many applications in today's workforce. The B.S.E.E.T. program emphasizes hands-on laboratory experiences, and courses stress the practical application of mathematics, science, and engineering to solve real world problems. Possible applications for this degree include: the automotive industry, business machines/professional and scientific equipment, computers and electronics; defense, and electronic utilities. The BSEET program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC - ABET).

Admission Requirements: This program is designed to extend the practical and applied base of the associate degree program by means of more theoretical electrical and broad engineering technology courses together with further background courses in mathematics, science, and socio-humanities. A minimum grade point average (g.p.a.) of 2.50 is required for admission to the program. Students with a g.p.a. of 2.0 to 2.5 may be admitted as pre-engineering technology students, and may be transferred into the engineering technology program upon successful completion of MAT 1800 and PHY 2130 with a g.p.a. of 2.50. A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus. It is recommended that this examination be taken prior to first registration at Wayne State; contact Testing, Evaluation, and Student Life Research Services (313-577-3400).

Required Background: Any student deficient in any courses listed under Lower Division Technical Transfer Credit will be required to remove the deficiencies before electing any EET courses

A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus. It is recommended that this examination be taken prior to first registration at Wayne State; contact Testing, Evaluation, and Student Life Research Services (313-577-3400)

Application for Undergraduate Admission form is required and may be requested from: Office of Admissions, Wayne State University, Detroit, Michigan 48202.

DEGREE REQUIREMENTS: Candidates for the B.S.E.E.T. degree must earn a minimum of 128 credits, as outlined in one of the following major programs and including the University General Education requirements (see page 18). No more than sixty-four semester credits from community colleges can be transferred toward the baccalaureate degree at Wayne State. At least thirty credits must be earned from Wayne State, at least twenty-four of which must be in Division of Engineering Technology courses. All coursework must be completed in accordance with the academic procedures of the University and the College (see sections beginning on pages 18, 36, and 130) and must conform to Division academic standards.

At graduation, the University requires a minimum 2.0 grade point average in total resident credit. Additionally, the Division of Engineering Technology requires a minimum 2.0 g.p.a. in total work in the area of specialization. Satisfactory achievement in the Critical Thinking Competency Examination (administered by Testing, Evaluation, and Student Life Research Services) is required of each student.

Plan of Study: Due to the various educational backgrounds of associate degree graduates and the different rates of progress of full-time and part-time students, individual plans of study are developed for students in conjunction with faculty advisers.

NOTE: A student who, after receiving one undergraduate degree at Wayne State University, wishes to obtain a second bachelor's degree must complete at least thirty credits beyond those applied toward the first degree.

PROGRAM REQUIREMENTS: The Bachelor of Science in Electrical/Electronic Engineering Technology requires 128 credits as outlined in the following curriculum.

BASIC SCIENCE AND MATHEMATICS
- CHM 1020 -- (PS) Survey of General Chemistry: Cr. 4
- E T 2160 -- (CL) Computer Applications for Engineering Technology: Cr. 2
- MAT 1800 -- Elementary Functions: Cr. 4
- MAT 3430 -- Applied Differential and Integral Calculus (E T 3430): Cr. 4
- MAT 3450 -- Applied Calculus and Differential Equations (E T 3450): Cr. 4
- PHY 2130 -- (PS) General Physics: Cr. 3
- PHY 2131 -- General Physics Lab: Cr. 1
- PHY 2140 -- General Physics: Cr. 3
- PHY 2141 -- General Physics Lab: Cr. 1
- Life Sciences (LS) elective: Cr. 3
- *Total Credits:* 29

EET TECHNICAL CORE
- E T 3850 -- Reliability and Engineering Statistics: Cr. 3
- E T 3870 -- Engineering Economic Analysis: Cr. 3
- E T 4999 -- (WI) Senior Project: Cr. 3
- E T 5870 -- Engineering Project Management: Cr. 3
- EET 3100 -- Advanced Digital Design: Cr. 3
- EET 3150 -- Network Analysis: Cr. 4
- EET 3180 -- Analog Electronics: Cr. 4
- EET 3300 -- Applied Signal Processing: Cr. 3
- EET 3500 -- Electrical Machines and Power Systems: Cr. 3
- EET 3720 -- Micro and Programmable Controllers: Cr. 3
- EET 4200 -- Control Systems: Cr. 4
- EET Upper Division Technical Electives: Cr. 6
- *Total Credits:* 42

LOWER DIVISION TECHNICAL TRANSFER CREDIT (see page 177)
- EET 2000 -- Electrical Principles: Cr. 3
- EET 2100 -- Principles of Digital Design: Cr. 3
- EET 2720 -- Microprocessor Fundamentals: Cr. 3
- Other technology courses: Cr. 21
- *Total Credits:* 30

COMMUNICATION REQUIREMENTS
- (BC) Basic Composition course: Cr. 3
- ENG 3050 -- (IC) Technical Communication I: Reports: Cr. 3
- ENG 3060 -- (OC) Technical Communication II: Presentations: Cr. 3
- *Total Credits:* 9

OTHER GENERAL EDUCATION REQUIREMENTS
- Historical Studies (HS): Cr. 3
- American Society and Institutions (AI): Cr. 3
- Critical and Analytic Thinking (CT) Competency Examination: Cr. 0
- Foreign Culture (FC): Cr. 3
- Visual and Performing Arts (VP): Cr. 3
- Philosophy and Letters (PL): Cr. 3
- Social Sciences (SS): Cr. 3
- *Total Credits:* 18

Total minimum semester credits for the EET program: 128

Bachelor of Science in Electromechanical Engineering Technology

The Bachelor of Science in Electromechanical Engineering Technology (B.S.E.M.T.) offers an opportunity in interdisciplinary education, resulting from the implementation of electronics and computers in engineering systems. This major offers an individual plan of study with coursework in electronics, electrical, manufacturing, and mechanical areas, with appropriate prerequisite courses. The program is designed to extend the practical and applied base of the

associate degree program by means of more theoretical and more comprehensive engineering technology courses, combined with background courses in mathematics, science, and socio-humanities.

Admission Requirements: Students with an associate degree in electrical, electronics, industrial, manufacturing, mechanical, or related technology from a community college or equivalent college-level coursework may be admitted to the bachelor's degree program in electromechanical engineering technology. A minimum grade point average (g.p.a.) of 2.50 is required for admission to the program. Students with a g.p.a. of 2.0 to 2.5 may be admitted as pre-engineering technology students, and may be transferred into the engineering technology program upon successful completion of MAT 1800 and PHY 2130 with a g.p.a. of 2.50. A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus. It is recommended that this examination be taken prior to first registration at Wayne State; contact Testing, Evaluation, and Student Life Research Services (313-577-3400).

Required Background: Any student deficient in any courses listed under Lower Division Technical Transfer Credit will be required to remove deficiencies before completing fifteen credits in basic science/mathematics and technical core courses.

A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus. It is recommended that this examination be taken prior to first registration at Wayne State; contact Testing, Evaluation, and Student Life Research Services (313-577-3400)

Application for Undergraduate Admission form is required and may be requested from: Office of Admissions, Wayne State University, Detroit, Michigan 48202.

DEGREE REQUIREMENTS: Candidates for the B.S.E.M.T. degree must earn a minimum of 128 credits, as outlined in one of the following major programs and including the University General Education requirements (see page 18). No more than sixty-four semester credits from community colleges can be transferred toward the baccalaureate degree at Wayne State. At least thirty credits must be earned from Wayne State, at least twenty-four of which must be in Division of Engineering Technology courses. All coursework must be completed in accordance with the academic procedures of the University and the College (see sections beginning on pages 18, 36, and 130) and must conform to Division academic standards.

At graduation, the University requires a minimum 2.0 grade point average in total resident credit. Additionally, the Division of Engineering Technology requires a minimum 2.0 g.p.a. in total work in the area of specialization. Satisfactory achievement in the Critical Thinking Competency Examination (administered by Testing, Evaluation, and Student Life Research Services) is required of each student.

PROGRAM REQUIREMENTS: The Bachelor of Science in Electromechanical Engineering Technology requires 128 credits as outlined in the following curriculum.

BASIC SCIENCE AND MATHEMATICS
- CHM 1020 -- (PS) Survey of General Chemistry: Cr. 4
- E T 2160 -- (CL) Computer Applications for Engineering Technology: Cr. 2
- MAT 1800 -- Elementary Functions: Cr. 4
- MAT 3430 -- Applied Differential and Integral Calculus (E T 3430): Cr. 4
- MAT 3450 -- Applied Calculus and Differential Equations (E T 3450): Cr. 4
- PHY 2130 -- (PS) General Physics: Cr. 3
- PHY 2131 -- General Physics Lab: Cr. 1
- PHY 2140 -- General Physics: Cr. 3
- PHY 2141 -- General Physics Lab: Cr. 1
- Life Sciences (LS) elective: Cr. 3
- *Total Credits:* 29

EMT TECHNICAL CORE
- E T 3030 -- Statics: Cr. 3
- E T 3050 -- Dynamics: Cr. 3
- E T 3850 -- Reliability and Engineering Statistics: Cr. 3
- E T 3870 or E T 5870
  - -- Engineering Economic Analysis: Cr. 3
  - -- Engineering Project Management: Cr. 3
- E T 4999 -- (WI) Senior Project: Cr. 3
- EET 3150 -- Network Analysis: Cr. 4
- EET 3500 -- Electrical Machines and Power Systems: Cr. 3
- EET 3720 -- Micro and Programmable Controllers: Cr. 3
- EET 4200 -- Control Systems: Cr. 4
- MCT 3010 -- Instrumentation: Cr. 3
- EMT Upper Division Technical Electives: Cr. 10
- *Total Credits*: 42

LOWER DIVISION TECHNICAL TRANSFER CREDIT
(see page 177)
- E T 2140 -- Computer Graphics: Cr. 3
- E T 2200 -- Engineering Materials: Cr. 3
- EET 2000 -- Electrical Principles: Cr. 3
- EET 2720 -- Microprocessor Fundamentals: Cr. 3
- Other technology courses: Cr. 18
- *Total Credits:* 30

COMMUNICATION REQUIREMENTS
- (BC) Basic Composition course: Cr. 3
- ENG 3050 -- (IC) Technical Communication I: Reports: Cr. 3
- ENG 3060 -- (OC) Technical Communication II: Presentations: Cr. 3
- *Total Credits:* 9

OTHER GENERAL EDUCATION REQUIREMENTS
- American Society and Institutions (AI): Cr. 3
- Critical and Analytic Thinking (CT) Competency Examination: Cr. 0
- Foreign Culture (FC): Cr. 3
- Historical Studies (HS): Cr. 3
- Philosophy and Letters (PL): Cr. 3
- Social Sciences (SS): Cr. 3
- Visual and Performing Arts (VP): Cr. 3
- *Total Credits:* 18

Total minimum semester credits for the EMT program: 128

Bachelor of Science in Electric Transportation Technology

The Bachelor of Science in Electric Transportation Technology (B.S.E.T.T.) Program prepares students for dynamic careers in an up in coming area of the automotive industry. Electric Transportation Technologists use the principals of science and math to solve problems in industry and business, both in the public and privatize sectors. They work alongside engineers, independently, as well as in a supervisory capacity. This field is in touch with a wide and growing range of applications of technology, and therefore has many applications in today's workforce. The B.S.E.T.T. curriculum is a broad-based, technically-oriented education that emphasizes the application of advanced technology to solve problems, design and develop products, and improve processes, procedures, equipment, and facilities. Possible applications for a B.S.E.T.T. degree include the various aspects of working with electric vehicles, hybrid electric vehicles and plug-in electric vehicles as well as fuel-cell vehicles. As demand for efficiency and sustainability grow in the transportation sector, B.S.E.T.T. graduates will be able to meet the needs of industry.

Admission Requirements: This program is designed to extend the practical and applied base of the associate degree program by means of more theoretical electrical, advanced energy storage, and hybrid electric vehicle technology courses together with further background courses in mathematics, science, and socio-humanities. A minimum grade point average (g.p.a.) of 2.50 is required for admission to the program. Students with a g.p.a. of 2.0 to 2.5 may be admitted as pre-engineering technology students, and may be transferred into the engineering technology program upon successful completion of MAT 1800 and PHY 2130 with a g.p.a. of 2.50. A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus. It is

recommended that this examination be taken prior to first registration at Wayne State; contact Testing, Evaluation, and Student Life Research Services (313-577-3400).

Required Background: Any student deficient in any courses listed under Lower Division Technical Transfer Credit will be required to remove the deficiencies before electing any EET courses.

A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus. It is recommended that this examination be taken prior to first registration at Wayne State; contact Testing, Evaluation, and Student Life Research Services (313-577-3400)

Application for Undergraduate Admission form is required and may be requested from: Office of Admissions, Wayne State University, Detroit, Michigan 48202.

DEGREE REQUIREMENTS: Candidates for the B.S.E.T.T. degree must earn a minimum of 128 credits, as outlined in one of the following major programs and including the University General Education requirements (see page 18). No more than sixty-four semester credits from community colleges can be transferred toward the baccalaureate degree at Wayne State. At least thirty credits must be earned from Wayne State, at least twenty-four of which must be in Division of Engineering Technology courses. All coursework must be completed in accordance with the academic procedures of the University and the College (see sections beginning on pages 18, 36, and 130) and must conform to Division academic standards.

At graduation, the University requires a minimum 2.0 grade point average in total resident credit. Additionally, the Division of Engineering Technology requires a minimum 2.0 g.p.a. in total work in the area of specialization. Satisfactory achievement in the Critical Thinking Competency Examination (administered by Testing, Evaluation, and Student Life Research Services) is required of each student.

PROGRAM REQUIREMENTS: The Bachelor of Science in Electric Transportation Technology requires 128 credits as outlined in the following curriculum.

BASIC SCIENCE AND MATHEMATICS
- CHM 1020 -- (PS) Survey of General Chemistry: Cr. 4
- E T 2160 -- (CL) Computer Applications for Engineering Technology: Cr. 2
- MAT 1800 -- Elementary Functions: Cr. 4
- MAT 3430 -- Applied Differential and Integral Calculus (E T 3430): Cr. 4
- MAT 3450 -- Applied Calculus and Differential Equations (E T 3450): Cr. 4
- PHY 2130 -- (PS) General Physics: Cr. 3
- PHY 2131 -- General Physics Lab: Cr. 1
- PHY 2140 -- General Physics: Cr. 3
- PHY 2141 -- General Physics Lab: Cr. 1
- Life Sciences (LS) elective: Cr. 3
- *Total Credits:* 29

ETT TECHNICAL CORE
- E T 4999 -- (WI) Senior Project: Cr. 3
- E T 5870 -- Engineering Project Management: Cr. 3
- EET 3100 -- Advanced Digital Design: Cr. 3
- EET 3150 -- Network Analysis: Cr. 4
- EET 3180 -- Analog Electronics: Cr. 4
- EET 3500 -- Electric Machines and Power Systems, Cr. 3
- EET 4200 -- Control Systems: Cr. 4
- ETT 3190 -- Fundamentals of Automotive Electrical and Electronic Systems: Cr. 3
- ETT 4150 -- Fundamental of Hybrid and Electric Vehicles: Cr. 3
- ETT 4310 -- Energy Storage Systems for Hybrid and Electric Vehicles: Cr. 3
- ETT 4650 -- Power Electronics & Charging Infrastructure for Hybrid and Electric Drive Vehicles: Cr. 3
- ETT Upper Division Technical Electives: Cr. 6
- *Total Credits*: 42

LOWER DIVISION TECHNICAL TRANSFER CREDIT
(see page 177)
- EET 2100 -- Principles of Digital Design: Cr. 3
- EET 2720 -- Microprocessor Fundamentals: Cr. 3
- Automotive Technology Courses: Cr. 12
- Other technology courses: Cr. 12
- *Total Credits:* 30

COMMUNICATION REQUIREMENTS
- (BC) Basic Composition course: Cr. 3
- ENG 3050 -- (IC) Technical Communication I: Reports: Cr. 3
- ENG 3060 -- (OC) Technical Communication II: Presentations: Cr. 3
- *Total Credits:* 9

OTHER GENERAL EDUCATION REQUIREMENTS
- Historical Studies (HS): Cr. 3
- American Society and Institutions (AI): Cr. 3
- Critical and Analytic Thinking (CT) Competency Examination: Cr. 0
- Foreign Culture (FC): Cr. 3
- Visual and Performing Arts (VP): Cr. 3
- Philosophy and Letters (PL): Cr. 3
- Social Sciences (SS): Cr. 3
- *Total Credits:* 18

Total minimum semester credits for the EET program: 128

Bachelor of Science in Mechanical Engineering Technology

The Mechanical Engineering Technology (B.S.M.C.T.) Program prepares students for diverse and dynamic careers in industry. B.S.M.C.T. graduates work in fields that require understanding of the relationships and dependencies among materials, product development, manufacturing systems and processes, or energy production, transformation and transmission (including alternative energy). The program emphasizes hands-on laboratory experiences, and courses stress the practical application of mathematics, science, and engineering to solve real world problems. The B.S.M.C.T. program provides students with a well-rounded education focused on the knowledge of existing and new developments in their technical specialty. The program offers students the opportunity to specialize in one of three tracks: design, energy, or manufacturing. B.S.M.C.T. graduates work with their minds as well as their hands to solve problems related to their chosen area of specialization. The B.S.M.C.T. program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC - ABET).

Admission Requirements: Students having an associate degree or equivalent college-level course work in one of the following or related technical areas may be admitted to the program: Aerospace Technology, Automotive Technology, Climate Control, Drafting, Energy Technology, Fluid Power, Manufacturing, Mechanical Design, Mechanical Technology, Powerplant. A minimum grade point average (g.p.a.) of 2.50 is required for admission to the program. Students with a g.p.a. of 2.0 to 2.5 may be admitted as pre-engineering technology students, and may be transferred into the engineering technology program upon successful completion of MAT 1800 and PHY 2130 with a g.p.a. of 2.50. A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus. It is recommended that this examination be taken prior to first registration at Wayne State; contact Testing, Evaluation, and Student Life Research Services (313-577-3400).

Required Background: Any student deficient in any course listed under Lower Division Technical Transfer Credit will be required to remove the deficiency before completing fifteen credits in basic science/mathematics and technical core courses.

A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus. It is recommended that this examination be taken prior to first registration at Wayne State; contact Testing, Evalu-ation, and Student Life Research Services (313-577-3400)

Application for Undergraduate Admission form is required and may be requested from: Office of Admissions, Wayne State University, Detroit, Michigan 48202.

DEGREE REQUIREMENTS: Candidates for the B.S.M.C.T. degree must earn a minimum of 128 credits, as outlined in one of the following major programs and including the University General Education requirements (see page 18). No more than sixty-four semester credits from community colleges can be transferred toward the baccalaureate degree at Wayne State. At least thirty credits must be earned from Wayne State, at least twenty-four of which must be in Division of Engineering Technology courses. All coursework must be completed in accordance with the academic procedures of the University and the College (see sections beginning on pages 18, 36, and 130) and must conform to Division academic standards.

At graduation, the University requires a minimum 2.0 grade point average in total resident credit. Additionally, the Division of Engineering Technology requires a minimum 2.0 g.p.a. in total work in the area of specialization. Satisfactory achievement in the Critical Thinking Competency Examination (administered by Testing, Evaluation, and Student Life Research Services) is required of each student.

PROGRAM REQUIREMENTS: The Bachelor of Science in Mechanical Engineering Technology requires 128 credits as outlined in the following curriculum.

BASIC SCIENCE AND MATHEMATICS
- CHM 1020 -- (PS) Survey of General Chemistry: Cr. 4
- E T 2160 -- (CL) Computer Applications for Engineering Technology: Cr. 2
- MAT 1800 -- Elementary Functions: Cr. 4
- MAT 3430 -- Applied Differential and Integral Calculus (E T 3430): Cr. 4
- MAT 3450 -- Applied Calculus and Differential Equations (E T 3450): Cr. 4
- PHY 2130 -- (PS) General Physics: Cr. 3
- PHY 2131 -- General Physics Lab: Cr. 1
- PHY 2140 -- General Physics: Cr. 3
- PHY 2141 -- General Physics Lab: Cr. 1
- Life Sciences (LS) elective: Cr. 3
- *Total Credits:* 29

MCT UPPER DIVISION CORE
- E T 3030 -- Statics: Cr. 3
- E T 3050 -- Dynamics: Cr. 3
- E T 3850 -- Reliability and Engineering Statistics: Cr. 3
- E T 3870 -- Engineering Economic Analysis: Cr. 3
- E T 5870 -- Engineering Project Management: Cr. 3
- E T 4999 -- (WI) (ST) Senior Project: Cr. 3
- MCT 3010 -- Instrumentation: Cr. 3
- MIT 3500 -- Machine Tool Laboratory: Cr. 1
- *Total Credits:* 22

MCT TECHNICAL TRACKS (Choose One)
- *Design Track:*
- MCT 3100 -- Mechanics of Materials: Cr. 3
- MCT 3410 -- Kinematics and Dynamics of Machines: Cr. 3
- MCT 4150 -- Applied Thermodynamics: Cr. 3
- MCT 4180 -- Fluid Mechanics: Cr. 3
- MCT 4400 -- Design of Machine Elements: Cr. 3
- *Energy Track:*
- MCT 4150 -- Applied Thermodynamics: Cr. 3
- MCT 4180 -- Fluid Mechanics: Cr. 3
- MCT 4210 -- Heat Transfer: Cr. 3
- Elective chosen with consent of adviser: Cr. 3
- *Manufacturing Track:*
- MIT 3520 -- Manufacturing Processes Theory: Cr. 2
- MIT 3600 -- Process Engineering: Cr. 3
- MIT 4700 -- Computer-Aided Design and Manufacturing: Cr. 3
- MIT 4800 -- Quality Control: Cr. 4
- *Total Credits:* 12

UPPER DIVISION TECHNICAL ELECTIVES:
- *Total Credits:* 8

LOWER DIVISION TECHNICAL TRANSFER CREDIT (see page 177)
- E T 2140 -- Computer Graphics: Cr. 3
- E T 2200 -- Engineering Materials: Cr. 3
- EET 2000 -- Electrical Principles: Cr. 3
- Other technology courses: Cr. 21
- *Total Credits:* 30

COMMUNICATION REQUIREMENTS
- (BC) Basic Composition course: Cr. 3
- ENG 3050 -- (IC) Technical Communication I: Reports: Cr. 3
- ENG 3060 -- (OC) Technical Communication II: Presentations: Cr. 3
- *Total Credits:* 9

OTHER GENERAL EDUCATION REQUIREMENTS
- American Society and Institutions (AI): Cr. 3
- Critical and Analytic Thinking (CT) Competency Examination: Cr. 0
- Foreign Culture (FC): Cr. 3
- Historical Studies (HS): Cr. 3
- Philosophy and Letters (PL): Cr. 3
- Social Sciences (SS): Cr. 3
- Visual and Performing Arts (VP): Cr. 3
- *Total Credits:* 18

Total minimum semester credits for the MCT program: 128

Bachelor of Science in Product Design Engineering Technology

The Bachelor of Science in Product Design Engineering Technology (B.S.P.D.T.) is intended to provide students with depth and breadth in technical science and technical specialty courses, as well as in non-technical related areas. In the area of technical science and design, it prepares graduates for work in the field of design engineering technology. The core of the program provides an integrated artistic perspective on technical considerations, to enhance the ergonomic design considerations of engineering products, and to prepare graduates for employment in that spectrum of engineering which emphasizes human and machine design relationships.

Admission Requirements: Students entering this program would normally have an associate degree from a community college or equivalent college-level course work in auto body design, computer-aided design and drafting (CAD), or a related area. A minimum grade point average (g.p.a.) of 2.50 is required for admission to the program. Students with a g.p.a. of 2.0 to 2.5 may be admitted as pre-engineering technology students, and may be transferred into the engineering technology program upon successful completion of MAT 1800 and PHY 2130 with a g.p.a. of 2.50. A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus. It is recommended that this examination be taken prior to first registration at Wayne State; contact Testing, Evaluation, and Student Life Research Services (313-577-3400).

Required Background: Any student deficient in any courses listed under Lower Division Technical Transfer Credit will be required to remove the deficiency before completing fifteen credits in basic science/mathematics and technical core courses.

A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus. It is recommended that this examination be taken prior to first registration at Wayne State; contact Testing, Evaluation, and Student Life Research Services (313-577-3400)

Application for Undergraduate Admission form is required and may be requested from: Office of Admissions, Wayne State University, Detroit, Michigan 48202.

DEGREE REQUIREMENTS: Candidates for the B.S.P.D.T. degree must earn a minimum of 128 credits, as outlined in one of the following major programs and including the University General Education requirements (see page 18). No more than sixty-four semester cred-

its from community colleges can be transferred toward the baccalaureate degree at Wayne State. At least thirty credits must be earned from Wayne State, at least twenty-four of which must be in Division of Engineering Technology courses. All coursework must be completed in accordance with the academic procedures of the University and the College (see sections beginning on pages 18, 36, and 130) and must conform to Division academic standards.

At graduation, the University requires a minimum 2.0 grade point average in total resident credit. Additionally, the Division of Engineering Technology requires a minimum 2.0 g.p.a. in total work in the area of specialization. Satisfactory achievement in the Critical Thinking Competency Examination (administered by Testing, Evaluation, and Student Life Research Services) is required of each student.

PROGRAM REQUIREMENTS: The Bachelor of Science in Product Design Engineering Technology requires 128 credits as outlined in the following curriculum.

BASIC SCIENCE AND MATHEMATICS
- CHM 1020 -- (PS) Survey of General Chemistry: Cr. 4
- E T 2160 -- (CL) Computer Applications for Engineering Technology: Cr. 2
- MAT 1800 -- Elementary Functions: Cr. 4
- MAT 3430 -- Applied Differential and Integral Calculus (E T 3430): Cr. 4
- MAT 3450 -- Applied Calculus and Differential Equations (E T 3450): Cr. 4
- PHY 2130 -- (PS) General Physics: Cr. 3
- PHY 2131 -- General Physics Lab: Cr. 1
- PHY 2140 -- General Physics: Cr. 3
- PHY 2141 -- General Physics Lab: Cr. 1
- Life Sciences (LS) elective: Cr. 3
- *Total Credits:* 29

PDT TECHNICAL CORE
- AID 3300 -- Introduction to Industrial Design: Cr. 3
- AID 6300 -- Advanced Studio: Transportation Cr. 3
- E T 3030 -- Statics: Cr. 3
- E T 3850 -- Reliability and Engineering Statistics: Cr. 3
- E T 3870 -- Engineering Economic Analysis: Cr. 3
- E T 4999 -- (WI) Senior Project: Cr. 3
- E T 5870 -- Engineering Project management: Cr. 3
- MCT 3010 -- Instrumentation: Cr. 3
- MIT 3350 -- Applied Human Factors: Cr. 3
- MIT 3500 -- Machine Tool Laboratory: Cr. 1
- MIT 4700 -- Computer-Aided Design and Manufacturing: Cr. 3
- PDT Upper Division Technical Electives: Cr. 9
- *Total Credits:* 42

LOWER DIVISION TECHNICAL TRANSFER CREDIT (see page 177)
- E T 2140 -- Computer Graphics: Cr. 3
- E T 2200 -- Engineering Materials: Cr. 3
- EET 2000 -- Electrical Principles: Cr. 3
- Other technology courses: Cr. 21
- *Total Credits:* 30

COMMUNICATION REQUIREMENTS
- (BC) Basic Composition course: Cr. 3
- ENG 3050 -- (IC) Technical Communication I: Reports: Cr. 3
- ENG 3060 -- (OC) Technical Communication II: Presentations: Cr. 3
- *Total Credits:* 9

OTHER GENERAL EDUCATION REQUIREMENTS
- American Society and Institutions (AI): Cr. 3
- Critical and Analytic Thinking (CT) Competency Examination: Cr. 0
- Foreign Culture (FC): Cr. 3
- Historical Studies (HS): Cr. 3
- Philosophy and Letters (PL): Cr. 3
- Social Sciences (SS): Cr. 3
- Visual and Performing Arts (VP): Cr. 3
- *Total Credits:* 18

Total minimum semester credits for the PDT program: 128

Bachelor of Science in Manufacturing Engineering Technology

The Bachelor of Science In Manufacturing Engineering Technology (B.S.M.F.T.) degree prepares students for professional work in manufacturing industry and advanced production systems. This is a program of study which provides a combination of professional courses in manufacturing, computer systems, electronics, engineering technology, communication, and social science/humanities. The particular strengths of the program include: applied hands-on curriculum; hardware-oriented laboratory experiences; scientific advancement merged with applications; and the various skills and knowledge required for the enhanced job market in this field. This region of Michigan has a large concentration of high technology firms which employ manufacturing professionals, designers, and application integrators. The program offers excellent prospects for professional positions in both business and industry, where manufacturing dominates a broad spectrum of employment opportunities. Classes in the B.S.M.F.T. program are usually offered both during the day and in the evening.

Admission Requirements: The B.S.M.F.T. degree program is designed to admit students from Focus: HOPE's Greenfield Coalition with an associate degree or equivalent course work in manufacturing from Lawrence Technological University. A minimum grade point average (g.p.a.) of 2.5 is required for admission into the program. Students with a g.p.a. of 2.0 to 2.5 may be admitted as Pre-Engineering Technology students, and may be transferred into the B.S.M.F.T. program upon successful completion of pre-calculus (MAT 1800) and physics courses, with a g.p.a. of 2.5 or above. A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus. It is recommended that this examination be taken prior to first registration at Wayne State; contact the Testing, Evaluation, and Student Life Research Services Office (313-577-3400).

A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus. It is recommended that this examination be taken prior to first registration at Wayne State; contact Testing, Evaluation, and Student Life Research Services (313-577-3400)

Application for Undergraduate Admission form is required and may be requested from: Office of Admissions, Wayne State University, Detroit, Michigan 48202.

Degree Requirements: To earn a B.S.M.F.T. degree, a minimum of 132 semester credits are required. University policy allows a maximum of sixty-four semester credits transferred from community colleges to Wayne State; a minimum of thirty semester credits must be earned from Wayne State University.

In order to graduate, the University requires a minimum 2.0 g.p.a. in total residence credit, and the Division requires a minimum 2.0 g.p.a. in total coursework in the area of specialization; as well as satisfaction of all University Undergraduate General Education Requirements (see page 18). The degree credit distribution for the program is as follows:

Subject Areas with Minimum Credit Requirements
- Basic Science and Mathematics: 33 credits
- Manufacturing Engineering Technology Core: 38 credits
- Associate Degree Technical Transfer Courses: 33 credits
- Remaining General Education Requirements: 19 credits
- *Total Credits:* 132

For specific curricular outlines, consult the Division of Engineering Technology.

Engineering Technology Academic Regulations

For complete information regarding academic rules and regulations of the University, students should consult the General Information section, page 24. The following additions and amendments pertain to the Division of Engineering Technology.

Dean's List of Honor Students

A student who achieves a semester grade point average of 3.5 or more, based on a program of at least twelve credits, is notified by the Dean of citation for distinguished scholarship and his/her name is included on the Dean's List of Honor Students.

Substandard Performance

The grade 'D' is considered by the Division of Engineering Technology to represent substandard performance. The implications of this are particularly significant in science, mathematics, and technical sequences where a 'D' grade from another institution will not be accepted as transfer credits toward the degree.

If a grade of 'D' is received in any course which is prerequisite to another course in the student's program, or in a course in his/her area of specialization, or in a required course in mathematics, physics, or chemistry, the student may be required, by his/her adviser, to repeat that course.

A student who is not required to repeat a course in which a 'D' grade has been received may elect to audit such a course to better his/her knowledge. However, he/she then may not later enroll in the course for credit or obtain credit for the course by special examination.

A course in which a grade below 'C' has been earned may not be subsequently passed by special examination.

When repeating a course, failure for the third time to pass it with a grade satisfactory to the Division constitutes grounds for denying a student further registration in the Division of Engineering Technology.

Probation Policy

A student is considered to be on probation whenever his/her cumulative grade point average (g.p.a.) falls below 2.0. A student may also be placed on probation whenever his/her academic performance is deemed unsatisfactory. When placed on probation, the student is required to meet with the Division Head or the Academic Standards Committee of the Division of Engineering Technology, to remove an academic hold on his/her registration. While on probation, a student may not represent the Division of Engineering Technology in student activities. The Academic Standards Committee of the Division formulates the regulations for probationary students, and hears requests for exceptions.

A student on probation is expected to bring up his/her grade point average promptly. If, at the end of the first semester on probation, the student's cumulative grade point average has not increased to at least 2.0, he/she will be excluded from the Division of Engineering Technology for at least one calendar year. Course work taken at any institution during the period of exclusion may not be considered for transfer toward an engineering technology degree.

For part-time students, a semester will be considered to consist of twelve consecutive credits. If a student's cumulative g.p.a. reaches at least 2.0. by the end of the first semester after being placed on probation, he/she will be returned to regular status. Multiple occurrence of probation will result in the student's exclusion from the Division of Engineering Technology.

A student may be refused the privilege of registering in the Division if, at any time, his/her grade point average falls below 2.0. A student may also be refused the privilege of registering in the Division for irresponsible attendance and performance in class, regardless of any probationary status.

A student who has been refused registration may request that the Division Head or Academic Standards Committee reconsider his/her status. Such request should only be made when evidence of extenuating circumstances can be provided.

Technology Transfer Credit

The University limitation on transfer credit applicable to undergraduate degrees is sixty-four credits. Each of the six degree programs offered by the Division of Engineering Technology specifies some Wayne State University courses the equivalence of which is presumed to be transfer credit and as such must be part of that allowance, as well as some number of additional credits in technology transfer courses. These are cited in curricula-specific sections (all under the heading: Lower Division Technical Transfer Credits) which indicate the total number of these kinds of credits that must be part of the sixty-four credit allowance in each program. For evaluation of courses submitted to satisfy this requirement students should consult an Engineering Technology adviser.

Changes of Election and Withdrawal

University policy regarding changes of program and withdrawal from courses may be found on page 40. The following additions and amendments apply to the Division of Engineering Technology:

Registration and Adding Courses: A student may register for courses through the last day of the second week of classes for fifteen-week courses. A registered student may add a course through the last day of the second week of classes by submitting a completed Drop/Add form. A student may not change from one section of a course to another section of the same course after the fourth week of classes. Drop/Add forms will be valid for ten calendar days from the date of the earliest signature of approval. Once a student is admitted to Wayne State University, he/she does not have to go through the admissions procedure again. If a student does not register for two or more terms, he/she must first have his/her status upgraded at the University Records Office.

Withdrawals: Through the last day of the fourth week of fifteen-week classes, any student may withdraw from any class by processing a Drop/Add form at the Registration Office. If a student wishes to withdraw from class after the end of the fourth week and through the eighth week, he/she must obtain written approval of the instructor and the Division Head. Division policy does not permit withdrawal from classes after the eighth week of classes except in cases of extreme emergency.

Failure to follow the above policies may result in a grade of 'E.'

UNDERGRADUATE COURSES

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

ENGINEERING TECHNOLOGY COURSES (E T)

1500 Engineering Technology Trades Internship. Cr. 1-6

Prereq: consent of adviser. Offered for S and U grades only. Industrial practice dealing with specific skill trades in engineering technology, under supervision in cooperative internship program. (I)

2140 Computer Graphics. Cr. 3 (LCT: 2;LAB: 2)

Coreq: CSC 1050. Solution of drafting problems and development of graphic presentations using computer-assisted drafting techniques. Use of programming techniques for direct solution of drafting/graphic problems and available software routines. Introduction to the use of computer plotters, CRTs, digitizers. Material Fee As Indicated In The Schedule of Classes (F,W)

2160 (CL) Computer Applications for Engineering Technology. Cr. 2

Prereq: EET 2000 or E T 2140. Various software programming environments and programming skills for engineering technology applications, including programming logic, file IO, data acquisition and processing, computer simulation, and communication protocols. (F,W)

2200 Engineering Materials. Cr. 3 (LCT: 3)

Coreq: CHM 1020. Application and characteristics, both physical and chemical, of metallic and nonmetallic materials, polymers, and composites used in industry. The primary process involved in producing these materials. (Y)

2500 Co-op Experience. Cr. 1-4 (Max. 4)

Prereq: sophomore standing and consent of adviser. Offered for S and U grades only. Industrial practice under supervision in cooperative education. Work-study program. Report required. (T)

3030 Statics. Cr. 3 (LCT: 3)

Prereq: PHY 2130, E T 2140, CSC 1050; coreq: E T 3430. The analytical and graphic techniques for determining the forces acting upon and within a body or structural component under static load. Centroids and center of gravity. Moments of inertia. (F,W)

3050 Dynamics. Cr. 3 (LCT: 3)

Prereq: E T 3030 and MAT 3430. Kinematics; kinetics of particles; kinetics of translation and rotation of a rigid body; relative motion; use of equations of plane motion. Application of impulse and momentum principles; work and efficiency. (Y)

3430 (MAT 3430) Applied Differential and Integral Calculus. Cr. 4 (LCT: 4)

Prereq: MAT 1800. No degree credit in Colleges of Science and Liberal Arts. Limits, derivatives, applications of derivatives, definite integrals and their applications, and trigonometric functions. (F,W)

3450 (MAT 3450) Applied Calculus and Differential Equations. Cr. 4 (LCT: 4)

Prereq: E T 3430. No degree credit in Colleges of Science and Liberal Arts. A continuation of E T 3430, including logarithmic and exponential functions, first and second order ordinary differential equations, vectors, polar coordinates, Laplace transforms, Taylor series, and Fourier series. (F,W)

3850 Reliability and Engineering Statistics. Cr. 3 (LCT: 3)

Prereq: MAT 1800. Probability, hypergeometric, binomial, Poisson, and normal probability distribution; confidence intervals; inferences concerning means; linear regression; introduction to statistical quality control and reliability; use of computers. (F,W)

3870 Engineering Economic Analysis. Cr. 3 (LCT: 3)

Prereq: MAT 1800. Techniques to economically evaluate major technical projects, rate of return and present worth, interest formulae, federal taxes, risk, inflation, and non-economic constraints. (T)

4990 Guided Study. Cr. 1-6 (Max. 6) (IND: 1)

Prereq: consent of instructor. Supervised study and instruction in field selected by student. (I)

4999 (WI) Senior Project. Cr. 3 (LAB: 3;DSC: 2)

Prereq: satisfactory completion of the IC requirement, COM 1010. Must be taken during last semester before graduation. Student designs, builds, and tests product; philosophy of design. Project proposal to be submitted by second week, final outcome to be completed by thirteenth week; progress reports, and oral presentation required. (F,W)

5870 Engineering Project Management. Cr. 3

Prereq: E T 3870. Insights into human and organizational behavior affecting products; quantitative tools for successful management of engineering projects. A variety of product types are addressed. How to select, initiate, operate and control as well as terminate a project. (F,W)

5995 Special Topics in Engineering Technology I. Cr. 1-4 (Max. 8)

Prereq: consent of instructor. Topics to be announced in Schedule of Classes. (I)

ELECTRICAL/ELECTRONIC ENGINEERING TECHNOLOGY COURSES (EET)

2000 Electrical Principles. Cr. 3 (LCT: 3)

Prereq: MAT 1800; coreq: PHY 2140. Kirchhoff's laws, D.C. and A.C. circuit analysis, impedance, phasors, power and power factor correction, mutual coupling. Power transformers, D.C. and A.C. generators and motors, motor controls. (Y)

2100 Principles of Digital Design. Cr. 3 (LCT: 3)

Applied Boolean algebra and number systems. Logic families, K-mapping; combinational logic, multiplexers and demultiplexers, readouts and displays, flip flops. (Y)

2720 Microprocessor Fundamentals. Cr. 3 (LCT: 2; LAB: 2)

Coreq: CSC 1050. Use of microprocessors as interface devices, including software, interfaces, memory, registers, and microcomputer system architecture, computer programming design projects. Material Fee As Indicated In The Schedule of Classes (Y)

3100 Advanced Digital Design. Cr. 3 (LCT: 2; LAB: 2)

Prereq: EET 2100. System level design of digital logic circuits using hardwired and programmable logic devices. ROMs, PROMs, and PLAs. Synchronous and asynchronous circuit design and analysis. (F,W)

3150 Network Analysis. Cr. 4 (LCT: 3; LAB: 2)

Prereq: EET 2000, PHY 2140; coreq: E T 3450. Analysis of circuits with dependent sources, RL, RC, and RLC circuit transient and sinusoidal response, network functions, frequency response, and power analysis. (F,W)

3180 Analog Electronics. Cr. 4 (LCT: 3; LAB: 2)

Prereq: CHM 1020, EET 2000. Operational amplifiers, circuit and applications; summing and subtracting amplifiers; integrating and differentiating amplifiers; comparators. Design of active filters, oscilla-

tors and waveform generating circuits, and audio integrated circuits. Material Fee As Indicated In The Schedule of Classes (F,W)

3300 Applied Signal Processing. Cr. 3 (LCT: 3)

Coreq: EET 3150. Continuous-time and discrete-time signals, frequency response and impulse response; transfer function of linear systems, data acquisition and sampling, continuous and discrete Fourier transform; spectrum analysis and filtering; digital filter design. (F,W)

3500 Electrical Machines and Power Systems. Cr. 3 (LCT: 2;LAB: 2)

Prereq: E T 3430, EET 2000. Energy fundamentals. Physical and operating characteristics of D.C. and A.C. generators and motors, transformers. Electric power network. Transmission line stability. Power factor correction. Load sharing by transformers and generators. Per unit notation. Environmental impact of electric power generation. (I)

3720 Micro and Programmable Controllers. Cr. 3 (LCT: 2; LAB: 2)

Prereq: EET 2720, CSC 1050. Microprocessors and Programmable logic controllers; on-chip I/O resources, interfacing; controls, instrumentation, and communication; data manipulation and sequencer instruction set; development and debugging tools. Material Fee As Indicated In The Schedule of Classes (F,W)

4100 Computer Hardware Design. Cr. 3 (LCT: 2; LAB: 2)

Prereq: EET 3100, EET 2720. Structural organization and hardware design of digital computers. Register transfer, microoperations, and microprogram control. Processing and control units, arithmetic algorithms, input-output systems, and memory systems. (Y)

4200 Control Systems. Cr. 4 (LCT: 3; LAB: 2)

Prereq: E T 3030, E T 3450; EET 3010 or EET 3150. Feedback control systems with topics in time response, stability criteria, system representation, frequency response, compensation. PID controller; simulation of electrical and mechanical systems. Material Fee As Indicated In The Schedule of Classes (F,W)

4400 Electronic Communications. Cr. 3 (LCT: 3)

Prereq: E T 3450, EET 3150. Analog and digital waveform, waveform spectra, filtering of signals. Communication theories and systems, amplitude modulation, angle modulation, and pulse modulation. Introduction of digital communication and fiber-optic communication. (I)

4600 Power Electronics. Cr. 3 (LCT: 3)

Prereq: EET 3150, E T 3450. Understanding different types of power semiconductor devices; analysis of typologies of uncontrolled and controlled converters, dc-dc converters. Simulation of power converters and application of power converter technologies in industrial and utility applications. (Y)

4730 Embedded Systems Networking. Cr. 3

Prereq: EET 3100 and EET 3720. Principles of data communications and real-time embedded systems networking. P1C18F microcontroller family and multiple serial interfaces including USART, controller area network (CAN) bus along with other embedded standards. (F,W)

4990 Guided Study. Cr. 1-6 (Max. 6) (IND: 1)

Prereq: consent of instructor. Supervised study and instruction in field selected by student. (I)

5720 Computer Networking Applications. Cr. 4 (LCT: 3; LAB: 2)

Prereq: EET 3100, 3720. Networking protocols, components, architecture, and standards. Data communication, data packet structure, data transmission methods and techniques, network topologies, and media access control methods. Material Fee As Indicated In The Schedule of Classes (Y)

6150 Machine Vision in Manufacturing. Cr. 4

Prereq: E T 3850, PHY 2140. Machine vision concepts, image applications in robotics, digital vision systems, vision acquisition and processing, pattern recognition and texture analysis, cameras and software tools. (I)

6200 Control Systems for Vehicles. Cr. 4

Prereq: EET 4200. Control systems applied to traditional and hybrid automotive applications. Open and closed loops, electronic controls; sensors and transducers; hybrid and electric vehicles; engine control fundamentals; power-train controls; vehicle control in intelligent vehicle highway systems. (I)

ELECTRIC TRANSPORATION TECHNOLOGY (ETT)

3190 Fundamentals of Automotive Electrical and Electronic Systems. Cr. 3

Prereq: EET 2000, PHY 2140. Foundations in contemporary automotive electronic systems. Topics include: review of automotive electronics, basic circuit building blocks, vehicle controllers, networking, diagnostics, sensors, actuators, and power electronics. (F)

4150 Fundamentals of Hybrid and Electric Vehicles. Cr. 3

Prereq: E T 3450, PHY 2140. Hybrid and electric vehicle technologies: concepts and design, energy analysis, unified model approach, hybridization, hybrid powertrain architectures, IC engines for HEVs, transmissions used in HEVs, on-board energy storages. (W)

4210 Control Systems for Hybrid and Electric Vehicles Cr. 3

Prereq: ETT3190. Fundamental control systems and strategies for HEVs and EVs, including motor control, constant Volt/Hertz control, power electronic control, field orientation control, voltage source inverter, braking control systems, and drivetrain control. (W)

4310 Energy Storage Systems for Hybrid and Electric Vehicles. Cr. 3

Prereq: E T 3450, PHY 2140. Overview of advanced battery technologies and applications in EV/HEV, hybrid powertrain configuration and requirements, in-vehicle energy storage systems, battery development, thermal management, control systems, cell monitoring, balancing, and on-board diagnostics. (W)

4410 Introduction to Advanced Energy Storage. Cr. 3

Prereq: E T 3450, PHY 2140. Comprehensive coverage of energy storage for automotive and renewable energy; battery technology; hydrogen electrochemical cells and regenerative fuel cells; mechanical energy storage; thermal and chemical storage; superconductor. (F)

4510 Power Management and Applications of Energy Storage Systems. Cr. 3

Prereq: E T 3450, PHY 2140. Principles of electric machines, power electronics, control, and power management strategy for energy systems, and the applications of energy storage systems in alternative energy systems and electric drive vehicles. (F)

4650 Power Electronics and Charging Infrastructure for Electric Drive Vehicles. Cr. 3

Prereq: EET 3150, ETT 3510. Principles of power systems, distribution systems, and ac/dc charging systems; applications of power electronic technologies in traction control, battery management, and regenerative braking for electric drive vehicles. (W)

4740 In-Vehicle Networking and Embedded Systems. Cr. 3

Prereq: EET 3100. Principles of data communications and real time embedded systems networking, with emphasis on in-vehicle net-

working. Controller Area Networks and FlexRay are covered. Project-oriented course utilizing various hardware/software. (Y)

MANUFACTURING/INDUSTRIAL ENGINEERING TECHNOLOGY COURSES (MIT)

3350 Applied Human Factors. Cr. 3 (LCT: 3)
Introduction to human physiological and psychological functions and capabilities from an engineering viewpoint; sensory information processing and motor abilities, human-machine design aspects. (Y)

3500 Machine Tool Laboratory. Cr. 1 (LAB: 3)
Prereq: E T 2140. Laboratory experiences in manufacturing processes, machine tools, and mechanization. Calibration and part-setup. (F,W)

3520 Manufacturing Processes Theory. Cr. 2 (LCT: 2)
Prereq: CHM 1020; coreq: MIT 3500. Nature and deformation behavior of materials commonly used in manufacturing; basic processes used in transforming them into useful products; scientific theory underlying those processes; criteria for selecting particular processes. (F,W)

3600 Process Engineering. Cr. 3 (LCT: 3)
Prereq: MIT 3520 or former MIT 3510. Processing functions. Methods of manufacturing analysis. Manufacturing sequence, mechanization. Selection of tooling and equipment. Planning the process of manufacture. (Y)

4320 Production and Inventory Management. Cr. 3 (LCT: 3)
Prereq: E T 3850; MIT 3520 or former MIT 3510. Basic production scheduling and inventory management. Production planning, project management, inventory functions, and inventory costs. (Y)

4700 Computer-Aided Design and Manufacturing. Cr. 3 (LCT: 2; LAB: 2)
Prereq: E T 2140; MIT 3520 or former MIT 3510. Fundamentals of computer-aided manufacturing using computer software. Two- and three-dimensional applications programming, numerical control and programming. Material Fee As Indicated In The Schedule of Classes (Y)

4800 Quality Control. Cr. 4 (LCT: 4)
Prereq: E T 3850. Introduction to total quality systems design and to basic analytical techniques for quality control. (I)

4990 Guided Study. Cr. 1-6 (Max. 6) (IND: 1)
Prereq: consent of instructor. Supervised study and instruction in the field selected by the student. (I)

5500 Machine Tool Laboratory. Cr. 1 (LAB: 3)
Prereq: E T 2140. Laboratory experiences in manufacturing processes, machine tools, and mechanization. Calibration and part-setup. (F,W)

MECHANICAL ENGINEERING TECHNOLOGY COURSES (MCT)

3010 Instrumentation. Cr. 3 (LCT: 1; LAB: 3)
Prereq: EET 2000 and PHY 2140. Theory and use of measurement instruments and techniques; standards and dimensional units; experimental procedures and data analysis; sensors and transducers for parameters such as displacement, stress, strain, force, torque, temperature, motion, sound. Material Fee As Indicated In The Schedule of Classes (F,W)

3100 Mechanics of Materials. Cr. 3 (LCT: 2; LAB: 2)
Prereq: E T 3030; coreq: E T 3430. The elastic behavior of load bearing materials. Tension, compression, shear, combined stress, bending, torsion and columns. Failure analysis. Material Fee As Indicated In The Schedule of Classes (F,W)

3410 Kinematics and Dynamics of Machines. Cr. 3 (LCT: 2;LAB: 2)
Prereq: E T 3050. Velocity and acceleration of moving parts in machine elements and mechanisms; cam, gear, and gear train design; static and inertial forces, balancing, gyroscopic effects, and critical speeds. (F,W)

4150 Applied Thermodynamics. Cr. 3 (LCT: 3; LAB: 2)
Prereq: E T 3430, PHY 2130, CHM 1020. First and second laws of thermodynamics; power and refrigeration cycles; gas and vapor mixtures, nozzle and blade passage flow and combustion. Introduction to compressible flow. Direct energy conversion. Material Fee As Indicated In The Schedule of Classes (Y)

4180 Fluid Mechanics. Cr. 3 (LCT: 3; LAB: 2)
Prereq: E T 3030; prereq. or coreq: E T 3450. Properties of fluids, fundamentals of fluid flow, dimensional analysis and similitude, and flow measurement techniques. Analysis of hydrostatic equipment, hydrokinetic equipment and systems. Introduction to network analysis and calculation. (Y)

4210 Heat Transfer. Cr. 3 (LCT: 3; LAB: 2)
Prereq: PHY 2140; coreq: MAT 3450. Basic modes of heat transfer and their applications. Steady state conduction in one and two dimensions and transient conduction. Numerical and graphical methods. Heat exchanges. Condensation and boiling heat transfer. Introduction to mass transfer. (Y)

4230 Heating, Ventilation, and Air Conditioning. Cr. 3 (LCT: 3)
Prereq: MCT 4150 or former MCT 3150, MCT 4180 or former MCT 3180, or MCT 4210. Psychrometry: air and humidity calculations; heat transfer and transmission coefficients; heating and cooling loads; physiological considerations; air distribution systems; building energy use optimization and ASHRAE standard. (Y)

4400 Design of Machine Elements. Cr. 3 (LCT: 3)
Prereq: MCT 3100, MCT 3410. Fundamental concepts in the design of the separate elements which compose the machine; application of properties and mechanics of materials modified by practical considerations. (Y)

4990 Guided Study. Cr. 1-6 (Max. 6) (IND: 1)
Prereq: consent of instructor. Supervised study and instruction in the field selected by the student. (I)

5210 Energy Sources and Conversion. Cr. 3
Prereq: E T 3430, PHY 2140. Various energy sources and how they are utilized. Wind, solar, geothermal, fuel cells, storage devices, energy economics and transportation techniques, related to harnessing energy to a usable form such as electricity and heat. (Y)

6150 Hybrid Vehicle Technology. Cr. 4
Prereq: E T 3450, PHY 2140. Technical concepts and design, energy analysis, unified modeling approach, optimization, control; power generation, engine overview, concepts of hybridization, on-board energy storage; overview of motors, transmissions, fuel cells, future applications. (Y)

6410 Applied Vehicle Dynamics. Cr. 4
Prereq: E T 3450, E T 3050/EET 4200. Dynamic performance balance of vehicle subsystems: powertrains, brakes, steering, suspension, and tire; steady and transient motion conditions; role of structure and structural parameters to vehicle dynamics. (I)

GREENFIELD COALITION CHEMISTRY COURSES (GCC)

NOTE: All GCC courses below are *open only to students in the Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program*.

0900 Orientation and Teaming. Cr. 0

Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introduction to the concept of working in teams, presentation of ideas for developing appropriate study skills and for time management, discussion of strategies for writing and taking tests, introduction to reference searches using the library and Internet, and review of basic computer skills for opening files and using the network. (Y)

1012 Basic Chemistry. Cr. 2

Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Prereq: GCM 1013. The scope of chemistry, chemical reaction/measurement, mass, weight and density, temperature, periodic table, factor-label method. Includes solutions, acid and base chemistry, redox reactions, energy/enthalpy, and Hess' law. (Y)

2012 Chemistry/Materials Science. Cr. 2

Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Prereq: GCC 1012. Chemical equilibria and chemical kinetics. Methods for solving complex equilibrium problems; gas phase equilibria; solution equilibria and heterogeneous equilibria. Includes electrochemistry, corrosion and degradation of materials and advanced topics in kinetics. (Y)

3011 Chemistry/Materials Science II. Cr. 1

Prereq: GCC 2012, GCM 1022. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Crystal structures for simple metals, alloys and chemical compounds; thermodynamics and phase equilibrium; solids, liquids and nonideal gases; delocallization in metals; chemical bonding in network compounds; introduction to bonding in polymers. (T)

3031 Introduction to Organic and Polymer Chemistry. Cr. 1

Prereq: GCC 3011. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Basic nomenclature of organic chemistry; multiple bonds and aromatic character; chain character of polymers; design of polymers via chemical synthesis; classic mechanisms for polymer synthesis; polymerization processes; production of polymer composites. (T)

GREENFIELD COALITION ENGINEERING COURSES (GCE)

NOTE: All GCE courses below are *open only to students in the Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program*.

2261 Control Systems I. Cr. 1

Prereq: GCT 1221, GCS 2312. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. An overview of control systems and study of the application of sensors and actuators in control systems, digital logic, and programmable logic controllers. (Y)

2412 Manufacturing Planning. Cr. 2

Prereq: GCF 1013, GCE 2462. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Review of manufacturing economics, basic concepts of direct and indirect costs, and time value of money. Material requirements planning, basic dynamics of material requirements planning, the basic lot sizing techniques used in MRP, and the difference between MRP and other release control techniques such as Kanban. (T)

2462 Engineering Economics I. Cr. 2

Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Prereq: GCM 1013. Fundamental and advanced concepts of engineering: framework of economic analysis, equivalence, interest factors, payments, annuities, and rates; equivalent uniform annual cost, present worth, internal rate of return, pay-off, and comparative analysis. Evaluation of alternative manufacturing engineering projects: mutually exclusive, and/or independent. (Y)

3012 Engineering Materials II. Cr. 2

Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Prereq: GCT 2012. Study of the links between atomic bonding, crystal structure, imperfections, phases, processing and the resulting properties and performance (mechanical, physical, electrical, thermal, optical, magnetic) of the four classes of engineering materials: metals and alloys; ceramics and glasses; polymers; and composites. Inspection, testing, and heat treatment (including diffusion-based mechanisms) are related to materials and respective applications. Degradation/corrosion mechanisms and appropriate counter measures (including coatings) are related to materials and their applications. Life cycle analysis and materials selection (including economics) are covered through case studies and projects. (T)

3111 Machining Processes II. Cr. 1

Prereq: GCT 1112. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Foundation of knowledge in the area of machining processes. Mechanics behind material removal processes, single- and multi-point tool operations, theory of metal cutting and chip formation, cutting forces, power and energy analysis, thermal analysis, tools and inserts, surface finish and surface integrity, and economic considerations. (T)

3172 Metals Forming II Cr. 2

Prereq: GCT 3152, GCS 3132. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Foundation of knowledge in the area of materials forming processes. Material behavior and temperature in metal forming, strain rates and work hardening, effects of friction and lubrication, bulk deformation processes, rolling and forging analysis, extrusion, wire and bar drawing, sheet metal working including cutting operations, bending, and tool and die design. (T)

3262 Control Systems II. Cr. 2

Prereq: GCS 3311, GCS 3214. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introduction to computer numerical controls and linear systems, mathematical foundations for control systems, time domain techniques, frequency domain techniques, PID controls, case studies and projects. (T)

3314 Manufacturing Systems II. Cr. 4

Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Prereq: GCE 3111, GCE 3461, GCL 3013. Implementation of advanced theories. Students design manufacturing systems, solve production problems through application of advanced analysis tools, and analyze impact of new operational models on system management. (Y)

3461 Engineering Economics II. Cr. 1

Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Prereq: GCE 2462. Depreciation accounting for capital goods procured for manufacturing operations. Income tax consequences for various accounting methods and the analysis of investment opportunities in manufacturing processes where information on likely outcomes is either imperfect or incomplete. Development of comprehensive case study comprising data collection, analysis, interpretation and conclusions. (Y)

4113 Joining and Assembly II. Cr. 3

Prereq: GCT 3131. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Theory and practice of the important joining techniques, product design for ease of assembly, modeling and analysis of assembly systems, and an introduction to robotics. Fasteners, welding processes, line balancing issues, errors and error propagation in assembly systems and the kinematics of robots. (T)

4173 Tool Design and Construction. Cr. 3

Prereq: GCS 3132. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Principles, methods and analysis of tool design. Applications to the metal cutting industry. Cost, metal cutting, and clamping force analysis as required to maintain part tolerances and to provide analytical tools for fixture optimization. Designs for stamping and forming tools are introduced as well as computer aided design procedures. (T)

4313 Facilities Design. Cr. 3

Prereq: GCE 3314; GCE 3111. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introduction to plant location theory and analysis of models of facilities design; models for determining plant size and time phasing. Design of manufacturing, warehouse and material handling facilities. Use of heuristic, analytic, and computer-aided methods in the facilities design process. (T)

4413 Operations Management. Cr. 3

Prereq: GCE 3314; senior standing; 40 credits beyond AS/MET. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. The production and operations management function (a core function of most business organizations), which involves the planning, coordination, and execution of all activities directly related to production of goods and services. The course has a strong industry orientation in that it employs numerous real-life case studies. The course is made up of four modules. These are: Introduction to Operations Management; Design of Production and Service Systems; Planning, Execution, and Control of Manufacturing Systems; and Supply Chain Management. (T)

4513 Capstone Project. Cr. 3

Prereq: senior standing; 40 credits beyond AS/MET. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Comprehensive team design project utilizing all major components of manufacturing engineering technology, including technical and economic considerations. Team work is required. Written and oral presentation of the project are major considerations. (T)

4990 Special Topics. Cr. 1-4

Prereq: senior standing; consent of program manager/chairperson; outline of proposed study approved by instructor and chairperson prior to enrollment. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Supervised study and instruction. (T)

GREENFIELD COALITION FUNDAMENTALS COURSES (GCF)

NOTE: All GCF courses below are *open only to students in the Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program*.

1013 (CL) Computers in Engineering. Cr. 3

Prereq: admission to CAT. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Computer basics, operating system, introduction to computer hardware, word processing, spreadsheets, Visual Basic, and Internet. (Y)

1101 Basic Graphics. Cr. 1

Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Blueprint reading at MTI. (Y)

1113 Technical Graphics and Design. Cr. 3

Prereq: GCF 1101. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introduction to computer process used in design graphics and the coupling needed between design and manufacturing. Visualization, generation of design geometry using 3-dimensional solids as the geometry primitives, control and utilization of design geometry, the design-graphics process, and the CAD to CAM process including data base type of tracking and validation of processes, including process planning, materials, feature, etc. (Y)

3213 Kinematics of Machines. Cr. 3

Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Prereq: GCS 3132. Fundamental kinematic kinematic concepts necessary for understanding mechanical functions of manufacturing equipment. Determination of position, velocity and acceleration of any point on a linkage mechanism. Design of specialized components for motion control including cams, cam-followers, gears and gear trains. Force analysis and static as well as dynamic balance of mechanisms. (Y)

4314 Mechanisms and Machines. Cr. 4

Prereq: GCS 3191, GCS 3163. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Basic concepts in mechanisms and kinematics, kinematic diagrams, degrees of freedom, graphical and analytical methods of displacement analysis, velocity analysis, instant centers, static force analysis, introduction to acceleration analysis, inertia forces, and introduction to dynamics of mechanisms. Introduction to cams and follower types, graphical displacement analysis, gears and gear trains, and gear tooth nomenclature. Introduction to kinematic synthesis, concepts of motion, path, and function generation, and dimensional synthesis. (T)

GREENFIELD COALITION LIBERAL ARTS COURSES (GCL)

NOTE: All GCL courses below are *open only to students in the Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program*.

1013 (BC) English Composition. Cr. 3

Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Prereq: admission to CAT. The writing process, report writing, memos, letters and editing reports; applying strategies for locating information using library and computer sources to design and write a research report. Writing essays and designing visuals. (Y)

1214 (LS) Psychology and Sociology. Cr. 4

Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Prereq: GCL 1013. Methods of learning and memory; psychological and sensory psychology; human growth, development, and personality; and social psychology and sociology. (Y)

2013 (IC) Communications in Manufacturing I. Cr. 3

Prereq: GCL 1013. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Theories of technical communication, persuasion, organizational communication, effective communication opportunities and obstacles, and the ethics of communications. Methods of communication, project proposal, and technical presentations, and an introduction to traditional and non-traditional media presentations. (Y)

2614 Comparative Politics and Economics. Cr. 4

Prereq: GCL 2013. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Preparation to become active participants in globalization issues. Learning how to integrate social, political, and economic knowledge for a manufacturing company's expansion in the global market. Study of team building, research strategies, cultural understanding, project planning, comparative political systems, an economic development model, comparative economic systems, and political and economic integration. (Y)

3013 (OC) Communications in Manufacturing II. Cr. 3

Prereq: GCL 2013. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Review of communications theory, effective strategies for composition and oral presentations, advanced oral presentations, multimedia presentations, and non-traditional presentations. Requirements include document design, design of manuals and reports, process demonstrations, and a group project

culminating in a written feasibility report and formal oral presentation. (Y)

3113 Introduction to Philosophy. Cr. 3

Prereq: GCL 2013. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introduction to philosophy through a consideration of such topics as the person, human values, freedom, morality, knowledge, death, the meaning of life, God, and the nature and destiny of human existence. Students come to understand that philosophy asks the most fundamental questions about ourselves, the world, and the relationship between the two. The method of philosophical thinking and critical reflection will be stressed. (T)

3313 Contemporary Social Problems. Cr. 3

Prereq: GCL 2013. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Course addressing general contemporary social problems. (T)

3363 Political Science. Cr. 3

Prereq: GCL 2013. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Interdisciplinary approach to phases of United States constitutional development and the relationship of the courts to American government in historical and contemporary contexts. (T)

3413 History of Technology. Cr. 3

Prereq: GCL 2013. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Major technological developments that have affected the course of human history, particularly in America; interrelationships of the technical to the sociocultural milieu. (T)

3513 (VP) Arts in Action. Cr. 3

Prereq: GCL 2013. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introduction to arts and humanities through reading and experience. Areas include: film, art, architecture, and theatre; reading, projects, essays and other writing included. (T)

3613 (FC) Global Cultures. Cr. 3

Prereq: GCL 2013. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Preparation for working effectively in culturally-diverse environments. Activities such as role playing, interviews with international engineers, and videotapes of cross-cultural encounters to help students gain appreciation of a wider range of cultures, including their own. (Y)

4113 Introduction to Religion. Cr. 3

Prereq: GCL 2013. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Methods scholars employ for describing and understanding religious phenomena. Various dimensions of religious belief, experience, and practice; main religious themes, such as the nature of God, the human condition, and salvation, in the context of different religious traditions. The values that religions promote; the major religious issues commonly discussed in academic and/or public circles. (T)

GREENFIELD COALITION MATHEMATICS COURSES (GCM)

NOTE: All GCM courses below are *open only to students in the Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program*.

1010 Basic Math. Cr. 0

Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Arithmetic, including fractions, decimals, percentage, conversion of units; geometry; equations in one unknown and graphing of lines; ratios and proportions; operations with polynomials; factoring; radicals and exponents. (T)

1013 Technical Mathematics I. Cr. 3

Prereq: GCM 1010. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Functions and graphs; systems of linear equations; quadratic equations; exponential and logarithmic functions; introduction to matrices; determinants; Cramer's rule; linear inequality; introduction to conic sections. (Y)

1022 Technical Mathematics II. Cr. 2

Prereq: GCM 1013. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Trigonometric functions with right angle application; radian measure; general trigonometric functions; graphing of trigonometric functions; identities; trigonometric equations; vectors in two- and three-dimensional space; oblique triangles; complex numbers and polar coordinates. (Y)

2114 Technical Calculus I. Cr. 4

Prereq: GCM 1022. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Limits, continuity, tangents, derivatives, curve sketching, indefinite and definite integrals, applications of derivatives, related rates, area between two curves, derivatives and integration of transcendental functions, use of computer-based tools (such as Maple/Mathpert). (Y)

2413 Statistical Methods in Manufacturing. Cr. 3

Prereq: GCM 1013. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introduction to theory of statistics. Prediction, data representation, probability, sampling theorem, estimating, correlation, tools for quality control, descriptive statistics, data collection systems, control charts, process capability, tolerance analysis, hypothesis testing and regression analysis. (Y)

3214 Technical Calculus II. Cr. 4

Prereq: GCM 2114. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Calculus of transcendental functions; L'Hopital's rule; application of derivatives and integration of transcendental functions; techniques of integration; application of integrals; sequences and series including power, Taylor and Fourier; integration of compound functions; trigononetric and inverse trigonometric functions. (T)

3254 Technical Calculus III. Cr. 4

Prereq: GCM 3214. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Analytic geometry in two and three dimensions; plane curves; calculus of vectors; functions of several variables; differentiation and integration of several variables and applications; linear algebra; characteristic equations; applications to moment and force. (T)

3312 Differential Equations I. Cr. 2

Prereq: GCM 3214. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Ordinary differential equations; solutions to higher order differential equations with constant coefficients; applications of first order differential equations; matrix algebra; Laplace transform; systems of linear differential equations and applications. (T)

3332 Differential Equations II. Cr. 2

Prereq: GCM 3312. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Higher order differential equations;

series solution of linear equations; modeling with higher order differential equations; Laplace operator; systems of differential equations; and applications. (T)

3411 Design of Experiments. Cr. 1

Prereq: GCM 2413. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introduction to the key aspects of designing, executing, and analyzing data from a designed experiment. Basic principles will include randomization, replication, and blocking. Types of experiments will include single factor experiments, full factorials, and factional factorials. Analysis techniques will include analysis of variance (using a statistical software package) and graphical techniques. Material will be presented using numerous examples and by planning and conducting several in-class experiments. A group project involving the design, execution, and analysis of an experiment is required. (T)

GREENFIELD COALITION SCIENCE COURSES (GCS)

NOTE: All GCS courses below are *open only to students in the Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program*.

2113 (PS) Mechanophysics I. Cr. 3

Prereq: GCM 1022. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introduction to basic physics concepts related to study of motion and forces, and static equilibrium. Translation and rotation of a rigid body, rigid body rotation, coriolis effect, vectors and motion. (Y)

2141 Engineering Mechanics I. Cr. 1

Prereq: GCS 2113; GCM 2114. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introduction to vibrations of mechanical systems and to the basic concepts of engineering structural analysis. (Y)

2211 Thermoscience I. Cr. 1

Prereq: GCM 2114. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introduction to properties and laws associated with thermodynamics, fluid mechanics, and heat transfer. Fluid density, pressure, and viscosity; fluids at rest (including Pascal's and Archimedes' principles); conservation of mass; Bernoulli equation; temperature scales; thermal expansion of liquids and solids; heat transfer; specific heats and heats of transformation; first law of thermodynamics; kinetic theory of gasses; second law of thermodynamics. (Y)

2313 Electroscience I. Cr. 3

Prereq: GCM 1022. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Principles of electrostatics; concepts of DC-analysis; function of devices and everyday applications employing principles of electromagnetism, and/or inductors and capacitors. (Y)

3112 Mechanophysics II (T). Cr. 2

Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Prereq: GCS 3214; student in engineering technology program. Properties of mechanical elements and relationship to strength, mass properties of mechanical elements, centroids, inertia and their relation to kinetics. Introduction to the concepts of power and energy, and how they relate to translating and rotating objects. (Y)

3132 Engineering Mechanics II. Cr. 2

Prereq: GCM 3214, GCS 3163. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introduction to mechanics of deformable bodies, comprising axial loads, beam bending, torsion of circular rods, and combined loads. Component response to the above loads and its relationship to material properties. (Y)

3163 Mechanophysics II. Cr. 3

Prereq: GCS 2113, GCM 3312. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Analytical foundations for kinematics concepts, integral and differential relationships in the equations of motions, centoid and inertia, momentum, translational and rotational kinetics (T)

3191 Engineering Mechanics III. Cr. 1

Prereq: GCS 3132; GCM 3332. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introductory study of vibrations of mechanical systems, comprising simple undamped and damped free and forced vibration; introduction to mode shapes and frequencies (T)

3214 Thermoscience II. Cr. 4

Prereq: GCS 2211. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Four-part course: (1) First and Second Laws of Thermodynamics: heat and work, internal energy and enthalpy, engine operation, energy conservation in machining operations, p-v-T diagrams and thermodynamic tables, entropy, and power and refrigeration cycles. (2) Fluid mechanics: forces on submerged objects, buoyancy, equations of fluid statics, fluid machines, and fluid flow. (3) Modes of heat transfer and relationships between conservation of energy and heat transfer. (4) Applications of thermal science fundamentals to industrial processes. (Y)

3311 Electroscience II: AC Circuit Analysis and Topics in Electronics. Cr. 1

Prereq: GCS 2313; GCM 3312. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introduction to concepts of AC-circuits, sinusoidal waveform, complex algebra, phasors, power calculations and measurements, power factor, and transformers. Operations and applications of electronic elements like the diode and the operations amplifer. (Y)

3361 Electroscience III: Trans and Digital Concepts. Cr. 1

Prereq: GCS 3311; GCM 3332. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Transient circuit analysis including RI, RC, and RLC circuits; introduction to basic digital concepts. (T)

GREENFIELD COALITION TECHNOLOGY COURSES (GCT)

NOTE: All GCT courses below are *open only to students in the Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program*.

1112 Machining Processes I: Cutting and Process Technology. Cr. 2

Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Commonly used machine tools and machining capabilities. Parts and components of various machining tools. Working with the lathe, machining, drilling, grinding. CNC machines and working with CNC. (Y)

1211 Measurement Fundamentals. Cr. 1

Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Presentation of terminology, procedures, and capabilities of devices used in the field of measurement, and introduction to measurement statistics. (Y)

1221 Instrumentation. Cr. 1

Prereq: GCT 1211; GCM 1013. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Study of instrumentation used in manufacturing environments. Overview of control system terms, discrete/binary signals, analog signals, multiplexed signals, analog to digital conversion, and programmable logic controllers. (Y)

2012 Engineering Materials I. Cr. 2

Prereq: GCM 1013; GCC 2012. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Inspection and

testing, heat treatment, and adhesives and coatings. Sample preparation techniques for microstructure examination and mechanical testing and testing procedures, effect of heat treatment on microstructure and properties of metals, and basics of inorganic coatings, polymeric coatings, and adhesives. (Y)

2112 Manufacturing Processes. Cr. 2

Prereq: GCM 1013. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introduction to issues of product quality and tolerances, manufacturing processes for casting, and how the various methods influence secondary operations such as machining and metal forming processes. Manufacturing joining processes including various types of welding, brazing and soldering; study of heat flow in the workplace. (Y)

2182 Tool Design. Cr. 2

Prereq: GCM 1022, GCF 1113, GCT 1112, GCT 2012. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Tool design methods, tool-work interaction, tool materials and work holding principles, design of drill jigs, design of fixtures, tool design guide. (Y)

2212 Electrical Machines. Cr. 2

Prereq: GCS 2313. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introduction to theoretical and practical aspects of: industrial electric power, industrial transformers, AC and DC motors and generators, synchronous and induction machines, special purpose industrial electric machines, and solid state motor controllers and devices. (Y)

2314 Manufacturing Systems I. Cr. 4

Prereq: GCE 2412; GCM 2413; GCL 2013. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introduction to manufacturing systems design. Fundamentals of manufacturing systems design, graphical analysis tools, mathematical analysis tools, and data communication networks. (Y)

2452 Ethics and Industry. Cr. 2

Prereq: GCL 1013. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Introduction to the ethical dimensions of engineering and the interrelations of the engineering profession and to the interrelations of engineering products and society. Impact of technological systems on culture, especially American culture. (Y)

2511 Design Project. Cr. 1

Prereq: forty-two credits in engineering technology degree program. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Design project incorporating fundamentals learned in previous courses. The design process emphasized, including the establishment of objectives, analysis of alternative solutions, and a final evaluation and recommendation. Final written and oral report required; use of manufacturing facility in production of design is encouraged. (Y)

3131 Introduction to Joining. Cr. 1

Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Prereq: GCS 3214; GCS 3311. Introduction to methods of joining: electric arc, thermo-mechanical, and radiation welding and fasteners, different joining methods, consumable and non-consumable electrodes, power source requirements and energy balance. (Y)

3152 Materials Forming I. Cr. 2

Prereq: GCT 2112, GCS 2113, GCS 2141. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Topics include: forging, extrusion, rod and wire drawing, sheet metal forming. (Y)

4113 Product Realization. Cr. 3

Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Prereq: GCE 3314; GCE 3012; GCT 3131; GCT 3152. Systematic process and procedures of determining the product to be launched based on customer needs. Product planning and assessment of customer needs; product specification; CAD/CAM design; and product manufacturing. (Y)

4513 Technology Design Project. Cr. 3

Prereq: senior standing; forty credits beyond AS/MET. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Design project incorporating fundamentals learned in the degree program. Emphasis on the design process, including establishment of objectives, analysis of alternative solutions, and final evaluation and recommendation. Final written and oral report required; use of manufacturing facility in production design is encouraged. (Y)

4990 Special Topics. Cr. 1-4

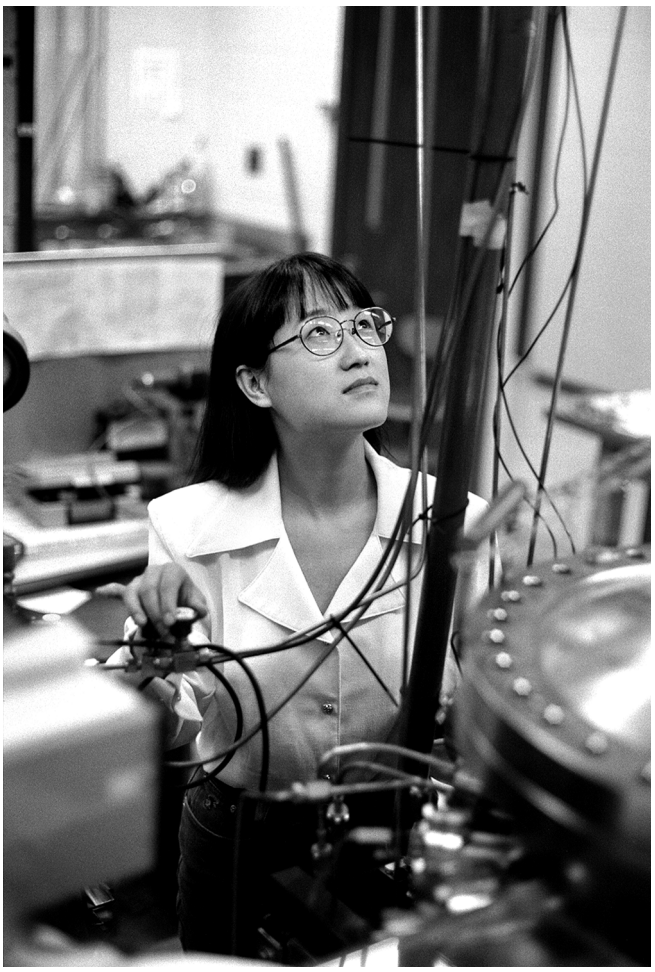
Prereq: senior standing; consent of program manager/chairman; outline of proposed study approved by instructor and chairman prior to election of course. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Supervised study and instruction. (Y)

4993 Management of Manufacturing Engineering Projects. Cr. 3

Prereq: senior standing. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. Technical and business practices supporting manufacturing engineering: business processes (purchasing, quoting and bidding, business reporting, e-commerce); engineering processes (project management, quality management, technical reporting, process planning, technical reviews). (T)

4995 Special Topics. Cr. 1-6

Prereq: consent of instructor. Open only to students in Focus:HOPE/Greenfield Coalition BSMFT Program. (Y)



COLLEGE OF FINE, PERFORMING and COMMUNICATION ARTS

INTERIM DEAN: Matthew Seeger

Foreword

Mission Statement

The College of Fine, Performing and Communication Arts at Wayne State University provides the highest quality education for practitioners, scholars, and consumers in art, art history, communication, dance, music and theatre. This education leads to careers, uses for the arts in other disciplines, enhanced critical abilities, the enrichment of everyday life and the building of new generations of artists, professionals and scholars. Programs of study focus on the integration of theory and practice through the creation, discovery, preservation and transmission of knowledge in fine, performing and communication arts.

The College serves the University and the larger community by creating partnerships that emphasize its own rich, diverse curriculum, interdisciplinary studies, reciprocal professional interaction and outreach activities appropriate to each area of work. Special emphasis is placed on forging alliances with local, state and national constituencies such that the College is both a leader and a resource providing expertise, information and guidance.

Within an appropriate and attractive academic environment the College promotes an atmosphere conducive to intellectual and artistic growth, risk-taking and personal and professional development at all levels in both individual and collaborative endeavors. This environment also assists the College in its role as a national center for creative, research and teaching excellence.

As the cultural gateway of the University, the College provides public events and curricular offerings that nurture creative development, enrich aesthetic values and sensitivity, heighten awareness of the arts experience and reflect the disciplinary diversity of its areas of study. Cultural, racial, ethnic and gender diversity is an important commitment in public events and educational efforts.

Ultimately, the mission of the College is the integration of theory and practice through the creation, discovery, preservation and transmission of knowledge in the fine, performing and communication arts.

Campus Resources: Traditional courses of study are augmented by a variety of performance and presentation resources considered integral to many of the creative programs. Included in these are the Bonstelle Theatre, the Wayne State University Dance Company, the Symphonic Band and University Symphony Orchestra, the Intercollegiate Debate Team, plus exhibitions in the Elaine L. Jacob Gallery and the Department of Art Gallery that feature work created by students and studio faculty. These are only a few of the campus resources that are especially important for majors in the College. A more comprehensive listing can be found under each of the specific Departments.

Detroit Resources: The proximity of the Wayne campus to institutions of the Detroit Cultural Center (which includes the Detroit Institute of Arts, Museum of Contemporary Art Detroit, the Charles Wright Museum of African American History, Michigan Opera Theatre and Orchestra Hall, among other institutions) provides further unique and enriching benefits for students; professional staff members of these institutions often serve as adjunct faculty in College of Fine, Performing and Communication Arts programs. Nearby, too, are major print and electronic communications resources that similarly provide both adjunct faculty and professional assistance to other programs in the College.

Accrediting Agencies: Programs offered by the Maggie Allesee Department of Dance are accredited by the National Association of Schools of Dance. Programs in the Department of Music are accredited by the National Association of Schools of Music. Programs in the Department of Theatre are accredited by the National Association of Schools of Theatre.

DEGREE PROGRAMS

BACHELOR OF ARTS with majors in

- Art
- Art History
- Communication Studies
- Fashion Design and Merchandising
- Film
- Journalism
- Media Arts and Studies
- Music
- Public Relations
- Theatre

BACHELOR OF FINE ARTS with majors in

- Art with concentrations in
  - Ceramics
  - Drawing
  - Fibers
  - Graphic Design
  - Industrial Design
  - Electronic Arts
  - Interior Design
  - Metalsmithing
  - Painting
  - Photography
  - Printmaking
  - Sculpture
- Dance
- Theatre with concentrations in
  - Design/Technology
  - Performance

BACHELOR OF MUSIC with concentrations in

- Composition/Theory
- Instrumental Music Education
- Jazz Studies
- Music Business
- Music Technology
- Performance
- Vocal Music Education

BACHELOR OF SCIENCE with majors in

- Dance
- Fashion Design And Merchandising

MASTER OF ARTS with majors in

- Art
- Art History
- Communication
- Dispute Resolution
- Fashion Design and Merchandising
- Music
- Theatre

MASTER OF MUSIC with concentrations in

- Composition/Theory
- Conducting
- Jazz Performance
- Music Education
- Performance

MASTER OF FINE ARTS with majors in

- Art
- Theatre

DOCTOR OF PHILOSOPHY with majors in

Communication
Theatre

GRADUATE CERTIFICATE in Dispute Resolution

GRADUATE CERTIFICATE in Orchestral Studies

Bachelor's Degree Requirements

Credits

A candidate for a Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Music, or Bachelor of Science degree must complete at least 120 credits. Certain curricula may require additional credits. (See 'Restrictions on Credit,' below.)

General Education Requirements

University-wide general education requirements are designed to enhance students' basic skills and the diversity of their intellectual background. These requirements assure minimal competence in those skills needed to succeed in college and professional life and provide a selective introduction to the increasingly broad range of academic disciplines represented at the University. They serve to emphasize the fundamental means and essential knowledge required for continuing self-education and intellectual growth.

Beginning with the Fall semester of 1987, all first-semester freshmen entering the College of Fine, Performing and Communication Arts and all students who transfer twelve or fewer credits into the College are required to satisfy the University General Education Requirements (see page 18) and, for students in Bachelor of Arts degree programs, the following foreign language requirement:

Foreign Language Requirement: All students pursuing the Bachelor of Arts degree in the College of Fine, Performing and Communication Arts must successfully demonstrate proficiency equivalent to the three-course basic sequence in a single foreign language. Proficiency is proved by completing courses numbered 1010 (1100, 1110), 1020, and 2010 in the following subject areas: Arabic, Armenian, Chinese, French, German, Greek, Hebrew, Italian, Japanese, Latin, Polish, Russian, Spanish, Swahili, and Ukrainian well as Greek 1110, 1120, and 2110. Those students continuing in the study of a foreign language begun in high school or at another college will be placed at an appropriate level in the sequence, as determined by means of qualifying examinations or interviews administered by the Department of Classical and Modern Languages, Literatures, and Cultures, and must complete the sequence to demonstrate proficiency. The College Foreign Language Requirement will be considered satisfied by those students whose test scores place them beyond the intermediate (third course) level.

Students may satisfy the University General Education Requirement in Foreign Culture by successfully completing a three-course sequence (through 2010 or 2110) in a single foreign language.

Bilingual Students: The College Foreign Language Group Requirement will be considered as satisfied for students who were born in and completed their secondary education in a country whose language is not English. However, no credit (through course work or by examination) will be granted for elementary- or intermediate-level courses in that language. Bilingual students who satisfy the Foreign Language Group Requirement in this manner will simultaneously fulfill the University General Education Requirement in Foreign Culture.

Proficiency in English and Mathematics

All undergraduate students who register for the first time at Wayne State University are required to demonstrate proficiency in English and mathematics by the time they have earned sixty semester credits toward a bachelor's degree. For full particulars of these requirements, see the General Information section of this Bulletin, page 18.

Curriculum Requirements

A curriculum usually designates the student's general area of interest or eventual professional choice. By choosing the General Curriculum, however, the student indicates only the intention to take a degree in one of the Departments of the College or that a final goal has not been decided upon. Since educational interests may change during the course of the student's college career, a curriculum may be changed at any time by consulting an adviser.

Some curricula outline specific programs of study. Others are governed only by the *group requirements* and future major requirements and recommendations. Group, curricular, and major requirements may be modified from time to time during the student's course of study, and students should periodically consult with the appropriate adviser. Descriptions of the various curricula may be found in this Bulletin, under each Department in the College of Fine, Performing and Communication Arts.

Course requirements vary with each curriculum. Exceptions are permitted to the College rules governing the minimum and maximum credits in the major subject and the maximum credits allowed in restricted courses if such exceptions are stated or implied in the curriculum requirements outlined herein. Curriculum requirements are included in the departmental sections and are followed by a description of the courses pertinent to the major.

Major Requirements

A major is a program of intensive study in a Department or area within the College. The specific course requirements or areas for majors are listed in this bulletin under each of the Departments of the College. Students who plan to elect one of these majors should consult with a departmental adviser prior to initial course registration in the freshman year. Requirements for declaration of a major vary by degree. Students must complete all courses in the major with the grade of 'C' (2.0) or better.

Declaration of Major: To declare a major, the student should consult a departmental adviser well in advance of a formal declaration, since the acceptance of the declaration of major is subject to the advice of the department concerned and may require an audition or portfolio review. Declaration of Major forms are available in the University Advising Center, 1600 Adamany Library Building. At the time of formal declaration, the student must present to the department a current transcript and a Degree Audit from University Advising, obtain the signature of the department chairperson or designated representative on the Declaration form, and file it in the College of Fine, Performing and Communication Arts Dean's Office, 5104 Gullen Mall. All courses elected or changed by the student after the declaration of a major must be approved by the departmental adviser.

All undergraduate students must successfully complete a capstone course within their major. This course will be taken during the senior year (last thirty credits in course work). The capstone course will provide a systematic focus on and assessment of the knowledge and skills obtained in the major.

The major must include at least twenty credits in one subject, exclusive of the introductory courses and inclusive of some advanced work. No more than forty-six credits in the major subject (including introductory courses) may be counted toward a degree, except in specific curricula in which additional courses are specified in the curriculum outline.

For majors that require intensive study in a particular subject, more than forty-six credits are allowed.

Within the above limits, each major program has specific requirements, and these requirements may be modified from time to time; therefore, it is the student's responsibility to obtain the current requirements from the major Department.

The major completed is part of the degree designation on the diploma.

Double Major: If a student wishes to declare a double major, the approval of the chairperson or delegated representatives of each of the departments of the intended majors must be obtained. In order for a student to graduate with a double major, the major requirements in both areas of concentration must be fulfilled. The student must complete all courses in both majors with an over-all grade point average of 2.0 ('C'). In the College of Fine, Performing and Communication Arts, the grade of 'C' or better must be achieved in all courses required for the major. Both majors are designated on the diploma.

PLEASE NOTE: 1) If the majors are in two different colleges, the student must complete the General Education curriculum of the college that has the most comprehensive requirements; 2) only the name of the first of the two majors will appear on the diploma; and 3) the names of both majors will appear on the transcript.

Minor Fields

The College of Fine, Performing and Communication Arts offers the option of a minor. Students may choose to fulfill a minor but are not required to do so. In general, minors require 18-21 credits. Courses that do not apply toward the major cannot apply toward a minor. Students are strongly encouraged to consult with departmental advisers for course selections. The notation of the minor will appear on the transcript but not on the diploma. Declaration of the minor will be made by the student only when filing for graduation. For an index to Minors offered throughout the University see page 17.

Teacher Preparation Curricula

Health Examinations: At the beginning of the freshman year, all students entering the University who are considering teacher education work should take the health examination. A health re-check is required at the time of admission to the College of Education.

Students preparing to teach in dance or music will register in the College of Fine, Performing and Communication Arts during their freshman and sophomore years and enroll in the combined curriculum with the College of Education at the beginning of their junior year. During the first two years, they will see the departmental advisers for general counseling. Application for entrance to the College of Education should be submitted after the completion of fifty-three credits in course work.

— Combined Curriculum for Music, Dance and Communication Majors

This curriculum leads to a bachelor's degree and a Michigan Secondary Provisional Certificate.

The Combined Curriculum for Secondary Teaching is offered in cooperation with the College of Education and prepares the student for a teaching major in grades K-12 (music, dance) and 7-12 (speech) and a teaching minor in grades 7-12. In this curriculum the student takes the first two years of work in the College of Fine, Performing and Communication Arts. Courses in the third and fourth years are taken concurrently in Education and Fine, Performing and Communication Arts. Students interested in this program should consult a departmental adviser who will supply a curriculum outline.

Degree in the College of Fine, Performing and Communication Arts: The student will remain registered in the College of Fine, Performing and Communication Arts and officially elect a departmental major or concentration no later than the beginning of the junior year. The student then applies to the College of Education for official admission to the combined curriculum for secondary teaching and must be approved by the College of Education as a candidate for teacher certification. During junior and senior years the program requests will be signed by both a College of Fine, Performing and Communication Arts major adviser and by the appropriate adviser in the College of Education.

Second Degree

A student who has received a Fine, Performing and Communication Arts degree from Wayne State University or any other accredited institution may obtain a second bachelor's degree in another academic area by registering in the College/School sponsoring the degree program. A graduate of Wayne State University who has earned a degree from the College of Fine, Performing and Communication Arts may be ranked as an undergraduate by declaring a new major and indicating a desire to earn a second undergraduate degree in a departmentally approved area of concentration. Other Wayne State University graduates must transfer to the College of Fine, Performing and Communication Arts. A student from another institution must be admitted to the College by the University Admissions Office.

If a student is pursuing a Bachelor of Arts as a second degree and as part of the first degree he/she has not completed the Foreign Language Requirement, then he/she will have to do this as part of the Bachelor of Arts program. It is assumed that the second degree major will be different than that of the first degree and the student is not earning redundant credit; generally, no second degree will be granted in the academic area in which the first degree was earned. The University also requires that the student complete at least thirty credits in coursework at Wayne State University beyond the first degree, in order to be granted a second bachelor's degree from Wayne State University.

Concurrent Degrees

A student who has completed all the University, School/College, and Department requirements for two different degree programs and who has accumulated 150 or more degree credits may apply for both degrees simultaneously. A separate diploma will be issued for each degree and both degrees will be listed on the transcript. However, students intending to earn concurrent degrees are required to obtain permission from the Office of the Dean of each college sponsoring one of the intended degree programs prior to the accumulation of 120 degree credits. Another, and more usual, procedure for students satisfying the requirements of two different major programs is to declare a double major and graduate with one degree, in which case as little as 120 degree credits may be required (See 'Double Major,' page 190.)

Restrictions on Credit

The College imposes the following restrictions on credit:

Maximum Credits in One Subject: A student may not count as credit toward a degree more than forty-six credits in courses in any one subject except in specific curricula in which additional courses are specified in the curriculum outline.

Over-Age Credits: A student attempting to complete a major after a protracted interruption in education, or on a part-time basis over an extended period of time, may find that some of the early course work is out of date. In such cases, a Department may require refresher work or demonstration of preparation for advanced courses in the Department.

Restrictions on Transfer Credit — *Two-year Schools:* No more than sixty-four semester credits may be transferred from two-year colleges.

Restricted Courses: Degree credit is not given for elections in restricted courses that exceed the approved limit specified below.

Advanced Courses: At least fifteen credits in courses numbered 3000 or above must be earned.

Repeated Subjects: It is understood that degree credit will not be granted for course work for which credit has already been granted. Since similar courses may have different names at different times and at different colleges, students are advised to make sure they do not offer repeated course work as credit toward a degree.

Extra Credits: Extra credits are any credits taken in excess of the normal load of eighteen credits per term. A student with a 3.0 grade point average may take more than eighteen credits only when the proposed program carries the written approval of the adviser and the Dean.

Grade Point Average

All students are required to maintain an over-all grade point average of 'C' (2.0) for all degree work elected. See 'Grade Point Average' in the General Information section of this Bulletin, page 42.

Residence

To qualify for a baccalaureate degree in the College of Fine, Performing and Communication Arts a minimum of thirty credits must be earned in the College. The last thirty credits applicable to the degree, not including credit by special examination, must be completed in an undergraduate College or School of Wayne State University. Credit by special examination may not be counted as resident credit but such credit, if earned during a semester in which the student is registered, will not be considered an interruption of residence.

In special circumstances, senior residence may be interrupted with the approval of the student's major Department and the College of Fine, Performing and Communication Arts Dean's Office; however, when the candidate has less than the minimum thirty credits of resident in the College of Fine, Performing and Communication Arts, no such exceptions are permitted.

Requests for exceptions to the College Residency requirement must be submitted in writing to the Associate Dean of the College.

Scholarships and Financial Aid

Financial aid information may be found in the general information section of this bulletin (see page 34), and by visiting "Scholarships and Student Development Grants" at the College's website: http://www.cfpca.wayne.edu/current-students.php#Student_Develop_Grants

Additional scholarships and other financial aid are available through each of the Departments.

Academic Regulations

For complete information regarding academic rules and regulations of the University, students should consult the general information section of this bulletin, beginning on page 5. The following additions and amendments apply to the College of Fine, Performing and Communication Arts.

Recommended High School Preparation

The College of Fine, Performing and Communication Arts strongly supports the University's recommendations concerning academic preparation. See page 24.

Attendance

Regular attendance and performance is necessary for success in college work. Each instructor, at the beginning of the course, will announce attendance requirements.

Normal Program Load

The requirements for graduation are based upon an average program of fifteen credits per semester for eight semesters. The normal load shall not exceed eighteen credits.

Because two hours of outside preparation are normally expected for each class hour in each course, a fifteen credit program calls for approximately forty-five hours of class attendance and study per week. Students who undertake such a program should expect to give it their full time and energy. A few hours of employment a week may be safely added to this program by a capable student.

Retention of Records

Term papers and examinations shall either be returned to the student or retained by the instructor for a minimum of six months. Thereafter they may be destroyed. Instructors shall retain grade books for at least five years following the end of a term, and instructors who leave the institution shall give grade books for courses conducted during the past five years to their department chairperson. Five years after the end of a course, grade books may be returned to the instructor or destroyed by the department.

Study Abroad

Various opportunities for study abroad are available through the University. Students should contact their major Department and the University Advising Center for further information regarding these programs.

Honors Courses

Students enrolled in the College of Fine, Performing and Communication Arts who are interested in pursuing University or Departmental Honors curricula should refer to page 22 of this Bulletin. For further information regarding Departmental Honors, contact the Departmental Honors Advisor. For information about the Honors College see page 254 or visit room 2100 Undergraduate Library.

Graduation With Distinction

Wayne State University bestows upon students completing the baccalaureate degree three separate designations for scholastic excellence reflected in the cumulative grade point average: *Cum Laude, Magna Cum Laude*, and *Summa Cum Laude*. Graduation with Distinction will be indicated on the student's diploma and on the transcript.

Graduation with Distinction will recognize at each commencement the top twenty percent of students in the College of Fine, Performing and Communication Arts who have earned the highest grade point average in the College with the following approximate distribution:

Top 5%: Summa Cum Laude

Next 5%: Magna Cum Laude

Next 10%: Cum Laude

The specific minimum grade point average making for these distinctions will be determined each year in the following manner (except that it shall not be less than 3.0):

Based on the grade point average distributions of the previous year's senior class, the grade point average cut-offs for the College will be established to provide for recognition of the top eighteen to twenty per cent of the graduating students.

The criteria for Graduation with Distinction include:

1. A minimum of sixty credits in residence at Wayne State University;

2. A minimum grade point average, as established above, on all work at Wayne State University completed by the end of the term of graduation. (For notation in the Commencement Program, the grade point average on all work completed prior to the term of graduation will be used.)

Dean's List

The Dean's List of academically superior students is compiled each fall and winter term based on the following criteria: a 3.75 grade point average for students registered for full-time programs of twelve credits or more that contribute to the grade point base; and a 4.0 grade point average for students registered for between six and eleven credits. Students who receive marks of 'I,' 'WN' or 'WF,' or grades of 'N' or 'U' are not eligible. (For explanation of these marks and grades, see page 39.)

Academic Probation

Low Grade Point Average: If a student's work averages below 2.0, the student will be placed on academic probation; see 'Undergraduate Academic Probation,' page 37. The student will be required to obtain permission from the University Advising Center before registering. Such permission will be granted only after an interview during which the student and adviser identify previous causes of failure and formulate a plan for future academic success.

Registration and Holds on Records: A student on academic probation has an academic probationary 'hold' placed on his/her record, and must obtain a release of this hold each term before being permitted to register. To obtain this release, the student must see an academic adviser in the University Advising Center, as indicated above under 'Low Grade Point Average.' The hold will not be released after the last day of the final registration period for the term in which the student intends to register.

Restriction: While on academic probation, a student may not represent the College in student activities.

Removal of Probation: Academic probation will be removed at the end of any term in which the student achieves an over-all average of 2.0 ('C') or better for all degree work taken at the University.

Exclusion

Low Grade Point Average: A student on academic probation shall be allowed two subsequent terms for enrollment in probationary status. At the conclusion of the two terms, a student who has not achieved a cumulative grade point average of at least 2.0 shall be excluded from the University. This exclusion may be reviewed by the Probation Committee of the University Advising Center and the Dean

upon the request of the student. A student excluded from the University may not apply for readmission for one calendar year.

Reinstatement: After one year of exclusion, the student may apply for reinstatement to the College. The reinstatement application must be returned to the University Advising Center at least two weeks prior to the first day of any registration period. The decision to reinstate the student will be based upon evidence presented by the student that circumstances have changed during the year and that the probability of success has increased.

Cheating and Plagiarism: The principle of honesty is recognized as fundamental to a scholarly community. Students are expected to honor this principle and instructors are expected to take appropriate action when instances of academic dishonesty are discovered. An instructor, on discovering such an instance, may give a failing grade on the assignment or for the course. Serious acts of dishonesty may lead to suspension or exclusion.

The instructor has the responsibility of notifying the student of the alleged violation and the action being taken. Both the student and the instructor are entitled to academic due process in all such cases. Information on procedures is available in the College of Fine, Performing and Communication Arts Dean's Office.

Academic Advising

Freshmen and sophomores are required to consult both departmental advisers and University advisers each time they register. A staff of University advisers is available in the University Advising Center, 1600 Adamany Library Building, to answer general academic questions. Students should confer with departmental advisers on all questions concerning degree requirements in the intended major, course elections, and programs of study. Students should confer with University advisers on all questions concerning General Education Requirements and general academic policies and procedures. It is of primary importance that students talk with a departmental or University adviser when they are having difficulties in their academic work.

Commencement

All students must formally apply for graduation by the deadline established by the Office of the Registrar for the term of intended graduation.

Information concerning commencement announcements, caps and gowns, invitations, tickets, time and place, assembling and other relevant items will be mailed to graduates by the Commencement Office prior to the event.

Multidisciplinary Fine Arts Courses (FPC)

The following undergraduate courses are of a general nature and are used by students in various College disciplines. For interpretation of numbering system, signs and abbreviations, see page 504.

1100 (CL) Computing in the Arts. Cr. 2
Open only to majors in College of Fine, Performing and Communication Arts. Offered only via online instruction. Elementary computer literacy skills emphasizing computing in the arts. Knowledge of initiation and manipulation of file operations; accessing main WSU computer system; performance of basic skill sets for online retrieval and manipulation. Material Fee as indicated in the Schedule of Classes (T)

5010 Special Topics. Cr. 1-3 (Max. 6)
(Y)

5020 Legal Environment of the Arts. Cr. 3
Prereq: junior standing. Law affecting persons in the entertainment business: artists, actors, musicians, producers, directors, writers, managers, agents, and others. Areas of contract, tort, copyright, trademark and First Amendment law that concern entertainment. (Y)

5500 Topics in Art in Community. Cr. 3
Prereq: junior, senior or graduate standing in the College; consent of instructor. Role and function of art and the artist in community, accompanied by a required community-based learning project. Topics and nature and location of community projects vary from term to term. Material Fee as given in Schedule of Classes. (I)

5660 Creativity: Building the New. Cr. 3-4
Prereq: junior standing or above, or consent of instructor. Study of creativity with personal application. Investigations in artistic, scientific, social science, engineering, industrial, and other areas. Actual application and problem-solving skills. (Y)

Directory of the College

Interim Dean
Matthew Seeger: 5104 Gullen Mall; 313-577-5342

Interim Senior Associate Dean for Academic Affairs
John D. Vander Weg: 5104 Gullen Mall; 313-577-5747

Assistant Dean for Administrative Affairs
Joan M. Ferguson: 5104 Gullen Mall; 313-577-5342

Assistant to the Dean
Lezlie Hart: 5104 Gullen Mall; 313-577-5337

Budget
Janine Dunlop: 5104 Gullen Mall; 313-577-5206

Information Officer
David Romas: 5104 Gullen Mall; 313-577-5448

Computing Systems
Gary Cendrowski: 5104 Gullen Mall; 313-577-8341

Director of Development
Kevin McAlpine: 5104 Gullen Mall; 313-577-1458

Assistant Director of Development
Kelly Cronin: 5104 Gullen Mall; 313-577-5336

Information Technology
Byron Clemens: 5104 Gullen Mall; 313-577-5363

Personnel
Robin Collins: 5104 Gullen Mall; 313-577-5365

Reception
Beth Babini: 5104 Gullen Mall; 313-577-5342

Secretary to the Dean
Nicole Hohnson; 5104 Gullen Mall; 313-577-9820

Student Services
Talitha Trout: 5104 Gullen Mall; 313-577-5364

DEPARTMENTAL OFFICES

Art and Art History
John Richardson: 150 Art Building; 313-577-2980

Communication
Loraleigh Keashly: 585 Manoogian Hall; 313-577-2943

Dance
Eva Powers: 3226 Old Main; 313-577-4273

Music
John D. Vander Weg: 1321 Old Main; 313-577-1795

Theatre
James Thomas: 3225 Old Main; 313-577-3508

Website: http://www.cfpca.wayne.edu/

Mailing address for all offices:

(Department Name), College of Fine, Performing and Communication Arts, 5104 Gullen Mall, Wayne State University, Detroit, MI 48202

Art and Art History

Office: 150 Art Building, 450 Reuther Mall; 313-577-2980
Chairperson: John Richardson
Undergraduate Adviser: Michele Porter
Visual Resource Curator: Terry Kirby
Interim Art Exhibitions Director: Tom Pyrzewski
Art Studio Supervisor: Robert Taormina
Sculpture and 3D Studio Supervisor: Michael Bogdan

Website: http://www.art.wayne.edu

Professors

Urban Jupena, James Nawara, Melvin Rosas, Stanley Rosenthal, Joseph B. Zajac

Associate Professors

Jeffrey Abt, Pamela DeLaura, Margaret Franklin, Brian Kritzman, Evan Larson, Brian Madigan, Judith Moldenhauer, John Richardson, Marilyn Zimmerman

Assistant Professors

Danielle Aubert, Adrian Hatfield, Kevin Kissell, Prita Meier, Cristobal Mendoza, Jennifer Olmsted, Eric Troffkin, Margi Weir

Lecturers

Rayneld Johnson, Catherine, McCurrach, Tom Pyrzewski, Dennis Robare, Alice Smith, Susan Widawski

W. Hawkins Ferry Endowed Chair in Twentieth Century Art History and Criticism

Dora Apel

Emeritus/Emerita Faculty

William A. Allen, Phyllis A. Ashinger, Richard J. Bilaitis, Robert Broner, Thomas P. Fitzgerald, Joseph Gutmann, John G. Hegarty, Carolyn Jane Hooper, Marion E. Jackson, John Mills, Thomas C. Parish, William E. Pitney, Patricia A. Quinlan, James M. Raymo, Horst Uhr, Robert J. Wilbert

Degree Programs

BACHELOR OF ARTS with a major in art, art history, or fashion design and merchandising.

BACHELOR OF FINE ARTS with a major in art and a concentration in one of the following areas: ceramics, drawing, fibers, graphic design, industrial design, interdisciplinary electronic arts, interior design, metalsmithing, painting, photography, printmaking, or sculpture.

BACHELOR OF SCIENCE with a major in fashion design and merchandising

MASTER OF ARTS with a major in art and a concentration in one of the following areas: ceramics, drawing, fibers, graphic design, industrial design, interior design, metalsmithing, painting, photography, printmaking, or sculpture.

MASTER OF ARTS with a major in art history.

MASTER OF ARTS with a major in fashion design and merchandising

MASTER OF FINE ARTS with a major in art

and a concentration in one of the following areas: ceramics, design, drawing, fibers, metal arts, painting, photography, printmaking, or sculpture.

The James Pearson Duffy Department of Art and Art History is dedicated to the understanding, production and presentation of works of art in all media. It seeks to explore and develop visual literacy as well as technical, critical and conceptual skills. The curriculum combines history, theory, practice and technology with interdisciplinary learning that aims to nurture a balance between technical proficiency, experimentation with new ideas and studying the visual arts as a means of understanding the intellectual and cultural history of humanity. By receiving a comprehensive training in the visual arts within the context of a liberal arts education, students are encouraged to master the various avenues of creative investigation and learning within the Department as well as in other departments of the College and the University at large. Each student is thereby able to progress from fundamentals to creative and intellectual maturity and given the tools of professionalization in a variety of different areas while immersed in the rich diversity of cultural and research opportunities offered by the University as a whole.

Retention Policy: The Department reserves the right to retain, for its permanent collection, the work submitted by students for credit in any course, and to exhibit or reproduce such work in University publications. Students are encouraged to retain work as they proceed through their program, so as to have at least twenty works for a final portfolio review and demonstration of progress.

Advising: All students in the Department of Art and Art History are encouraged to meet regularly with both University advisors and major advisors on a semester basis. Students are advised to participate in priority registration to ensure that classes are available to them. Students are encouraged to take courses pertaining to their major as soon as the first semester of study in the Department of Art and Art History. They are also encouraged to consult the Department adviser for information regarding the declaration of major.

Bachelor of Arts with a Major in Art

Admission Requirements for this program are satisfied by the general requirements for undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Arts in Art must complete 120 credits including satisfaction of the University General Education Requirements (see page 18), College degree requirements (see page 189), and a minimum of forty-eight credits in art courses, including the Core Requirements and Departmental Requirements cited below. No grade lower than a 'C' in a major course may be applied toward the completion of the degree. Students pursuing a Bachelor of Arts degree must fulfill the foreign language requirement (see page 189). All course work must be completed in accordance with the regulations of the University and the College governing undergraduate scholarship and degrees, see sections beginning on page 18, 36, and 189.

CORE REQUIREMENTS:

ADE 1200 -- Two Dimensional Design: Cr. 3
ADE 1230 -- Three Dimensional Design: Cr. 3
ADR 1050 -- Drawing I: Cr. 3
ADR 1060 -- Drawing II: Cr. 3
A H 1110 -- (VP) Survey of Art History: Ancient - Medieval: Cr. 3
A H 1120 -- (VP) Survey of Art History: Renaissance - Modern: Cr. 3

DEPARTMENTAL REQUIREMENTS

ACS 5997 -- (WI) Senior Seminar in Visual Arts: Cr. 3
ADR 2070 -- Beginning Life Drawing: Cr. 3
APA 2000 -- Oil Painting I: Cr. 3
ASL 2150 -- Beginning Sculpture: Cr. 3
One three-credit course in printmaking (APR) or photography (APH): Cr. 3
Two Art History electives (A H 3000 - level or above): Cr. 6 (total)
PHI 3700 -- (PL) Philosophy of Art: Cr. 3

One of the following:

ACR 2550 -- Ceramics & Pottery Design I: Cr. 3
AFI 2650 or AFI 2660
-- Beginning Weaving: Cr. 3
-- Introduction to Fabric Printing and Dyeing: Cr. 3
AME 2600 -- Introduction to Jewelry & Metalsmithing: Cr. 3

Bachelor of Arts with a Major in Art History

Admission Requirements for this program are satisfied by the general requirements for undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates must complete 120 credits, including satisfaction of the University General Education Requirements (see page 18), College degree requirements (see page 189), and the major requirements listed below. Students pursuing a Bachelor of Arts degree must also fulfill the foreign language requirement (see page 189). All course work must be completed in accordance with the regulations of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 189.

Major Requirements: Students must complete a minimum of thirty-three credits in art history, which includes six credits in the basic surveys (A H 1110, 1120). A minimum of one course at the 5000 level or above must be taken in each of the following areas:

CLASSICAL -- A H 5210, 5250, 5260, 5270, 5310
MEDIEVAL -- A H 5300, 5330, 5350, 5400, 5450
RENAISSANCE/BAROQUE -- A H 5500, 5510, 5530, 5550
MODERN -- A H 5700, 5710, 5715, 5720, 5770, 5780, 5790

All students must take A H 5090, (WI) Theory and Methods of Art Historical Research (Cr. 3). Each course in the major must be taken in the Department of Art and Art History and be completed with a minimum grade of 'C.' In addition to the credits in art history, students are required to complete two years (four semester courses) of study in French or German, with minimum grades of 'C.'

– With Honors in Art History

(15 credits required)

Select the honors option in three of the following (total: nine credits):

A H 3240 -- Mythology in Greek Art: Cr. 3
A H 3750 -- African American Art: Cr. 3
A H 5210 -- Hellenistic Art: Cr. 3
A H 5250 -- Ancient Rome: Cr. 3
A H 5260 -- Classical Greek Art: Cr. 3
A H 5270 -- Roman Painting and Sculpture: Cr. 3
A H 5300 -- The Christian Roman Empire: Cr. 3
A H 5310 -- The Ancient City of Athens: Cr. 3
A H 5320 -- Neoclassical Architecture in Britain: Cr. 3
A H 5330 -- Constantinople in the Sixth Century: Cr. 3
A H 5350 -- Byzantine Art and Architecture: Cr. 3
A H 5400 -- Romans and Barbarians: Cr. 3
A H 5450 -- Art and Architecture in the High Middle Ages: Cr. 3
A H 5500 -- Early Renaissance in Italy: Cr. 3
A H 5510 -- High Renaissance and Mannerism in Italy: Cr. 3
A H 5520 -- Art of Renaissance Venice: Cr. 3
A H 5550 -- Northern Renaissance Art: Cr. 3
A H 5600 -- Baroque Art in Italy: Cr. 3
A H 5700 -- Nineteenth Century European Painting: Cr. 3
A H 5715 -- Modernism: Nineteenth and Twentieth Centuries: Cr. 3
A H 5780 -- Topics in Twentieth Century Art: Cr. 3-6

REQUIRED COURSES

A H 5990 -- Directed Study: Cr. 3.

Plus one honors seminar chosen from:

HON 4200 through 4280 (Cr. 3)

COMBINED UNIVERSITY AND DEPARTMENTAL HONORS

Twenty-four credits required including all of the above plus nine additional credits in other honors courses.

Total Minimum g.p.a.: 3.3

For additional information, see www.honors.wayne.edu

Bachelor of Arts or Bachelor of Science with a Major in Design and Merchandising

Curricula in this area provide a liberal education as well as the opportunity for a professional concentration in the fields of apparel design and fashion merchandising.

Admission Requirements for this program are satisfied by the general requirements for undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates for either Bachelor's degree must complete 120 credits including satisfaction of the University General Education requirements (see page 18), College degree requirements (see page 189), and all departmental and area requirements as indicated below. A minimum grade of 'C' must be earned in each required course in the major in order for the course credit to count toward completion of the degree. All course work must be completed in accordance with the regulations of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 189.

Students pursuing the *Bachelor of Arts Degree* with a Major in Design and Merchandising must also fulfill the foreign language requirement (see page 189).

Students pursuing the *Bachelor of Science Degree* with a Major in Design and Merchandising must complete a minimum of twenty-four credits in Natural Science courses in lieu of the language requirements. Science courses taken in the following subjects areas: Astronomy, Biology, Chemistry, Geology, Nutrition and Food Science,or Psychology. (University General Education Requirements must still be met.)

CORE REQUIREMENTS

AFA 2410 -- Textiles I: Cr. 3
AFA 2420 -- Fashion Design: Basic Construction: Cr. 3
AFA 3400 -- Clothing and Culture: Cr. 3
AFA 3460 -- Introduction to Merchandising: Cr. 3
AFA 5430 -- History of Costume: Cr. 3
AFA 5997 -- (WI) Seminar: Cr. 3

APPAREL DESIGN OPTION:

Successful completion of this curriculum enables students interested in creative aspects of clothing to develop competencies needed for careers in apparel design and related fields. Possible careers include designing, product development, and other related fields of the apparel industry.

Students are responsible for meeting program requirements as outlined in curriculum guides; these include a minimum of fifteen art credits. Curriculum guides are available in the Department of Art and Art History office or online at http://www.art.wayne.edu.

FASHION MERCHANDISING OPTION:

This curriculum develops understanding and practical skills related to the planning, buying and selling of fashion merchandise. Students gain insights into the various aspects of the apparel industries including marketing, sales, styling, publicity, advertising, visual presentation, fashion coordination, and merchandising. Possible careers include positions in management, buying, and fashion promotion and sales.

Students are responsible for meeting program requirements as outlined in curriculum guides; these include a minimum of fifteen business credits. Curriculum guides are available in the Department of Art and Art History office or online at http://www.art.wayne.edu.

Bachelor of Fine Arts

Admission Requirements for the Bachelor of Fine Arts Degree are satisfied by the general requirements for undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Fine Arts degree must complete 120 credits including satisfaction of the University General Education Requirements (see page 18) and College degree requirements (see page 189). Core and departmental requirements as cited above under Bachelor of Arts with a Major in Art must be met, as well as the concentration requirements below. All course work must be completed in accordance with the regulations of the University and the College governing undergraduate scholarship and degrees; see sections beginning on pages 18, 36, and 189.

CORE REQUIREMENTS:

ADR 1050 -- Drawing I: Cr. 3
ADR 1060 -- Drawing II: Cr. 3
ADE 1200 -- 2-Dimensional Design: Cr. 3
ADE 1230 -- 3-Dimensional Design: Cr. 3
A H 1110 -- (VP) Survey of Art History: Ancient - Medieval: Cr. 3
A H 1120 -- (VP) Survey of Art History: Renaissance - Modern: Cr. 3

DEPARTMENTAL REQUIREMENTS

ADR 2070 -- Beginning Life Drawing: Cr. 3
APA 2000 -- Oil Painting I: Cr. 3
ASL 2150 -- Beginning Sculpture: Cr. 3
One three-credit course in printmaking (APR) or photography (APH): Cr. 3
Two Art History electives (A H 3000 level or above): Cr. 6 (total)
PHI 3700 -- (PL) Philosophy of Art: Cr. 3

One of the following:

ACR 2550 -- Ceramics & Pottery Design I: Cr. 3
AME 2600 -- Introduction to Jewelry and Metalsmithing: Cr. 3
AFI 2650 or AFI 2660
-- Beginning Weaving: Cr. 3
-- Introduction to Fabric Printing and Dyeing: Cr. 3

Departmental Requirements will vary by concentration. Students should be sure to consult the Department advisor for an accurate course listings based on a chosen concentration.

Concentration Requirements: Students must complete twenty-four to fifty-one credits (depending on areas of specialization) in art courses, eighteen of which must be at the advanced level (from courses numbered 3000 and above) *plus the appropriate senior seminar for the selected concentration.* The minimum grade for each course required in the concentration, which must be taken in the Department of Art and Art History, must be no less than a 'C' in order for the course credit to count toward completion of the degree. Curriculum outlines with suggested scheduling patterns for the following concentrations are available in the Department of Art and Art History office or online at http://www.art.wayne.edu.

Ceramics; Drawing; Fibers; Graphic Design; Industrial Design; Interdisciplinary Electronic Arts; Interior Design; Metalsmithing; Painting; Photography; Printmaking; Sculpture

Required courses in each B.F.A. concentration are given below; exceptions may be made with consent of adviser.

CERAMICS

ACR 2550 -- Ceramics and Pottery Design I: Cr. 3
ACR 2560 -- Ceramics and Pottery Design II: Cr. 3
ACR 3550 -- Beginning Ceramics: Cr. 3
ACR 4000 -- Ceramics: Wheel Throwing: Cr. 3

ACR 4001 -- Ceramics: Handbuilding: Cr. 3
ACR 4550 -- Intermediate Ceramics: Cr. 3
ACR 5550 -- Advanced Ceramics: Cr. 12
ACS 5997 -- (WI) Senior Seminar in Visual Arts: Cr. 3

DRAWING

ADR 2070 -- Beginning Life Drawing: Cr. 3
ADR 3070 -- Intermediate Life Drawing: Cr. 3
ADR 5060 -- Advanced Concepts in Drawing & Painting: Cr. 3
ADR 5080 -- Landscape Drawing: Cr. 3
ADR 5000 -- level Drawing courses: Cr. 12
ACS 5997 -- (WI) Senior Seminar in Visual Arts: Cr. 3

FIBERS

AFI 2650 or AFI 2660
-- Beginning Weaving: Cr. 3
-- Introduction to Fabric Printing & Dying: Cr. 3
AFI 3650 or AFI 3660
-- Intermediate Weaving: Cr. 3
-- Intermediate Fibers: Printing and Dyeing: Cr. 3
AFI 5000-level courses (Junior year): Cr. 9
AFI 5000-level courses (Senior year): Cr. 6
ACS 5997 -- (WI) Senior Seminar in Visual Arts: Cr. 3

GRAPHIC DESIGN

AGD 2240 -- Orientation to Graphic Design Computer Software: Cr. 3
AGD 2250 -- Typography: Cr. 3
AGD 3250 -- Graphic Design I: Cr. 3
AGD 4250 -- Graphic Design II: Cr. 3
AGD 5250 -- Graphic Design III: Cr. 3
AGD 5260 -- (WI) Senior Seminar: Cr. 3
AGD 5997 -- Graphic Design IV: Cr. 3
Graphic Design Electives: Cr. 6

Suggested Graphic Design Electives

AGD 5700 -- Special Topics: Cr.3
AGD 5890 -- Directed Projects: Cr.3
AGD 5990 -- Field Study: Internship: Cr.3
AGD 6260 -- Advanced Typography: Cr.3
AGD 6280 -- Pre-press and Production: Cr.3
AID 6320 -- History of Modern Design I: Cr.3
AID 6330 -- History of Modern Design II: Cr.3
APH 2420 -- Digital Imaging I: Cr.3

INDUSTRIAL DESIGN

Students pursuing this concentration should consult with a major advisor with regard to the Departmental Requirements

AID 3300 -- Introduction to Industrial Design: Cr. 3
AID 3310 -- Presentation: Cr. 6
AID 5300 -- Advanced Studio/Project: Cr. 9
AID 5310 -- Advanced Presentation: Cr. 6
AID 5330 -- 3-D Modeling: Cr. 6
AID 5997 -- (WI) Senior Seminar: Cr. 3
AID 6320 -- History of Modern Design I: Cr. 3
AID 6330 -- History of Modern Design II: Cr. 3
MIT 3350 -- Applied Human Factors: Cr. 3
MIT 3500 -- Machine Tool Lab: Cr. 1

Students must take a total of nine credits from the following two courses (one of the courses must be elected twice):

AID 6300 -- (AID 4600) Advanced Studio: Transportation (AID 7300): Cr. 3
AID 6310 -- Advanced Studio/Exhibit: Cr. 3

INTERDISCIPLINARY ELECTRONIC ARTS

ACS 5997 -- (WI) Senior Seminar in Visual Arts: Cr. 3
AGD 2240 -- Orientation to Graphic Design Computer Software Cr. 3
AIN 2220 -- Time Based Media I: Video Art: Cr. 3
AIN 3220 -- Digital Arts and Interactivity: Cr. 3
AIN 4220 -- Time Based Media II: Experimental Animation: Cr. 3
AIN 5220 -- New Media Installation and Interactivity: Cr. 3
APR 2300 -- Introduction to Printmaking: Cr. 3
Plus nine additional credits in Interdisciplinary Electronic Arts at the 3000 level or higher

INTERIOR DESIGN

Students pursuing this concentration should consult with a major advisor with regard to the Departmental Requirements

AIA 1610 -- Architectural Drafting and Perspective Drawing: Cr. 3
AIA 2600 -- Interior Design: CAD: I: Cr. 3
AIA 2610 -- Interior Design Studio I: Cr. 3
AIA 3610 -- Interior Design Studio II: Cr. 3
AIA 4600 -- Environmental Design Theory: Cr. 3
AIA 4610 -- Interior Design Studio III: Cr. 3
AIA 5010 -- Furniture/Product Workshop: Cr. 3
AIA 5610 -- Interior Materials and Systems: Cr. 3
AIA 5620 -- Building Construction Systems in Architecture I: Cr. 3
AIA 5630 -- Interior Lighting Design and Application: Cr. 3
AIA 5640 -- Building Construction Systems in Architecture II: Cr. 3
AIA 5997 -- (WI) Senior Seminar: Cr. 3
AIA 6610 -- Interiors Design Studio IV: Cr. 3
AIA 6650 -- Business Practicum: Cr. 2
AID 6320 or AID 6330
-- History of Modern Design I: Cr. 3
-- History of Modern Design II: Cr. 3

Suggested Interior Design Electives:

AIA 3620 -- Interior Design CAD II: Cr. 3 (highly recommended)
AIA 4620 -- Interior Perspective and Illustration: Cr. 3
AIA 4990 -- Directed Study: Intro. to Environmental Design & Products: Cr. 3
AIA 5660 -- Supervised Field Experience: Cr. 3
AIA 5991 -- Directed Projects: Interior Design: Studio: Cr. 3
AID 3310 -- Presentation: Cr. 3

METALSMITHING

ACS 5997 -- (WI) Senior Seminar in Visual Arts: Cr. 3
AME 2600 -- Intro: Jewelry and Metalsmithing: Cr. 3
AME 3600 -- Intermediate Jewelry I: Cr. 3
AME 3601 -- Intermediate Jewelry II: Cr. 3
AME 4600 -- Metalsmithing I: Cr. 3-6
AME 4601 -- Metalsmithing II: Cr. 3-6
AME 5600 -- Advanced Jewelry and Metalsmithing: Cr. 6
Metalsmithings elective (5000-level AME course): Cr. 3

PAINTING

ACS 5997 -- (WI) Senior Seminar in Visual Arts: Cr. 3
APA 2110 -- Watercolor Painting I: Cr. 3
APA 3000 -- Oil Painting II: Cr. 3
Painting Elective (3000-level APA course): Cr. 3
APA 3130 or APA 3140
-- Figure Painting: Water Media: Cr. 3
-- Figure Painting: Oil and Other Media: Cr. 3
APA 5100 -- Contexts of Studio Practice: Cr. 3
Painting Electives (5000-level APA courses): Cr. 9

PHOTOGRAPHY

ACS 5997 -- (WI) Senior Seminar in Visual Arts: Cr. 3
APH 2400 -- Introductory Digital Photography: Cr. 3
APH 2410 -- Beginning Photography: Cr. 3
APH 2420 -- Digital Imaging I: Cr. 3
APH 3410 -- Intermediate Photography: Cr. 3
APH 3420 -- Digital Imaging II: Cr. 3
APH 4410 -- Advanced Photography: Cr. 3
APH 4420 -- View Camera: Cr. 3
Photography elective (4000-level APH course): Cr. 3
Photography elective (5000-level APH course): Cr. 3

PRINTMAKING

ACS 5997 -- (WI) Senior Seminar in Visual Arts: Cr. 3
Printmaking (2000-level course): Cr. 3
Printmaking (3000-level courses): Cr. 9
Printmaking (3000-level or above course): Cr. 3
Printmaking (5000-level courses): Cr. 12

SCULPTURE

ASL 3150 -- Intermediate Sculpture: Cr. 3
ASL 3170 -- Figurative Sculpture I: Cr. 3
ASL 3190 -- Sculpture Foundry I: Cr. 3
ASL 5150 -- Advanced Sculpture: Cr. 3
ASL 5170 -- Figurative Sculpture II: Cr. 3
ASL 5190 -- Sculpture Foundry II: Cr. 3
ASL 5820 -- Directed Projects: Cr. 3
ACS 5997 -- (WI) Senior Seminar in Visual Arts: Cr. 3

B.F.A. with Honors in Art

(15 Credits required)

Select the honors option in two of the following (6 credits total):

ACR 3550 -- Beginning Ceramics: Cr. 3
AFA 2410 -- Textiles I: Cr. 3
AFA 2420 -- Fashion Design Basic Construction: Cr. 3
AFA 3400 -- Clothing and Culture: Cr. 3
AFI 2650 -- Beginning Weaving: Cr. 3
AFI 2660 -- Introduction to Fabric Printing and Dyeing: Cr. 3
AGD 2250 -- Typography: Cr. 3
AGD 3250 -- Graphic Design I: Cr. 3
AME 2600 -- Introduction to Jewelry and Metalsmithing: Cr. 3
APA 2000 -- Oil Painting !: Cr. 3
APA 3000 -- Oil Painting II: Cr. 3
APA 4000 -- Oil Painting III: Cr. 3
APH 2400 -- Introductory Digital Photography: Cr. 3
APR 2300 -- Introduction to Printmaking: Cr. 3
ASL 2150 -- Beginning Sculpture: Cr. 3
ASL 3150 -- Intermediate Sculpture: Cr. 3

REQUIRED COURSES

Honors option of an advanced studio elective (Cr. 3)
Honors project in Studio Art, Directed Project course (e.g. ADR 5800) (Cr. 3.)
One honors seminar from among HON 4200 through 4280 (Cr. 3.)

For additional information: www.honors.wayne.edu

Transfer Students

Transfer students must complete a minimum of twenty-seven resident credits in art courses for either the B.A. or B.F.A. degree with a studio major; a minimum of twelve resident credits with an art history major; or a minimum of twelve resident credits for either the B.A. or B.S. degree with a major in design and merchandising. The minimum grade for each course required in the major, which must be taken in the Department of Art and Art History, must be no less than a 'C' in order for the course credit to count toward completion of the degree.

Articulation Agreements

Articulation agreements are formal arrangements by which Wayne State University enters into agreement with other institutions for the transfer of college credits in certain designated degree programs. Students who have come to the Department of Art and Art History to pursue a degree in Art, Art History or Fashion Design and Merchandising under an articulation agreement with another school or college program are required to meet with the Department academic advisor on a regular basis to ensure compliance with the terms of the agreement.

Minors in Art and Art History

ART: A minor in art will be granted upon completion of twenty-seven credits, including: two Drawing courses (ADR 1050, 1060), two Design courses (ADE 1200, 1230), two Art History courses (A H 1110, 1120), and three studio electives (nine credits).

ART HISTORY: A minor in Art History will be granted upon completion of twenty-one credits in art history courses, including A H 1110 and 1120, and fifteen credits at the 2000 level or above.

Departmental Scholarships

See the section on Scholarships and Financial Aid on page 191. Detailed information on all Department scholarships and awards is available in the Art and Art History office. Applications for Department scholarships become available in the middle of each winter semester. Awards are announced each year in April for the following academic year.

Carol Ann Albertson Memorial Endowed Scholarship: Awarded to assist full-time freshman students who have expressed interest in art and art history as a major.

Wilfred C. Becker Memorial Scholarship: Award of $1500 per academic year renewable for four years; open to any high school senior recipient of a Scholastic Art Award sponsored by the Scholastic Art Association.

Bud Bernstein Endowed Prize Fund: Awarded to assist students in the fine arts group concentrations of drawing, painting, printmaking and sculpture to complete ambitious art projects. Funds are to be used for expenses such as supplies, materials, or other services necessary to complete the project.

Albert and Peggy deSalle Scholarship: Awarded to an undergraduate or graduate art student majoring in metalsmithing, photography, or a closely related field.

Brian Gahagan Memorial Endowed Scholarship: Awarded to recognize excellence as demonstrated by students in the area of painting, and to encourage the continued progress of students studying painting.

Mary Kirk Haggarty Memorial Scholarship: Awarded to an undergraduate or graduate student majoring in art history.

M. Jacob & Sons Company & Employee Scholarship: Awarded to undergraduate or graduate students enrolled at least half-time in the Industrial Design concentration.

Linda Marlene Iden Memorial Scholarship: Awarded to a full-time or part-time fine art or design undergraduate or graduate student in the Department of Art and Art History with demonstrated artistic talent and good academic performance.

Brian Killian Memorial Scholarship: Awarded to declared art majors with senior standing who are concentrating in Interior Design.

Marji Kunz Fashion Scholarship: Awarded to a design and merchandising student (sophomore level or above) with aptitude in creative design, display work, writing, fashion retailing or modeling. (Please contact the Fashion Design and Merchandising Area of the Department of Art and Art History for dates of availability of this Scholarship.)

Sylvia Marciniak Memorial Scholarship in Art: Awarded to full or part-time declared art majors with a concentration in Drawing or Painting.

President's Endowed Scholarship in Art: Awarded to recruit and/or retain students who have demonstrated scholastic achievement, displayed exceptional ability in the studio arts, and have a record of successful past performance in one of the studio arts.

John and Irene Sowinski Scholarship: Awarded to an art student majoring in a studio art area.

Albert L. and Alice W. Steinbach Scholarship: Awarded to an undergraduate or graduate student majoring in art history.

Talent Award: Award of up to one-half the amount of undergraduate tuition per academic year (fall and winter terms), renewable for four years, open to any Michigan high school senior planning to major in a studio art area.

UNDERGRADUATE COURSES

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

NOTE: Only courses passed with a minimum grade of 'C' will satisfy prerequisite requirements for subsequent courses in the Department of Art and Art History. Permission must be sought by the instructor when variable credit classes are taken for more than 3 credits.

CERAMICS COURSES (ACR)

2550 (ACR 2550) Ceramics and Pottery Design I. (ACR 2560) (ACR 3550) (ACR 4550) (ACR 5550) (ACR 7550) Cr. 3

Introduction to beginning clay forming, glazing and firing. Primarily for non-art and beginning art majors. Material Fee as indicated in the Schedule of Classes (T)

2560 (ACR 2550) Ceramics and Pottery Design II. (ACR 3550) (ACR 4550) (ACR 5550) (ACR 7550) Cr. 3

Prereq: ACR 2550. Continuation of ACR 2550. Development of personal approach is encouraged. Material Fee as indicated in the Schedule of Classes (T)

3550 (ACR 2550) Beginning Ceramics. (ACR 2560) (ACR 4550) (ACR 5550) (ACR 7550) Cr. 3

Prereq: ADR 1060 and ADE 1200. Open only to upper division art majors. Basic techniques of wheel throwing, hand building, glazing and firing. Lectures, demonstrations, critiques. Material Fee as indicated in the Schedule of Classes (T)

4000 Ceramics: Wheel Throwing. Cr. 3 (Max. 12)

Prereq: ACR 2550 or 3550 or consent of instructor. Open only to art majors. Development of personal, technical and aesthetic skills in using potter's wheel as tool to create utilitarian and non-utilitarian objects. Group and individual critiques. Material Fee as indicated in the Schedule of Classes (Y)

4001 Handbuilding. Cr. 3 (Max. 12)

Prereq: ACR 2550 or 3550; or written consent of instructor. Open only to art majors. Intermediate and advanced handbuilding techniques including coiling, extrusions, mold and slab construction. Surfacing, glazing and firing processes as they apply to completing the objects. Material Fee as indicated in the Schedule of Classes (Y)

4550 (ACR 2550) Intermediate Ceramics. (ACR 2560) (ACR 3550) (ACR 5550) (ACR 7550) Cr. 3

Prereq: ACR 3550. Open only to art majors. Advanced building techniques; glaze and clay body calculation, mold-making and aesthetic evaluation. Material Fee as indicated in the Schedule of Classes (T)

5550 (ACR 2550) Advanced Ceramics. (ACR 2560) (ACR 3550) (ACR 4550) (ACR 7550) Cr. 3-6 (Max. 12)

Prereq: ACR 4550. Open only to art majors in B.F.A. or M.F.A. program. Election of more than 3 credits per semester requires consent of instructor. Advanced hand building and wheel throwing demonstrations. Lectures on historical and contemporary issues. Emphasis on personal growth and development. Material Fee as indicated in the Schedule of Classes (T)

5570 Ceramics: Special Projects. Cr. 1 (Max. 6)

Open only to art majors in B.F.A. or M.F.A. program. Student experience with a specialized facility and faculty to complement individual growth and development. (T)

5880 Directed Projects: Ceramics. Cr. 3-6 (Undergrad. max. 15; grad. max. 30)

Prereq: consent of instructor. Open only to art majors in B.F.A. or M.F.A. program. Independent projects and study in consultation with faculty. Material Fee as indicated in the Schedule of Classes (F,W)

DESIGN COURSES (ADE)

1200 Two-Dimensional Design. Cr. 3

Foundation course for visual communication in all media. Understanding two-dimensional spatial organization and color theory through a variety of materials, processes and methodologies. Critical and creative thinking, and problem solving. (T)

1230 Three-Dimensional Design. Cr. 3

Elementary and advanced spatial constructions using a variety of tools, materials and machines. Relationships to other art forms and fields are stressed through lectures and discussions. Material Fee as indicated in the Schedule of Classes (T)

1240 Three-Dimensional Design Lab. Cr. 1

Prereq: ADE 1200; coreq: ADE 1230. Hands-on instruction with woodworking tools and machinery in department's woodshop. Instruction in other materials, processes, and equipment utilized in art and design applications. Material Fee as given in Schedule of Classes. (F,W)

1270 Digital Foundations. Cr. 3

Introduction to the theory and practice of digital imaging and the basics of time-based art and design. Instruction in raster imaging (Photoshop), vector imaging (Illustrator), and time-based video (Final Cut Pro). Three-D printing will be demonstrated. Material fee announced in Schedule of Classes. (B)

DRAWING COURSES (ADR)

1050 (ADR 1050) Drawing I. (ADR 1060) Cr. 3

Introduction to basic drawing skills such as linear perspective, light and shadow, use of dry and wet media; emphasis on composition. Drawing primarily still life subjects. Material Fee as indicated in the Schedule of Classes (F,W)

1060 (ADR 1050) Drawing II. Cr. 3

Prereq: ADR 1050. Further development of basic drawing skills and concepts. Continued exploration of media. Drawing based on observation and imagination. Material Fee as indicated in the Schedule of Classes (F,W)

2070 (ADR 2070) Beginning Life Drawing. (ADR 3070) (ADR 5070) (ADR 7070) Cr. 3

Prereq: ADR 1060. Initial exploration of human figure using limited drawing media; essential aspects of the figure: proportion, gesture, composition. Material Fee as indicated in the Schedule of Classes (F,W)

3070 (ADR 2070) Intermediate Life Drawing. (ADR 5070) (ADR 7070) Cr. 3

Prereq: ADR 2070. Continued systematic study of human figure using broad range of media. Material Fee as indicated in the Schedule of Classes (F,W)

5060 (ADR 5060) Advanced Concepts in Drawing and Painting. (ADR 7060) Cr. 3-6 (Max. 15)

Prereq: ADR 3070 or APA 4000. Open only to art majors. Emphasis on individual projects using any appropriate medium. Work is cre-

ated independently (out of class) with scheduled critiques for faculty guidance; may include lectures, demonstrations, off-campus visits. Material Fee as indicated in the Schedule of Classes (Y)

5070 (ADR 2070) Advanced Life Drawing. (ADR 3070) (ADR 7070) Cr. 3-6 (Max. 24)

Prereq: ADR 3070. Election of more than three credits per semester requires consent of instructor. Open only to art majors. Continued study of human figure based on observation. Composition. Expressive interpretation of the figure through broad range of media. Material Fee as indicated in the Schedule of Classes (F,W)

5080 (ADR 5080) Landscape Drawing. (ADR 7080) Cr. 3-6 (Max. 15)

Prereq: ADR 1050, ADR 1060, and ADE 1200. Election of more than 3 credits per semester requires consent of instructor. Open only to art majors. Drawing or painting, as appropriate, outdoors at a variety of urban, suburban, and rural sites in the metropolitan Detroit area; students are expected to drive or carpool to locations within an hour of Detroit. Interpretation of landscape subjects through observation and imagination. Material Fee as given in Schedule of Classes. (S)

5090 Anatomy. Cr. 3

Prereq: ADR 2070. Superficial human anatomy including effects of muscular and skeletal systems. Drawing from both models and skeletons, lectures, demonstrations. Material Fee as indicated in the Schedule of Classes (Y)

5100 (APA 5100) Contexts of Studio Practice. (ADR 5100) Cr. 3 (Max. 6)

Open only to art majors in B.A., B.S., B.F.A. program, or M.A. or M.F.A. art majors. Critical inquiry into art issues, past and present, and contemporary studio practices related to painting. Seminar based on visits to museums, galleries, private collections, artists' studios, and optional trips to major art centers such as New York and Chicago. (Y)

5800 Directed Projects: Drawing. Cr. 3-6 (Undergrad. max. 15; grad. max. 30)

Prereq: consent of instructor. Open only to art majors. Individual work supervised by faculty on arranged basis. (F,W)

FASHION DESIGN and MERCHANDISING COURSES (AFA)

2410 Textiles. Cr. 3

Introduction to fibers, yarns, fabric construction, design and finishes and how they relate to selection, use and care of textile products. Material Fee as indicated in the Schedule of Classes (F,W)

2420 Fashion Design: Basic Construction. Cr. 3

Application of color and design principles in construction of structured and unstructured garments. Material Fee as indicated in the Schedule of Classes (F,W)

3400 Clothing and Culture. Cr. 3

Functions and meanings of dress in diverse cultures and contemporary society with an interdisciplinary approach. (F)

3410 Textile Performance Analysis. Cr. 3

Prereq: AFA 2410. Open only to design majors in B.A., B.S., or M.A. program. Recent technological developments; introduction to textile testing, product analysis and industry specifications. Material Fee as indicated in the Schedule of Classes (W)

3460 Introduction to Merchandising. Cr. 3

Psychological, economic considerations. Terminology and structure of the fashion industry and career opportunities. (F,W)

3470 Merchandise Information. Cr. 3

Prereq: AFA 2410, AFA 3460. Quality and value in merchandising. Manufacturing processes, government regulations and selling points in hard and soft lines. (W)

4430 Fashion Illustration. Cr. 3 (Max. 6)

Prereq: ADR 1050. Open only to design majors in B.A., B.S., or M.A. program. Basic fashion rendering techniques using a variety of media. (B)

4990 Directed Study. Cr. 2-4

Prereq: consent of instructor. Open only to upper division design majors in B.A., B.S., or M.A. program. (T)

4991 Workshop: Special Topics. Cr. 2-4 (Max. 6)

Open only to design majors in B.A., B.S., or M.A. program. Application of theoretical principles to selected areas of design and merchandising. Topics and prerequisites to be announced in Schedule of Classes. (Y)

5420 Fashion Design: Tailoring. Cr. 3

Prereq: AFA 2410 and AFA 2420. Open only to design majors in B.A., B.S., or M.A. program. Tailoring techniques applied to coats and suits. Material Fee as indicated in the Schedule of Classes (F)

5430 History of Costume. Cr. 3

Prereq: one art history course or consent of instructor. Survey of historic costumes from prehistoric to present. Emphasis on influence of social factors. (F)

5440 Fashion Design: Flat Pattern. Cr. 3 (Max. 6)

Prereq: AFA 2420, AFA 5420 or consent of instructor. Open only to design majors in B.A., B.S., or M.A. program. Original designs from a basic sloper. Material Fee as indicated in the Schedule of Classes (Y)

5450 Fashion Design: Draping. Cr. 3 (Max. 6)

Prereq: AFA 2420, AFA 5420 or consent of instructor. Open only to design majors in B.A., B.S., or M.A. program. Creation of original garments by draping on half-scale and standard-size dress forms. Material Fee as indicated in the Schedule of Classes (I)

5460 Merchandising II. Cr. 3

Prereq: AFA 3460. Open only to design majors in B.A., B.S., or M.A. program. Current trends in merchandising. Emphasis on global aspects. (F)

5470 Visual Merchandising: Display. Cr. 3

Prereq: ADE 1200, ADE 1200, or consent of instructor. Open only to design majors in B.A., B.S., or M.A. program. Visual merchandising concepts and trends. Relationship of design elements and principles to the tools and structures used in display. Creative experimentation in the various media. Material Fee as indicated in the Schedule of Classes (F,W)

5490 Economics of Merchandising. Cr. 3

Prereq: completion of Math Proficiency Requirements, AFA 3460. Open only to design majors in B.A., B.S., or M.A. program. Application of merchandising principles and systematic planning to achieve profit goals. (W)

5992 Supervised Field Experience. Cr. 2-4

Prereq: senior standing. Open only to senior design majors in B.A., B.S., or M.A. program. Supervised field experience designed to correlate classroom theory with practical work. (F)

5997 (WI) Seminar. Cr. 3

Prereq: senior standing and satisfactory completion of the IC requirement. Open only to upper division design majors in B.A., B.S., or M.A. program. Topics to be announced in Schedule of Classes. Course satisfies the General Education Writing Intensive Course in the Major requirement. (W)

6440 Computer-Aided Design for Apparel Design. Cr. 3

Prereq: AFA 5440 or consent of instructor. Open only to design majors in B.A., B.S., or M.A. program. Use of computer-aided design software applied to apparel design concepts; garment designing, grading, and marker-making. Material Fee as indicated in the Schedule of Classes (W)

6993 Study Tour. Cr. 3

Prereq: consent of instructor. Open only to art or design majors in B.A., B.S., B.F.A., M.A. or M.F.A. program. Group tour to major market sources; observation and analysis of products and marketing procedures. Topics to be announced in Schedule of Classes. (B:S)

FIBERS COURSES (AFI)

2650 Beginning Weaving. Cr. 3

Prereq: ADE 1200 and ADR 1060. Weaving techniques on a frame loom. Design concepts through application of tapestry, flossa, sumac, inlay and wrapping process. Exploring fabric weaving by using simple weave patterns. Material Fee as indicated in the Schedule of Classes (T)

2660 Introduction to Fabric Printing and Dyeing. Cr. 3-6 (Max. 6)

Emphasis on color, design, composition. Printing with found objects, stencil, silk screen resist method working with pigment and reactive dye. Material Fee as indicated in the Schedule of Classes (T)

3650 (AFI 3650) Intermediate Weaving. (AFI 5650) (AFI 7650) Cr. 3-6 (Max. 12)

Prereq: AFI 2650. Election of more than three credits per semester requires consent of instructor. Open only to students in the College of Fine, Performing and Communication Arts enrolled in B.S., B.A., B.F.A., M.A., or M.F.A. program. Designs done on four- and eight-harness looms. Pattern drafting, layer weaving, ikat, and rug techniques offered on a rotating basis. Material Fee as indicated in the Schedule of Classes (T)

3660 (AFI 3660) Intermediate Fibers: Printing and Dyeing. (AFI 5660) (AFI 7660) Cr. 3-6 (Max. 12)

Prereq: AFI 2660. Open only to students in the College of Fine, Performing and Communication Arts enrolled in B.S., B.A., B.F.A., M.A., or M.F.A. program. Continuation of AFI 2660. Deeper study of fiber reactive dye; beginning of development of personal style. Material Fee as indicated in the Schedule of Classes (T)

5650 (AFI 3650) Weaving: Senior Project. (AFI 7650) Cr. 3-6 (Max. 12)

Prereq: AFI 3650. Election of more than three credits per semester requires consent of instructor. Open only to students in the College of Fine, Performing and Communication Arts enrolled in B.S., B.A., B.F.A., M.A., or M.F.A. program. Directed project in weaving. Research and written evaluative statement required. Material Fee as indicated in the Schedule of Classes (T)

5660 (AFI 3660) Fabric Printing and Dyeing: Senior Project. (AFI 7660) Cr. 3-6 (Max. 12)

Prereq: AFI 3660. Election of more than three credits per semester requires consent of instructor. Open only to students in the College of Fine, Performing and Communication Arts enrolled in B.S., B.A., B.F.A., M.A., or M.F.A. program. Extensive project or series of works determined by student; research and written statement. Material Fee as indicated in the Schedule of Classes (T)

5870 Directed Projects: Fibers. Cr. 3-6 (Undergrad. max. 15; grad. max. 30)

Prereq: consent of instructor. Open only to students in the College of Fine, Performing and Communication Arts enrolled in B.S., B.A., B.F.A., M.A., or M.F.A. program. Individual problems. (F,W)

GRAPHIC DESIGN COURSES (AGD)

2240 Orientation to Graphic Design Computer Software. Cr. 3

Prereq: graphic design or interdisciplinary electronic arts concentration; consent of instructor. Introduction to computer layout, drawing and photo manipulation programs used in graphic design. Demonstrations, readings and assignments for development of design computer skills and integration into design process. Material Fee as indicated in the Schedule of Classes (F,W)

2250 Typography. Cr. 3

Prereq: ADR 1050, 1060; ADE 1200; and AGD 2240. Fundamental understanding of structure, history, technology and application of typography, the visualization of language. Functional and experimental aspects of typography; typographic syntax and hierarchies. Material Fee as indicated in the Schedule of Classes (F,W)

3250 Graphic Design I: Principles and Problem Solving. Cr. 3

Prereq. or coreq: AGD 2250; prereq: ADR 1050, 1060; ADE 1200; AGD 2240. Open only to sophomore level or above art majors in B.A. or B.F.A. program. Visual communication issues and applications: design methodology, problem-solving, relation of form to meaning, type/image relationships. Material Fee as indicated in the Schedule of Classes (F,W)

3260 (AIN 3220) Introduction to Interactivity in Graphic Arts. Cr. 3

Prereq: AIN 2220 or consent of instructor. Open only to students who have completed their freshman year. Exploration of a variety of art-making strategies that utilize digital technologies and interactive media; emphasis on computer-based and online art practices and web-oriented programming languages. Material Fee as indicated in the Schedule of Classes (Y)

4250 Graphic Design II: Word, Image, and Visual Organization. Cr. 3

Prereq: AGD 2240, 2250, and 3250. Open only to upper division art majors in B.A. or B.F.A. program. Students apply knowledge of typography and visual design principles to specific design situations; emphasis on use of grid systems. Material Fee as indicated in the Schedule of Classes (Y)

5250 Graphic Design III: Complexity and Variety in Design. Cr. 3

Prereq: AGD 2240, 2250, 3250, and 4250. Open only to upper division art majors in B.A. or B.F.A. program; or M.A. program art majors. Complex design situations. Research and methodology. Project may include package design, instruction manuals, book and brochure design, publication design. Material Fee as indicated in the Schedule of Classes (F,W)

5260 (WI) Senior Seminar. Cr. 3

Prereq: senior standing. Open only to upper division art majors in B.A. or B.F.A. program; or M.A. program art majors. Issues affecting the theory, history, and practice of design; impact of design on society and impact of society on design. Required readings, student presentations, class discussion, slide lectures, guest speakers. Satisfies the General Education Writing Intensive Course in the Major requirement. Material Fee as indicated in the Schedule of Classes (W)

5700 Special Topics. Cr. 3 (Max. 6)

Prereq: AGD 4250, senior standing or junior standing with consent of instructor. Open only to upper division art majors in B.A. or B.F.A. program; or M.A. program art majors. Examination of specific issue in design theory, history or practice. Topics may include: corporate identity, globalization of design, exhibition design, design history. Material Fee as indicated in the Schedule of Classes (S)

5890 Directed Projects: Graphic Design. Cr. 3

Prereq: consent of instructor. Open only to art majors in B.A., B.F.A. or M.A. program. Individual problems. Material Fee as indicated in the Schedule of Classes (F,W)

5990 Field Study: Internship. Cr. 3

Prereq: AGD 4250, consent of instructor; written consent of instructor required if elected for more than three credits. Open only to senior art majors in B.A. or B.F.A. program. Supervised field experience designated to correlate classroom theory with practical work. Material Fee as indicated in the Schedule of Classes (T)

5997 Graphic Design IV: Systems, Series, and Advanced Studies in Visual Communication. Cr. 3

Prereq: AGD 2240, 2250, 3250, 4250, and 5250. Open only to upper division art majors in B.A. or B.F.A. program; or M.A. program art majors. Extended student projects such as identity systems with various applications, families of package design, series of form design, or poster series. Possible collaborative projects; extensive research. Material Fee as indicated in the Schedule of Classes (F,W)

6260 Advanced Typography. Cr. 3

Prereq: junior standing and completion of AGD 4250. Open only to upper division art majors in B.A. or B.F.A. program; or M.A. program art majors. Advanced and experimental typography; typography as an expressive language in 2-D and 3-D; projects in information design. Material Fee as indicated in the Schedule of Classes (I)

6270 Graphic Design Practicum. Cr. 3

Prereq: senior standing, acceptance of portfolio. Open only to senior art majors in B.A. or B.F.A. program; or M.A. program art majors. Students work on actual graphic design projects with clients from non-profit organizations. Initial discussion with client through delivery of printed work. Material Fee as indicated in the Schedule of Classes (I)

6280 Pre-Press and Production. Cr. 3

Prereq: AGD 4250, junior standing. Open only to upper division art majors in B.A. or B.F.A program; or M.A. program art majors. Preparation of design work for production. How print production influences design concept, connections between pre-press preparation and finished printed work. Field trips and actual print production. Material Fee as indicated in the Schedule of Classes (S)

INDUSTRIAL DESIGN COURSES (AID)

3300 (AID 3300) Introduction to Industrial Design. (AID 5300) Cr. 3 (Max. 9)

Prereq: ADR 1050; ADE 1200. Introduction to fundamental skills necessary for the practice of industrial design. Two-dimensional presentation techniques are developed in first half of semester; second portion consists of exercises in problem-solving methodology. Material Fee as indicated in the Schedule of Classes (F,W)

3310 (AID 3310) Presentation. (AID 5310) Cr. 3 (Max. 6)

Prereq: ADR 1050, ADE 1200. Two dimensional visualization, monochromatic and polychromatic sketch techniques using a variety of traditional media. (F,W)

4300 Product Design Engineering. Cr. 3

Open only to College of Engineering students. Students build on basic skills in projects exploring conceptual problem-solving in two dimensions. (F,W)

4600 (AID 4600) Transportation Design/Engineering. (AID 6300) (AID 7300) Cr. 3

Prereq: AID 4300. Open only to College of Engineering students. Conceptual projects related to transportation design, utilizing skills developed in AID 4300. Material Fee as indicated in the Schedule of Classes (W)

5300 (AID 3300) Advanced Studio/Product. Cr. 3 (Max. 15)

Prereq: AID 3300. Open only to art majors in B.A, B.F.A., or M.A. program. Advanced techniques in presentation of design solutions. Students build upon their ability to communicate two-dimensionally; introduction of digital manipulation and creation software. Material Fee as indicated in the Schedule of Classes. (F,W)

5310 (AID 3310) Advanced Presentation. Cr. 3 (Max. 9)

Prereq: AID 3310. Open only to art majors in B.A, B.F.A., or M.A. program. Advanced techniques in the presentation of design solutions. Students build on their ability to communicate two-dimensionally, with introduction of digital manipulation and creation software. Material Fee as indicated in the Schedule of Classes. (F)

5330 3-D Modeling. Cr. 3 (Max. 6)

Prereq: AID 3300. Open only to upper division art majors in B.A. or B.F.A. program, or art M.A. students. Principles of three-dimensional modeling. Surface development, rendering, and creation of virtual environments. Material Fee as indicated in the Schedule of Classes. (F)

5997 (WI) Senior Seminar. Cr. 3

Prereq: senior standing in industrial design concentration. Open only to senior art majors in B.A. or B.F.A. program, or art M.A. students. Seminar on contemporary issues in industrial design including professional concerns in transportation and product design, presentation, and production. Satisfies the General Education Writing Intensive Course in the Major requirement. (B)

6300 (AID 4600) Advanced Studio: Transportation. (AID 7300) Cr. 3 (Max. 9)

Prereq: AID 3300. Open only to art majors in B.A. or B.F.A. program, or art M.A. students. Form and proportion studies. Development of sketch techniques for communicating the complex form of the automotive body. Taught by professional automotive designers. Material Fee as indicated in the Schedule of Classes (F,W)

6310 Advanced Studio/Exhibit. Cr. 3 (Max. 9)

Prereq: AID 5300. Open only to art majors in B.A. or B.F.A. program, or art M.A. students. Advanced design concepts in exhibit design. Project planning, ideas of brand imaging, phenomenological notions of the spatial experience. Material Fee as indicated in the Schedule of Classes (F)

6320 History of Modern Design I. Cr. 3

Open only to College of Fine, Performing and Communication Arts students enrolled in B.A, B.F.A., or M.A. program. Major design trends in America and Europe from mid-nineteenth century to World War I. Covers a broad spectrum of the applied arts. (F)

6330 History of Modern Design II. Cr. 3

Open only to College of Fine, Performing and Communication Arts students enrolled in B.A, B.F.A., or M.A. program. Major design trends in America and Europe from end of World War I through 1950s. Covers a broad spectrum of the applied arts. (W)

INTERDISCIPLINARY ELECTRONIC ARTS COURSES (AIN)

2220 Time-Based Media I: Video Art. Cr. 3

Prereq: ADE 1200 or consent of instructor. Experimental digital video production techniques: complete workflow from camera to post production and DVD authoring. Technical tuition supplemented by readings, critiques, discussions and screenings of key examples of video art. Material Fee as indicated in the Schedule of Classes (W)

3220 Introduction to Interactivity in Graphic Arts. (AGD 3260) Cr. 3

Prereq: AIN 2220 or consent of instructor. Open only to students who have completed their freshman year. Exploration of a variety of

art-making strategies that utilize digital technologies and interactive media; emphasis on computer-based and online art practices and web-oriented programming languages. Material Fee as indicated in the Schedule of Classes (Y)

4220 Time-Based Media II: Experimental Animation. Cr. 3

Prereq: AIN 2220 or consent of instructor. Open only to students who have completed their freshman year. Strategies for creating animation-based artworks by combining traditional techniques with digital technologies. Technical tuition supplemented by readings, critiques, discussions and screenings of key examples of animation art. Material Fee as indicated in the Schedule of Classes (Y)

4230 (AIN 4230) Time-Based Media III: Experimental 3D Animation. (AIN 6230) Cr. 3

Prereq: AIN 4220 or AIN 3220 or consent of instructor. Open only to students who have completed their freshman year. 3D modeling and animation techniques. Technical tuition supplemented by readings, critiques, discussions and screenings featuring various mainstream and experimental examples of 3D animation. Material Fee as indicated in the Schedule of Classes (W)

5220 New Media Installation and Interactivity. Cr. 3

Prereq: AIN 3220 or consent of instructor. Open only to students who have completed their freshman year. Application of interactive sensor systems for use in interface design, video installations and related new art media projects. Technical tuition supplemented by readings, discussions, research and presentations of key historical examples. Material Fee as indicated in the Schedule of Classes (F)

5550 Seminar: Digital Arts in Context. Cr. 2-3

Prereq: consent of instructor. Forum to explore and discuss the historical and theoretical impact of digital technologies on the production and reception of art; addresses key issues within contemporary art through readings and screenings. Material Fee as given in Schedule of Classes. (Y)

5830 Directed Projects in Digital Arts. Cr. 1-3

Prereq: consent of instructor. Individual problems in electronic arts. Material Fee as indicated in the Schedule of Classes (F,W)

6230 (AIN 4230) Advanced Projects in Digital Arts. (AIN 7230) Cr. 3-6

Prereq: AIN 4230. Research- and project-oriented studio class for intermediate students. Discussion, critique, development and refinement of technical and conceptual approaches to the application of digital technologies within the fine arts. Material Fee as indicated in the Schedule of Classes (W)

6250 Advanced Experimental 3D Animation. Cr. 3

Prereq: AIN 4230. Workshop focusing on 3D animation and modeling techniques. Technical tuition supplemented by critiques and screenings. Material Fee as indicated in the Schedule of Classes (Y)

6830 Special Topics in Digital Arts. Cr. 2-6

Prereq: AIN 2220, AIN 3220. In-depth specializations supplementing and building on digital arts courses. Topics may include: programming for artists; sound design and sonic arts. (F,W)

INTERIOR DESIGN COURSES (AIA)

1610 Architectural Drafting and Perspective Drawing. Cr. 3

Prereq: ADR 1050. Basic architectural drawings: plans, elevations, obliques, sections, details, dimensioning and lettering; hand-drawn and basic CAD techniques; development of perspective presentation drawings. Material Fee as indicated in the Schedule of Classes (W)

2600 Interior Design: CAD I. Cr. 3

Prereq: AIA 1610. Open only to art majors in B.A. or B.F.A. program. Continuation of computer-aided design. Plans, elevations, sections, details, dimensioning and description. System furniture space planning; Windows-based auto CAD. Material Fee as indicated in the Schedule of Classes (F)

2610 Interior Design Studio I. Cr. 3

Prereq: AIA 1610. Open only to art majors in B.A. or B.F.A. program. Single family residential/small-scale office. Presentation techniques; introduction to media and methods used in the preparation of presentation boards: layout, selection, rendering, plan, elevation, lettering and verbal presentation. Material Fee as indicated in the Schedule of Classes (F)

3610 Interior Design Studio II. Cr. 3

Prereq: AIA 2610. Open only to art majors in B.A. or B.F.A. program. Hospitality/restaurant/health care. Continuation of graphic and presentation skill development incorporating plan, elevation, section, detailing, perspective, hand and CAD drawings. Experimentation with lighting, media, board, and verbal presentation. Material Fee as indicated in the Schedule of Classes (W)

3620 Interior Design: CAD II. Cr. 3

Prereq: AIA 1610, 2600, and 2610. Open only to art majors in B.A. or B.F.A. program. Intermediate-level CAD. Development and creation of construction documents, space planning of interior spaces, and systems layout, using autoCAD drafting techniques in two- and three-dimensional modes. Material Fee as indicated in the Schedule of Classes (W)

4600 Environmental Design Theory. Cr. 3

Prereq: AIA 2610. Open only to art majors in B.A. or B.F.A. program. History of interiors: ergonomic, environmental elements. Introduction to building and barrier-free design codes. Acoustical, HVAC and electrical systems. Material Fee as indicated in the Schedule of Classes (F)

4610 Interior Design Studio III. Cr. 3

Prereq: AIA 2600 and 3610. Open only to art majors in B.A. or B.F.A. program. Retail/contract open-office system, medium to large scale, new or adaptive reuse projects. Advanced hand and CAD graphic, presentation skill development, incorporating building and barrier-free codes, HVAC and lighting principles, furniture and equipment specification. Material Fee as indicated in the Schedule of Classes (F)

4620 Interior Perspective and Illustration. Cr. 3

Prereq: AIA 1610, 2610. Open only to art majors in B.A. or B.F.A. program. Visual perspective presentation techniques, including selection, construction, illustration of interior designs. Basic mechanical perspective layout and delineation techniques: pencil, pen, color marker and color pencil to relate effects of texture, volume, and light of interior space. Material Fee as indicated in the Schedule of Classes (F)

4990 Directed Study. Cr. 2-4

Prereq: consent of instructor. Open only to art majors in B.A. or B.F.A. program. (F,W)

5010 Furniture/Product Workshop. Cr. 3

Prereq: AIA 1610, 2610, 5610; consent of instructor. Open only to art majors in B.A., B.F.A., or M.A. program. History, ergonomic and design development of furniture and product design. Projects evolve from hand and CAD drawings to scaled models of furniture and product designs. Material Fee as indicated in the Schedule of Classes (F)

5610 Interior Materials and Systems. Cr. 3

Open only to art majors in B.A, B.F.A., or M.A. program. Estimating, specifying, and the techniques used in the application of materials and systems used in interior design. Lectures, guest speakers, and field trips. Material Fee as indicated in the Schedule of Classes (W)

5620 Building Construction Systems in Architecture I. Cr. 3

Prereq: AIA 2610, 3610. Open only to art majors in B.A, B.F.A., or M.A. program. Residential and commercial construction systems

incorporating governmental and building codes; site and foundation to roof systems; small scale hand and CAD documentation of architectural details. Material Fee as indicated in the Schedule of Classes (F)

5630 Interior Lighting Design and Application. Cr. 3

Prereq: AIA 3610, 4610. Open only to art majors in B.A, B.F.A., or M.A. program. Lighting sources, fixtures, manufacturer's lighting system and application to interior spaces. Basic lighting footcandle calculations; layouts and psychology of lighting description to be applied in a final project. Material Fee as indicated in the Schedule of Classes (W)

5640 Building Construction Systems in Architecture II. Cr. 3

Prereq: AIA 2600, 4600, 4610, 5620. Open only to interior design majors. Development of architectural construction documents: working drawings and written specifications of commercial interior space; plan, elevation, section, details and perspective through hand and CAD documentation. Material Fee as indicated in the Schedule of Classes (W)

5660 Supervised Field Experience. Cr. 3

Prereq: consent of program adviser. Open only to art majors in B.A, B.F.A., or M.A. program. Supervised field study experience designed to correlate classroom theory with professional practice. (T)

5991 Directed Projects: Interior Design. Cr. 3-6 (Max. 9)

Prereq: consent of program coordinator. Open only to art majors in B.A, B.F.A., or M.A. program. Individual problems. (F,W)

5997 (WI) Senior Seminar. Cr. 3

Prereq: consent of instructor. Open only to senior art majors in B.A. or B.F.A. program, or art majors in M.A. program. Investigation of designers, styles, and periods of interior design through charettes and documentation. Resume and portfolio development and review; writing of intensive research paper. (W)

6610 Interior Design Studio IV. Cr. 3

Prereq: AIA 4610, 5640. Open only to art majors in B.A, B.F.A., or M.A. program. Large-scale new or adaptive re-use: office, hospitality, health-care or retail interior spaces. Professional hand and CAD graphic and skill development. Integration of codes, ADA, human factors, HVAC and lighting principles, furniture and equipment specification related to specific environment. Material Fee as indicated in the Schedule of Classes (W)

6650 Business Practicum. Cr. 2

Prereq: AIA 4610. Open only to art majors in B.A, B.F.A., or M.A. program. Examination of different types of business formations and their characteristics; professional practices and procedures, professional ethics, contemporary topics in interior design practice. (F)

METALSMITHING COURSES (AME)

2600 Introduction to Jewelry and Metalsmithing. Cr. 3

Prereq: ADR 1060 and ADE 1200 for art majors. Open only to students at the sophomore level or above. Basic skills: sawing, filing, drilling, sanding, polishing, creating textures on metal, riveting, soldering, and bezel setting of stones. Creation of jewelry and small functional objects. Material Fee as indicated in the Schedule of Classes (T)

3600 (AME 3600) Intermediate Jewelry I. (AME 5600) (AME 7600) Cr. 3

Prereq: AME 2600. Open only to art or design and merchandising majors in B.A. or B.F.A. program. Lost-wax casting and mold-making. Creating, preparing and casting into metal of wax models. Vulcanized rubber mold-making. Commercial jewelry techniques. Material Fee as indicated in the Schedule of Classes (T)

3601 Intermediate Jewelry II. Cr. 3

Prereq: AME 3600. Open only to art or design and merchandising majors in B.A. or B.F.A. program. Advanced metal fabrication and surface treatment. Topics include: stone setting techniques, acid etching, granulation, keum boo, patination, hinge mechanisms and more complex soldering techniques. Material Fee as indicated in the Schedule of Classes (F,W)

4600 Metalsmithing I. Cr. 3-6 (Max. 9)

Prereq: AME 2600. Open only to art or design and merchandising majors in B.A. or B.F.A. program. Utilizing plastic qualities of metal to generate low to middle relief forms. Introduction to hydraulic die forming, chasing and repousse and fold forming. Creation of objects with moderate level of relief and high degree of surface adornment. Material Fee as indicated in the Schedule of Classes (F,W)

4601 Metalsmithing II. Cr. 3-6 (Max. 9)

Prereq: AME 4600. Open only to art or design and merchandising majors in B.A. or B.F.A. program. Utilizing plastic qualities of metal to generate high relief forms. Techniques include: raising and sinking, anticlastic and synclastic raising, nonferrous and ferrous forging. How metals may be stretched to create forms with a high degree of volume. Material Fee as indicated in the Schedule of Classes (F,W)

5600 (AME 3600) Advanced Jewelry and Metalsmithing. (AME 7600) Cr. 3-6 (Max. 24)

Prereq: AME 3601. Election of more than three credits per semester requires consent of instructor. Open only to art or design and merchandising majors in B.A., B.F.A., M.A. or M.F.A. program. Intellectual and conceptual nature of student's artwork; discussion and analysis. Methods of criticism. Material Fee as indicated in the Schedule of Classes (F,W)

5860 Directed Projects: Metalsmithing. Cr. 3-6 (Undergrad. max. 15; grad. max. 30)

Prereq: consent of instructor. Open only to art or design and merchandising majors in B.A., B.F.A., M.A. or M.F.A. program. Individual problems. (F,W)

PAINTING COURSES (APA)

2000 Oil Painting I. Cr. 3

Prereq: ADR 1050, ADR 1060, and ADE 1200. Open only to sophomore students or above. Traditional materials and methods of oil painting as a means of visual expression. Previous painting experience is not required. Painting from direct observation and imagination. Material Fee as indicated in the Schedule of Classes (T)

2110 (APA 2110) Watercolor Painting I. (APA 3110) (APA 5110) Cr. 3

Prereq: APA 2000. Open only to sophomore students or above. Methods and materials of transparent watercolor painting. Previous experience with watercolor painting is not required. Compositions based on observation and imagination. Material Fee as indicated in the Schedule of Classes (F,W)

2130 Introduction to Alternative Painting Media. Cr. 3

Open only to sophomore students and above. Prereq: ADR 1050, ADR 1060, ADE 1200. Survey of materials and methods of acrylic painting, encaustic painting, pastel painting, as well as collage and mixed media painting. Previous painting experience is not required. Compositions based on observation and imagination. (Y)

3000 (APA 3000) Oil Painting II. (APA 4000) (APA 5000) Cr. 3

Prereq: APA 2000. Open only to art majors. Continued emphasis on structure of painting. Individual development of pictorial, emotional and conceptual aspects of image-making. Material Fee as indicated in the Schedule of Classes (T)

3110 (APA 2110) Watercolor Painting II. (APA 5110) Cr. 3

Prereq: APA 2110. Open only to art majors. Continued experience with watermedia compositions based on observation and/or imagination. Material Fee as indicated in the Schedule of Classes (F,W)

3130 (APA 3130) Figure Painting: Water Media. (APA 5130) (APA 7130) Cr. 3

Prereq: APA 2110. Open only to art majors in B.A. or B.F.A. program. Spontaneous and sustained paintings from direct observation of the human figure. Inquiry into the effects of scale, space and emotional responses are encouraged. Material Fee as indicated in the Schedule of Classes (Y)

3140 (APA 3140) Figure Painting: Oil and Other Media. (APA 5140) (APA 7140) Cr. 3

Prereq: APA 3000. Open only to art majors in B.A. or B.F.A. program. Sustained and gestural studies of human figure. Individual responses to scale, space, emotional content. Material Fee as indicated in the Schedule of Classes (T)

4000 (APA 3000) Oil Painting III. (APA 5000) Cr. 3

Prereq: APA 3000. Open only to art majors. Individual development of personal painting ideas through assigned projects and/or student initiative in consultation with instructor. Continued emphasis on formal and expressive aspects of painting. Material Fee as indicated in the Schedule of Classes (T)

5000 (APA 3000) Oil Painting IV. (APA 4000) Cr. 3-6 (Max. 18)

Prereq: APA 4000. Election of more than three credits per semester requires consent of instructor. Open only to upper division art majors or graduate students in M.A. or M.F.A. in art. Individual development in painting. Material Fee as indicated in the Schedule of Classes (T)

5060 (ADR 5060) Advanced Concepts in Drawing and Painting. (APA 7060) Cr. 3-6 (Max. 15)

Prereq: ADR 3070 or APA 4000. Open only to upper division art majors in B.A., B.S., B.F.A. program, or M.A. or M.F.A. art majors. Emphasis on individual projects using any appropriate medium. Students select subjects and approaches under faculty guidance; may include lectures, demonstrations, off-campus visits. Material Fee as indicated in the Schedule of Classes (Y)

5080 (APA 5080) Landscape Painting. (APA 7080) Cr. 3-6 (Max. 15)

Open only to undergraduate art majors. Prereq: APA 2000 or former APA 2100. Election of more than three credits per term requires consent of instructor. Painting or drawing, as appropriate, outdoors at various urban, suburban and rural sites in metropolitan Detroit area. Students are expected to drive or carpool to locations within an hour of Detroit. Interpretation of landscape subjects through observation and imagination. Material Fee as given in Schedule of Classes. (S)

5100 (APA 5100) Contexts of Studio Practice. (ADR 5100) Cr. 3 (Max. 6)

Open only to art majors B.A., B.S., B.F.A. program, or M.A. or M.F.A. art majors. Critical inquiry into art issues, past and present, and contemporary studio practices related to painting. Seminar based on visits to museums, galleries, private collections, artists' studios, and optional trips to major art centers such as New York and Chicago. (Y)

5110 (APA 2110) Watercolor Painting III. (APA 3110) Cr. 3-6 (Max. 18)

Prereq: APA 3110. Election of more than three credits per semester requires consent of instructor. Open only to upper division undergraduate art majors, and graduate majors in M.A. or M.F.A. programs. Individual work in transparent and/or opaque water-based media. Material Fee as indicated in the Schedule of Classes (F,W)

5130 (APA 3130) Figure Painting Advanced: Water Media. (APA 7130) Cr. 3-6 (Max. 12)

Prereq: APA 3130. Election of more than three credits per semester requires consent of instructor. Open only to upper division art majors B.A., B.S., B.F.A. program, or M.A. or M.F.A. art majors. Individual development in water media based on observation of human figure. Material Fee as indicated in the Schedule of Classes (Y)

5140 (APA 3140) Figure Painting Advanced: Oil and Other Media. (APA 7140) Cr. 3-6 (Max. 12)

Prereq: APA 3140. Election of more than three credits per semester requires consent of instructor. Open only to upper division art majors B.A., B.S., B.F.A. program, or M.A. or M.F.A. art majors. Individual development based on the human figure using any appropriate medium. Material Fee as indicated in the Schedule of Classes (Y)

5810 Directed Projects: Painting. Cr. 3-6 (Undergrad. max. 15; grad. max. 30)

Prereq: consent of instructor. Open only to art majors B.A., B.S., B.F.A. program, or M.A. or M.F.A. art majors. Self-directed work in consultation with graduate faculty on an arranged basis. (F,W)

PHOTOGRAPHY COURSES (APH)

2400 Introductory Digital Photography. Cr. 3

Lectures, demonstrations, projects involving basic digital photography techniques. (T)

2410 Beginning Photography. Cr. 3

Prereq: APH 2400. Film processing, printing and presentation in black and white medium. Introduction to basic photographic vocabulary through problem-solving approach. Demonstrations and group techniques. Material Fee as indicated in the Schedule of Classes (T)

2420 Digital Imaging I. Cr. 3

Prereq: APH 2400. Introduction to Macintosh computer basics, followed by scanning and image acquisition methods. Use of resolution and sizing principles. Introduction to Adobe Photoshop software for image editing and creation. Use of saving and storage options and basic printing techniques. Material Fee as indicated in the Schedule of Classes (T)

3410 Intermediate Photography. Cr. 3

Prereq: APH 2410. Further refinement of basic skills and concepts. More advanced techniques. Use of the camera's manipulative mechanisms. Emphasis on image and idea. Material Fee as indicated in the Schedule of Classes (T)

3420 Digital Imaging II. Cr. 3

Prereq; APH 2420. Advanced work with image editing and manipulation programs. Use of more advanced editing techniques, including masks, paths, layers and channels. Introduction to digital camera. Experiment with output methods including transparency and image transfer. Material Fee as indicated in the Schedule of Classes (T)

4410 Advanced Photography. Cr. 3

Prereq: APH 3410. Open only to art majors with sophomore standing or above in B.A. or B.F.A. program. Individual projects using advanced methods and techniques. In-depth photographic investigations exploring the possibilities of personal expression. Material Fee as indicated in the Schedule of Classes (Y)

4420 (APH 4420) View Camera. (APH 5420) Cr. 3

Open only to art majors in B.A. or B.F.A. program. Basic view camera techniques. Sheet film processing and printing. Studio lighting techniques. Material Fee as indicated in the Schedule of Classes (B)

4430 (APH 4430) Digital Color Photography I. (APH 5430) Cr. 3

Prereq: APH 3410. Open only to art majors in B.A. or B.F.A. program. Digital color printing. Color theory and image adjustments in Adobe Photoshop software. Use of digital cameras. Class projects and

group critiques. Material Fee as indicated in the Schedule of Classes (B)

5420 (APH 4420) Advanced View Camera. Cr. 3-6 (Max. 9)

Prereq: APH 4420. Election of more than three credits per semester requires consent of instructor. Open only to art majors in B.A., B.F.A., M.A. or M.F.A. program. Refinement of view camera techniques and advanced lighting techniques. Material Fee as indicated in the Schedule of Classes (Y)

5430 (APH 4430) Digital Color Photography II. Cr. 3-6 (Max. 9)

Prereq: APH 4430. Election of more than 3 credits per semester requires consent of instructor. Open only to art majors in B.A., B.F.A., M.A. or M.F.A. program. Use of color as an expressive medium through a variety of lighting situations. Use of digital still cameras. Advanced adjustment and printing techniques. Material Fee as indicated in the Schedule of Classes (Y)

5440 Experimental Photography. Cr. 3-6 (Max. 9)

Prereq: APH 3410. Election of more than 3 credits per semester requires consent of instructor. Open only to upper division art majors in B.A. or B.FA. program, or art majors in MA. or M.F.A. program. Work in non-traditional processes including image and emulsion transfer, hand-applied emulsions, laser copy and xerographic transfer. Material Fee as indicated in the Schedule of Classes (B)

5450 Selected Topics in Photography. Cr. 3-6 (Max. 9)

Prereq: APH 4410. Election of more than three credits per semester requires consent of instructor. Open only to art majors in B.A., B.F.A., M.A. or M.F.A. program. Topics to be announced in Schedule of Classes . Material Fee as indicated in the Schedule of Classes (Y)

5850 Directed Projects: Photography. Cr. 3-9 (Undergrad. max. 9; grad. max. 30)

Prereq: consent of instructor. Open only to art majors in B.A., B.F.A., M.A. or M.F.A. program. Individual problems. (F,W)

5860 Social Documentary: Community, Compassion, and Activism. Cr. 3-6 (Undergrad. max. 9; grad. max. 30)

Prereq: APH 2400. Photographic documentation applied to social cause, community representation, and visual/multicultural critical theory. Material Fee as indicated in the Schedule of Classes (I)

PRINTMAKING COURSES (APR)

2300 Introduction to Printmaking. Cr. 3

Prereq: ADR 1050, ADE 1200. Introduction to a variety of printmaking media including etching, monoprint, serigraphy and woodcut. Material Fee as indicated in the Schedule of Classes (Y)

2690 (APR 2690) Papermaking. Cr. 3

Prereq: ADR 1060 and ADE 1200. Introduction to hand-made paper. Basic techniques of both sheet and free-formed paper. (I)

3470 (APR 3470) Beginning Photo Processes for Printmaking. (APR 5470) (APR 7470) Cr. 3-6

Prereq: one course from ADR 1050, AGD 2240, AIN 2220, APH 2410. Open only to students in B.A. or B.F.A. program. Processes for lithography, intaglio, and serigraphy using hand-drawn, computer-generated, or photo-generated positives. Material Fee as indicated in the Schedule of Classes (W)

3480 Beginning Intaglio Printmaking. Cr. 3 (Max. 6)

Prereq: ADR 1060 and ADE 1200 or former ADE 1210. Open only to art majors at sophomore level or above in B.A. or B.F.A. program. Basic metal plate techniques: etching, aquatint, engraving, drypoint, soft ground, lift ground. Material Fee as indicated in the Schedule of Classes (F,W)

3490 (APR 3490) Beginning Lithography. (APR 5490) (APR 7490) Cr. 3 (Max. 6)

Prereq: ADR 1060 and ADE 1230 or former ADE 1210. Open only to art majors at sophomore level or above in B.A. or B.F.A. program. Fundamentals of stone and plate lithography. Black and white prints made. Material Fee as indicated in the Schedule of Classes (S)

3500 (APR 3500) Beginning Serigraphy. (APR 5500) (APR 7500) Cr. 3

Prereq: ADR 1060 and ADE 1230 or former ADE 1210. Open only to art majors at sophomore level or above in B.A. or B.F.A. program. Introduction to basic techniques of screen printing. Material Fee as indicated in the Schedule of Classes (Y)

3510 (APR 3510) Beginning Relief and Experimental Printmaking. (APR 5510) (APR 7510) Cr. 3

Prereq: ADR 1060, ADE 1230 or former ADE 1210. Open only to art majors at sophomore level or above in B.A. or B.F.A. program. Traditional relief methods: woodcut, wood engraving, linocut; also monoprint and monotype, constructed prints, other experimental approaches. Material Fee as indicated in the Schedule of Classes (T)

5470 (APR 3470) Advanced Photo Processes for Printmaking. Cr. 3-6

Prereq: consent of instructor. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Processes for lithography, intaglio, and serigraphy. Material Fee as indicated in the Schedule of Classes (W)

5480 (APR 5480) Advanced Intaglio Printmaking. (APR 7480) Cr. 3-6 (Max. 21)

Prereq: APR 3480. Election of more than three credits per semester requires consent of instructor. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Advanced problems in intaglio. Multiplate and rollup color printing. Photo intaglio techniques, experimental media. Material Fee as indicated in the Schedule of Classes (F,W)

5490 (APR 3490) Advanced Lithography. (APR 7490) Cr. 3-6 (Max. 21)

Prereq: APR 3490. Election of more than three credits per semester requires consent of instructor. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Advanced problems in lithography. Black and white, multicolor, transfer methods. Material Fee as indicated in the Schedule of Classes (F,W)

5500 (APR 3500) Advanced Serigraphy. (APR 7500) Cr. 3-6 (Max. 15)

Prereq: APR 3500. Election of more than three credits per semester requires consent of instructor. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Advanced problems in screen printing. Photo transfer, multimedia approaches. Material Fee as indicated in the Schedule of Classes (Y)

5510 (APR 3510) Advanced Relief and Experimental Printmaking. (APR 7510) Cr. 3-6 (Max. 21)

Prereq: APR 3500 and 5490. Election of more than three credits per semester requires consent of instructor. Open only to upper division art majors iin B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Traditional relief methods: woodcut, wood engraving, linocut; also monoprint and monotype, constructed prints, other experimental approaches. Material Fee as indicated in the Schedule of Classes (S)

5690 (APR 2690) Advanced Papermaking. Cr. 3-6 (Max. 9)

Prereq: APR 2690. Election of more than three credits per semester requires written consent of instructor. Advanced problems involving coloring, sheet making, sizing and sculptural use of the medium. (I)

5840 Directed Projects: Printmaking.
Cr. 3-6 (Undergrad. max. 15; grad. max. 30)

Prereq: consent of instructor. Open only to art majors in B.A., B.F.A., M.A. or M.F.A. program. Individual problems. (F,W)

SCULPTURE COURSES (ASL)

2150 Beginning Sculpture. Cr. 3

Prereq: ADR 1060, ADE 1200. Open only to students with sophomore standing or above. Instruction in traditional techniques and concepts of sculpture including modeling the figure from observation using clay, moldmaking, carving, construction, and casting. Lectures, demonstrations, critiques. Material Fee as indicated in the Schedule of Classes (T)

3150 (ASL 3150) Intermediate Sculpture. (ASL 5150) (ASL 7150) Cr. 3

Prereq: ASL 2150. Open only to art majors with sophomore standing or above in B.A. or B.F.A. program. Contemporary concerns in sculpture. Idea, scale, site, light, movement, and serial forms. Material Fee as indicated in the Schedule of Classes (T)

3170 (ASL 3170) Figurative Sculpture I. (ASL 5170) Cr. 3

Prereq: ASL 2150. Open only to art majors with sophomore standing or above in B.A. or B.F.A. program. Instruction in traditional, representational, figurative sculpture. Historical examples, concepts and techniques. Basic anatomy, observation, modeling, gesture, proportion, plane, volume, mass, texture, portraiture; use of calipers, armatures, and moldmaking. Carving, construction, and casting are optional. Material Fee as indicated in the Schedule of Classes (I)

3180 Mixed-Media and Installation. Cr. 3

Prereq: ASL 2150. Creating art objects, multiple forms, and expressive spatial projects in a considered environment. Material Fee as given in Schedule of Classes. (F)

3190 Sculpture Foundry I. Cr. 3

Prereq: ASL 2150 or consent of instructor. Open only to art majors with sophomore standing or above in B.A. or B.F.A. program. Creation of sculpture using metal. Bonded-sand and investment casting using bronze and aluminum; chasing and patinas; oxy-acetylene, stick, mig, and tig welding; plasma cutting. Material Fee as indicated in the Schedule of Classes (Y)

5150 (ASL 3150) Advanced Sculpture. (ASL 7150) Cr. 3-9

Prereq: ASL 2150, 3150, 3170, 3190. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Development of personal and professional body of work. Discussions, lectures, assignments. Material Fee as indicated in the Schedule of Classes (T)

5165 Mixed-Media and Installation. Cr. 3

Prereq: ASL 2150. Creating discrete art objects, multiple forms, and expressive spatial projects in a considered environment. Material Fee as indicated in the Schedule of Classes (F)

5170 (ASL 3170) Figurative Sculpture II. Cr. 3-6 (Max. 18)

Prereq: ADR 3090 and ASL 3170. Election of more than three credits per semester requires consent of instructor. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Emphasis on advanced and self-directed problems in figurative sculpture. Material Fee as indicated in the Schedule of Classes (Y)

5180 Sculpture: Advanced Technology. Cr. 3-6 (Max. 18)

Prereq: ASL 5170. Election of more than three credits per semester requires consent of instructor. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. One major project which explores the application of non-traditional materials and technologies: research, industrial liaisons, equipment. Material Fee as indicated in the Schedule of Classes (I)

5190 Sculpture Foundry II. Cr. 3-6

Prereq: ASL 3190. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Development of ideas and skills using either casting or fabrication or both. Material Fee as indicated in the Schedule of Classes (Y)

5810 Special Topics in Sculpture. Cr. 1-6

Open only to sculpture majors. Prereq: ASL 2150, 3150, 3170, and 3190. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Topics to be announced in Schedule of Classes. Material Fee as indicated in the Schedule of Classes (Y)

5820 Directed Projects.
Cr. 3-6 (Undergrad. max. 15; grad. max. 30)

Prereq: consent of instructor. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Independent projects done in consultation with instructor.. Material Fee as indicated in the Schedule of Classes (F,W)

SPECIAL ART COURSES (ACS)

3550 (ACS 3550) Special Topics. (ACS 5550) Cr. 3 (Max. 6)

Prereq. for A H 5550: senior standing, or junior standing and consent of instructor; no prereq. for A H 3550. Students examine specific issues related to one or more of the studio disciplines. Material Fee as given in Schedule of Classes. (I)

3997 Sophomore Seminar in the Vistal Arts. Cr. 3

Prereq: ADR 1060, ADE 1200. Introduction to variety of art and design disciplines: developing basic critiquing skills, learning how to document and present art and design projects, and gaining a general knowledge of the contemporary art world. (B)

5100 Study Abroad: Special Topics in Studio Art. Cr. 3-6

Prereq: completion of B.F.A. core curriculum. Foreign study course for B.F.A. majors. Topic(s) announced each time course is offered. Material Fee as given in Schedule of Classes. (I)

5550 (ACS 3550) Special Topics. Cr. 3 (Max. 6)

Prereq. for A H 5550: senior standing, or junior standing and consent of instructor; no prereq. for A H 3550. Students examine specific issues related to one or more of the studio disciplines. Material Fee as given in Schedule of Classes. (I)

5650 Museum Culture: Histories, Critiques, Practices. Cr. 3

The art museum as a subject of cultural history and criticism, social policy, and art. Includes panel discussions among museum professionals and opinion leaders, designed to explore current issues. (Y)

5996 Honors Project. Cr. 3

Open only to undergraduate honors students in art. Prereq: completion of required courses for honors major in art or consent of instructor. Students complete a substantial creative project reflecting conceptual issues, determined by the student in collaboration with his/her professor. (T)

5997 (WI) Senior Seminar in the Visual Arts. Cr. 3

Prereq: prior consent of undergraduate adviser. Open only to senior art majors in B.F.A. program. Interdisciplinary seminar on contemporary issues in the visual arts including studio practices, history, and criticism. Satisfies the General Education Writing Intensive Course in the Major requirement. (F,W)

ART HISTORY COURSES (A H)

1000 (VP) Introduction to Art. Cr. 4

Forms and functions of art; uses of art; roles of the artist; iconography and symbols. (T)

1110 (VP) Survey of Art History: Ancient through Medieval. Cr. 3-4

Offered for four credits only to Honors students. Survey of traditions and major developments in visual expression in the West, prehistory through Medieval period. Art studied in context of its cultures; techniques of visual analysis. (T)

1120 (VP) Survey of Art History: Renaissance through Modern. Cr. 3-4

Offered for four credits to Honors students only. Traditions and developments in visual expression in the West, Renaissance through twentieth century. Art in context of its cultures; techniques of visual analysis. (T)

3070 Art and Archeology of Ancient Egypt. Cr. 3

Prereq: A H 1110 and A H 1120. An introduction to the history and development of Egyptian artistic style in architecture, sculpture, painting and the applied arts; historical, social and religious background. (I)

3150 The Arts of Africa: Local and Global Visions. Cr. 3

Prereq: A H 1110 and A H 1120. Traditional, modern and contemporary arts of Africa, as well as the impact of African culture on the Americas. Emphasis on global politics of intercultural contact between Africa and the West. (F)

3240 Mythology in Greek Art. Cr. 3

Prereq: A H 1110 and A H 1120. Mythology as subject matter of statues, wall paintings, temple decorations, and vase painting of ancient Greece. (I)

3300 (A H 3300) History and Urban Development of Rome. (A H 5305) Cr. 3

Monumental public and private spaces of ancient Rome, from their development through their transformations in the Middle Ages and the Renaissance to the modern age. The idea of the city as an imperial capital and the perpetuation of that ideal in art and architecture. Taught in Rome. (B)

3410 Medieval Art and Architecture. Cr. 3

Prereq: A H 1110. Monasticism as a driving force in medieval culture; art and architecture produced by and for Christian religious communities, A.D. 300-1400. (I)

3470 Islamic Art and Architecture. Cr. 3

Survey of art and architecture of Islam from its origins in the seventh century to the Ottoman Empire. (I)

3560 (A H 3560) Special Topics. (A H 5560) Cr. 3

Prereq. for A H 5560: senior standing, or junior standing and consent of instructor; no prereq. for A H 3560. Students examine specific issues related to art history. (I)

3700 Contemporary Art. Cr. 3

Prereq: one 1000-level art history course. Introduction for studio art majors: ideas and styles of modern art. The gap between those who make art and those who write about it. Access to the discipline of art history through tracing the origins of a variety of contemporary art practices. (Y)

3750 (A H 3750) African American Art. (AFS 3750) Cr. 3

Prereq: one 1000-level Art History course. Introduction to African American art from the colonial period to the present, with emphasis on the U.S. and some attention to South and Central America and the Caribbean. (Y)

3820 North American Indian Art. Cr. 3

Survey of the visual arts of North American Indian cultures. (Y)

4240 (HON 4240) (VP) Seminar in Visual and Performing Arts. (A H 4240) Cr. 3 (Max. 9)

Prereq: junior standing or above in College of Fine, Performing and Communication Arts, or Honors College; consent of instructor. Historical examination of role and function of art and the visual artist in modern society; includes service learning component in which students engage in projects relating to the visual or performance arts in the Detroit community. (Y)

5010 Alternative Media. Cr. 3

Exploration of media not normally dealt with in courses on modernism: such as video, performance, installations, and computer technologies. (I)

5090 (WI) Theory and Methods of Art Historical Research. Cr. 3

Prereq: consent of instructor. Introduction to the methods of research in art history. History of the discipline's methodology examined through selective readings. (I)

5210 Hellenistic Art. Cr. 3

Open to freshman students with consent of instructor. Prereq: A H 1110 and A H 1120 or consent of instructor. Sculpture, painting and architecture of the Greek world from Alexander the Great to Cleopatra. (I)

5250 Ancient Rome. Cr. 3

Open to freshman students with consent of instructor. Prereq: A H 1110 and A H 1120 or consent of instructor. Development of Rome into an imperial capital. Design, function and political significance of public monuments in the city. (I)

5260 Classical Greek Art. Cr. 3

Open to freshman students with consent of instructor. Prereq: A H 1110 and A H 1120 or consent of instructor. Greek painting, sculpture and architecture of the fifth and fourth centuries B.C. Emphasis on decorative programs of temples and cult statues. (I)

5270 Roman Painting and Sculpture. Cr. 3

Open to freshman students with consent of instructor. Prereq: A H 1110 and A H 1120 or consent of instructor. Painting and sculpture of the Roman Republic and Empire, and their cultural context. (Y)

5300 The Christian Roman Empire. Cr. 3

Open to freshman students with consent of instructor. Prereq: A H 1110 and 1120 or consent of instructor. Art and architecture of the Mediterranean and Western Europe, A.D. 200-700. Formation and development of distinctive Christian tradition in context of the later Roman world. Emphasis on interaction between pagan, Christian and Jewish traditions. (B)

5305 (A H 3300) History and Urban Development of Rome. (A H 5305) Cr. 3

Monumental public and private spaces of ancient Rome, from their development through their transformations in the Middle Ages and the Renaissance to the modern age. The idea of the city as an imperial capital and the perpetuation of that ideal in art and architecture. Taught in Rome. (B)

5310 The Ancient City of Athens. Cr. 3

Open to freshman students with consent of instructor. Prereq: A H 1110 and A H 1120 or consent of instructor. The history of Athens as an urban center in antiquity. Public monuments, buildings and landscape as reflecting the city's aspirations and fortunes. (I)

5320 Neoclassical Architecture in Britain. Cr. 3

Open to freshman students with consent of instructor. Prereq: A H 1110 and A H 1120 or consent of instructor. Interest in Classical antiquity as shown in English architecture of the seventeenth century. Domestic, state and religious architecture, urban planning, garden

design and landscape architecture, in contexts of political and social developments. (I)

5330 Constantinople in the Sixth Century. Cr. 3

Open to freshman students with consent of instructor. Prereq: A H 1110 and A H 1120 or consent of instructor.l Art and architecture of Constantinople in the Sixth Century and its place in the larger Mediterranean world. (B)

5350 Byzantine Art and Architecture. Cr. 3

Open to freshman students with consent of instructor. Prereq: A H 1110, A H 1120 or consent of instructor. Art and architecture of the Byzantine Empire, A.D. 700-1453. Formation and development of a distinct Christian representational and architectural tradition in the context of Orthodox Christianity. Secular traditions considered in light of traditions of Hellenism. (Y)

5400 Romans and Barbarians. Cr. 3

Open to freshman students with consent of instructor. Prereq: A H 1110 and A H 1120; consent of instructor. Art and architecture in Western Europe from the Dark Ages through the twelfth century. (I)

5410 Gothic Art and Architecture. Cr. 3

Open to freshman students with consent of instructor. Prereq: A H 1110 and A H 1120; consent of instructor. Gothic art and architecture in Western Europe from 1140 to 1400, including manuscripts, metalwork, stained glass, as well as the architectural context in which they were used. (I)

5450 Art and Architecture in the High Middle Ages. Cr. 3

Prereq: A H 1110, 1120. Art and architecture in western Europe, 1050-1250. Development of Romanesque and Gothic styles in architecture, painting, and sculpture. (I)

5500 Early Renaissance in Italy. Cr. 3

Prereq: A H 1110 and A H 1120. Art and architecture from Giotto to Botticelli; transformation of late medieval art prior to Black Death, classical revival in Florence; North Italian artists such as the Bellinis and Mantegna. (B)

5510 High Renaissance and Mannerism in Italy. Cr. 3

Prereq: A H 1110 and A H 1120. The art of Leonardo, Raphael, Michelangelo, Titian, and their contemporaries. (I)

5520 Art of Renaissance Venice. Cr. 3

Prereq: A H 1120 or 1110. Art of fifteenth and sixteenth century Venice considered in its socio-political milieu. (B)

5530 Northern European Painting in the Fourteenth and Fifteenth Centuries. Cr. 3

Prereq: A H 1110 and A H 1120. Northern painting from its sources in the Franco-Flemish manuscript tradition and Bohemian schools to the great masters of the fifteenth century. (B)

5550 Northern Renaissance Art. Cr. 3

Prereq: A H 1110 and A H 1120. Art of Germany and the Netherlands executed between 1400 and 1570. (B)

5560 (A H 3560) Special Topics. Cr. 3

Prereq. for A H 5560: senior standing, or junior standing and consent of instructor; no prereq. for A H 3560. Students examine specific issues related to art history. (I)

5600 Baroque Art in Italy. Cr. 3

Prereq: A H 1110 and A H 1120. Art of late sixteenth and seventeenth century Italy in its socio-political milieux. (B)

5610 Baroque Art in the Netherlands. Cr. 3

Prereq: A H 1120 or 1110. Seventeenth-century art in the Netherlands in context of its socio-political milieux. (I)

5700 Nineteenth Century European Painting. Cr. 3

Prereq: A H 1110, 1120. Major styles, developments and masters. (B)

5710 Trends in Nineteenth Century Art. Cr. 3

Prereq: A H 1110, 1120. Topics to be announced in Schedule of Classes. (B)

5715 Modernism: Nineteenth and Twentieth Centuries. Cr. 3

Prereq: A H 1110, 1120. Origins of Modernism in the mid-nineteenth century; avant-garde art in Europe and the U.S. from 1850 to 1950; theories of Modernism in the visual arts. (B)

5720 Twentieth Century Art. Cr. 3

Prereq: A H 1110, 1120. European and American paintings, sculpture, and new media surveyed from 1900 to present. (B)

5735 Art 1900-1945. Cr. 3

Prereq: A H 1110, 1120. European and American avant-garde art, Dada and Surrealism, the interwar period, and Abstract Expressionism. (B)

5745 Art Since 1945. Cr. 3

Prereq: A H 1110, 1120. European and American art from the postwar period through movements including conceptualism, minimalism, and post-modernism. (B)

5770 Paris in the Nineteenth Century. Cr. 3

Prereq: A H 1120. Social and economic change in nineteenth century Paris; impact on art from Romantics to Post-Impressionists. Reading in major works of literature and history. Dawn of modernism in painting. (B)

5780 Topics in Twentieth-Century Art. Cr. 3-6 (Max. 9)

Election of more than three credits requires consent of instructor. Prereq: A H 1110, 1120. Topics to be announced in Schedule of Classes. (Y)

5790 History of Photography. Cr. 3

Prereq: one 1000-level art history course or above, or consent of instructor. Open only to undergraduate art history or art majors. Technical, aesthetic and historical development of the art of photography from its invention to the present. (B)

5820 Pre-Columbian Art of South and Central America. Cr. 3

Prereq: A H 1110, 1120. Open only to art history or art majors. Lecture-survey of art and architecture produced by the Precolumbian civilizations of Peru, Central America and Mexico, including the traditions of Chavin, Tiahuanaco, Inca, Maya, Olmec, Teotihuacan, Toltec and Aztec. (B)

5830 History of Collecting and Collections. Cr. 3

Prereq: A H 1110, A H 1120. History of collecting and collections in the Western tradition from antiquity to the modern era. (I)

5855 Museum Practicum. Cr. 3

Prereq: A H 1110, A H 1120; consent of instructor. Cooperative arrangement between the art history program and the Detroit Institute of Arts, in which the student applies art historical training to a current project or exhibition in the museum. (B)

5865 Seminar in Museum Research. Cr. 3

Prereq: A H 1110, A H 1120; consent of instructor. Art historical research methods applied to work in the Detroit Institute of Arts. Topic to be announced in Schedule of Classes. (I)

5990 Directed Study. Cr. 1-3

Prereq: consent of instructor. Open only to art history majors in B.A. or M.A. program. Supervised advanced reading and research in the history of art. (F,W)

5993 (WI) Writing Intensive Course in Fine Arts. Cr. 0

Open only to undergraduate art history majors in B.A. or B.F.A. program. Prereq: junior standing, satisfactory completion of the IC requirement, completion of A H 1110, 1120 and one other A H course at 2000-level or above; coreq: A H course at 3000-level or above. Offered for S and U grades only. No degree credit. Required for all majors. (F,W)

5997 Seminar. Cr. 3

Prereq: junior standing or above; A H 1110, 1120. Open only to art history or art majors in B.A., B.F.A., M.A. or M.F.A program. Readings, discussion, and research paper on special topics in art history; topics to be announced in Schedule of Classes. Graduate students undertake research paper in addition to other assignments. (Y)

5998 Honors Thesis. Cr. 3

Open only to undergraduate art history honors majors. Prereq: completion of honors major in art history requirements or consent of instructor. Students write a substantial research paper on subject determined by the student in collaboration with his/her professor. (I)

6730 Contemporary Theory and the Visual Arts. Cr. 3

Undergrad. prereq: consent of instructor. Open only to art history or art majors in B.A., B.F.A., M.A. or M.F.A. program. Methodological application of post-structuralist critical theory to the study of art and art history. (Y)

Communication

Office: 585 Manoogian Hall; 313-577-2943

Interim Chairperson: Loraleigh Keashly

Academic Services Officer: Victoria Dallas

Web: http://www.comm.wayne.edu

Professors

Benjamin Burns, Edward J. Pappas (Emeritus), Raymond S. Ross (Emeritus), Matthew W. Seeger, George W. Ziegelmueller (Distinguished Emeritus)

Associate Professors

Jackie Byars, Mary M. Garrett, Loraleigh Keashly, Terry A. Kinney, Patricia McCormick, Hayg H. Oshagan, Pradeep Sopory, John W. Spalding (Emeritus)

Assistant Professors

Colin Baker, James L. Cherney, Katheryn C. Maguire, Julie Novak, Sandra Pensoneau-Conway, Donyale R. Padgett,, Kimmerly Piper-Aiken, Marc A. Ruiz, Fred Vultee, William Warters (Research), Kelly Young

Lecturers

Juanita Anderson, Jane Fitzgibbon, Jack Lessenberry, Karen McDevitt, Alicia Nails, Michele A. Najor, Joel Silvers, Ronald J. Stevenson

Degree Programs

BACHELOR OF ARTS with a major in film

BACHELOR OF ARTS with a major in journalism

BACHELOR OF ARTS with a major in media arts and studies

BACHELOR OF ARTS with a major in public relations

BACHELOR OF ARTS with a major in communication studies

MASTER OF ARTS with a major in communication and concentrations in: journalism; public relations and organizational communication; media arts; media studies; communication education; communication studies

MASTER OF ARTS (INTERDISCIPLINARY) IN DISPUTE RESOLUTION

Joint JURIS DOCTOR/MASTER OF ARTS in Dispute Resolution

GRADUATE CERTIFICATE IN DISPUTE RESOLUTION

GRADUATE CERTIFICATE IN HEALTH COMMUNICATION

GRADUATE CERTIFICATE IN COMMUNICATION AND NEW MEDIA

DOCTOR OF PHILOSOPHY with a major in communication and concentrations in: media arts and studies; or communication studies

The primary aim of this department is to assist students in developing the ability to communicate effectively and to understand the principles of the communication process. The variety of degree programs provides broad liberal arts education as well as specific career training. Undergraduate and graduate majors may prepare for careers in several fields: industrial relations; sales; personnel; public relations; radio, television, film; journalism; teaching; law; and the ministry.

The department sponsors several student activities that are available to all University students. These include intercollegiate debate and speech teams. Wayne State University has undergraduate chapters

of Lambda Pi Eta, Forensic Union, Delta Sigma Rho—Tau Kappa Alpha, the Radio-TV and Film Association, and the Public Relations Student Society of America. Talent scholarships are also available to students interested in forensics or debate.

COM 1010, (OC) Oral Communication: Basic Speech, is designed for those who wish to improve their general communicative ability. This course can be taken to fulfill the University's General Education Competency Requirement in Oral Communication. Courses in voice and articulation, public speaking, discussion, debate, and oral interpretation offer additional opportunities to study and practice general communication skills.

Bachelor of Arts Degrees

Admission Requirements are satisfied by the general requirements for undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates for the Bachelor's degree must complete 120 credits of course work including satisfaction of the University General Education Requirements (see page 18), College degree requirements which include completion of a foreign language through the third semester (see page 189), as well as the major requirements of one of the programs listed below. All courses in the major or the minor must be completed with a grade of 'C' or better and be completed in accordance with the regulations of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 189.

A major will complete at least thirty but not more than forty-six credits in the Department. Any course work elected over the forty-six credit maximum must have prior approval of both adviser and chairperson if the additional credits are to count toward the degree (120 credits). This required approval includes students who plan to double major in the Department. (Double majors are not allowed in some combined concentrations: Public Relations and Communication Studies, Public Relations and Journalism, or double majors in Media Arts and Studies and Film.) At least twelve credits are required in residence within the major. Students should consult their adviser in selecting a proper distribution of courses.

Writing Intensive (WI) Requirement: The University General Education Program requirement of a writing intensive course in the major may be fulfilled by taking COM 2230 (broadcast journalism) COM 3400 (communication studies), COM 4170 (public relations), COM 4100 (journalism), COM 5270 (film studies), or COM 3010 (media arts and studies). The writing intensive course should be taken during the junior year after satisfactory completion of the Intermediate Composition (IC) requirement.

— with a Major in Film

The University offers two undergraduate degree programs related to film: the Bachelor of Arts with a Major in Film Studies offered by the College of Liberal Arts and Sciences (for requirements see page 348) and the Bachelor of Arts with a Major in Film described below.

Major Requirements: The major in Film combines the study of film history and analysis with film/video production and scriptwriting, providing a well-rounded understanding of film as a visual and narrative art form and of the process of filmmaking. Students who major in Film may be preparing for careers as film critics, film librarians/archivists, film teachers, independent film/video artists, screenwriters, or for other careers in the motion picture industry. Additional work at the graduate level is recommended for some of these careers. Majors in Film must complete forty-six credits as listed below.

Undergraduate majors in this program must take COM 1500, 1600, 2010, and 2210. After completion of these courses (thirteen credits) with a grade of 'C' or better, students will be allowed to declare a major and to take higher-level courses.

The core required courses for Film Majors are (Twenty-two Credits): COM 2020, 4310, 5270 (WI), 5380, 5400 and 5410. COM 5400 is the senior assessment capstone course and should be taken in the last twenty-one credits of the student's program.

Eleven elective credits are required from the following list: COM 5020, 5060, 5270 (four additional credits), 5384, 5420, 5440, 6190 and 6680.

It is strongly recommended that students take an additional six elective credits from the following list: AFS 3200; AIN 2220, 3220, 4220; APH 2400, 2410, 2420, 3410, 3420, 4410; ENG 3040, 5040, 5050, 5060, 5070; GER 5350; ITA 5150; N E 2060; SLA 3710, and 3750.

— with a Major in Journalism

Major Requirements: Journalism majors plan careers in news editorial, advertising, broadcast, or media relations. A journalism adviser must be consulted for verification of requirements, which go beyond the College's requirements, such as additional course work in history; HIS 2040 is required.

The core courses for journalism majors are: COM 1500, 2030, 2100, 3100, 3210, 4100 (WI), 4250, 5080, 5250, and 6190 (for three credits). COM 5250 is the senior assessment capstone course and should be taken in the last twenty-one credits of the student's program. Students must take an additional nine credits in electives from an approved list focusing on their specific area of career interest.

The core courses for broadcast journalism majors include courses from journalism and media arts and studies. They are: COM 1500, 1600, 2030, 2100, 2230 (WI), 4250, 4410, 5080, 5250, 5381, and 6190. The senior assessment capstone course is COM 5250 and should be taken in the last twenty-one credits of the student's program. Students must take an additional six credits from an approved list in consultation with a journalism advisor.

Journalism Institute for Media Diversity: The Journalism Institute for Media Diversity is a four-year Departmental program designed to recruit and train talented students interested in diversity in the media. Members of all racial and ethnic groups as well as anyone interested in studying the importance of diversity in the nation's media are particularly urged to apply. The Institute pools the resources of the University, the business community and Detroit area media professionals to provide scholarships and internships for some of its students. For additional information contact: Director, Journalism Institute for Media Diversity, Wayne State University Journalism Program, 559 Manoogian, Detroit, MI 48201; telephone: 313-577-6304.

— with a Major in Media Arts and Studies

Majors in Media Arts and Studies pursue a course of study form the following;

THE STUDIES TRACK is designed for students who are interested in the comprehensive study of the history, practices and analysis of radio, television, film, and related media platforms. Studies Track students often pursue careers as media analysts or critics, archivists or librarians, scriptwriters, media arts administrators, or as media teachers and scholars. Additional work at the graduate level is often required for these careers.

THE PRODUCTION TRACK is designed for those majors who are interested in pursuing production careers in radio, television and related digital media platforms. Majors pursuing this track often find employment leading to careers as producers, directors, media artists, or media production specialists (e.g. videographers, sound recordists, editors, script writers).

Students whose primary interests lie in the areas of broadcast news and public affairs reporting, announcing, or other on-air careers should pursue the major in Broadcast Journalism.

Major Requirements: All undergraduate majors in this program must take COM 1500, 1600, 2010, and 2210.

Studies Track majors must take COM 2020, 3010 (WI), 5010, 5060, and 5510. COM 5510 is the senior assessment capstone course and

should be taken in the last twenty-one credits of the student's program.

Production Track majors must take COM 3010 (WI), 4310, 4410, 5380, and 5400. COM 5400 is the senior assessment capstone course and should be taken in the last twenty-one credits of the student's program.

Nine additional elective credits in media arts and studies courses, which are to be selected with the advice and approval of an advisor, are required of both the Production and Studies Track majors. Students in one track may take core courses from the other track as electives within the major. Four elective credits may be from another department, if approved in advance by a Department advisor. Approved electives in Media Arts and Studies, other than those in the core curricula, are: COM 4680, 5020, 5270, 5350, 5381, 5384, 5410, 5420, 5440, 5480, 5520, 5560, 6190 and 6680. A minimum of forty-three credits in the major are required for graduation.

— with a Major in Public Relations

Students electing this major typically seek employment in one of the many career opportunities in public relations: business and industry; non-profit organizations; trade associations; government service; education; or account executive positions in an agency. Some students later pursue graduate-level study in fields such as organizational communication.

Major Requirements: Four Public Relations core courses are required: COM 3170, 4170 (WI), 4210, and 5160. COM 5160 is the senior assessment capstone course and should be taken in the last twenty-one credits of the student's program. The following courses are also required: COM 1500, 2030, 2100, 2170 or 3300, 3210, 3250, 3400, 5130, 5210 or 5300.

Recommended electives include an internship (COM 6190), as well as courses in Journalism (COM 4100) and Communication Studies (COM 2200 and 3270). An adviser should be consulted early in the student's program. Direct inquiries to 531 Manoogian Hall (313-577-2946).

— with a Major in Communication Studies

A major in Communication Studies offers students an opportunity to develop excellent communication skills and a thorough knowledge of the process of human communication. Communication studies majors take a variety of courses in public speaking, interpersonal communication, group communication and communication theory.

Employers in business, government, and education identify excellent communication skills as the most important quality they desire in hiring employees. Communication studies majors find careers in many different fields including business, government, education, law and religion.

The degree of Bachelor of Arts with a major in communication studies is offered in two concentrations — Communication Studies, and Communication Studies Education:

Communication Studies: All majors in this concentration must elect the following core courses: COM 1010 (OC), 2000, 2110 (CT), 3400 (WI), 4190 or 4210, and 5900. COM 5900 is the senior assessment capstone course and should be taken in the senior year. An additional eighteen credits in communication studies courses are required and should be selected in consultation with a department adviser as follows:

1. At least six credits from the courses listed below at the 2000/3000 level:

COM 2160, 2170, 2200, 3170, 3250, 3270, 3300

2. At least six elective credits from the courses listed below at the 4000 level:

COM 4040, 4130, 4140, 4110, 4200, 4300, 4500,

And 3) At least six elective credits from the courses listed below at the 5000 level:

COM 5050, 5120, 5130, 5180, 5320, 5330, 5360, 5370.

Communication Studies Education: All majors in this concentration must elect the following core courses: COM 1010, 2110, 2170, 2200, 3250, 3270, 3400 (WI), 4040, 5900 6060 and 6070. COM 5900 is the senior assessment capstone course and should be taken in the last twenty-one credits of the student's program. An additional three credits in communication studies courses are required and should be selected from among the following: COM 1600, 2160, 4200, 5180 and 5360.

A strong minor (18-24 credits) in the Department of English is recommended. Consult an adviser in the College of Education regarding requirements for the Michigan Teaching Certificate.

Honors Program

The Communication Department Honors program offers capable students the opportunity to pursue independent study and to work closely with department faculty members. Completion of the honors major results in an honors degree designation on the diploma.

Departmental Honors Requirements: In order to enter the departmental honors program students must have achieved academic excellence in previous work, such as a high school g.p.a. of 3.5 or a college or university g.p.a. of 3.3. Students must meet all regular major requirements including the following: three honors-option courses within their major taught by full-time faculty members (internships cannot satisfy this requirement), at least one 4000-level seminar offered through the Liberal Arts Honors Program (see: Honors Program), a senior honors thesis under the direction of a faculty adviser in their major area (COM 4996) and maintain a minimum g.p.a. of 3.3 cumulative and in the major.

Communication Department Minors and Cognate Study

The following minors are available in the department and should be pursued in consultation with an adviser in each of the specialized areas of concentration. Please note that some minors are not available to students who also major in the department. While a minor designation does not appear on the diploma, it will be noted on the student's transcript.

Minor in Film: A minor in film requires COM 2010 and an additional fifteen credits from the core or from the list of electives of the film major requirements.

Minor in Communication Studies: A minor in this area requires: COM 1010, 2000, 3400 and two additional communication studies course selected in consultation with an adviser.

Minor in Journalism: A minor in this area requires: COM 1500, 2030, 2100, 3210, 4100, 5080, and 6190.

Minor in Media Arts and Studies: A minor in this area requires: COM 1500, 1600, 2010, 2210, and ten credits elected from among the following courses: COM 2020, 2230, 3010, 4310, 4410, 5010, 5060, 5380 and 5510.

Minor in Public Relations: A minor in this area requires: COM 1500, 2030, 2100, 2160, 3170, 3210, and 3250.

Departmental Scholarships

See the section on Scholarships and Financial Aid on page 191. Detailed information on all Department scholarships and awards is available in the department office.

JOURNALISM

W. Sprague Holden Memorial Scholarship in Journalism: Award of up to $2000 open to any outstanding journalism major.

Journalism Institute for Media Diversity: Award of full or partial resident tuition open to any high school senior or undergraduate student with minimum 3.0 g.p.a., writing skills and evidence of potential in the communication field.

George M. and Mabel H. Slocum Scholarship in Journalism: Award of $250 - $1000 open to any journalism major with outstanding scholarship and demonstrable financial need.

David Wilkie Scholarship in Journalism: Award open to any journalism major of at least junior class standing that has demonstrable scholastic achievement and financial need.

Helen Thomas Scholarship: Award of $1000 to $5000 open to any Journalism major with outstanding scholarship and interest in diversity in the media.

Robert A. McGruder Scholarship: Award of $1000 to $5000 to any journalism major with outstanding scholarship, financial need and interest in diversity in the media.

COMMUNICATION STUDIES

George Bohman - Rupert Cortright - Elizabeth Youngjohn Award Fund: Award of $100 - $200 is open to any student specializing in debate.

David and Alice Goldman Award: Award of $150 - $200 open to outstanding freshman debaters.

Raymond and Alice Hayes Scholarship Fund: Award of $150 - $200 open to any student specializing in debate.

Talent Award: Monetary award renewable for four years based on continuance in debate program open to any high school debate student admitted to W.S.U.

PUBLIC RELATIONS

Renee M. Abraham-Harries Endowed Memorial Scholarship in Public Relations: Award open to public relations students entering their junior or senior year who have demonstrated academic excellence and the ability to make a meaningful contribution in the area of public relations.

Jeannine Gregory Memorial Scholarship in Public Relations: Award is open to public relations students entering their junior or senior year who have demonstrated leadership abilities in public relations.

COURSES OF INSTRUCTION

COMMUNICATION COURSES (COM)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

1010 (OC) Oral Communication: Basic Speech. Cr. 3

No credit after former SPB 2000. No new students admitted after first week of classes. Beginning course emphasizing fundamentals of speech preparation. Development of poise and confidence in speaking. (T)

1500 Survey of Mass Communication. Cr. 3

Required of journalism, public relations, and media arts and studies majors. Introductory course in understanding communication theory and effects and the communication industry in the United States. (T)

1600 Introduction to Audio-Television-Film Production. Cr. 3

Introduction to production techniques and processes; hands-on use of image and sound recording and editing equipment; creation of dramatic and non-fiction studio and location-based projects. Material Fee as indicated in the Schedule of Classes (T)

2000 Introductin to Communication Studies. Cr. 3

Introduction to the discipline of communication studies. Survey of theory, research, and practice. (Y)

2010 (ENG 2450) (VP) Introduction to Film. Cr. 4

Examination of film techniques and basic methods of film analysis. Material Fee as indicated in the Schedule of Classes (T)

2020 (ENG 2450) (VP) History of Film. Cr. 3

Critical study of the motion picture as a modern visual art; screening and analysis of representative fiction films to illustrate historical periods and genres. Material Fee as indicated in the Schedule of Classes (T)

2030 Journalistic Grammar and Style. Cr. 3

Grammar use in journalism; Associated Press Style Book. (T)

2040 Voice and Articulation. Cr. 3

Laboratory for individual improvement in voice and articulation. Analysis of voice and articulation of each student followed by intensive exercise. (T)

2100 News Reporting. Cr. 4

Prereq: COM 1500 and COM 2030 with grades of C or above, or consent of program director. Basic news reporting: gathering the facts and writing them well. Journalism skills course. Material Fee as given in Schedule of Classes. (T)

2110 (CT) Argumentation and Debate. Cr. 3

Prereq: COM 1010 or equiv. Logical and legal foundation of the argumentation process; practical experience in analysis, reasoning, case-building, evaluation of evidence, refutation and cross-examination. (T)

2160 (PL) Contemporary Persuasive Campaigns and Movements. Cr. 3

Critical discussion of the social foundations and values underlying human persuasion. Analysis of persuasive strategies and techniques used in contemporary society: political campaigns, social movements, advertising and consumerism in the U.S. (T)

2170 Persuasive Speaking. Cr. 3

Prereq: COM 1010 or equiv. Advanced public speaking; emphasis on persuasive speeches. Application of social psychology to audience analysis, to speech construction and presentation, and to critical analysis of persuasive public discourse. (T)

2200 Interpersonal Communication. Cr. 3

Introduction to theory and research on interpersonal communication; analysis of everyday communication situations. (F)

2210 Writing for Radio-Television-Film. Cr. 3

Prereq: completion of General Education Basic Composition requirement with grade of C or above. Application of writing principles to various forms of copy; continuity, commercials, public service announcements, features, documentary, drama. (T)

2230 (WI) Broadcast News Writing. Cr. 3

Prereq: COM 1500; must have access to an audio recorder. Theory and practice in broadcast newswriting, reporting, performing and editing. Writing Intensive course for broadcasting sequence in Journalism major. Material Fee as indicated in the Schedule of Classes (T)

2240 Forensics Practicum. Cr. 1-2 (Max. 6)

Prereq: COM 2110 and consent of instructor. Two credits only with consent of instructor. Training and participation in debate and contest speaking. (T)

2250 South End Workshop. Cr. 3

Prereq: COM 2100 or consent of instructor. Students work in various editing, reporting, and photographic positions at student newspaper. (T)

2280 Photojournalism. Cr. 3

Still photography in print media. Camera, lighting and composition techniques for handling news, portrait, feature and illustration photographs. Students must supply an adjustable 35mm camera and film, to complete graded assignments. Journalism skills course. (Y)

2500 Oral Interpretation of Literature. Cr. 3

Oral performance approach to literature, fusing voice, body and meaning in the reading aloud of poetry, prose, drama; interaction of reader, listener, and literature. (T)

3010 (WI) Television Criticism. Cr. 3

Prereq: COM 1500 with grade of C or above, or consent of instructor. Open only to media arts and studies, journalism, film, or radio-TV majors. Formal properties and aesthetic considerations in media, especially film and television. Material Fee as indicated in the Schedule of Classes (T)

3100 Public Affairs Reporting. Cr. 3

Prereq: COM 2100 with grade of C or above. Advanced news reporting, focusing on governmental stories. (T)

3170 Fundamentals of Public Relations. Cr. 3

Prereq: COM 1010 or 2170 or equiv. No undergraduate credit after COM 5160. Historical background of the profession of public relations; communication variables in public relations; emphasis on presentational techniques, publicity preparation and development of special events. (F,S)

3210 (CL) News Editing. Cr. 4

Prereq: COM 2100 with grade of C or above. Copy editing, headline writing, AP style, familiarization with and use of VDTs. Journalism skills course. Material Fee as indicated in the Schedule of Classes (T)

3250 Introduction to Organizational Communication. Cr. 3

Introduction to major theories and principles used to guide the effective practice of communication within organizations. (F,W)

3270 Group Communication and Human Interaction. Cr. 3

Theory, research, and practice in small group and interpersonal communication. Decision-making strategies; analysis of personal communication strengths. (W)

3280 Advanced Photojournalism. Cr. 3

Prereq: COM 2280. News photo field trips with instructor; Photoshop editing for newspapers and magazines. Development of a portfolio. (B)

3300 (WI) Business and Professional Presentations. Cr. 3

Prereq: Satisfaction of Intermediate composition (IC) with grade of C or above; and COM 1010. Review and practice of various oral communication forms used in modern organizations. Topics include persuasive speaking, informative speaking, speech writing, multi-media presentations and business and report writing. Material Fee as indicated in the Schedule of Classes (T)

3400 (WI) Theories of Communication. Cr. 3

Exploration of the role of theory in describing, explaining and predicting human communication behavior in face-to-face and mediated contexts. (F,S)

3500 Newspaper Design and Layout. Cr. 4

Prereq: COM 3210 with grade of C or better. Theory and practice of designing and layout of newspapers and newspaper pages. (Y)

3990 Directed Study. Cr. 1-4 (Max. 4)

Prereq: major in department with 16 credits in department completed; written consent of chairperson and adviser. Not open to journalism majors. (T)

4010 Special Topics in Journalism. Cr. 3 (Max. 9)

Prereq: consent of instructor. Special areas of interest, such as sports writing, business writing, columns and editorials. (Y)

4040 Diversity in Interpersonal Communication. (AFS 5040) Cr. 3

Prereq: COM 2000. Issues related to the study of interpersonal communication behaviors and patterns in different cultures. (Y)

4050 (CL) Media and Computer Assisted Research. Cr. 3

Prereq: COM 2100. Advanced research course; use of computer programs and databases for elements of news stories and projects. Discussion of ethical considerations and case studies involving computer-related issues. (T)

4100 (WI) Feature Writing. Cr. 4

Prereq: COM 3100 with grade of C or above. Advanced news reporting, focusing on feature writing. Material Fee as given in Schedule of Classes. (T)

4110 Studies of Legal Argument. Cr. 3

Prereq: COM 2110. Uses of legal argument in a variety of fields and contexts. Different methods of studying argument will be examined. (Y)

4130 Communication Ethics. Cr. 3

Prereq: COM 2000. Issues of responsible communication in a variety of contexts including mass, organizational, and interpersonal communication. (W)

4140 Pop and Celebrity Culture. Cr. 3

Prereq: COM 2000. Increasing significance of pop and celebrity culture in shaping cultural and political affairs. Modes of production and consumption of pop culture; understanding pop culture and its effects. (B)

4170 (WI) Public Relations Writing. Cr. 3

Prereq: COM 2030 and COM 3170 with grade of C or above. Writing for public relations purposes: backgrounders, fact sheets, press releases; brochures and newsletters. (F,W)

4190 Rhetorical Criticism. Cr. 3

Prereq: COM 2000. Analysis of a variety of texts and artifacts in terms of persuasive intent and adaptation to audiences. (F)

4200 Nonverbal Communication. Cr. 3

Prereq COM 2000. Channels and functions of nonverbal communication; contexts include: gender, culture, adult-infant interaction, therapy. Methods of study. (Y)

4210 Research Methods in Communication Studies and Public Relations. Cr. 3

Prereq: COM 2000. Open only to upper division students. Quantitative and qualitative research methods designed to advance knowledge about human communication across applied settings and diverse contexts. (W,S)

4240 (AFS 4240) African Americans in Broadcasting. (COM 4240) Cr. 4

Historical overview of African Americans in radio and television with emphasis on three areas of study: news and documentary; entertainment and advertising; and ownership, employment and access. (Y)

4250 Reporting Race, Gender, and Culture. Cr. 3

Prereq: COM 2100 and junior standing. Issues of gender, culture and race in media coverage, with some content analysis. Preparation for students to handle this content with sensitivity and accuracy. (T)

4300 Intercultural Communication. Cr. 3

Prereq COM 2000. Culture-general instruction in intercultural communication skills and theory. (Y)

4310 Audio Production. Cr. 4

Prereq: COM 1600 or consent of instructor. Open only to media arts and studies, journalism, film, or radio-TV majors. Theory and practice in sound production techniques and experimentation with creative audio production. Material Fee as indicated in the Schedule of Classes (T)

4410 Television Production. Cr. 4

Prereq: COM 1600 or consent of instructor. Theory and practical application of techniques used in television production; use of graphic materials, design and staging concepts, lighting techniques and studio operation; the role of the television producer-director. Material Fee as indicated in the Schedule of Classes (T)

4500 Leadership and Team Communication. Cr. 4

Prereq: COM 2000 and junior standing. Theory and practical application of leadership and team communication processes. Five days and nights off-campus: experiential learning with a service learning component. Fees cover lodging, food, and activities. Material fee as stated in Schedule of Classes. (S)

4680 WAYN Radio. Cr. 2

Participation in WAYN on-line radio. (T)

4990 Directed Study. Cr. 1-3 (Max. 4)

Prereq: COM 2100; written consent of adviser, program director, and department chairperson. Open only to journalism majors. Supervised individual research. (T)

4996 Senior Honors Thesis. Cr. 3

Prereq: admission to departmental honors program; senior standing; prior approval of thesis proposal and written consent of thesis adviser and chairperson. Overview of theory and research in communication; closely supervised research project that results in a paper of approximately twenty pages. (Y)

4997 Senior Assessment Essay in Film Studies. Cr. 1

Open only to interdisciplinary film studies majors. Prereq: senior standing, written consent of adviser; required of film studies majors in term of graduation. Preparation of formal paper demonstrating knowledge of methods of film analysis, film history, and film theory. (T)

5010 History of Television and Radio. Cr. 4

Open only to department undergraduate and graduate majors. Prereq: COM 1500 or consent of instructor or graduate standing. History of electronic media; development of industry; rise of genres and styles; social and political impact. (Y)

5020 Studies in Film History. Cr. 4 (Max. 12)

Open only to department undergraduate and graduate majors. Prereq: COM 2010 or consent of instructor or graduate standing. Analysis of the development of a specific film genre, a director, or other historical aspect of the motion picture. Topics to be announced in Schedule of Classes. Material Fee as indicated in the Schedule of Classes (Y)

5050 Special Topics. Cr. 3 (Max. 9).

No more than six credits may be elected in this special topics course in any graduate degree program. Selected topics in communication to be announced in the Schedule of Classes. (I)

5060 Documentary and Non-Fiction Film and Television. Cr. 4

Open only to department undergraduate and graduate majors. Prereq: COM 2010 or consent of instructor or graduate standing. Study of the non-fiction film made for a social, cultural, or political purpose; screening and analysis of selected films. Material Fee as indicated in the Schedule of Classes (Y)

5080 History and Law of American Journalism. Cr. 4

Prereq: junior or senior standing. History of the press in America; emphasis on development of law relating to communication and development of the media's effect on the law. (T)

5120 Contemporary Legal Public Address. Cr. 3

Prereq: COM 2170 or consent of instructor. Landmark moments of public address. What constitutes public address; relevance of public address studies. (Y)

5130 Communication and Social Marketing. Cr. 3

The process of social marketing; student-driven group project. (F,S)

5160 Public Relations Campaigns and Issues Management. Cr. 3

Prereq: COM 3170 with grade of C or above. Open only to undergraduates. Management functions of public campaigns: developing objectives, strategic planning, issues management, budgeting. Blends theoretical concepts with their professional and practical applications; emphasis on public relations planning and evaluation. (W)

5180 Family Communication. Cr. 3

Prereq: COM 2000. Only for undergraduate credit, except with consent of instructor. Message patterns and social signals in organized, systemic human units that are interdependent, usually due to blood connections, legal bonds, and/or explicit verbal commitments. (Y)

5210 Newsletters and Corporate Publications. Cr. 4

Prereq: COM 3210. Editing journalism newsletter; field trips to area magazines; editing internal publications. Journalism skills course. Material Fee as indicated in the Schedule of Classes (T)

5250 Professional Issues in News Media Management. Cr. 4

Prereq: COM 2230 or COM 4100 or consent of instructor. Open only to senior students. Capstone course for journalism majors; must elect in last 21 credits before graduation. Ethics and management structure and practices of media organizations. Individual research projects. Writing Intensive course for broadcast journalism sequence in journalism major. (Y)

5260 Professional Writing Workshop. Cr. 3

Prereq: senior standing or above. For students and professionals who want to improve freelance writing skills, and for graduate students who want to publish academic research in popular magazines and journals. (I)

5270 (WI) Screenwriting. Cr. 4 (Max. 8)

Open only to department undergraduate and graduate majors; others by consent of instructor. Prereq: COM 2210 and junior standing or above. Principles and techniques of writing for motion pictures. Analysis and study of professionally-written scripts. Exercises in writing documentary and dramatic film scripts. Material Fee as indicated in the Schedule of Classes (Y)

5280 New Media Practices. Cr. 3

Principles and practices of new media and interactive communication. Integrative applications include social networking, wikis, blogs, podcasting, websites and file sharing. Research projects. (F)

5300 Desktop Publishing. Cr. 4

Prereq: COM 2100 or consent of instructor. Practical skills course in publishing newsletters, magazines, newspapers and books; emphasis on new computer technology, desktop publishing; business aspects of publishing, including printing, promotion and marketing; skills in use of personal computer for publishing. Material Fee as indicated in the Schedule of Classes (I)

5310 Investigative Reporting. Cr. 4

Prereq: COM 4410 or COM 5381 or consent of instructor. Advanced reporting techniques involving use of Freedom of Information Act and computer-assisted data base searches; accessing public records. (I)

5320 Health Communication. Cr. 3

Prereq: COM 2000. Open to graduate students, except by consent of instructor. Communication demands of health care and health promotion; current communication issues and problems in modern health care systems; identification of communication strategies for health care consumers and providers. (Y)

5330 Rhetoric of Visual Culture. Cr. 3

Prereq: COM 2000. Offered for undergraduate graduate credit except with consent of instructor. Influence that vision and visual texts have in our culture. Critical examination of such texts, including

photography, museums, monuments, the fashion industry, tattoos and body marking. (W)

5360 Gender and Communication. (W S 5360) Cr. 3

Prereq COM 2000. Offered for undergraduate credit only, except withs consent of instructor. Analysis of gender communication issues within interpersonal, group, organizational, intercultural, public, and mass mediated contexts. (B)

5370 Social Science Theories of Persuasion. Cr. 3

Prereq COM 2000. Open to graduate students, except with consent of instructor. Theories of persuasion in communication; how theories can be applied to help solve communication-based social problems. (Y)

5380 Video Field Production and Editing. Cr. 3

Prereq: admission to media arts and studies, film, or journalism majors; others require prereq: COM 1600 or COM 5350 and consent of instructor. Theory and practical application of video location production and post-production techniques. Digital non-linear editing and post-production software as used in creative development of original content. Material Fee as indicated in the Schedule of Classes (W)

5381 TV News Reporting and Digital Editing. Cr. 3

Prereq: COM 2230. Open only to majors in journalism and media arts and studies. Theory and practical application of aesthetics and journalistic values of TV news and feature storytelling. Emphasis on planning, location video and sound protection, editing, interviewing, writing skills, on-camera presentation. Material Fee as indicated in the Schedule of Classes (Y)

5384 Topics in Production Design and Theory. Cr. 3 (Max. 6)

Prereq: COM 5380 or COM 4310 or COM 5350 and consent of instructor. Theory and practical application in the aesthetic and technical considerations of production design. Topics may include: cinematography/lighting, sound design/mixing, experimental film/video, performance production, documentary preproduction, film/video graphic design. Material Fee as indicated in the Schedule of Classes (S)

5390 Digital Animation. Cr. 3

Prereq: COM 5380. Introduction to animation techniques, 2D to 2-1/2D to 3D; includes use of Adobe products such as After Effects. Discussion of alpha channels, masks, rotoscoping, layering, keyframe and behavioral-based animation. (W)

5400 Techniques of Film and Video Production. Cr. 4

Open only to department undergraduate and graduate majors; others by consent of instructor. Prereq: COM 4310 and COM 5380 or consent of instructor. Capstone course for seniors in production track sequence; should be taken in last 21 credits of program. Experience with the preparation, shooting and editing of video projects in film-style production. Material Fee as indicated in the Schedule of Classes (T)

5410 Producer's Workshop. Cr. 4

Open only to department undergraduate and graduate majors; others by consent of instructor. Prereq: COM 5380 or COM 5381 or AIN 5220 or COM 5350 or consent of instructor. Examination of the business, managerial, and creative considerations and process of producing media programming from conception through distribution. Material Fee as indicated in the Schedule of Classes (Y)

5420 Director's Workshop. Cr. 4 (Max. 8)

Prereq: COM 5400, production-ready script, and consent of instructor. Organization and execution of the film and video director's tasks through production of a major creative project. Material Fee as indicated in the Schedule of Classes (Y)

5440 Film Production. Cr. 4

Prereq: COM 5400, or consent of instructor. Introductory aspects of 16mm motion picture production, including the art and technology of cinematography, pre-production planning, basic camera operation, film stocks, exposure and color, temperature control, processing, and digital post-production. Material Fee as indicated in the Schedule of Classes (B)

5460 Magazine Writing. Cr. 3

Prereq: COM 4100. Advanced feature writing: preparation of magazine features. Students focus on limited number of in-depth articles. Research, structure and writing techniques to produce publishable magazine-length articles. (Y)

5480 Topics in Public Media Studies and Practices. Cr. 4 (Max. 12)

Prereq: junior standing. Open only to media arts and studies, radio-TV, film, and journalism majors. Topics may include: studies and practices in media management, legal issues in media, media and globalization, new digital platforms. Material Fee as indicated in the Schedule of Classes (Y)

5500 Publishing on the Internet. Cr. 3

Prereq: COM 2100 or consent of instructor. Technique and goals of publishing on World Wide Web. Preparing graphics, learning HTML, uses of World Wide Web. Material Fee as indicated in the Schedule of Classes (Y)

5510 Mass Communications and Society. Cr. 3

Prereq: COM 1500 or consent of instructor. Open only to media arts and studies, radio-TV, journalism, or communication majors. Capstone course for media arts and studies majors in studies track; must elect in last 21 credits prior to graduation. Theoretical and practical research on the social functions and effects of the mass media. (Y)

5520 International Communications. Cr. 3

International broadcasting and telecommunication systems and issues in global communication. (F,W)

5560 Telecommunications Policy: A Political Economy Approach. Cr. 3

Introduction to both the process of developing telecommunications policies and the impact of these policies in the United States. (W)

5700 Political and Governmental Reporting. Cr. 4

Prereq: COM 3100 or consent of instructor. Covering politics, governmental and public affairs in the media. (Y)

5900 Senior Project in Communication Studies. Cr. 3

Open only to majors in communication studies. Combination of lectures and workshops to assist students in carrying out a service learning or individual research project. (W)

5993 (WI) Writing Intensive Course. Cr. 0

Prereq: junior standing, written consent of instructor, satisfactory completion of the IC requirement. Offered for S and U grades only. No degree credit. Required for all Film Studies majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a designated corequisite; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. (T)

6060 Teaching Communication at the Secondary Level. Cr. 3

Prereq: fifteen credits in speech. Philosophy, pedagogical issues, and methods for teaching speech in secondary schools. (S)

6070 Directing Forensics. Cr. 3

Prereq: COM 2110 or consent of instructor. Philosophy and methods of directing high school and college forensics programs; techniques of coaching for debate, oratory, extempore speaking and other reading and speaking contests. (B)

6100 Speech Writing. Cr. 3

Open only to graduate students except with consent of instructor. Preparation and presentation of speech manuscripts. Emphasis on style of writing, use of supporting materials and factors of interest. Special problems of ghost-writing considered. (W)

6170 Principles of Interpersonal Communication. Cr. 3

Survey of theory and research on interpersonal interaction, with special emphasis on social perception, self-presentation, and the formation of relationships in interaction. (B)

6171 Human Communication and Aging. Cr. 3

How time and experience impact human communication, as seen through the media and through narrative stories crafted from oral histories of selected senior citizens. (I)

6190 Internship. Cr. 1-3 (Max. 6)

Prereq: junior standing or above and at least 12 credits in COM courses; written consent of instructor. On-the-job observations and work experience in business, service, social, governmental, and industrial organizations. Emphasis on journalism, public relations, and organizational communication. (T)

6200 Theories of Small Group Processes. Cr. 3

Prereq: COM 3270 and junior standing or above. Theory and research on communication in the small, task-oriented group. (F)

6220 Dispute Resolution and Communication Technology. Cr. 3

Conflict in online environments; development of Online Dispute Resolution (ODR). Hands-on work with state-of-the-art ODR technologies via several simulations. (B)

6250 Organizational Communication. Cr. 3

Prereq: COM 3250 or graduate standing. Theoretical review of the structure process and function of communication within and between organizations. Analysis of current and emerging issues in the theory and research of organizational communication. (W)

6270 New Media Theory. Cr. 3

Analysis of new media and interactive communication processes. Emphasis on critical theory and cultural studies in relation to interpersonal, group and organizational contexts. Research projects. (Y)

6350 Communication, Culture, and Conflict. (D R 6350) Cr. 3

Overview of communication theory and practice as it relates to issues of culture, conflict and dispute resolution. (F)

6530 Audience Measurement and Survey Techniques. Cr. 3

Prereq: junior standing or above. Theory and application of quantitative and qualitative research techniques in surveying audiences for electronic media. (Y)

6680 Individual Projects in Media Arts and Studies. Cr. 1-3

Prereq: COM 5400; written consent of instructor. (T)

DISPUTE RESOLUTION COURSES (D R)

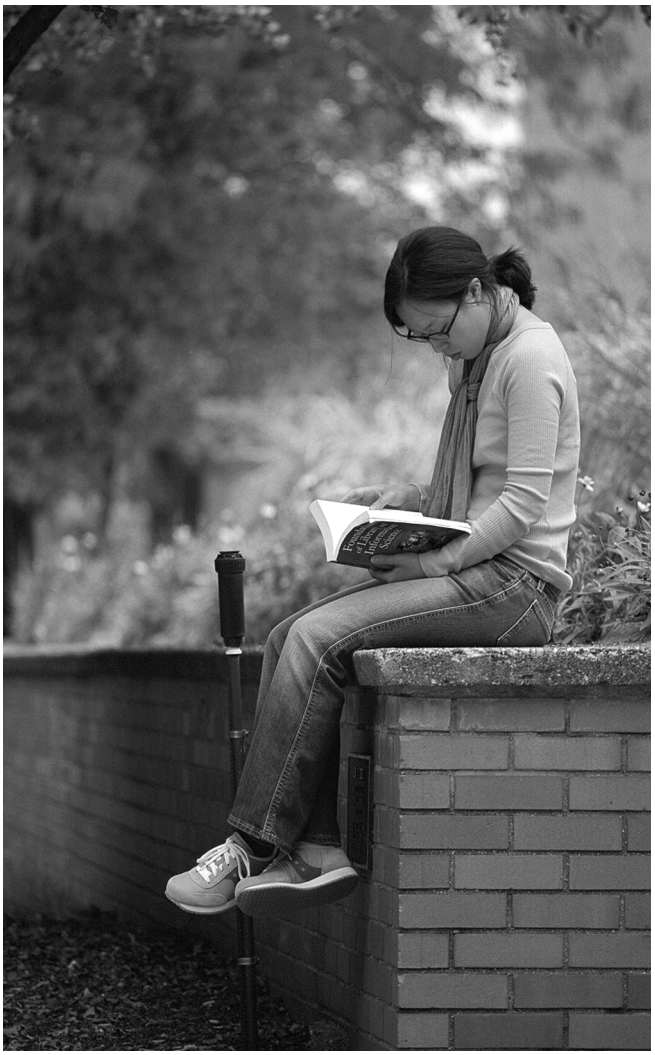
The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

6120 Human Diversity and Human Conflict. Cr. 3

Relationship of human differences and conflict, and ways to nonviolently confront and work with them; differences as defined by ethnicity, race, gender, class, age, etc. (Y)

6992 Special Topics in Dispute Resolution. Cr. 3

Dispute settlement in numerous contexts: business, family, legal system, community, education, church, and employment. History of dispute resolution; current trends as applied to topic areas. (Y)



Dance

Office: 3226 Old Main; 313-577-4273

Interim Chairperson: Eva Jablonowski Powers
e-mail: eva.powers@wayne.edu

Web: http://www.dance.wayne.edu

Associate Professors

Eva Jablonowski Powers, Doug Risner, Ann Zirulnik (Emerita)

Assistant Professors

Georgia Reid (Emerita), Jeffrey M. Rebudal

Lecturers

Karen Prall, Linda Cleveland Simmons, Mary Paul

Dance Support Staff

Jon Anderson, Patricia Moore, Patrick Field

Degree Programs

BACHELOR OF FINE ARTS with a major in dance

BACHELOR OF SCIENCE with a major in dance

The Maggie Allesee Department of Dance prepares students for professional careers as performing artists, choreographers, dance teachers, and informed dance audience members within the urban, metropolitan context of Wayne State University. The Department offers curricular choices at the undergraduate and post-degree levels, integrating a thorough understanding of applied and theoretical principles of movement with the newest forms and ideas in contemporary dance performance, choreography, and dance education. Undergraduate studies in dance are reflected in the following major and minor designations: Major in Dance leading to the Bachelor of Science degree; Major in Dance leading to the Bachelor of Fine Arts degree; optional K-12 State of Michigan teaching certification for either the B.S. or B.F.A.

Bachelor of Fine Arts with a Major in Dance

The Bachelor of Fine Arts with a major in dance provides a professional degree program for talented students with prior dance experience and skills who seek professional careers as performing artists, choreographers, or dance scholars. Dance technique and the history, philosophies, and aesthetics of dance are all central to this program.

Admission to this program is contingent upon satisfaction of the general requirements for undergraduate admission to the University (see page 23) and a successful audition conducted by the Department faculty. Audition dates are scheduled each January and February in the year prior to admission, and prospective students should contact the Dance Office for audition schedule information. Entering students are required to consult the Departmental advising staff prior to their first registration for classes.

All dance majors must be enrolled in appropriate level modern and ballet technique classes each semester and evidence successful progress in their respective degree programs in order to maintain dance major status. Any dance major who does not comply and/or does not register and complete appropriate dance coursework for one semester MUST AUDITION FOR THE DANCE PROGRAM for re-admission. Students out of the dance program for two semesters or more are rarely re-admitted to the program.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Fine Arts degree with a major in dance must complete a minimum of 120 credits in course work, as well as satisfaction of the University General Education Requirements (see page 17) and College degree requirements (see page 189). This program requires seventy-six credits in dance courses (specified below), as well as thirty-one credits in University General Education courses and twelve credits in electives within or outside dance. All course work must be completed in accordance with the academic procedures of the University and the College of Fine, Performing and Communication Arts governing undergraduate scholarship and degrees (see sections beginning on page 17, 36, and 189), as well as with the requirements of the Maggie Allesee Department of Dance. The seventy-seven credits in specified dance courses must be completed with grades of 'C' or better; grades of 'C-minus' or below are not acceptable in any required dance course for dance majors. Students receiving the grade of 'C-minus' in any required courses will be placed on Departmental probation and may be denied continuation in the dance program. B.F.A. students receiving the grade of 'B' or below in dance technique and choreography courses will be placed on Departmental probation and may be denied continuation in the B.F.A. program.

B.F.A. MAJOR REQUIREMENTS

Dance Studies

DNC 1330 -- Production Practicum (two semesters): Cr. 2
DNC 2300 -- History of Dance to 1800: Cr. 3
DNC 2310 -- (VP) History of Dance from 1800 to the Present: Cr. 3
DNC 2311 -- Issues and Trends in Contemporary Dance: Cr. 2
DNC 2410 -- Music and Dance Relationships: Cr. 3
DNC 2500 -- Choreography I: Cr. 2
DNC 3180 -- Dance Kinesiology: Cr. 3
DNC 3190 -- Movement Analysis: Cr. 3
DNC 3310 -- Dance Production: Cr. 3
DNC 3500 -- Choreography II: Cr. 2
DNC 5110 -- Study in Dance Styles: Pilates (two semesters): Cr. 2
DNC 5120 -- Pilates Equipment Lab (six semesters): Cr. 0
DNC 5560 -- Choreography III: Cr. 2
DNC 5810 or DNC 3810
-- Teaching Creative Dance for Children: Cr. 3
-- Dance Pedagogy
DNC 5993 -- (WI) Writing Intensive Course in Dance: Cr. 0
Total: 33 credits

Performance

DNC 2010 -- Modern Dance Techniques I: Cr. 2
DNC 2020 -- Modern Dance Techniques II: Cr. 2
DNC 1220 or 2210 or 2220 or 3210 or 3220 or 4220
(eight semesters at two credits per semester with at least two semesters of 4200): Cr. 16
DNC 2460 -- Dance Improvisation: Cr. 2
DNC 3010 -- Modern Dance Technique III: Cr. 4 (two semesters)
DNC 4010 -- Modern Dance Technique IV: Cr. 8 (four semesters)

Six Credits From DNC 5000, 5610, and 5800:
DNC 5000 -- Performance Tour: Cr. 2
DNC 5610 -- Dance Company I: Cr. 1
DNC 5800 -- Repertory: Cr. 1

DNC 5996 -- Senior Capstone Research (Choreography):[1] Cr. 3
Total: 43 Credits

All B.F.A. students must select the following General Education Requirements

DNC 2000 -- (VP) Introduction to World Dance: Cr. 4
DNC 2400 -- (FC) Introduction to African Dance: Cr. 3

Cognate Requirements (select two of the following courses)

A H 1000 or A H 1110 or A H 1120
-- (VP) Introduction to Art: Cr. 4
-- (VP) Survey of Art History: Ancient through Medieval. Cr. 3-4
-- (VP) Survey of Art History: Renaissance through Modern. Cr. 3-4

MUH 1340 -- (VP) (CD) Music Appreciation: World Music: Cr. 3
MUH 1370 -- (VP) Music Appreciation: Beginnings to Present: Cr. 3

1. Capstone course to be taken in last twenty-one credits of study.

THR 1010 -- (VP) Introduction to the Theatre: Cr. 3
Total: 6-7 Credits

Performance Opportunities: There are two performance ensembles: the W.S.U. Dance Company and the W.S.U Dance Workshop, composed of skilled dance students who must qualify for membership through auditions. They present concerts, lecture/demonstrations, and performances on campus and in the community, choreographed by visiting artists, faculty, and talented students.

Bachelor of Science with a Major in Dance

This degree program is for students with prior dance experience who wish to combine university-level dance studies with a broad program of general study in the arts and sciences.

Admission to this program is contingent upon satisfaction of the general requirements for undergraduate admission to the University (see page 23) and a successful audition conducted by the Department faculty. Audition dates are scheduled each January and February in the year prior to admission; prospective students should contact the Dance Office for audition schedule information. Entering students are required to consult the Departmental advising staff prior to their first registration for classes.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Science degree with a major in dance must complete a minimum of 120 credits in course work, as well as satisfaction of the University General Education Requirements (see page 17) and College degree requirements (see page 189). This program requires forty-seven credits in dance courses (specified below), as well as thirty-one credits in University General Education courses and forty-two credits in electives. All course work must be completed in accordance with the academic procedures of the University and the College of Fine, Performing and Communication Arts governing undergraduate scholarship and degrees (see sections beginning on page 17, 36, and 189), as well as with the requirements of the Maggie Allesee Department of Dance. The forty-seven credits in specified dance courses must be completed with grades of 'C' or better; grades of 'C-minus' or below are not acceptable in any required dance course for dance majors. Students receiving the grade of 'C-minus' in any required courses will be placed on departmental probation and may be denied continuation in the dance program. Any dance major who does not comply and/or does not register and complete appropriate dance coursework for one semester MUST RE-AUDITION FOR THE DANCE PROGRAM for re-admission. Students out of the dance program for two semesters or more are rarely re-admitted to the program.

B.S. MAJOR REQUIREMENTS

Dance Studies
DNC 1330 -- Production Practicum: Cr. 1
DNC 2310 -- History of Dance to Present: Cr. 3
DNC 2410 -- Music and Dance Relationships: Cr. 3
DNC 2500 -- Choreography I: Cr. 2
DNC 3180 -- Dance Kinesiology: Cr. 3
DNC 3310 -- Dance Production: Cr. 3
DNC 5993 -- (WI) Writing Intensive Course in Dance: Cr. 0
Total: 15 Credits

Dance Professions
DNC 1810 -- Intro to Dance Professions Cr.3
DNC 3810 -- Dance Pedagogy : Cr. 3
DNC 4910 -- Dance in Community & Culture: Cr. 3
DNC 5910 -- Dance Professions Seminar: Cr. 3
(includes internship or fieldwork, Online course)
Total 12 credits

Performance / Research (twelve credits required)
DNC 2460 -- Dance Improvisation: Cr. 2
DNC 5110 -- Dance Styles: Pilates: Cr. 1
DNC 5996 -- Senior Capstone Research (Choreography): Cr. 3

Two Credits From:

DNC 5000 -- Performance Tour: Cr. 2
DNC 5610 -- Dance Company I : Cr. 1
DNC 5800 -- Repertory: Cr. 1

Twelve credits from the following:

DNC 1010 -- Introduction to Modern Dance. Cr. 2
DNC 1020 -- Beginning Modern Dance. Cr. 2 (Max. 6)
DNC 1220 -- Fundamentals of Classic Ballet II. Cr. 2 (Max. 8)
DNC 2010 -- Modern Dance Technique I Cr. 2
DNC 2020 -- Modern Dance Technique II Cr. 2
DNC 2600 -- African Dance II. Cr. 2
DNC 2610 -- Jazz I. Cr. 2 (Max. 8)
DNC 3010 -- Modern Dance Technique III: Cr. 2 (Max. 8)
DNC 3200 -- Ballet III. Cr. 2
DNC 3410 -- Jazz II. Cr. 2 (Max. 4)
DNC 4010 -- Modern Dance Technique IV: Cr. 2 (Max. 8)
DNC 4610 -- Jazz III. Cr. 2
Total: 20 credits

General Education Requirement
DNC 2000 -- (VP) Introduction to Dance: Cr. 4
DNC 2400 -- (FC) Introduction to African Dance: Cr. 3

Cognate Requirements (elect two of the following courses)
A H 1000 or A H 1110 or A H 1120
-- (VP) Introduction to Art: Cr. 4
-- (VP) Survey of Art History: Ancient through Medieval. Cr. 3-4
-- (VP) Survey of Art History: Renaissance through Modern. Cr. 3-4
COM 1600 -- Intro to Audio- TV-Film Production: Cr.3
COM 3170 -- Fundamentals of Public Relations : Cr. 3
MUH 1340 -- (VP) Music Appreciation: World Music: Cr. 3
MUH 1370 -- (VP) Music Appreciation: Beginnings to Present: Cr. 3
THR 1010 -- (VP) Introduction to the Theatre: Cr. 3
Total 6-7 Credits

Performance Opportunities: The W.S.U. Dance Company and Dance Workshop are performing groups composed of skilled dance students who must qualify for membership through auditions. They present concerts, lecture/demonstrations, and performances on campus and in the community, choreographed by visiting artists, faculty, and talented students.

Teaching Major (B.F.A. and B.S. Programs)

Professional Education Sequence: The additional following courses are required for a K-12 teaching major in dance, K-12 certification, and a major in dance, secondary certification for both the B.F.A. and the B.S. degrees:
DNC 3190 -- Movement Analysis: Cr. 3
DNC 3810 -- Dance Pedagogy: Cr. 3
DNC 3998 -- Assisting in Dance: Cr. 1
DNC 5810 -- Teaching Creative Dance for Children: Cr. 3
DNC 5830 -- Field Work in Creative Dance: Cr. 2-8
DNE 4410 -- Student Teaching and Seminar I: Cr. 5
DNE 4420 -- Student Teaching and Seminar II: Cr. 5
DNE 4810 -- Teaching Secondary Dance Methods: Cr. 3
EDP 5480 -- Adolescent Psychology: Cr. 3
HEA 2330 or H E 3300
-- First Aid and CPR: Cr. 3
-- Health of the School Child: Cr. 3
RLL 4431 -- Teaching Reading in Middle & Secondary Subject Areas.: Cr. 3

Post-Degree Studies in Dance: Students who have completed a dance major at another University program may be able to add Teacher Certification by completing the Dance Education Major

requirements. Students must apply to the College of Education and to the Dance Department.

Dance Minor: Completion of a minor in dance requires twenty credits in dance classes including ten credits in technique classes and ten credits in academic dance classes. Students should consult with the Department Chair for approval of courses satisfying this requirement.

Other Dance Study: The Dance Department also provides dance instruction for non-majors and develops general appreciation for dance as an art form.

Departmental Scholarships

See the section on Scholarships and Financial Aid on page 191. Detailed information on all Department scholarships and awards is available in the department office.

Talent Scholarship of varying amounts, normally half-tuition, dependent upon funds available, is renewable for four consecutive years based on continuance in the dance program, and paid fall and winter semesters. This award is open to students majoring in dance who have been admitted to WSU as a B.F.A. dance major. An audition is required. Recipients must maintain a 2.5 grade point average overall, and a 3.0 grade point average in dance courses. Contact the Department of Dance or the WSU Office of University Admissions for further information. The application deadline is early December; an audition in January or February is required.

Maggie Allesee Dance Scholarship, of varying amounts, normally $500-$3000, dependent upon funds available, is renewable for four consecutive years based on continuance in the dance program, and paid fall and winter semesters. This award is open to students majoring in dance who have been admitted to WSU. An audition is required. Recipients must maintain a 2.5 grade point average overall, and a 3.0 grade point average in dance courses; contact the Department of Dance. The application deadline is early December; an audition in January or February is required.

Activity Award, of varying amounts, normally $250-$1400, dependent upon funds available, is renewable for four consecutive years based on continuance in the dance program, and paid fall and winter semesters. This award is open to students who participate and perform in the WSU dance companies and other departmental events. Please contact the Department of Dance for further information.

Allesee Undergraduate Dancers in Residence: Housing Scholarship, of varying amounts, normally $1500-$3000, dependent upon funds available, is renewable based on continuance in the dance program. This award is open to students majoring in dance who have been admitted to WSU. Recipients must maintain a 2.5 grade point average overall, and a 3.0 grade point average in dance courses; contact the Department of Dance for additional information.

Endowed Scholarship Awards in Dance are of varying amounts, dependent upon funds available, are limited to full-time students majoring in dance. The dance faculty selects recipients during the winter semester for the following awards:

Portia Fields Anderson (aka Freeda Frump) Endowed Scholarship of varying amounts, normally $500, dependent upon funds available, is limited to dance majors who are enrolled full-time. Recipients are selected by the dance faculty on the basis of scholastic achievement and talent, and a demonstrated commitment to dance at WSU. Financial need may be considered. Recipients must have completed at least twelve credits at WSU. Applicants must submit a letter of application, not to exceed one page. The application deadline is early December for a winter semester award.

Harriet Berg Endowed Choreography Award of varying amounts, ranging from $250- $500, dependent upon funds available, is limited to dance majors who are enrolled full-time. Recipients are selected by the dance faculty on the basis of outstanding choreographic creativity and promise of excellence in choreography, and a demonstrated commitment to dance at WSU. The award fund will be used for choreography production and/or other choreographic related expenses, such as costumes, music, set design, properties, video or other technology production needs. Financial need may be considered. Recipients must have completed at least twelve credits at WSU. Applicants must submit a letter of application. The application deadline is early December for a winter semester award.

Meredith Ilene Campbell Endowed Scholarship of varying amounts, normally $500, dependent upon funds available, is limited to dance majors who are enrolled full-time. Recipients are selected by the dance faculty on the basis of scholastic achievement and talent, and a demonstrated commitment to dance at WSU. Financial need may be considered. Recipients must have completed at least twelve credits at WSU. Applicants must submit a letter of application. The application deadline is early December for a winter semester award.

Kathryn Ellis Endowed Scholarship of varying amounts, normally $500, dependent upon funds available, is limited to dance majors who are enrolled full-time. Recipients are selected by the dance faculty on the basis of scholastic achievement and talent, and a demonstrated commitment to dance education at WSU. Recipients must have completed at least twelve credits at WSU and maintain a 2.5 grade point average. Applicants must submit a letter of application. The application deadline is early December for a winter semester award

Rose Marie Floyd Endowed Scholarship of varying amounts, normally $500, dependent upon funds available, is limited to dance majors who are enrolled full-time. Recipients are selected by the dance faculty on the basis of scholastic achievement and talent, and a demonstrated commitment to dance at WSU. Financial need may be considered. Recipients must have completed at least twelve credits at WSU. Applicants must submit a letter of application. The application deadline is early December for a winter semester award.

Karen Ruth Lacoff Memorial Endowed Scholarship (Founded by Joanne, Marvin and Betty Danto) of varying amounts, normally $500, dependent upon funds available, is limited to dance majors who are enrolled full-time. This endowed scholarship is offered to affirm outstanding talent and to inspire in its recipients a life of passion through dance. Recipients are selected by the dance faculty on the bases of scholastic achievement and talent, and a demonstrated commitment to dance at WSU. Financial need may be considered. Recipients must have completed at least twelve credits at WSU. Applicants must submit a letter of application. The application deadline is early December for a winter semester award.

Ruth Lovell Murray Endowed Scholarship of varying amounts, normally $500, dependent upon funds available, is limited to dance majors who are enrolled full-time and to be used during their junior or senior year. Recipients are selected by the dance faculty on the basis of scholastic achievement (with at least a 3.25 g.p.a.), and a demonstrated commitment to dance at WSU. Financial need may be considered. Recipients must have completed at least twelve credits at WSU. Applicants must submit a letter of application, not to exceed one page. The application deadline is December for a winter semester award.

Lisa Nowak Endowed Scholarship of varying amounts, normally $500, dependent upon funds available, is limited to dance majors who are enrolled full-time. Recipients are selected by the dance faculty on the basis of scholastic achievement and talent, and a demonstrated commitment to dance at WSU. Financial need may be considered. Recipients must have completed at least twelve credits at WSU. Applicants must submit a letter of application. The application deadline is early December for a winter semester award.

Barbara Rochlin-Fenkell Annual Scholarship of varying amounts, normally $500, dependent upon funds available, is limited to dance majors who are enrolled full-time. Recipients are selected by the dance faculty on the basis of scholastic achievement and talent, and a demonstrated commitment to dance at WSU. Recipients must have completed at least twelve credits at WSU and maintain a 2.5 grade point average. Applicants must demonstrate financial need. Appli-

cants must submit a letter of application, not to exceed one page. The application deadline is early December for a winter semester award.

UNDERGRADUATE COURSES

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 485.

DANCE COURSES (DNC)

1010 Introduction to Modern Dance. Cr. 2

Basic movement techniques and improvisational experiences in concert dance; films and concert viewing. (T)

1020 Beginning Modern Dance. Cr. 2 (Max. 6)

Prereq: DNC 1010 or equiv. Continuation of DNC 1010 on an intermediate level. (T)

1210 Fundamentals of Classical Ballet I. Cr. 2 (Max. 8)

Introduction to the fundamentals of classical ballet; emphasis on vocabulary, theory and practice, including films and concert viewing. Material Fee As Indicated In The Schedule of Classes (T)

1220 Fundamentals of Classical Ballet II. Cr. 2 (Max. 8)

Open only to dance majors. Continuation of DNC 1210. Material Fee As Indicated In The Schedule of Classes (T)

1330 Production Practicum. Cr. 1

Open only to dance majors. Introductory technical production experience supporting concert dance performances; skill development in stage management, lighting and sound operation, videography, and stage crew responsibilities; part of Digital Dance Literacy curriculum . (T)

1410 Afro-Haitian Dance. Cr. 2

Introduction to dance elements and dances derived from African/African American cultural experience. Emphasis on dances of Haiti, Brazil, and Cuba. (F)

1810 Introduction to Dance Professions. Cr. 3

Open only to dance majors. Survey of dance professions in administration, teaching, arts management and advocacy, dance production and commercial sector. (W)

2000 (VP) Introduction to World Dance. Cr. 4

Global perspective on and definition of dance, through assigned readings, writing, field trips, and laboratory experience. Focus on multicultural diversity, interdependent nature of dance. Material Fee As Indicated In The Schedule of Classes (T)

2010 Modern Dance Technique I. Cr. 2 (Max. 12)

Open only to dance majors. Prereq: DNC 1020 or equiv. Modern dance technique of increasing difficulty and complexity; experiences in improvisation, problem solving, and compositional studies in dance. Material Fee As Indicated In The Schedule of Classes (F,W)

2020 Modern Dance Technique II. Cr. 2 (Max. 12)

Open only to dance majors. Continuation of DNC 2010. Modern dance technique of advancing difficulty; further experiences in improvisation, problem solving and composition; analysis and refinement of technique and performance skills. Material Fee As Indicated In The Schedule of Classes (W)

2300 History of Dance to 1800. Cr. 3

Survey of dance in western civilization from pre-historic times through the eighteenth century; how dance evolved from expression of primitive cultures to independent theatrical entertainment in western Europe. (B:W)

2310 (VP) History of Dance from 1800 to the Present. Cr. 3

How dance in western Europe developed through various cultural influences from the romantic ballet scenario in the nineteenth century to artistic compositions with multimedia technology in the present day. (B:W)

2311 Issues and Trends in Contemporary Dance. Cr. 2

Open only to dance majors. Discussion of current events, trends and issues; includes technology component as part of Digital Dance Literacy curriculum. Material Fee As Indicated In The Schedule of Classes (B:F)

2400 (FC) Introduction to African Dance. Cr. 3

Exploration of African and African derived dance forms, together with their integrated philosophy, music, art and theatre forms. Lectures, videos, concert attendance and reading assignments to learn and perform dances from selected African societies. Material Fee As Indicated In The Schedule of Classes (T)

2410 Music and Dance Relationships. Cr. 3

Open only to dance majors. Study of the basic elements common to dance and music including rhythm, dynamics, and form. Examples of music especially composed for dance will be examined along with dance styles of historical periods; includes technology component as part of Digital Dance Literacy curriculum. (W)

2460 Dance Improvisation. Cr. 2

Open only to dance majors. Introduction to dance improvisational techniques and performance skills as applied to movement invention, performance, and choreography. (F)

2500 Choreography I. Cr. 2

Prereq: DNC 2460. Open only to dance majors. Construction of motifs and dance studies based on nonliteral and literal thematic materials; emphasis on form and structural concepts. (W)

2600 African Dance II. Cr. 2

Prereq: DNC 2400 and required audition. Intermediate technique and theory. Material Fee As Indicated In The Schedule of Classes (F,W)

2610 Jazz I. Cr. 2 (Max. 8)

Introduction to jazz dance technique; emphasis on alignment, movement isolation, rhythmic awareness, basic dance vocabulary, historical development. (F,W)

3010 Modern Dance Technique III. Cr. 2 (Max. 8)

Prereq: DNC 2010 or equiv. Open only to dance majors. Continuation of DNC 2010; modern dance technique at the intermediate level. Material Fee As Indicated In The Schedule of Classes (F,W)

3180 Dance Kinesiology. Cr. 3

Open only to dance majors. Introduction to analysis of dance movement from an anatomical and mechanical point of view. Relationships between neuromuscular repatterning, alignment and technique. (B:F)

3190 Movement Analysis. Cr. 3

Prereq: DNC 3180. Open only to dance majors. Continuation of anatomical and mechanical analyses of dance; emphasis on somatic and dance science approaches. (B:W)

3200 Ballet III. Cr. 2 (Max. 16)

Open only to dance majors. Continuation of DNC 1220 on a more advanced technical level with emphasis on complex movement phrases and selections from classical repertory. Material Fee As Indicated In The Schedule of Classes (F,W)

3210 Ballet Variations. Cr. 2 (Max. 16)

Prereq: By audition. Open only to advanced dancers. Learning various solo exercises from standard classical repertoire; music by Chopin, Adams, Minkus, Tchaikovsky. (F,W)

3220 Ballet Pointe Technique. Cr. 1

Open only to advanced dance majors. Prereq: DNC 1220. Technical skill development on pointe. (F)

3310 Dance Production. Cr. 3

Open only to dance majors. Concentration on selected types of dance production including an examination of purpose and content; technical considerations such as costumes, makeup, lighting and decor; the management of performance-related matters, and the use of technology, computer and video to support production work; part of Digital Dance Literacy curriculum. (F)

3410 Jazz II. Cr. 2 (Max. 4)

Prereq: DNC 2610 or equiv. Continuation of DNC 2610 on a more advanced level. (T)

3500 Choreography II. Cr. 2

Prereq: DNC 2410, DNC 2500. Open only to dance majors. Exploration of time, space, and design tools for choreography; focus on formal construction of small group studies and dances. (F)

3810 Dance Pedagogy. Cr. 3

Open only to dance majors. Theory and practice of dance teaching in arts education; foundational emphasis on social and cultural aspects of pedagogical theory in multiple settings. (W)

3998 Assisting in Dance. Cr. 1 (Max. 4)

Prereq: written consent of dance adviser. Open only to dance majors. Assigned field work in assisting under faculty supervision. (F,W)

4010 Modern Dance Technique IV. Cr. 2 (Max. 16)

Open only to dance majors; others by audition. Prereq: DNC 3010 or equiv. Continuation of DNC 3010. Modern dance technique, advanced level. Material Fee As Indicated In The Schedule of Classes (F,W)

4200 Ballet IV. Cr. 2 (Max. 16)

Open only to dance majors. Continuation of DNC 3200 with emphasis on advanced knowledge of classical ballet vocabulary. Material Fee As Indicated In The Schedule of Classes (T)

4220 Ballet V. Cr. 1

Prereq: Open only to dance majors. Advanced technical skill development of classical ballet dancers. (B)

4601 Problems in Choreography. Cr. 2

Open only to dance majors. Prereq: DNC 2460. Seminar discussion and applied experiences in choreographic problems; intensive study of choreographic structure, content and intention. (F,W)

4610 Jazz III. Cr. 2

Prereq: admission by audition. Continuation of DNC 3410 with advanced training in jazz technique and styles. (F,W)

4810 Teaching Secondary Dance Methods. (DNE 4810) Cr. 3

Prereq: DNC 1020 and 1220 or equiv. Analysis of instructional methods and materials in dance including technique, improvisation, composition, curriculum planning and evaluation. (B:W)

4910 Dance in Community. Cr. 3

Prereq: DNC 3810. Survey of dance programs and projects in community settings, with emphasis on sociocultural aspects and social inclusion of disenfranchised or underrepresented populations; includes theoretical and applied experience in community dance practice. (F)

5000 Performance Tour. Cr. 2 (Max. 8)

Prereq: DNC 5610 or DNC 6610. Open by audition only. Development and performance of touring dance performances off campus including regional, national, and international festivals; productions for elementary, middle and secondary school audiences. (W)

5110 Study in Dance Styles. Cr. 1 (Max. 16)

Examination of a particular dance or movement style; i.e., historic period, technique, somatic, tap, ballroom and social dance forms; Pilates mat, reformer. Material Fee As Indicated In The Schedule of Classes (T)

5120 Pilates Equipment Lab. Cr. 0

Prereq: DNC 5110. Open only to dance majors. Offered for S and U grades only. Individual study in Pilates lab one hour per week. (F,W)

5410 Dance Notation I. Cr. 2

Open only to dance majors. Background in movement or dance is desirable. Labanotation of dance and movement; survey of other systems. Analysis and recording of movement and dance. (B:W)

5560 Choreography III. Cr. 2

Prereq: DNC 2500, DNC 3500. Open only to dance majors. Continuation of DNC 3500; more advanced experience in choreographic forms and exploration of collaborative and technological approaches to choreography; part of Digital Dance Literacy curriculum. Material Fee As Indicated In The Schedule of Classes (F)

5600 Improvisation. Cr. 2

Spontaneous movement exploration in response to a variety of stimuli: literal, visual, kinesthetic, auditory, verbal, and tactile. (F)

5610 Dance Company I. Cr. 1 (Max. 8)

Prereq: admission by audition. Coreq: DNC 2010, 3010, 4010 or 6010. Performing company. Open to students interested in performing and/or choreographing. Material Fee As Indicated In The Schedule of Classes (F,W)

5710 Dance Techniques. Cr. 1-6 (Max. 12)

A concentrated period of advanced dance study in technique, composition and repertory, often with a visiting artist. (F,W)

5800 Repertory. Cr. 1-4 (Max. 12)

Prereq: admission by audition. Learning, for performance, of dance repertory, dances previously choreographed by faculty, Labanotated dance, or work of Artist-in-Residence. (F,W)

5810 Teaching Creative Dance for Children. (TED 5810) Cr. 3

Approaches to creative dance experiences for children stressing the development of aesthetic and kinesthetic awareness. Focus on comprehensive arts and curriculum related materials. (F)

5820 Creative Dance Movement for the Pre-School Child. (TED 5820) Cr. 3

Creative dance activities; manipulative, musical, imaginative and kinesthetic approaches to movement. (W)

5830 Field Work in Creative Dance. (TED 5830) Cr. 2-8

Prereq: DNC 5810 or consent of instructor. Open only to dance majors. Supervised professional study in field settings. (T)

5910 Dance Professions Seminar. Cr. 3

Prereq: DNC 4910. Advanced inquiry and directed individual study in the dance professions, including research study design and implementation in applied settings within an approved internship or fieldwork context. Serves as pre-Capstone experience. (F)

5990 Independent Study in Dance. Cr. 1-4 (Max. 12)

Open only to dance majors. Independent work in dance under faculty guidance. (T)

5993 (WI) Writing Intensive Course in Dance. Cr. 0

Open only to undergraduates. Prereq: junior standing; satisfactory completion of the IC requirement; consent of instructor; coreq: DNC 3310 preferred, or DNC 2300 or DNC 2310. Offered for S and U grades only. No degree credit. Required of all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a course designated as a corequisite. See Schedule of Classes for corequisites available each term. Sat-

isfies the University General Education Writing Intensive Course in the Major requirement. (T)

5996 Senior Capstone Research. Cr. 3 (Max. 6)

Prereq: DNC 3500. Group and solo choreography, concert production, publicity and promotion; research component includes digital dance portfolio. Material Fee As Indicated In The Schedule of Classes (F,W)

5997 Departmental Honors Thesis. Cr. 3

Open only to dance majors in the departmental honors program. Prereq: DNC 3500. Group and solo choreography, concert production, publicity and promotion; research component includes digital dance portfolio. (F,W)

6010 Technique Laboratory. Cr. 1 (Max. 8)

Prereq: DNC 3010 or equiv. Modern Dance technique, advanced level. (F,W)

6610 Dance Company II. Cr. 1 (Max. 8)

Prereq: DNC 5610 or equiv. Required for students in the choreography and performance emphasis. Admission by audition. Performing company. Performing, choreographic and/or production responsibilities. (F,W)

DANCE EDUCATION COURSES (DNE)

4410 Student Teaching and Seminar I. Cr. 2-6 (FLD:14)

Prereq: 2.5 g.p.a. in major; admission to student teaching. Offered for S and U grades only. Open only to dance majors. First experience in student teaching. (F,W)

4420 Student Teaching and Seminar II. Cr. 2-6 (FLD:14)

Prereq: 2.5 g.p.a. in major; admission to student teaching; DNE 4410. Offered for S and U grades only. Open only to dance majors. Second experience in student teaching. (F,W)

4810 (DNC 4810) Teaching Secondary Dance Methods. Cr. 3

Prereq: DNC 1020 and DNC 1220 or equiv. Analysis of instructional methods and materials in modern dance and ballet, including technique, improvisation, composition, curriculum planning and evaluation. (W)

Music

Office: 1321 Old Main; 313-577-1795; *e-mail:* music@wayne.edu
Chairperson: John D. Vander Weg
Associate Chairperson: Norah Duncan IV
B.A. Advisor and Graduate Officer: Mary A. Wischusen
Academic Services Officers: Lee Dyament, Kristen Malecki
Departmental Scholarships and Student Records: Tinley Daniel
Academic and Student Personnel: Evelyn Williams

Web: http://www.music.wayne.edu

Professors

Christopher Collins, James J. Hartway (Distinguished Professor), Kypros L. Markou, Dennis J. Tini (Distinguished Professor), John D. Vander Weg

Associate Professors

Douglas Bianchi, Karl Braunschweig, Frances Brockington, Abigail Butler, Robert Conway, Norah Duncan IV, Laura Roelofs, Terese Tuohey, Mary A. Wischusen

Assistant Professors

Russell Miller, Emery Stephens

Lecturers

Thomas Court, Janet Wright-McCaskill

Adjunct Professors

David DiChiera

Emeriti Faculty

Lillian J. Cassie, Carol J. Collins, Morris Hochberg, Bohdan J. Kushnir, Joseph Labuta, Matthew Michaels, Doris L. Richards

Area Coordinators

Douglas Bianchi (Instrumental), Karl Braunschweig (Composition, Theory, and History), Abigail Butler (Voice/Choral), Christopher Collins (Jazz Studies), Dennis Tini (Music Business and Music Technology), Terese Tuohey (Music Education)

Adjunct Faculty

Dwight Adams (jazz trumpet), Jon Anderson (composition, history and theory), Geoffrey Applegate (violin, DSO), Gerrie Ball (accompanist and piano), George Benson (jazz saxophone), Kazimierz Brozowski (piano), Glenn Burdette (harpsichord), Steven Carryer (jazz guitar ensembles), Marcy Chanteaux (cello, DSO), Clifford Chapman (music education), Keith Claeys (percussion and percussion ensemble), Carolyn Coade (viola, DSO), Gerald Custer (composition and theory), Sean Dobbins (jazz percussion), Lee Dyament (classical guitar), Gordon Finlay (voice), Mark Flegg (trumpet), Natasha Kelly Foreman (history), Paul Ganson (bassoon, DSO, retired), Gail Gebhart (piano), John Guinn (music history and theory), Jeff Heisler (saxophone), Gary Hellick (trombone), Max Janowsky (bass, DSO), David Jennings (trumpet), Michael Karloff (jazz combos), Paul Keller (jazz bass), John Kennedy (bass), Ronald Kischuk (trombone and jazz trombone), Ann Marie Koukios (piano and theory), Betty Lane (voice), Laura Larson (flute, MOT), Constance Markwick (violin and viola), Steven Mastrogiacomo (piano), Eldonna May (history), Lisa Meyer (music education), Clifford Monear (jazz piano), Michael Naylor (world music), Charles Newsome (jazz guitar ensemble), Theodore Oien (clarinet, DSO), Gene Parker (jazz saxophone), Robert Pipho (jazz theory), Karl Pituch (horn, DSO), Donald Platter (woodwinds), Dan Pliskow (jazz bass), Ronald Prowse (organ), Richard Rattner (music business), JoAnn Richardson (accompanist), Brian Roberts (guitar), Ernest Rodgers (jazz ensemble), James Ryan (jazz percussion), Matthew Schoendorff (composition and theory), Marcus Schoon (contrabassoon), Marian Tanau (violin, DSO), David Taylor (jazz percussion), Patricia Terry-Ross (harp and music education), James Van

Valkenburg (viola, DSO), Brian Ventura (oboe, DSO), Stanley Waldon (piano), Robert Williams (bassoon, DSO), Hai Xin Wu (violin, DSO)

Degree Programs

BACHELOR OF ARTS with a major in music

BACHELOR OF MUSIC with a concentration in composition/theory, instrumental music education, jazz studies, music business, music technology, performance, and vocal music education

MASTER OF ARTS with a major in music

MASTER OF MUSIC with a concentration in composition/theory, conducting, performance, jazz performance, and music education

GRADUATE CERTIFICATE in Orchestral Studies

The Department of Music cultivates music as a modern and global art, grounded in a long historical tradition, by combining higher education with professional training and experience for its undergraduate and graduate/professional students.

The Department offers serious students of music opportunities to learn, grow, and develop their skills and disciplines in an urban cultural setting. With close proximity to Detroit's cultural center, students have access to the resources of such premiere institutions as the Detroit Institute of Arts, the Detroit Public Library, the Detroit Opera House, and Orchestra Hall. The long historical relationship between the Detroit Symphony Orchestra and the Department allows students to study and coach with exceptional guest artists and resident artist-faculty who are specialists in all musical styles and media.

Building on the strengths of its geographic and cultural setting, the Department maintains public access to its performances and degree programs, offers high-level professional and academic standards and unique creative and scholarly opportunities appropriate to a large research university, and cultivates a deep aesthetic understanding of music in our students and the larger urban arts community.

Registration: All students must meet with a Department of Music adviser prior to initial course registration and at least once per term for early registration advising. Enrollment in all MUP courses requires departmental permission.

Scholarship: All course credit applicable to the degree programs described in the following pages must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on pages 18, 36, and 189.

Music majors pursuing undergraduate degrees must earn the grade of 'C' or better in all music courses required in the music curriculum they are pursuing. The grade of 'C-minus' or below is not an acceptable grade for degree credit. If the grade of 'C-minus' or below (or a mark of 'WF') is received by a music major in any required course in a music curriculum, the student must repeat the course and earn a grade of 'C' or better. Students who fail to achieve a grade of 'C' or better in required music courses following two attempts may not be allowed to continue to register as Music Majors.

DOUBLE MAJORS: Music majors in any concentration may seek a second major outside Music with the approval of the Department of Music and the Department offering the second major (see the College statement on Double Majors on under Major Requirements, page 190). Double concentrations within a single major, however, are not granted by the University.

ENSEMBLE PARTICIPATION: The Music Department encourages all musically inclined students to join its ensembles. Participation gives music majors and non-majors the opportunity to improve their musical skills and perform in internationally recognized groups. Conductors audition new students during the week before classes begin; the level of skill necessary varies by ensemble, however, most require music literacy. Music majors must elect designated Major Ensembles (MUA 2800, 2810, 2820, 2822, 2840, or 2850) for degree credit.

BANDS: Woodwind, brass and percussion players are welcome to join the Concert Band. Wind Symphony members are chosen through competitive auditions.

CHORUSES: Non-music majors are encouraged to register for the Choral Union (the large mixed-voice choir), Men's Chorus or Women's Chorale. Concert Chorale is the Department's most select vocal ensemble, and auditions are especially competitive. Music majors who are required to participate in a choral ensemble must elect Choral Union (MUA 2840) or Concert Chorale (MUA 2850) for degree credit.

JAZZ: Jazz studies and other music majors are given highest priority for jazz big band positions (MUA 2820) and jazz guitar ensembles (MUA 2822). Non-music majors are welcome to audition for all jazz ensembles and combos.

ORCHESTRA: Positions in the Orchestra are assigned through auditions with the conductor of the Orchestra.

Bachelor of Arts with a Major in Music

The Bachelor of Arts curriculum is designed for students who want to develop their musical knowledge and ability while obtaining a broad liberal arts education. It provides students with the academic and musical prerequisites necessary for continuing graduate study in such fields as music theory, musicology and ethnomusicology.

Admission Requirements for the Bachelor of Arts program are satisfied by (a) general requirements for admission to the University; see page 24, and (b) a successful audition on a principal instrument or voice.

DEGREE REQUIREMENTS: Candidates for this degree must complete a minimum of 120 credits including satisfaction of the University General Education Requirements (see below and page 18), College degree requirements (see page 189), and Bachelor of Arts curriculum requirements listed below. Students pursuing a Bachelor of Arts degree must also fulfill the foreign language requirement (see page 189). ONLY SIXTY CREDITS IN MUSIC ARE APPLICABLE TO THIS DEGREE.

General Education Requirements: All students in the B.A. program must elect the following course:

MUH 1345 -- (VP, CD) Music Cultures: Cr. 3
(to satisfy the Visual and Performing Arts requirement)

Music Requirements (47 – 48 Total Credits)

Piano Competency, Applied Music, and Ensembles (12 credits)

MUA 1795 -- Piano Skills I: Cr. 2
MUA 2795 -- Piano Skills II: Cr. 2

Four terms of appropriate MUP: private instruction in principal instrument or voice, 1 cr. per term. See MUP course table (page 230) for course numbers.

Four terms of major ensemble (must be elected concurrently with MUP private instruction) chosen from:

MUA 2800 -- University Bands: Cr. 1
MUA 2810 -- University Symphony Orchestra: Cr. 1
MUA 2820 -- Jazz Big Band: Cr. 1
MUA 2822 -- Jazz Guitar Ensemble: Cr. 1
MUA 2840 -- Choral Union: Cr. 1
MUA 2850 -- Concert Chorale: Cr. 1
(Total Credits: 4)

General Lectures and Concerts (0 credits)

MUA 2690 -- General Lectures and Concerts: Cr. 0 (four terms)

Music History, Theory, and Technology (31 credits)

MUH 3310 -- Music History and Literature I: Cr. 3
MUH 3320 -- Music History and Literature II: Cr. 3
MUH 3330 -- (WI) Music History and Literature III: Cr. 3
(Total 9 Credits)

MUT 1140 -- Theory I: Cr. 3
MUT 1150 -- Ear Training I: Cr. 1
MUT 1160 -- Theory II: Cr. 3
MUT 1170 -- Ear Training II: Cr. 1
MUT 2140 -- Theory III: Cr. 3
MUT 2150 -- Ear Training III: Cr. 1
MUT 2160 -- Theory IV: Cr. 3
MUT 2170 -- Ear Training IV: Cr. 1
MUT 5997 -- Analytical Techniques: Cr. 3
(Total Credits: 19)

MUA 5610 -- Music Technology: Cr. 3

Music Elective (2-3 Credits)

One course selected from the following:

MUA 3670 -- Conducting Techniques I: Cr. 2
MUH 3360 -- Jazz History: Cr. 3
MUH 5300 -- Music Research: Cr. 3
MUT 2100 -- Counterpoint: Cr. 2
MUT 5085 -- History of Theory: Cr. 3
MUT 5220 -- Introduction to Schenkerian Analysis: Cr. 3
MUT 5240 -- Analysis of Twentieth-Century Music: Cr. 3
MUT 5200 -- Special Topics in Theory: Cr. 3

B.A. Project (2 Credits)

MUA 4990, MUH 4990 or MUT 4990 -- B.A. Project: Cr. 2

Bachelor of Music

The Bachelor of Music degree provides a program for talented students with prior musical experience and skills who seek professional training in music. A wide range of concentrations is available under the program to meet the specialized interests and career plans of serious music students. Depending on the student's qualifications, he or she may choose from seven professional areas of concentration: 1) theory/composition; 2) instrumental music education; 3) vocal music education; 4) music business; 5) music technology; 6) jazz studies; or 7) performance.

Admission to this program is contingent upon (a) satisfaction of the general requirements for undergraduate admission to the University (see page 24) and (b) a successful audition on a principal instrument or voice. Audition dates are scheduled throughout the year and prospective students should contact the Music Office at (313) 577-1795 for scheduling information. Entering students must consult a departmental advisor prior to their first registration.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Music must complete 120 to 128 credits including satisfaction of the University General Education Requirements (see below and page 18), College degree requirements (see page 189), as well as the specific course requirements for each concentration listed below. In addition, all Bachelor of Music students are required to successfully complete a junior-standing performance jury and, depending upon concentration, other junior-standing assessments during the fourth semester of enrollment.

— Bachelor of Music Concentrations

Composition/Theory (120 Credits)

General Education Requirement: The Department requires election of MUH 1345: (VP,CD) Music Cultures: Cr. 3 to satisfy the Visual and Performing Arts distribution requirement. Other general education requirements total approximately thirty-two credits.

Piano Competency, Applied Music, and Ensembles (17-21 Credits)

MUA 1795: Piano Skills I: Cr. 2
MUA 2795: Piano Skills II: Cr. 2

Six terms of appropriate MUP courses (private instruction in principal instrument or voice, one credit per term - total six credits). See MUP course table (page 230) for course numbers.

If Piano is not the principal instrument, four terms of MUP 1215, SecondaryPiano (total 4 credits)

Six terms of major ensemble (must be elected concurrently with MUP private instruction) chosen from:

MUA 2800 -- University Bands: Cr. 1
MUA 2810 -- University Symphony Orchestra: Cr. 1
MUA 2820 -- Jazz Big Band: Cr. 1
MUA 2822 -- Jazz Guitar Ensemble: Cr. 1
MUA 2840 -- Choral Union: Cr. 1
MUA 2850 -- Concert Chorale: Cr. 1
(Total Credits: 6)

One term of chamber music selected from:

MUA 2826 -- Jazz Combos: Cr. 1
MUA 2880 -- Chamber Music: Cr. 1
MUA 5641 -- Electronic Music Ensemble: Cr. 1

General Lectures and Concerts (0 credits)

MUA 2690: General Lectures and Concerts: Cr. 0 (four terms)

Music History, Theory, and Technology (53 credits)

MUH 3310 -- Music History and Literature I: Cr. 3
MUH 3320 -- Music History and Literature II: Cr. 3
MUH 3330 -- (WI) Music History and Literature III: Cr. 3
(Total Credits: 9)

MUT 1140 -- Theory I: Cr. 3
MUT 1150 -- Ear Training I: Cr. 1
MUT 1160 -- Theory II: Cr. 3
MUT 1170 -- Ear Training II: Cr. 1
MUT 2030 -- Keyboard Harmony I: Cr. 1
MUT 2040 -- Keyboard Harmony II: Cr. 1
MUT 2100 -- Counterpoint: Cr. 2
MUT 2120 -- Jazz Theory and Harmony: Cr. 3
MUT 2140 -- Theory III: Cr. 3
MUT 2150 -- Ear Training III: Cr. 1
MUT 2160 -- Theory IV: Cr. 3
MUT 2170 -- Ear Training IV: Cr. 1
MUT 3000 -- Orchestration: Cr. 2
MUT 3100 -- Composition I: Cr. 2
MUT 3110 -- Composition II: Cr. 2
MUT 4100 -- Composition III: Cr. 2
MUT 4110 -- Composition IV: Cr. 2
MUT 5060 or MUA 5630
    -- Advanced Orchestration: Cr. 3
    -- Recording Techniques I: Cr. 2
MUT 5220 or MUT 5240
    -- Introduction to Schenkerian Analysis: Cr. 3
    -- Analysis of 20th-Century Music: Cr. 3
MUT 5997 -- Analytical Techniques: Cr. 3
(Total Credits: 41)

MUA 5610 -- Music Technology: Cr. 3

Instrumental Methods and Conducting (10 credits)

MUA 1730 -- String Class: Cr. 2
MUA 1740 -- Woodwind Class: Cr. 2
MUA 1750 -- Brasswind Class: Cr. 2
MUA 1760 -- Percussion Class: Cr. 2
(Total Credits: 8)

MUA 3670 -- Conducting Techniques I: Cr. 2

Music Electives selected in consultation with program advisor (5-7 Credits)

Philosophy of Art course to satisfy the Philosophy and Letters General Education distribution requirement (3 credits).

PHI 3700 -- (PL) Philosophy of Art: Cr. 3

Senior Project (0 credits): Presentation of a program of original compositions approved by the area coordinator or major advisor OR presentation of a theory lecture approved by the area coordinator or major advisor.

Instrumental Music Education (127 – 128 Credits)

General Education Requirement: The Department requires election of MUH 1345: (VP,CD) Music Cultures: Cr. 3 to satisfy the Visual and Performing Arts distribution requirement. Other general education requirements total approximately thirty-two credits.

Piano Competency, Applied Music, and Ensembles (18 Credits)

MUA 1795: Piano Skills I: Cr. 2
MUA 2795: Piano Skills II: Cr. 2

Seven terms of appropriate MUP courses (private instruction in principal instrument, one credit per term - total seven credits). See MUP course table (page 230) for course numbers.

Six terms of major ensemble (must be elected concurrently with MUP private instruction) chosen from:

MUA 2800 -- University Bands: Cr. 1 (6 req.)
(for winds, brass, or percussion principals)
MUA 2810 -- University Symphony Orchestra: Cr. 1 (6 req.)
(for strings principals)

One term of secondary performance ensemble selected from:

MUA 2820 -- Jazz Big Band: Cr. 1
MUA 2830 -- Men's Chorus: Cr. 1
MUA 2840 -- Choral Union: Cr. 1
MUA 2870 -- Women's Chorale: Cr. 1
MUA 5641 -- Electronic Music Ensemble: Cr. 1
(NOTE: MUA 5641 is only open to students pursuing the Music Technology Minor for Instrumental Music Education Students)

General Lectures and Concerts (0 Credits)

MUA 2690: General Lectures and Concerts: Cr. 0 (four terms)

Music History, Theory, and Technology (32–33 credits)

MUH 3310 -- Music History and Literature I: Cr. 3
MUH 3320 -- Music History and Literature II: Cr. 3
MUH 3330 -- (WI) Music History and Literature III: Cr. 3
(Total Credits: 9)

MUT 1140 -- Theory I: Cr. 3
MUT 1150 -- Ear Training I: Cr. 1
MUT 1160 -- Theory II: Cr. 3
MUT 1170 -- Ear Training II: Cr. 1
MUT 2140 -- Theory III: Cr. 3
MUT 2150 -- Ear Training 3: Cr. 1
MUT 2160 -- Theory IV: Cr. 3
MUT 2170 -- Ear Training IV: Cr. 1
MUT 3000 -- Orchestration: Cr. 2
MUT 5997 -- Analytical Techniques: Cr. 3
(Total Credits: 21)

MUA 5610 or MED 5590
-- Music Technology: Cr. 3
-- Computer Applications in Music Teaching: Cr. 2

Instrumental Methods and Conducting (16 Credits)

MUA 1720 -- Voice Class for Music Education: Cr. 2
MUA 1730 -- String Class: Cr. 2
MUA 1740 -- Woodwinds Class: Cr. 2 (4 req.)
MUA 1750 -- Brasswinds Class: Cr. 2
MUA 1760 -- Percussion Class: Cr. 2
(Total Credits: 12)

MUA 3670 -- Conducting Techniques I: Cr. 2
MUA 3680 -- Conducting Techniques II: Cr. 2
(Total Credits: 4)

Music Education (12 Credits)

MED 3500 -- Introduction to Music Education: Cr. 2
MED 3510 -- Teaching General Music: Cr. 2
MED 4540 -- Instrumental Music in the Schools I: Cr. 3
MED 4550 -- Instrumental Music in the Schools II: Cr. 3
MED 4560 -- Practicum in Music Education: Cr. 2

College of Education Required Courses (14 Credits)

EDP 3310 -- Educational Psychology: Cr. 3
RLL 4431 -- Teaching Reading in Middle and Secondary Subject Areas: Cr. 3
TED 5790 -- Student Teaching and Conference for Special Groups: Cr. 8

NOTE: Music Education and the College of Education Joint Enrollment: All music education students must apply for admission to the College of Education (COE) at the end of their sophomore year. Students are then jointly enrolled in the College of Fine, Performing and Communication Arts and the College of Education. Students should contact their music education advisor for information on applying to the COE. Students will not be allowed to register for the professional courses taught through the College of Education (EDP 3310, RLL 4431 and TED 5790) until they have been officially admitted to the COE.

Vocal Music Education (127-128 Credits)

General Education Requirement: The Department requires election of MUH 1345: (VP,CD) Music Cultures: Cr. 3 to satisfy the Visual and Performing Arts distribution requirement. Other general education requirements total approximately 32 credits.

Piano Competency, Applied Music, and Ensembles (21 Credits)

MUA 1795 -- Piano Skills I: Cr. 2
MUA 2795 -- Piano Skills II: Cr. 2

All Vocal Music Education students must declare either voice or piano as a principal applied music area.

Voice principals:

Six terms of MUP: Voice principal private instruction, one credit per term, AND four terms of MUP: Piano secondary private instruction, one credit per term (total ten credits). See MUP course table (page 230) for course numbers.

Piano principals:

Six terms of MUP (Piano principal private instruction, one credit per term, AND four terms of MUP: Voice secondary private instruction, one credit per term - (total ten credits). See MUP course table (page 230) for course numbers.

Six terms of major ensemble (must be elected concurrently with MUP principal private instruction) chosen from:

MUA 2840 -- Choral Union: Cr. 1
MUA 2850 -- Concert Chorale: Cr. 1
(Total Credits: 6)

One term of secondary ensemble chosen from:

MUA 2830 -- Men's Chorus: Cr. 1
MUA 2860 -- Opera Workshop: Cr. 1
MUA 2870 -- Women's Chorale: Cr. 1

General Lectures and Concerts (0 Credits)

MUA 2690: General Lectures and Concerts: Cr. 0 (four terms)

Music History, Theory, and Technology (30–31 Credits)

MUH 3310 -- Music History and Literature I: Cr. 3
MUH 3320 -- Music History and Literature II: Cr. 3
MUH 3330 -- (WI) Music History and Literature III: Cr. 3
(Total Credits: 9)

MUT 1140 -- Theory I: Cr. 3
MUT 1150 -- Ear Training I: Cr. 1
MUT 1160 -- Theory II: Cr. 3
MUT 1170 -- Ear Training II: Cr. 1
MUT 2140 -- Theory III: Cr. 3
MUT 2150 -- Ear Training III: Cr. 1

MUT 2160 -- Theory IV: Cr. 3
MUT 2170 -- Ear Training IV: Cr. 1
MUT 5997 -- Analytical Techniques: Cr. 3
(Total Credits: 19)

MUA 5610 or MED 5590
-- Music Technology: Cr. 3
-- Computer Applications in Music Teaching: Cr. 2

Instrumental Methods and Conducting (11 Credits)

MUA 1700 or MUA 1730
-- Guitar Class: Cr. 2
-- String Class: Cr. 2

and four credits selected from:
MUA 1740 -- Woodwind Class: Cr. 2
MUA 1750 -- Brasswind Class: Cr. 2
MUA 1760 -- Percussion Class: Cr. 2
(Total Credits: 6)

MUA 3670 -- Conducting Techniques I: Cr. 2
MED 5550 -- Choral Conducting and Rehearsal Techniques: Cr. 3

Music Education (24 credits)

MUA 1720 -- Voice Class for Music Education: Cr. 2
MED 2500 -- Piano Skills for the Music Classroom: Cr. 2
MED 3500 -- Introduction to Music Education: Cr. 2
MED 3510 -- Teaching General Music: Cr. 2
MED 4510 -- Vocal Music in the Schools I: Cr. 3
MED 4530 -- Vocal Music in the Schools II: Cr. 3
MED 4560 -- Practicum in Music Education: Cr. 2
MED 4570 -- Student Teaching and Seminar: Cr. 8

College of Education Required Courses (6 Credits)

EDP 3310 -- Educational Psychology: Cr. 3
RLL 4431 -- Teaching Reading in Middle and Secondary Subject Areas: Cr. 3
(Note: Vocal Music Education students intending to teach general music in elementary schools may substitute RLL 4430 for RLL 4431.)

NOTE: Music Education and the College of Education Joint Enrollment: All music education students must apply for admission to the College of Education (COE) at the end of their sophomore year. Students are then jointly enrolled in the College of Fine, Performing and Communication Arts and the College of Education. Students should contact their music education advisor for information on applying to the COE. Students will not be allowed to register for the professional courses taught through the College of Education (EDP 3310 and RLL 4430 or 4431) until they have been officially admitted to the COE.

Music Business (123 - 124 Credits)

General Education Requirement: The Department requires election of MUH 1345: (VP,CD) Music Cultures: Cr. 3 to satisfy the Visual and Performing Arts distribution requirement. Music Business students should also elect either PSY 1010: Introductory Psychology, Cr. 4, or PSY 1020: Elements of Psychology, Cr. 3, to satisfy both the Life Science (LS) distribution requirement and the prerequisite for MGT 2530: Management of Organizational Behavior. Other general education requirements total approximately 29 credits.

Students may not elect more than twenty-nine credits in the School of Business Administration for this degree.

Piano Competency, Applied Music, and Ensembles (16 Credits)

MUA 1795 -- Piano Skills 1: Cr. 2
MUA 2795 -- Piano Skills 2: Cr. 2

Six terms of appropriate MUP courses (private instruction in principal instrument or voice, one credit per term. See MUP course table (page 230) for course numbers. (Total six credits.)

Six terms of major ensemble (must be elected concurrently with MUP private instruction) chosen from:

MUA 2800 -- University Bands: Cr. 1
MUA 2810 -- University Symphony Orchestra: Cr. 1
MUA 2820 -- Jazz Big Band: Cr. 1
MUA 2822 -- Jazz Guitar Ensemble: Cr. 1
MUA 2840 -- Choral Union: Cr. 1
MUA 2850 -- Concert Chorale: Cr. 1
(Total Credits: 6)

General Lectures and Concerts (0 Credits)

MUA 2690: General Lectures and Concerts: Cr. 0 (four terms)

Music History, Theory, and Technology (31 Credits)

MUH 3310 -- Music History and Literature I: Cr. 3
MUH 3320 -- Music History and Literature II: Cr. 3
MUH 3330 -- (WI) Music History and Literature III: Cr. 3
(Total Credits: 9)

MUT 1140 -- Theory I: Cr. 3
MUT 1150 -- Ear Training I: Cr. 1
MUT 1160 -- Theory II: Cr. 3
MUT 1170 -- Ear Training II: Cr. 1
MUT 2140 -- Theory III: Cr. 3
MUT 2150 -- Ear Training III: Cr. 1
MUT 2160 -- Theory IV: Cr. 3
MUT 2170 -- Ear Training IV: Cr. 1
MUT 5997 -- Analytical Techniques: Cr. 3
(Total Credits; 19)

MUA 5610 -- Music Technology: Cr. 3

Music Business Requirements (20 Credits)

MUA 2400 -- Music Business I: Cr. 3
MUA 3670 -- Conducting Techniques I: Cr. 2
MUA 5600 -- Music Business II: Cr. 3
MUA 5630 -- Recording Techniques I: Cr. 2
MUA 5700 -- Music Business III: Cr. 3
MUA 5800 -- Music Business IV: Cr. 3
(Total Credits; 16

MUA 4650 -- Directed Study: Internship: Cr. 1-3
(two terms: 4 credits, typically one- and three-credit elections)

Business Courses and Related Requirements (21–23 Credits)

ACC 3010 -- Introduction to Financial Accounting: Cr. 3
B A 2300 -- Quantitative Methods I: Cr. 3
ECO 2010 -- (SS) Principles of Microeconomics: Cr. 3-4
ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 3-4
MAT 1500 -- College Algebra for Social and Management Sciences: Cr. 3
MGT 2530 -- Management: Organizational Behavior: Cr. 3
MKT 2300 -- Marketing Management: Cr. 3

NOTE: Music Business majors may obtain a Minor in Business Administration by electing FIN 3290, Business Finance, Cr. 3, and one additional elective course in the School of Business Administration. See page 71, Minor in Business Administration, for further information.

Music Technology (126 Credits)

General Education Requirement: The Department requires election of MUH 1345: (VP, CD) Music Cultures: Cr. 3 to satisfy the Visual and Performing Arts distribution requirement. Other general education requirements total approximately thirty-two credits.

Piano Competency, Applied Music, and Ensembles (16 credits)

MUA 1795: Piano Skills I: Cr. 2
MUA 2795: Piano Skills II: Cr. 2

Six terms of appropriate MUP courses (private instruction in principal instrument or voice, 1 cr. per term - total six credits). See MUP course table (page 230) for course numbers.

Four terms of major ensemble (must be elected concurrently with MUP (private instruction) chosen from:

MUA 2800 -- University Bands: Cr. 1
MUA 2810 -- University Symphony Orchestra: Cr. 1
MUA 2820 -- Jazz Big Band: Cr. 1
MUA 2822 -- Jazz Guitar Ensemble: Cr. 1
MUA 2840 -- Choral Union: Cr. 1

MUA 2850 -- Concert Chorale: Cr. 1
(Total Credits: 4)

MUA 5641: Electronic Music Ensemble: Cr. 1 (2 req.)
(must be elected concurrently with MUP private instruction)

General Lectures and Concerts (0 Credits)
MUA 2690: General Lectures and Concerts: Cr. 0 (four terms)

Music History, Theory, and Technology (31 Credits)
MUH 3310 -- Music History and Literature I: Cr. 3
MUH 3320 -- Music History and Literature II: Cr. 3
MUH 3330 -- (WI) Music History and Literature III: Cr. 3
(Total Credits: 9)

MUT 1140 -- Theory I: Cr. 3
MUT 1150 -- Ear Training I: Cr. 1
MUT 1160 -- Theory II: Cr. 3
MUT 1170 -- Ear Training II: Cr. 1
MUT 2140 -- Theory III: Cr. 3
MUT 2150 -- Ear Training III: Cr. 1
MUT 2160 -- Theory IV: Cr. 3
MUT 2170 -- Ear Training IV: Cr. 1
MUT 5997 -- Analytical Techniques: Cr. 3
(Total Credits: 19)

MUA 5610 -- Music Technology: Cr. 3

Music Technology Requirements (44 Credits)
CSC 1050 -- (CL) Introduction to C and Unix: Cr. 2

EET 2000 -- Electrical Principles: Cr. 3
EET 2100 -- Principles of Digital Design: Cr. 3
EET 2720 -- Microprocessor Fundamentals: Cr. 3
EET 3100 -- Advanced Digital Design: Cr. 3
EET 3720 -- Micro and Programmable Controllers: Cr. 3

MAT 1800 -- Elementary Functions: Cr. 4
MAT 3430 -- Applied Differential and Integral Calculus: Cr. 4

MUA 4650 -- Directed Study: Internships: Cr. 1-3 (4 Req.)
(two terms: 4 credits, typically one- and three-credit elections)
MUA 5600 -- Music Business II: Cr. 3
MUA 5630 -- Recording Techniques I: Cr. 2
MUA 5640 -- Electronic Music Synthesis I: Cr. 3
MUA 5650 -- Electronic Music Synthesis II: Cr. 3
MUA 5660 -- Recording Techniques II: Cr. 2
MUA 5661 -- Recording Techniques III: Cr. 2

Jazz Studies (121 Credits)

General Education Requirement: The Department requires election of MUH 1345: (VP,CD) Music Cultures: Cr. 3 to satisfy the Visual and Performing Arts distribution requirement. Other general education requirements total approximately thirty-two credits.

Piano Competency, Applied Music, and Ensembles (28 Credits)
MUA 1795 -- Piano Skills I: Cr. 2
MUA 2795 -- Piano Skills II: Cr. 2
MUA 3795 -- Advanced Piano Skills: Cr. 2

Six terms of appropriate MUP courses (private instruction in principal instrument, one credit. per term - total six credits). See MUP course table (page 230) for course numbers.

Two terms of appropriate MUP courses (private instruction in major instrument, three credits per term - total six credits). See MUP course table (page 230) for course numbers.

Eight terms of major ensemble (must be elected concurrently with MUP private instruction) chosen from:
MUA 2820 -- Jazz Big Band: Cr. 1
MUA 2822 -- Jazz Guitar Ensemble: Cr. 1
(Total Credits; 8)

and two terms of jazz combos chosen from:
MUA 2824 -- Jazztet: Cr. 1
MUA 2826 -- Jazz Combos: Cr. 1
(*Total Credits: 2)*

General Lectures and Concerts (0 Credits)
MUA 2690: General Lectures & Concerts: Cr. 0 (four terms)

Music History, Theory, and Technology (31 credits)
MUH 3310 -- Music History and Literature I: Cr. 3
MUH 3320 -- Music History and Literature II: Cr. 3
MUH 3330 -- (WI) Music History and Literature III: Cr. 3
(Total Credits; 9)

MUT 1140 -- Theory I: Cr. 3
MUT 1150 -- Ear Training I: Cr. 1
MUT 1160 -- Theory II: Cr. 3
MUT 1170 -- Ear Training II: Cr. 1
MUT 2140 -- Theory III: Cr. 3
MUT 2150 -- Ear Training III: Cr. 1
MUT 2160 -- Theory IV: Cr. 3
MUT 2170 -- Ear Training IV: Cr. 1
MUT 5997 -- Analytical Techniques: Cr. 3
(Total Credits; 19)

MUA 5610 -- Music Technology: Cr. 3

Jazz Studies Requirements (27 Credits)
MUH 3360 -- Jazz History: Cr. 3

MUT 2120 -- Jazz Theory and Harmony: Cr. 3
MUT 2885 -- Jazz Improvisation I: Cr. 1
MUT 2887 -- Jazz Improvisation II: Cr. 1
MUT 3100 -- Composition I: Cr. 2
MUT 5110 -- Jazz Arranging and Composition I: Cr. 3
MUT 5120 -- Jazz Arranging and Composition II: Cr. 3
MUT 5130 -- Jazz Arranging and Orchestration: Cr. 3

MUA 3670 -- Conducting Techniques I: Cr. 2
MUA 5600 -- Music Business II: Cr. 3
MUA 5630 -- Recording Techniques I: Cr. 2
MUA 5690 -- Stage Band Direction: Cr. 1

MUP 4480 -- Senior Recital: Cr. 0
(Note: MUP 4480 must be elected concurrently with MUP 43X4: Major Private Instruction.)

Performance (120 credits)

General Education Requirement: The Department requires election of MUH 1345: (VP,CD) Music Cultures: Cr. 3 to satisfy the Visual and Performing Arts distribution requirement. Other general education requirements total approximately thirty-two credits.

Piano Competency, Applied Music, and Ensembles (36 Credits)
MUA 1795 -- Piano Skills I: Cr. 2
MUA 2795 -- Piano Skills II: Cr. 2

Eight terms of appropriate MUP courses (major instrument or voice, three credits per term - total: twenty-four credits). See MUP course table (page 230) for course numbers.

Eight terms of major ensemble (must be elected concurrently with MUP private instruction) chosen from:
MUA 2800 -- University Bands: Cr. 1
MUA 2810 -- University Symphony Orchestra: Cr. 1
MUA 2840 -- Choral Union: Cr. 1
MUA 2850 -- Concert Chorale: Cr. 1
(Total Credits: 8)

General Lectures and Concerts (0 Credits)
MUA 2690: General Lectures and Concerts: Cr. 0 (four terms)

Music History, Theory, and Technology (31 Credits)
MUH 3310 -- Music History and Literature I: Cr. 3
MUH 3320 -- Music History and Literature II: Cr. 3
MUH 3330 -- (WI) Music History and Literature III: Cr. 3
(Total Credits: 9)

MUT 1140 -- Theory I: Cr. 3
MUT 1150 -- Ear Training I: Cr. 1
MUT 1160 -- Theory II: Cr. 3
MUT 1170 -- Ear Training II: Cr. 1
MUT 2140 -- Theory III: Cr. 3
MUT 2150 -- Ear Training III: Cr. 1
MUT 2160 -- Theory IV: Cr. 3
MUT 2170 -- Ear Training IV: Cr. 1
MUT 5997 -- Analytical Techniques: Cr. 3
(Total Credits; 19)

MUA 5610 -- Music Technology: Cr. 3

Performance Major Requirements (13-15 Credits)

MUT 2100 -- Counterpoint: Cr. 2
MUH 5350 -- Performance Literature and Pedagogy: Cr. 3
MUP 4470 -- Junior Recital: Cr. 0
MUP 4480 -- Senior Recital: Cr. 0
MUP (appropriate) secondary instrument: Cr. 1 (2 req.)
(Note: MUP 4470 and 4480 must be elected concurrently with MUP Major Private Instruction.)

Specific concentration requirements:

PIANO MAJORS:

MUT 2030 -- Keyboard Harmony I: Cr. 1
MUT 2040 -- Keyboard Harmony II: Cr. 1
MUT 3000 -- Orchestration: Cr. 2
MUA 2880 -- Chamber Music: Cr. 1 (4 req.)

ORGAN MAJORS:

MUT 2030 -- Keyboard Harmony I: Cr. 1
MUT 2040 -- Keyboard Harmony II: Cr. 1
MUA 5730 -- Harpsichord Class: Cr. 2 (4 req.)
MUA 2880 -- Chamber Music: Cr. 1

BRASS, CLASSIC GUITAR, PERCUSSION, STRINGS, and WOODWINDS MAJORS:

MUA 3670 -- Conducting Techniques I: Cr. 2
MUT 3000 -- Orchestration: Cr. 2
MUA 2880 -- Chamber Music: Cr. 1 (4 req.)
(Note: Brass, Percussion, and Woodwind majors may substitute up to two terms of MUA 2802: Chamber Winds for two terms of MUA 2880: Chamber Music.)

VOICE MAJORS:

MUH 5370 -- Diction and Song Literature I: Cr. 3
MUH 5380 -- Diction and Song Literature II: Cr. 3

Demonstrable proficiency in two foreign languages selected in consultation with program advisor.

Electives: Music and nonmusic electives selected in consultation with the program advisor (3-7 Credits)

Private Instruction in Music (MUP)

Private instruction in instruments and voice are required in all B.A. and B.Mus. concentrations. The courses listed in the following table under *Principal and Secondary Private Instruction*, MUP 1xxx and 3xxx, are available for one credit each and are intended for students studying instruments as required in the concentrations: B.A. in music, Composition/theory, Instrumental Music Education, Vocal Music Education, Music Business, Music Technology, Jazz Studies and secondary instrument study in the Performance concentration. All students must successfully pass a junior-standing jury for permission to continue elections at the 3xxx level.

The courses listed in the following table under *Major Private Instruction*, MUP 2xxx and 4xxx, are available for three credits each and are intended for students studying major instruments as required in the senior year of the jazz studies concentration and all performance concentrations. All students must successfully pass a junior-standing jury for permission to continue elections at the 4xxx level.

Corequisite: Students enrolled in MUP Private Instruction must concurrently register in an appropriate major ensemble selected from the following: MUA 2800, 2810, 2820, 2822, 2840, or 2850.

Material Fees: MUP courses have material fees as stated in the schedule of classes.

Principal and Secondary Private Instruction Courses

Instrument	Freshman		Sophomore		Secondary	Junior		Senior		Secondary
Organ	1201	1202	1203	1204	1205	3201	3202	3203	3204	3205
Piano	1211	1212	1213	1214	1215	3211	3212	3213	3214	3215
Voice	1221	1222	1223	1224	1225	3221	3222	3223	3224	3225
Strings	1231	1232	1233	1234	1235	3231	3232	3233	3234	3235
Woodwinds	1241	1242	1243	1244	1245	3241	3242	3243	3244	3245
Brasswinds	1251	1252	1253	1254	1255	3251	3252	3253	3254	3255
Percussion	1261	1262	1263	1264	1265	3261	3262	3263	3264	3265
Harp	1271	1272	1273	1274	1275	3271	3272	3273	3274	3275
Classic Guitar	1281	1282	1283	1284	1285	3281	3282	3283	3284	3285
Jazz Piano	1321	1322	1323	1324	1325	3321	3322			3325
Jazz Strings	1331	1332	1333	1334	1335	3331	3332			3335
Jazz Woodwinds	1341	1342	1343	1344	1345	3341	3342			3345
Jazz Brasswinds	1351	1352	1353	1354	1355	3351	3352			3355
Jazz Percussion	1361	1362	1363	1364	1365	3361	3362			3365
Jazz Guitar	1371	1372	1373	1374	1375	3371	3372			3375

Major Private Instruction Courses

Instrument	Freshman		Sophomore		Junior		Senior	
Organ	2201	2202	2203	2204	4201	4202	4203	4204
Piano	2211	2212	2213	2214	4211	4212	4213	4214
Voice	2221	2222	2223	2224	4221	4222	4223	4224
Strings	2231	2232	2233	2234	4231	4232	4233	4234
Woodwinds	2241	2242	2243	2244	4241	4242	4243	4244
Brasswinds	2251	2252	2253	2254	4251	4252	4253	4254
Percussion	2261	2262	2263	2264	4261	4262	4263	4264
Harp	2271	2272	2273	2274	4271	4272	4273	4274
Classic Guitar	2281	2282	2283	2284	4281	4282	4283	4284
Jazz Piano							4323	4324
Jazz Strings							4333	4334
Jazz Woodwinds							4343	4344
Jazz Brasswinds							4353	4354
Jazz Percussion							4363	4364
Jazz Guitar							4373	4374

Minor in Music

The Music Department offers a minor in music for undergraduate students majoring in other disciplines. Requirements for the music minor consist of a minimum of twenty-two credits in the following courses:

MUSIC THEORY AND EAR TRAINING:

MUT 1140 -- Theory I: Cr. 3
MUT 1150 -- Ear Training I: Cr. 1
MUT 1160 -- Theory II: Cr. 3
MUT 1170 -- Ear Training II: Cr. 1
MUT 2140 -- Theory III: Cr. 3
MUT 2150 -- Ear Training III: Cr. 1
(Total Credits; 12)

MUSIC HISTORY: two courses selected from:

MUH 1345 -- (VP) Music Cultures: Cr. 3
MUH 3310 -- Music History & Literature I: Cr. 3
MUH 3320 -- Music History & Literature II: Cr. 3
MUH 3330 -- (WI) Music History & Literature III: Cr. 3
(Total Credits; 6)

PERFORMANCE ENSEMBLE: four semesters selected from: MUA 2800, 2810, 2820, 2822, 2840, or 2850 (total 4 credits)

Minor in Jazz Studies for Instrumental Music Education Majors

The minor in jazz studies is designed for instrumental music education majors who wish to gain experience in jazz. Requirements for the jazz studies minor consist of nineteen credits in the following courses:

MUSIC HISTORY AND THEORY

MUH 3360 -- Jazz History: Cr. 3
MUT 2120 -- Jazz Theory and Harmony: Cr. 3
MUT 2885 -- Jazz Improvisation I: Cr. 1
MUT 2887 -- Jazz Improvisation II: Cr. 1
MUT 5110 -- Jazz Arranging and Composition I: Cr. 3
MUT 5120 -- Jazz Arranging and Composition II: Cr. 3

ENSEMBLE AND PIANO COMPETENCY

MUA 2820 -- Jazz Big Band: Cr. 1 (2 req.)
MUA 2826 -- Jazz Combos: Cr. 1
MUA 3795 -- Advanced Piano Skills: Cr. 2

Minor in Music Technology for Instrumental or Vocal Music Education Majors

The minor in music technology is designed for instrumental or vocal music education majors who wish to gain experience in music technology. Requirements for the music technology minor consist of 20-21 credits in the following courses:

MUSIC TECHNOLOGY:

MED 5590 -- Computer Applications in Music Teaching: Cr. 2
(NOTE: if this course was used to satisfy the general music technology requirement, students must elect MUA 5610 -- Music Technology: Cr. 3)
MUA 5630 -- Recording Techniques I: Cr. 2
MUA 5640 -- Electronic Music Synthesis I: Cr. 3
MUA 5641 -- Electronic Music Ensemble: Cr. 1

MUSIC BUSINESS:

MUA 2400 -- Music Business I: Cr. 3
MUA 5600 -- Music Business II: Cr. 3

RELATED COURSES:

MAT 1800 -- Elementary Functions: Cr. 3
EET 2000 -- Electrical Principles: Cr. 3
(NOTE: MAT 1800 is a prerequisite for EET 2000)

Departmental Financial Aid

See the section on Scholarships and Financial Aid on page 191.

Recipients of the following scholarships are chosen in May by the music faculty and awarded during the following academic year.

Detroit Federation of Musicians/David Kaplan Scholarship: Awarded to an outstanding undergraduate or graduate instrumentalist.

Edward P. Frohlich Endowed Piano Scholarship: Awarded to an outstanding music major with a piano major or principal.

Robert A. Harris Excellence in Choral Music Award: Awarded for excellence in choral performance.

Bernard Katz Endowed Scholarship: Awarded to an outstanding music major in piano or voice.

Rebecca Katzman Froman Piano Scholarship: Awarded to an outstanding piano student.

Lawrence LaGore Endowed Memorial Scholarship: Awarded to an outstanding keyboard major or principal; minimum 3.0 g.p.a. required.

Harry M. Langsford Endowed Scholarship: Awarded to an outstanding choral or vocal student.

Robert F. Lawson Endowed Memorial Scholarship: Awarded to an outstanding music major; minimum 3.0 g.p.a. required.

Alice R. LeFevre Scholarships: Awarded to any music major.

Loughead-Eldridge Endowed Piano Scholarship: Awarded to an outstanding piano principal or major.

Frank Murch Endowed Scholarship: Awarded to a student in the Bachelor of Arts in music or Bachelor of Music program.

Music Study Club of Metropolitan Detroit Endowed Scholarship: Awarded to an outstanding graduate student.

Mark Otis Endowed Scholarship: Awarded to an outstanding graduate student in performance or music education.

Eli David Parks Endowed Scholarship: Awarded to an outstanding undergraduate music major.

President's Endowed Scholarship: Awarded to an outstanding music major.

Presser Foundation Undergraduate Scholar Award: Awarded to an outstanding music major completing the junior year.

Chester E. Puchalski Endowed Scholarship: Awarded to an outstanding undergraduate or graduate instrumentalist.

Joan Katherine Rossi Endowed Memorial Voice Scholarship: Awarded to any full-time music major who is an outstanding vocal performer.

Robert Stawski Endowed Scholarship: Awarded to any full-time music major who is an outstanding vocal performer.

Mel Wanzo Endowed Jazz Trombone Scholarship: Awarded to an outstanding jazz trombonist or brass player.

UNDERGRADUATE COURSES

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

MUSIC EDUCATION COURSES (MED)

2500 Piano Skills for the Music Classroom. Cr. 2

Prereq: MUA 2795. Open only to students in the vocal music education curriculum. Continuation of MUA 2795. Additional practice with functional skills needed in music classroom. Students acquire a repertoire of musical selections commonly used in the educational setting. (W)

3500 Introduction to Music Education. Cr. 2

Basic teaching procedures and lesson plans, learning theories, history and philosophy of music education; opportunities for practice teaching. (F)

3510 Teaching General Music. Cr. 2

Prereq: MED 3500. Open only to music education students. Development of competencies and understanding for teaching general music classes to children K-12. Topics include curriculum, instructional strategies, and age-appropriate activities. (W)

3990 Directed Study. Cr. 1-3 (Max. 6)

Prereq: consent of adviser. Open only to upper division or post bachelor music majors. (F,W)

4510 Vocal Music in Schools I. Cr. 3

Prereq: MED 3500. Methods, materials and techniques for teaching general music in the schools. (F)

4530 Vocal Music in Schools II. Cr. 3

Prereq: MED 4510. Open only to vocal music education majors. Instructional techniques and materials for secondary school choral and general music courses. Observation of area school vocal programs. (W)

4540 Instrumental Music in the Schools I. Cr. 3

Prereq: MUA 1720, MUA 1730, MUA 1740, MUA 1750, MUA 1760, MED 3500. Teaching techniques, materials and organization of instrumental music in elementary schools. (F)

4550 Instrumental Music in the Schools II. Cr. 3

Prereq: MED 4540. Teaching techniques, materials and organization of instrumental music in secondary schools. (W)

4560 Practicum in Music Education. Cr. 2

Prereq: MED 3500. Offered for S and U grades only. Observation and participation in music education programs in area public schools. (F,W)

4570 Student Teaching and Seminar. Cr. 8

Prereq: 2.5 g.p.a. in major; admission to student teaching. Offered for S and U grades only. Directed teaching in school music. (F,W)

5520 Marching Band Techniques. Cr. 2-3

Planning, charting, and rehearsal techniques for marching band; emphasis on contemporary, computer-generated drill designs; practical projects in developing a complete marching band program. (Y)

5550 Choral Conducting and Rehearsal Techniques. Cr. 3

Prereq: MUA 3670 or equiv. No credit for M.Mus. in conducting or music education. Conducting and rehearsal methods and materials for secondary schools. (W)

5560 Secondary School Music Workshop. Cr. 2 (Max. 4)

Group participation in the study of class materials and teaching procedures for secondary music teachers. (S)

5575 Topics in Music Education. Cr. 1

Open only to music majors. Course work requires attendance at the annual Michigan Music Conference, keeping of a reflective journal, and a follow-up project related to music teaching. (W)

5590 Computer Applications in Music Teaching. Cr. 2

Prereq: completion of computer literacy (CL) general education requirement. Open only to music majors. Presentation of techniques and strategies for utilizing computer music software programs and MIDI equipment in music instruction. Material Fee as indicated in the Schedule of Classes (S)

6520 Elementary School Music Workshop. Cr. 2 (Max. 4)

Group participation in the study of class materials and teaching procedures for elementary music teachers. (S)

6530 Conducting and Operating the School Band. Cr. 2-3 (Max. 6)

Classroom and individual instruction in conducting, score study, and rehearsal techniques for the middle school or high school band. (S)

6540 Instrumental Music Workshop. Cr. 2 (Max. 4)

Current problems, procedures and materials pertaining to development of the instrumental music program in the schools. (S)

MUSIC ENSEMBLES AND GENERAL COURSES (MUA)

1700 Guitar Class. Cr. 2 (Max. 8)

Fundamentals in guitar playing; techniques, hand positions, bar chords, general performance practices. Material Fee as indicated in the Schedule of Classes (F,W)

1710 Piano Class. Cr. 2 (Max. 8)

Not open to music majors after MUA 1795. Rudiments of rhythmic and staff notation, beginning keyboard technique, hand positions, scales, simple compositions. Material Fee as indicated in the Schedule of Classes (F,W)

1720 Voice Class for Music Education. Cr. 2

Prereq: MUT 1140 and MUT 1150. Open only to instrumental and vocal music education students. Fundamentals in voice training and pedagogy for music education majors. (F)

1730 String Class. Cr. 2 (Max. 6)

Prereq: MUT 1100 or equiv. Open only to music majors. Techniques and fundamental problems in the playing and teaching of stringed instruments. Material Fee as indicated in the Schedule of Classes (F,W)

1740 Woodwind Class. Cr. 2 (Max. 6)

Prereq: MUT 1100 or equiv. Open only to music majors. Techniques and fundamental problems in the playing and teaching of woodwind instruments. Material Fee as indicated in the Schedule of Classes (F,W)

1750 Brasswind Class. Cr. 2 (Max. 6)

Prereq: MUT 1100 or equiv. Open only to music majors. Techniques and fundamental problems in the playing and teaching of brasswind instruments. Material Fee as indicated in the Schedule of Classes (F)

1760 Percussion Class. Cr. 2

Prereq: MUT 1100 or equiv. Open only to music majors. Techniques and fundamental problems in the playing and teaching of percussion instruments. Material Fee as indicated in the Schedule of Classes (F)

1795 Piano Skills I. Cr. 2

Open only to students in B.A. in Music or B.Mus. programs. Prereq: MUT 1140 and MUT 1150; MUA 1710 or placement by audition. Repertoire, scales, sight reading, harmonization, and simple transpositions. Material Fee as indicated in the Schedule of Classes (T)

2320 (THR 2320) Musical Theatre Performance I. Cr. 3

Studio course; examining the styles of musical theatre performance; applying acting techniques to interpret styles throughout the eras of musical theatre. Material fee as stated in Schedule of Classes. (F)

2330 (THR 2330) Musical Theatre Performance II. Cr. 3

Studio course; continuation of MUA 2320. Material fee as stated in Schedule of Classes. (F)

2400 Music Business I. Cr. 3

Open only to music business majors; others by consent of instructor. Prereq: MUT 1160 and MUT 1170. Overview of the Music Business with emphasis on career options/career development, necessary training/experience, music in the marketplace, Arts Entrepreneurship, mass media, technology, digital/global implications and future trends, arts administration, industry networking, social media, internship development, and professional organization, association and industry affiliations. (W)

2690 General Lectures and Concerts. Cr. 0

Lectures by visiting scholars; recitals by invited guest artists; student and faculty recitals, concerts and convocations. (F,W)

2795 Piano Skills II. Cr. 2

Open only to students in B.A. (Music) or B.Mus. programs. Prereq: MUA 1795 or placement by audition. Continuation of MUA 1795; development of basic piano skills to a higher level. Material Fee as indicated in the Schedule of Classes (W,S)

2800 University Bands. Cr. 1

Prereq: consent of director. Material Fee as indicated in the Schedule of Classes. (F,W)

2802 Chamber Winds. (MUA 7802) Cr. 1

Prereq: consent of director. Material Fee as indicated in the Schedule of Classes. (F,W)

2804 Warrior Band. Cr. 0

Offered for S and U grades only. Warrior band performs for all home football games during fall term and basketball games during late fall and winter terms. Performances for University special events may be scheduled. Material Fee as indicated in the Schedule of Classes. (F,W)

2806 Campus Band. Cr. 0

Offered for S and U grades only. Co-curricular concert band open to all University students. Campus Band performs one formal concert during winter term. Performances for University special events may be scheduled. Material Fee as indicated in the Schedule of Classes. (W)

2810 University Symphony Orchestra. Cr. 1

Prereq: consent of director. Material Fee as indicated in the Schedule of Classes (F,W)

2820 Jazz Big Band. Cr. 1

Prereq: consent of director. Material Fee as indicated in the Schedule of Classes (F,W)

2822 Jazz Guitar Ensemble. Cr. 1

Open only to music majors. Prereq: consent of director. Large ensemble for jazz guitar majors/principals. Material Fee as indicated in the Schedule of Classes (T)

2824 Jazztet. Cr. 1

Open only to music majors. Prereq: consent of director. Select ensemble for jazz majors. Material Fee as indicated in the Schedule of Classes (T)

2826 Jazz Combos. Cr. 1

Open only to music majors. Prereq: consent of director. Small ensemble for jazz majors. Material Fee as indicated in the Schedule of Classes (T)

2830 Men's Chorus. Cr. 1

Prereq: consent of director. Material Fee as indicated in the Schedule of Classes (F,W)

2840 Choral Union. Cr. 1

Prereq: consent of director. Material Fee as indicated in the Schedule of Classes (F,W)

2850 Concert Chorale. Cr. 1

Prereq: consent of director. Material Fee as indicated in the Schedule of Classes (F,W)

2860 Opera Workshop. (THR 2860) Cr. 1 (Max. 8)

Prereq: consent of director. Material Fee as indicated in the Schedule of Classes (F,W)

2870 Women's Chorale. Cr. 1

Prereq: consent of director. Material Fee as indicated in the Schedule of Classes (F,W)

2880 Chamber Music and Special Ensembles. Cr. 1

Open only to music majors. All forms including: flute ensemble, percussion ensemble, string trios and quartets, small wind or brass ensembles, and mixed ensembles. Material Fee as indicated in the Schedule of Classes (F,W)

3670 Conducting Techniques I. Cr. 2

Prereq: MUT 2160, MUT 2170 or equiv. Rudiments of conducting; special attention to baton techniques. (F)

3680 Conducting Techniques II. Cr. 2

Prereq: MUA 3670. Continuation of MUA 3670. Score reading and rehearsal techniques. (W)

3795 Advanced Piano Skills. Cr. 2

Open only to B.Mus. students in jazz studies concentration. Prereq: MUA 2795 or placement by audition. Continuation of MUA 2795; emphasis on jazz skills and styles. Material Fee as indicated in the Schedule of Classes (F)

4650 Directed Study: Internships. Cr. 1-3 (Max. 6)

Open only to music business and music technology students. Directly supervised professional experience in the music and creative arts industries and related fields (marketing, music technology, recording, publicity, public relations). (T)

4990 (MUH 4990) B.A. Project. (MUT 4990) Cr. 2

Prereq: senior standing. Open only to B.A. music majors. Directed study leading to completion of the B.A. project in music. (F,W)

5600 Music Business II. Cr. 3

Open only to music majors; others by consent of instructor. Prereq: MUA 2400 or consent of instructor. Continuation of MUA 2400. Basic aspects of the music business. Topic coverage will include legal issues, copyright and fair use, songwriting, publishing, licensing, artist management, the recording industry, recording contracts, unions and guilds, use of agents, attorneys, and managers, and an introduction to various forms of business entities and related tax issues in the music business. (F)

5610 Music Technology. Cr. 3

Open only to music majors. Prereq: MUT 1140 and MUT 1150; completion of computer literacy (CL) general education requirement. Intermediate and advanced uses of computer technology in the field of music: software for synthesis, sampling, music notation MIDI, and digital recording. Students gain experience through assignments involving computer-based musical instruments. Material Fee as indicated in the Schedule of Classes (T)

5630 Recording Techniques I. Cr. 2

Prereq: MUA 5610. Open only to music majors. Recording equipment and techniques, including microphones, mixers, monitors, power supply, signal processing, multi-track tape recorders, overdubbing, session procedures, and mixing down. Students are required to complete a final recording project. Material Fee as indicated in the Schedule of Classes (F)

5640 Electronic Music Synthesis I. Cr. 3

Prereq: MUA 5610. Introduction to analog synthesizer programming, equipment and techniques. Students required to design sounds for use in a final project. Material Fee as indicated in the Schedule of Classes (F)

5641 Electronic Music Ensemble. Cr. 1

Prereq: MUA 5610 or MUA 5640. Performance ensemble utilizing electronic instruments and techniques. Material Fee as indicated in the Schedule of Classes (F,W)

5650 Electronic Music Synthesis II. Cr. 3

Prereq: MUA 5640. Digital synthesis methods including software-based, FM, and other synthesis types. Assignments leading to a final project. Material Fee as indicated in the Schedule of Classes (W)

5660 Recording Techniques II. Cr. 2

Prereq: MUA 5630. Open only to music majors. Continued recording techniques with production concepts and values. Assignments include in-studio and on-site recordings. Material Fee as indicated in the Schedule of Classes (W)

5661 Recording Techniques III. Cr. 2

Prereq: MUA 5660. Open only to music majors. Advanced studio production techniques and master editing for product release; post production and packaging of material. Material Fee as indicated in the Schedule of Classes (F)

5690 Stage Band Direction. Cr. 1 (Max. 3)

Prereq: MUA 3670. Open only to undergraduate students. Techniques of big-band direction in a jazz medium. (F,W)

5700 Music Business III. Cr. 3

Prereq: MUA 5600. Third class in the four-course music business course sequence. Intense individual research and study of specific areas of music business and the music industry - local, national and global levels; artist management, non-profit organizations, arts advocacy/citizenship, and arts entrepreneurship are primary subjects; additional areas of research/investigation may include live concert production/touring, film music, music video, radio/television, marketing/communications, music business/industry associations, social media and technological/digital implications. Comprehensive individual and collaborative team research projects, music business projects, and internship/career networking development. (W)

5730 Harpsichord Class. Cr. 2 (Max. 8)

Open only to music majors. (F,W)

5790 Piano Accompanying. Cr. 2

Prereq: graduate standing in music or consent of instructor. Techniques of accompanying at the piano; analysis of styles, performance practices, and historical comparisons. Graduate students assigned special project and research paper. (I)

5800 Music Business IV. Cr. 3

Prereq: MUA 5700. Final class in the four-course music business course sequence. Intense individual research and study of specific areas of music business, arts entrepreneurial initiatives and the global music industry; areas of research/investigation may include film music, social media, music video, concert production/touring, radio/television, marketing/communications, music business/industry associations, and technological/digital implications. Comprehensive individual and/or team research projects, music business projects, and related career networking project required. Material Fee as indicated in the Schedule of Classes (F)

MUSIC HISTORY COURSES (MUH)

1340 (VP) Music Appreciation: World Music. Cr. 3

Open only to non-music majors. Introduction to the musical styles of Africa, Asia, South America, and the Middle East. (T)

1345 (VP) Music Cultures. Cr. 3

Open only to B.A. music majors and B.Mus. majors; not open to students who have completed MUH 1340. Indigenous musics and cultures of Asia, Africa and the Americas; emphasis on features of the musics that have influenced Western art musics. (W)

1350 (VP) History of American Popular Music. Cr. 3

History of American popular music from the early nineteenth century to the present. Political, economic, social, and cultural influences on music. (W)

1351 (VP) History and Styles of Rock and Roll. Cr. 3

Exploration of American "mainstream" and "subcultural" popular music; focus on art, technology, business, cultural contexts. (Y)

1370 (VP) Music Appreciation: Beginnings to the Present. Cr. 3

Survey of Western music from its beginnings to the present. Developing musical understanding and critical listening skills by focusing on major composers and styles, and by concentrating on social, political and cultural influences. (T)

3310 Music History and Literature I. Cr. 3

Prereq: MUT 1160 or equiv.; MUH 1345. Open only to music majors in B.A. or B.Mus. program. Survey of the most important developments in western music history from antiquity to 1700. Concentration on major composers and styles, as well as on significant historical, philosophical, artistic and cultural influences. (F)

3320 Music History and Literature II. Cr. 3

Prereq: MUH 3310 or equiv. Survey of important developments in western music history from 1700 to 1900. Concentration on major composers and styles, as well as on significant historical, philosophical, artistic and cultural influences. (W)

3330 (WI) Music History and Literature III. Cr. 3

Prereq: MUH 3320 or equiv. Survey of important developments in western music history from 1900 to the present time. Concentration on major composers and styles, as well as on significant historical, philosophical, artistic and cultural influences. (F)

3360 Jazz History. (MUH 5360) Cr. 3

Open only to undergraduate students. Survey of major developments in jazz from its beginnings to the present. (F)

4990 B.A. Project. (MUT 4990) (MUA 4990) Cr. 2

Prereq: senior standing. Open only to B.A. music majors. Directed study leading to completion of the B.A. project in music. (F,W)

5315 Special Topics in Music History. (MUH 7315) Cr. 3 (Max. 6)

Open only to undergraduates. Prereq: consent of instructor. In-depth study of such topics as the historical development of opera and oratorio, symphonic or chamber music styles, or specialized study of individual composers. Course may be repeated when topics change. (I)

5340 Survey of World Music. Cr. 3

Prereq: upper division or graduate standing. No credit for graduate degrees in music. Musical expressions of five or six non-European cultures en route to a better understanding of the peoples themselves. Attention given to biases, culturally-determined learning patterns, and aesthetics. (F,W)

5350 Performance Literature and Pedagogy. Cr. 3

Prereq: performance major in music. No credit for graduate degrees in music. Survey of solo and chamber repertoire from the Renaissance to the present, for students' major performance areas. (Y)

5370 Diction and Song Literature I. Cr. 3

Open to music and theatre majors only. No credit for M.Mus. degree in vocal performance. Singers' diction in Italian, Latin, French and Spanish; methodologies, solo and chamber repertoire in these languages. (B)

5380 Diction and Song Literature II. Cr. 3

Open to music and theatre majors only. Prereq: MUH 5370. No credit for M.Mus. degree in vocal performance. Singers' diction in German, Hebrew, Russian and English; methodologies, solo and chamber repertoire in these languages. (B)

5993 (WI) Writing Intensive Course in Music. Cr. 0

Prereq: MUT 2160; junior standing, satisfactory completion of the IC requirement, consent of instructor. Offered for S and U grades only. No degree credit. Open only to undergraduate transfer students; required for majors. Disciplinary writing assignments under the direction of a faculty member. Satisfies the University General Education Writing Intensive Course in the Major requirement. (F.W)

MUSIC PRIVATE INSTRUCTION COURSES (MUP)

Private instruction in instruments and voice are required in all B.A. and B.Mus. concentrations. The courses listed below and titled: Secondary Instruction, MUP 1xx5 and 3xx5, are available for 1 credit each and are intended for students studying secondary instruments as required in the concentrations: Theory/ Composition, Instrumental Music Education, Vocal Music Education, and Performance.The courses listed below and titled: Principal Instruction, MUP 1xx1-1xx4 and 3xx1-3xx4, are available for 1 credit each and are intended for students studying principal instruments as required in the concentrations: B.A. in music, Theory/ Composition, Instrumental Music Education, Vocal Music Education, Music Business, Music Technology, and Jazz Studies. All students must successfully pass a junior-standing jury for permission to continue principal elections at the 3xxx level.

The courses listed below and titled: Major Private Instruction, MUP 2xxx and 4xxx, are available for 3 credits each and are intended for students studying major instruments as required in the senior year of the jazz studies concentration and all performance concentrations. All students must successfully pass a junior-standing jury for permission to continue elections at the 4xxx level.

Corequisite: Students enrolled in MUP Private Instruction must concurrently register in an appropriate major ensemble selected from the following: MUA 2800, MUA 2810, MUA 2820, MUA 2822, MUA 2840, or MUA 2850.

Material Fees: MUP courses have material fees as stated in the schedule of classes.

1201 Organ: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1202 Organ: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1201; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1203 Organ: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1202; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1204 Organ: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1203; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1205 Organ: Secondary Instruction. Cr. 1 (Max. 4)

Prereq: written consent of music department ; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1211 Piano: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1212 Piano: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1211; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1213 Piano: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1212; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1214 Piano: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1213; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1215 Piano: Secondary Instruction. Cr. 1 (Max. 4)

Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1221 Voice: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1222 Voice: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1221; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1223 Voice: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1222; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1224 Voice: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1223; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1225 Voice: Secondary Instruction. Cr. 1 (Max. 4)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1231 Strings: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1232 Strings: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1231; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1233 Strings: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1232; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1234 Strings: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1233; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1235 Strings: Secondary Instruction. Cr. 1 (Max. 4)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1241 Woodwinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1242 Woodwinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1241; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1243 Woodwinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1242; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1244 Woodwinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1243; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1245 Woodwinds: Secondary Instruction. Cr. 1 (Max. 4)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1251 Brasswinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1252 Brasswinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1251; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1253 Brasswinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1252; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1254 Brasswinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1253; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1255 Brasswinds: Secondary Instruction. Cr. 1 (Max. 4)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1261 Percussion: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1262 Percussion: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1261; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1263 Percussion: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1262; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1264 Percussion: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1263; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1265 Percussion: Secondary Instruction. Cr. 1 (Max. 4)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1271 Harp: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1272 Harp: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1271; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1273 Harp: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1272; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1274 Harp: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1273; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1275 Harp: Secondary Instruction. Cr. 1 (Max. 4)

Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1281 Classic Guitar: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1282 Classic Guitar: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1281; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1283 Classic Guitar: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1282; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1284 Classic Guitar: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1283; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1285 Classic Guitar: Secondary Instruction. Cr. 1 (Max. 4)

Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1321 Jazz Piano: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1322 Jazz Piano: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1321; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1323 Jazz Piano: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1322; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1324 Jazz Piano: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1323; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1325 Jazz Piano: Secondary Instruction. Cr. 1 (Max. 4)

Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1331 Jazz Strings: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1332 Jazz Strings: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1331; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1333 Jazz Strings: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1332; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1334 Jazz Strings: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1333; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1335 Jazz Strings: Secondary Instruction. Cr. 1 (Max. 4)

Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1341 Jazz Woodwinds: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1342 Jazz Woodwinds: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1341; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1343 Jazz Woodwinds: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1342; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1344 Jazz Woodwinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1343; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1345 Jazz Woodwinds: Secondary Instruction. Cr. 1 (Max. 4)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1351 Jazz Brasswinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1352 Jazz Brasswinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1351; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1353 Jazz Brasswinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1352; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1354 Jazz Brasswinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1353; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1355 Jazz Brasswinds: Secondary Instruction. Cr. 1 (Max. 4)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1361 Jazz Percussion: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1362 Jazz Percussion: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1361; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1363 Jazz Percussion: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1362; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1364 Jazz Percussion: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1363; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1365 Jazz Percussion: Secondary Instruction. Cr. 1 (Max. 4)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1371 Jazz Guitar: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1372 Jazz Guitar: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1371; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1373 Jazz Guitar: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1372; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1374 Jazz Guitar: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1373; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

1375 Jazz Guitar: Secondary Instruction. Cr. 1 (Max. 4)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2201 Organ: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2202 Organ: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2201; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2203 Organ: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2202; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2204 Organ: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2203; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2211 Piano: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2212 Piano: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2211; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2213 Piano: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2212; coreq: MUA 28XX performance ensemble as required by curriculum. Open

only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2214 Piano: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2213; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2221 Voice: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2222 Voice: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2221; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2223 Voice: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2222; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2224 Voice: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2223; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2231 Strings: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2232 Strings: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2231; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2233 Strings: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2232; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2234 Strings: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2233; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2241 Woodwinds: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2242 Woodwinds: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2241; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2243 Woodwinds: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2242; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2244 Woodwinds: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2243; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2251 Brasswinds: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2252 Brasswinds: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2251; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2253 Brasswinds: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2252; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2254 Brasswinds: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2253; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2261 Percussion: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2262 Percussion: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2261; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2263 Percussion: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2262; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2264 Percussion: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2263; coreq: MUA 28XX performance ensemble as required by curriculum. Open

only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2271 Harp: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2272 Harp: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUP 2271; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2273 Harp: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUP 2272; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2274 Harp: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUP 2273; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2281 Classic Guitar: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2282 Classic Guitar: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUP 2281; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2283 Classic Guitar: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUP 2282; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

2284 Classic Guitar: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUP 2283; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3201 Organ: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1204; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3202 Organ: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3201; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3203 Organ: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3202; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3204 Organ: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3203; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3205 Organ: Secondary Instruction. Cr. 1 (Max. 4)

Prereq: written consent of music department; coreq: MUA 28XX pernamce ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee As Indicated In The Schedule of Classes (F,W)

3211 Piano: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1214; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3212 Piano: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3211; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3213 Piano: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3212; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3214 Piano: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3213; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3215 Piano: Secondary Instruction. Cr. 1 (Max. 4)

Prereq: written consent of music department; coreq: MUA 28XX pernamce ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee As Indicated In The Schedule of Classes (F,W)

3221 Voice: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1224; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3222 Voice: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3221; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3223 Voice: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3222; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 cred-

its or more. Material Fee as indicated in the Schedule of Classes (F,W)

3224 Voice: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 3223; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3225 Voice: Secondary Instruction. Cr. 1 (Max. 4)
Prereq: written consent of music department; coreq: MUA 28XX perfornamce ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee As Indicated In The Schedule of Classes (F,W)

3231 Strings: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1234; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3232 Strings: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 3231; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3233 Strings: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 3232; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3234 Strings: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 3233; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3235 Strings: Secondary Instruction. Cr. 1 (Max. 4)
Prereq: written consent of music department; coreq: MUA 28XX perfornamce ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee As Indicated In The Schedule of Classes (F,W)

3241 Woodwinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1244; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3242 Woodwinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 3241; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3243 Woodwinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 3242; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3244 Woodwinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 3243; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3245 Woodwinds: Secondary Instruction. Cr. 1 (Max. 4)
Prereq: written consent of music department; coreq: MUA 28XX perfornamce ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee As Indicated In The Schedule of Classes (F,W)

3251 Brasswinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1254; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3252 Brasswinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 3251; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3253 Brasswinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 3252; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3254 Brasswinds: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 3253; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3255 Brasswinds: Secondary Instruction. Cr. 1 (Max. 4)
Prereq: written consent of music department; coreq: MUA 28XX perfornamce ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee As Indicated In The Schedule of Classes (F,W)

3261 Percussion: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1264; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3262 Percussion: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 3261; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3263 Percussion: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 3262; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3264 Percussion: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 3263; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 cred-

its or more. Material Fee as indicated in the Schedule of Classes (F,W)

3265 Percussion: Secondary Instruction. Cr. 1 (Max. 4)

Prereq: written consent of music department; coreq: MUA 28XX perfornamce ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee As Indicated In The Schedule of Classes (F,W)

3271 Harp: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1274; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3272 Harp: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3271; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3273 Harp: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3272; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3274 Harp: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3273; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3275 Harp: Secondary Instruction. Cr. 1 (Max. 4)

Prereq: written consent of music department; coreq: MUA 28XX perfornamce ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee As Indicated In The Schedule of Classes (F,W)

3281 Classic Guitar: PrincipalInstruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1284; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3282 Classic Guitar: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3281; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3283 Classic Guitar: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3282; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3284 Classic Guitar: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3283; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3285 Classic Guitar: Secondary Instruction. Cr. 1 (Max. 4)

Prereq: written consent of music department; coreq: MUA 28XX perfornamce ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee As Indicated In The Schedule of Classes (F,W)

3321 Jazz Piano: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1324; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3322 Jazz Piano: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3321; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3325 Jazz Piano: Secondary Instruction. Cr. 1 (Max. 4)

Prereq: written consent of music department; coreq: MUA 28XX perfornamce ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee As Indicated In The Schedule of Classes (F,W)

3331 Jazz Strings: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1334; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3332 Jazz Strings: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3331; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3335 Jazz Strings: Secondary Instruction. Cr. 1 (Max. 4)

Prereq: written consent of music department; coreq: MUA 28XX perfornamce ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee As Indicated In The Schedule of Classes (F,W)

3341 Jazz Woodwinds: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1344; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3342 Jazz Woodwinds: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3341; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3345 Jazz Woodwinds: Secondary Instruction. Cr. 1 (Max. 4)

Prereq: written consent of music department; coreq: MUA 28XX perfornamce ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee As Indicated In The Schedule of Classes (F,W)

3351 Jazz Brasswinds: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 1354; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3352 Jazz Brasswinds: Principal Instruction. Cr. 1 (Max. 2)

Prereq: written consent of music department and MUP 3351; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3355 Jazz Brasswinds: Secondary Instruction. Cr. 1 (Max. 4)
Prereq: written consent of music department; coreq: MUA 28XX perfornamce ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee As Indicated In The Schedule of Classes (F,W)

3361 Jazz Percussion: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1364; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3362 Jazz Percussion: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 3361; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3365 Jazz Percussion: Secondary Instruction. Cr. 1 (Max. 4)
Prereq: written consent of music department; coreq: MUA 28XX perfornamce ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee As Indicated In The Schedule of Classes (F,W)

3371 Jazz Guitar: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 1374; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3372 Jazz Guitar: Principal Instruction. Cr. 1 (Max. 2)
Prereq: written consent of music department and MUP 3371; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

3375 Jazz Guitar: Secondary Instruction. Cr. 1 (Max. 4)
Prereq: written consent of music department; coreq: MUA 28XX perfornamce ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee As Indicated In The Schedule of Classes (F,W)

4201 Organ: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2204; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4202 Organ: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4201; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4203 Organ: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4202; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4204 Organ: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4203; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4211 Piano: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2214; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4212 Piano: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4211; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4213 Piano: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4212; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4214 Piano: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4213; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4221 Voice: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2224; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4222 Voice: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4221; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4223 Voice: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4222; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4224 Voice: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4223; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4231 Strings: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2234; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4232 Strings: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4231; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4233 Strings: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4232; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4234 Strings: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4233; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4241 Woodwinds: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2244; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4242 Woodwinds: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4241; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4243 Woodwinds: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4242; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4244 Woodwinds: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4243; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4251 Brasswinds: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2254; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4252 Brasswinds: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4251; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4253 Brasswinds: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4252; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4254 Brasswinds: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4253; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4261 Percussion: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2264; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4262 Percussion: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4261; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4263 Percussion: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4262; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4264 Percussion: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4263; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4271 Harp: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2274; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4272 Harp: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4271; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4273 Harp: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4272; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4274 Harp: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4273; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4281 Classic Guitar: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 2284; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4282 Classic Guitar: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4281; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4283 Classic Guitar: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4282; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4284 Classic Guitar: Major Instruction. Cr. 3 (Max. 6)
Prereq: written consent of music department and MUP 4283; coreq: MUA 28XX performance ensemble as required by curriculum. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes
(F,W)

4323 Jazz Piano: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUP 3322; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4324 Jazz Piano: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUP 4323; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4333 Jazz Strings: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUP 3332; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4334 Jazz Strings: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUP 4333; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4343 Jazz Woodwinds: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUP 3342; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4344 Jazz Woodwinds: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUP 4343; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4353 Jazz Brasswinds: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUP 3352; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4354 Jazz Brasswinds: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUA 4353; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4363 Jazz Percussion: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUP 3362; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4364 Jazz Percussion: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUP 4363; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4373 Jazz Guitar: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUP 3372; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4374 Jazz Guitar: Major Instruction. Cr. 3 (Max. 6)

Prereq: written consent of music department and MUP 4373; coreq: MUA 2820 or MUA 2822. Open only to music majors in a B.A. or B.Mus. curriculum who elect 8 credits or more. Material Fee as indicated in the Schedule of Classes (F,W)

4470 Junior Recital. Cr. 0

Open only to students in B.Mus. program. Offered for S and U grades only. Prerq: junior standing in Performance concentration; coreq: enrollment in MUP 4000-level (3 credit) instruction course. Required recital for junior-year performance majors; minimum of 30 minutes of music. Registration must be completed before recital is scheduled; pre-recital approval jury is required. (F,W)

4480 Senior Recital. Cr. 0

Open only to students in B.Mus. program. Offered for S and U grades only. Prerq: senior standing in Performance or Jazz Studies concentration; coreq: enrollment in MUP 4000-level (3 credit) instruction course. Required recital for senior-year performance or jazz studies majors; minimum of 60 minutes of music. Registration must be completed before recital is scheduled; pre-recital approval jury is required. (F,W)

MUSIC THEORY COURSES (MUT)

1100 Elementary Music Theory. Cr. 3

No degree credit for music majors. Terminology and standard notation, including intervals, triads, scales, rhythm, correlated ear training, and general musicianship. (T)

1140 Theory I. Cr. 3

Prereq: MUT 1100 or satisfactory equiv. by examination. Open only to music majors. Prior knowledge of scales, clefs, and key signatures. Triads, intervals, principles of four-part writing, voice leading and melody harmonization, including all diatonic triads, dominant and super tonic seventh chords, inversions, and nonharmonic tones. (F,W)

1150 Ear Training I. Cr. 1

Open only to music majors. An introduction to sight singing, solfeggio, and the basic materials of tonal music including intervals, chords, simple melodies, and basic harmonic progressions. (F,W)

1160 Theory II. Cr. 3

Prereq: MUT 1140. All seventh chord types, altered chords (tonicizing chords, modal mixing), and modulation. Binary design and correlated analysis. (W,S)

1170 Ear Training II. Cr. 1

Prereq: MUT 1150. A continuation of MUT 1150. Sight-singing and dictation of more advanced diatonic materials. (W,S)

2030 Keyboard Harmony I. Cr. 1

Prereq: MUA 2795 and MUT 1160. This course comprises the first of a two-course sequence in keyboard harmony, including basic training in score reading, such as practice in various clefs and transpositions found in current instrumental writing. (B)

2040 Keyboard Harmony II. Cr. 1

Prereq: MUT 2030. Continuation of MUT 2030: advanced harmonic progressions applied to keyboard; figured bass; harmonization of soprano or bass; modulation transposition and score reading. (B)

2100 Counterpoint. Cr. 2

Prereq: MUT 2140. Overall introduction to counterpoint with some emphasis on the style of J. S. Bach. (F)

2120 Jazz Theory and Harmony. Cr. 3

Prereq: MUT 1160. Harmonic, rhythmic and melodic concepts used in jazz including basic chord nomenclature, non-tertian sonorities and advanced improvisation. (W)

2140 Theory III. Cr. 3

Prereq: MUT 1160. Eighteenth and nineteenth century trends, including chromatic harmony, voice leading, structure and tonal organization; analysis of same. (F)

2150 Ear Training III. Cr. 1

Prereq: MUT 1170. Sight singing and dictation of chromatic materials; more advanced work with rhythm and meter. (F)

2160 Theory IV. Cr. 3

Prereq: MUT 2140. Twentieth- and twenty-first-century music; impressionistic techniques. Mainstream compositional devices of melody, harmony and rhythm; serial music, electronic music, aleatoric music, contemporary notation. (W)

2170 Ear Training IV. Cr. 1

Prereq: MUT 2150. Sight singing and dictation of more advanced chromatic material; introduction to ear training with post-tonal music. (W)

2885 Jazz Improvisation I. Cr. 1 (Max. 2)

Open only to music majors. Prereq: MUT 1160 and MUT 1170. Techniques of individual jazz improvisation. (F)

2887 Jazz Improvisation II. Cr. 1 (Max. 2)

Open only to music majors. Prereq: MUT 2885 or consent of instructor. Continuation of MUT 2885; emphasis on individual jazz improvisation skills. (W)

3000 Orchestration. Cr. 2

Prereq: MUT 2160 and MUT 2170. Practical course in arranging music for orchestra, including study of transposition, arrangements from a piano score; general treatment of range, relationship, timbre, balance of orchestral instruments. (F)

3100 Composition I. Cr. 2

Prereq: MUT 2160 and MUT 2170. Introduction to creative writing. Creative properties of melodic line in relation to rhythm, tonality, cadence and form. Modern aesthetic considerations. Writing for unaccompanied instruments. (F)

3110 Composition II. Cr. 2

Prereq: MUT 3100. Continuation of MUT 3100. Emphasis on twentieth- and twenty-first century techniques of rhythm, cadence, tonal polarity, concepts of consonance and dissonance within framework of larger textures. (W)

4100 Composition III. Cr. 2 (Max. 4)

Prereq: MUT 3110 and 5997. Creative writing in twentieth- and twenty-first century idioms. Aesthetic, stylistic and formal problems in composition employing contemporary techniques. (F)

4110 Composition IV. Cr. 2 (Max. 4)

Prereq: MUT 4100. Continuation of MUT 4100. (W)

4990 (MUH 4990) B.A. Project. (MUA 4990) Cr. 2

Prereq: senior standing. Open only to B.A. music majors. Directed study leading to completion of the B.A. project in music. (F,W)

5060 Advanced Orchestration. Cr. 3

Prereq: MUT 3000. No credit for the M.Mus. in compostition/theory degree. Arranging and scoring for orchestra in all forms of ensemble structure. (I)

5085 History of Theory. (MUT 7085) Cr. 3

Prereq: junior standing for MUT 5085; graduate standing in music for MUT 7085. Theoretical writings from Plato to Rameau to Schenker, in historical contexts. (I)

5110 Jazz Arranging and Composition I. Cr. 3

Prereq: MUT 2160 and 2170. No credit for M.Mus. in jazz performance degree. Creative writing for small jazz and pop ensembles. Arranging for three to five pieces including "head" arrangements, block chord technique and contrapuntal writing. (F)

5120 Jazz Arranging and Composition II. Cr. 3

Prereq: MUT 5110. No credit for M.Mus. in jazz performance degree. Creative writing for larger jazz and pop ensembles; jazz arranging for six to eighteen pieces combining various textures and timbres. (W)

5130 Jazz Arranging and Orchestration. Cr. 3

Prereq: MUT 5120. No credit for M.Mus. in jazz performance degree. Arranging pieces with concentration on orchestrating for large jazz ensembles. (F)

5200 Special Topics in Theory. (MUT 7200) Cr. 3 (Max. 6)

Prereq: MUT 5997 and junior standing in music; or consent of instructor. In-depth study of such topics as set or serial theories, aesthetics and philosophies of musics, and recent theoretical developments. Student may repeat course when topic changes. (I)

5220 Introduction to Schenkerian Analysis. (MUT 7020) Cr. 3

Prereq: MUT 5997 or equiv. Aesthetic premises and basic analytic procedures of tonal music, viewed from a Schenkerian perspective. Applications of graphic technique to short phrases and to larger forms (e.g., sonata) from a wide repertory (1700-1900). (B)

5240 Analysis of Twentieth-Century Music. (MUT 7040) Cr. 3

Prereq: MUT 5997 or equiv. Aesthetic and technical procedures of twentieth-century music. Applications of pitch-class set and interval analysis to short phrases and to large-scale organizational strategies of entire pieces. (B)

5997 Analytical Techniques. Cr. 3

Prereq: MUT 2160, MUT 2170; MUH 3330. Credit not applicable to graduate degrees in music. Capstone course for Music Department. Structural analysis of tonal music in historical perspective. (W)

Theatre

Office: 3225 Old Main; 313-577-3508

Interim Chairperson and Director, University Theatres: James Thomas

Website: http://www.theatre.wayne.edu/

Professors

N. Joseph Calarco, Lazar Kaushansky (Emeritus), David J. Magidson, Nira Pullin, Anthony B. Schmitt (Emeritus), Thomas H. Schraeder, Russell E. Smith (Emeritus), James Thomas

Associate Professors

Blair Anderson, Fred Florkowski, Lavinia Hart, John Woodland

Assistant Professors

Mary Elizabeth Anderson, Michael Barnes, Pegi Marshall-Amundsen, Jesse Merz, Anthony Rhine

Senior Lecturer

Dana Gamarra, Aku Kadogo,

Lecturers

Mary Cooney, Mary Copenhagen

Theatre Support Staff

Michael Donohue, Ken Faulkner, Patrick Field, Matthew Gribbin, Marry Leyendecker

Degree Programs

BACHELOR OF ARTS with a major in theatre

BACHELOR OF FINE ARTS with a major in theatre

MASTER OF ARTS with a major in theatre

MASTER OF FINE ARTS with a major in theatre and concentrations in acting, scenery design, costume design, lighting design, theatre management, and stage management

DOCTOR OF PHILOSOPHY with a major in theatre

The various programs of the Department of Theatre offer creative opportunities for theatrical learning and preprofessional training at every academic level. Undergraduate majors may prepare for careers in teaching, acting, design/technology and related fields. The Department sponsors a large number of production activities and practicum experiences including the Bonstelle Theatre, Studio Theatre, Director's Series, and Student Stage. Participation in these activities is available to all University students.

Bachelor of Arts with a Major in Theatre

The Bachelor of Arts with a Major in Theatre is designed to introduce students to the multiple facets of theatre scholarship and theatre practice. The Theatre major is designed to provide a flexible and extensive education in dramatic literature, theatre history, performance practice and theatrical design dynamics for students interested in careers in theatre and related entertainment arts, education, communication and television, and other professions.

Admission requirements for the program are satisfied by the general requirements for undergraduate admission to the University; see page 24.

Matriculation: All students in baccalaureate theatre degree programs begin as B.A. students and subsequently may change to the B.F.A. program depending on interest and ability. Classes for theatre students begin immediately in the freshman year. The B.A. core courses and electives are listed below. Students should consult the Department's curriculum guide (available at the Theatre Office, 3225 Old Main) for a suggested *Plan of Work* and consult with Departmental undergraduate advisers before the program is begun. Students potentially interested in pursuing a B.F.A. degree should address particular attention to prerequisites needed during the freshman and sophomore years. Again, consult with departmental advisers before beginning the program.

DEGREE REQUIREMENTS: Candidates must complete a minimum of 120 credits in course work, including satisfaction of the University General Education Requirements (see page 18), College degree requirements (see page 189), and forty-five credits in theatre courses including the core major requirements listed below. The minimum grade for each course required in the major, which must be taken in the Department of Theatre, must be no less than a 'C' (C minus is not acceptable) in order for the course credit to count toward completion of the degree. Students pursuing a Bachelor of Arts degree must also fulfill the foreign language requirement (see page 189). All course work must be completed in accordance with the academic regulations of the University and the College governing undergraduate scholarship and degrees; see sections beginning on pages 18, 36, and 189. Departmental information published in this Bulletin is intended for use in conjunction with advising, but in all cases, regardless of advice given, students are responsible for meeting and satisfying requirements as set forth in this Bulletin.

Major Requirements: Students pursuing the Bachelor of Arts degree must complete a minimum of forty-five credits, distributed as below. Many of these courses are reiterated in the B.F.A. curriculum and cited as B.A. requirements and B.F.A. prerequisites enabling students to see the overlap between the two programs.

GENERAL STUDIES/HISTORY (Twelve Credits):
- THR 1010 -- (VP) Introduction to the Theatre: Cr. 3
- THR 1020 -- Play Analysis: Cr. 3
- THR 5100 -- Theatre History I: Cr. 3

Plus one of the following electives:
- THR 1030 -- (VP) Black Theatre: An Introduction: Cr. 3
- THR 5210 -- Theatre History II: Cr. 3

PERFORMANCE/PRODUCTION (Fifteen/Sixteen Credits):
- THR 1040 -- Acting I (Improvisation): Cr. 3
- THR 1050 -- Acting II (Technique and Process): Cr. 3
- THR 2080 -- Theatre Laboratory: Cr. 1 (4 req.)
- THR 4997 -- Theatre Capstone Experience: Cr. 3

Plus one of the following electives:
- THR 2010 -- Stage Movement I: Cr. 2
- THR 2110 -- Voice Lab I: Cr. 2
- THR 2180 -- Stage Management: Cr. 3
- THR 3110 -- Principles of Theatre Management: Cr. 3
- THR 5050 -- Play Direction: Cr. 3

DRAMATIC LITERATURE (Nine Credits):
- THR 5120 -- Development of Drama I: Cr. 3
- THR 5993 -- (WI) Writing Intensive Course in Theatre: Cr. 0

Plus two of the following electives:
- THR 5220 -- Black Dramatic Literature: Cr. 3
- THR 5230 -- Pioneers of the Modern Theatre: Cr. 3
- THR 5250 -- Playwriting: Cr. 3
- THR 3460 -- Applied Theatre Studies: Theatre in Education: Cr.3
- THR 3410 -- Applied Theatre Studies: Community Possibilities: Cr. 3
- THR 6120 -- Development of Drama II: Cr. 3

DESIGN/TECHNICAL THEATRE (Eight/Nine Credits):
- THR 2130 -- Stagecraft: Cr. 3
- THR 2500 -- Introduction to Design: Cr. 3

Plus one of the following electives:
THR 3050 -- Principles of Makeup: Cr. 2
THR 5010 -- Theatre Costuming I: Cr. 3
THR 5070 -- Stage Lighting: Cr. 3
THR 5080 -- Stage Design: Cr. 3

Bachelor of Fine Arts with a Major in Theatre

The Bachelor of Fine Arts with a Major in Theatre is an intensive preprofessional curriculum that must be followed in consultation with a B.F.A. adviser in theatre. The program is designed to provide a broad understanding and an opportunity for full experience in the theatre arts through a curriculum of preprofessional training. The B.F.A. program is divided into two curricula: the performance curriculum, emphasizing acting; and the production curriculum, concentrating upon design and technical theatre.

Admission requirements for the program are satisfied by the general requirements for undergraduate admission to the University (see page 24), a minimum of forty-eight credits, as well as through auditions and/or interviews after the completion of prerequisite courses and usually at the end of the sophomore year.

Matriculation: All students in baccalaureate theatre degree programs begin as B.A. students and subsequently may change to the B.F.A. program depending on interest and ability. Classes for theatre students begin immediately in the freshman year, though students do not officially become majors until the junior year. The courses listed below as B.A. requirements and B.F.A. prerequisites must be taken in the freshman and sophomore years prior to auditioning and/or interviewing for the B.F.A. program. Students should consult the Department's curriculum guide (available at the Theatre Office, 3225 Old Main) for a suggested plan of work and consult with departmental undergraduate advisers before the program is begun.

DEGREE REQUIREMENTS: Candidates must complete a minimum of 120 credits including satisfaction of the University General Education Requirements (see page 18), College degree requirements (see page 189), and seventy-seven credits in theatre courses including the major requirements listed below. The minimum grade for each course required in the major, which must be taken in the Department of Theatre, must be no less than a 'C' ('C-minus' is not acceptable) in order for the course credit to count toward completion of the degree. All course work must be completed in accordance with the regulations of the University and the College governing undergraduate scholarship and degrees; see sections beginning on pages 18, 36, and 189. Departmental information published in this Bulletin is intended for use in conjunction with advising, but in all cases, regardless of advice given, students are responsible for meeting and satisfying requirements as set forth in this Bulletin.

Major Requirements: Cited below are the B.F.A. theatre requirements beginning with the B.A. requirements (B.F.A. prerequisites) enabling students to see the overlap between the two programs.

ACTING: B.A. REQUIREMENTS (B.F.A. Prerequisites)
THR 1010 -- (VP) Introduction to the Theatre: Cr. 3
THR 1020 -- Play Analysis: Cr. 3
THR 1040 -- Acting I: Cr. 3
THR 1050 -- Acting II: Cr. 3
THR 2010 -- Stage Movement I: Cr. 2
THR 2080 -- Theatre Laboratory: Cr.1 (4 req.)
THR 2110 -- Voice Lab I: Cr. 2
THR 2130 -- Stagecraft: Cr. 3
THR 2500 -- Introduction to Design: Cr. 3
THR 3050 -- Principles of Makeup: Cr. 2
THR 5100 -- Theatre History I: Cr. 3
THR 5210 -- Theatre History II Cr. 3

ACTING: B.F.A. REQUIREMENTS
THR 2020 -- Stage Movement II: Cr. 2
THR 2030 -- Acting III: Cr. 3
THR 2040 -- Acting IV: Cr. 3
THR 2080 -- Theatre Lab.: Cr. 1-4 (Max. 8 required)
THR 2170 -- Voice Lab II: Cr. 2
THR 3010 -- Acting V: Cr. 3
THR 3020 -- Stage Movement III: Cr. 2
THR 3040 -- Stage Movement IV: Cr. 2
THR 3080 -- Voice Lab III: Cr. 2
THR 3090 -- Voice Lab IV: Cr. 2
THR 4997 -- Theatre Capstone Experience: Cr. 3
THR 5220 or THR 5230
-- Black Dramatic Literature: Cr. 3
-- Pioneers of Modern Theatre: Cr. 3
THR 5120 -- Development of Drama I: Cr. 3
THR 6120 -- Development of Drama II: Cr. 3)
THR 5993 -- (WI) Writing Intensive Course in Theatre: Cr. 0

One of the following:
THR 2180 -- Stage Management: Cr. 3
THR 3110 -- Principles of Theatre Management: Cr. 3
THR 5050 -- Play Direction: Cr. 3

Additional elective: Cr. 3

DESIGN/TECHNOLOGY: B.A. REQUIREMENTS (B.F.A. Prerequisites)
ADR 1050 -- Drawing I: Cr. 3
ADR 1060 -- Drawing II: Cr. 3
THR 1010 -- (VP) Introduction to Theatre: Cr. 3
THR 1020 -- Play Analysis: Cr. 3
THR 1040 -- Acting I: Cr. 3
THR 2080 -- Theatre Lab.: Cr. 1-4 (4 req.)
THR 2130 -- Stagecraft: Cr. 3
THR 2500 -- Introduction to Design: Cr. 3
THR 3050 -- Principles of Makeup: Cr. 2
THR 5070 -- Stage Lighting: Cr. 3
THR 5100 -- Theatre History I: Cr. 3
THR 5210 -- Theatre History II: Cr. 3

One of the following (chosen in consultation with an adviser)
THR 5010 -- Theatre Costuming I: Cr. 3
THR 5080 -- Stage Design: Cr. 3

DESIGN/TECHNOLOGY: B.F.A. REQUIREMENTS
THR 2160 -- Technical Theatre Problems: Cr. 2 (for total of 8 credits)
THR 4997 -- Theatre Capstone Experience: Cr. 3
One additional THR course not elected as a prerequisite from the prereq list above: THR 5010 / 5080
THR 5220 or THR 5230
-- Black Dramatic Literature: Cr. 3
-- Pioneers of Modern Theatre: Cr. 3
THR 5120 -- Development of Drama I: Cr. 3
THR 6120 -- Development of Drama II: Cr. 3
THR 5993 -- (WI) Writing Intensive Course in Theatre: Cr. 0

One of the following:
THR 5050 -- Play Direction: Cr. 3
THR 2180 -- Stage Management: Cr. 3
THR 3110 -- Principles of Theatre Management: Cr. 3

Additional electives: Cr. 12

Minor in Theatre

The minor is designed to be an overview of theatre arts and crafts for those with a vocational interest in theatre or those who may wish to develop valuable competencies for educational situations. It offers a general familiarity with various aspects of theatre and also creates an opportunity for a minor emphasis in either acting, directing, or design.

Minor Requirements: students pursuing a Minor in Theatre must complete a minimum of twenty four credits, distributed as follows:

REQUIRED CORE COURSES

THR 1010 or THR 1030
-- (VP) Introduction to the Theatre: Cr. 3
-- (VP) Black Theatre, An Introduction: Cr. 3
THR 1020 -- Play Analysis: Cr. 3
THR 1040 -- Acting I: Cr. 3
THR 2130 -- Stagecraft: Cr. 3

and either: THEATRE HISTORY SEQUENCE:

THR 5100 -- Theatre History I: Cr. 3
THR 5210 -- Theatre History II: Cr. 3

or: DRAMATIC LITERATURE SEQUENCE:

THR 5120 -- Development of Drama I: Cr. 3
THR 6120 -- Development of Drama II: Cr. 3

ELECTIVES

One of the following:
THR 2500 -- Introduction to Design for the Theatre: Cr. 3
THR 5010 -- Theatre Costuming I: Cr. 3
THR 5070 -- Stage Lighting: Cr. 3

One of the following:
THR 2180 -- Stage Management Lab: Cr. 3
THR 3110 -- Theatre Management: Cr. 3
THR 5050 -- Play Direction: Cr. 3
THR 5250 -- Playwriting: Cr. 3
THR 5220 -- Black Dramatic Literature: Cr. 3
THR 5230 -- Pioneers of Modern Theatre: Cr. 3

Departmental Financial Aid

See the section on Scholarships and Financial Aid on page 191. Detailed information on all Department scholarships and awards is available in the Department office. The following are some specific awards open to theatre program students.

Talent Scholarship: Awards of half tuition per academic year ($2,274 per semester during 2010-11) renewable for four years based on participation in the theatre program; open to any high school senior admitted to Wayne State.

Phil Fox Scholarship Fund: Monetary award ($1,000 per semester) open to a junior or senior in the theatre program.

The Blakely-Molson-Thibault Scholarship Fund: Monetary award ($700 per semester) open to any senior in the theatre program.

Russell Smith: Monetary award ($700 per semester) open to a student in the area of Design/Tech or Musical Theatre in the theatre program.

Tracey Lupo Memorial Scholarship Fund: Monetary award ($500 per semester) open to a junior in the theatre program.

Pelham Roscoe Memorial Scholarship: award ($500 per semester) open to a junior in the theatre program.

Margaret and Richard Spear Scholarship Fund: award ($500 per semester) open to a junior in the theatre program.

Russell McLaughlin Memorial Scholarship Fund: Monetary award ($400 per semester) open to any sophomore student in the theatre program.

National Costumes Association Memorial Endowment Fund: Monetary awards ($500 per semester) open to any student majoring in theatre with concentration in costuming.

Lily Tomlin Endowment Fund: Monetary awards open to any undergraduate in the theatre program.

Leonard and Mary Zudick Theatre Endowed Scholarship Fund: Monetary awards ($400 - $500) open to any sophomore or junior in the theatre program.

THEATRE COURSES (THR)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

1010 (VP) Introduction to the Theatre. Cr. 3
Historical, critical and cultural aspects of theatre and drama discussed relative to play attendance. (T)

1020 Play Analysis. Cr. 3
Reading and structural analysis of plays. Selected nineteenth and twentieth century plays. (W)

1030 (VP) Introduction Black Theatre and Performance. Cr. 3
Origins, development, and current trends with production techniques and problems related to the special area of the drama. (T)

1040 Acting I. Cr. 3
Open only to theatre majors. For bachelor of arts degree students only. An introduction to the vocabulary of the stage, the process of acting, improvisation, and ensemble work. (Y)

1050 Acting II. Cr. 3
Prereq: THR 1040. Open only to theatre majors. For bachelor of arts degree students only. Continuation of THR 1040; scene study, improvisation in development of actor's craft. (Y)

1100 State of the Arts: Contemporary Creative Practices. Cr. 3
Classroom and web-based survey of creative processes and practices in theatre, dance, visual arts, music and film, through readings from practitioners, interviews with visual and performing artists, and attending performances and exhibitions. (F,W)

1200 (VP) Musical Theatre Appreciation. Cr. 3
Survey of American musical theatre from its multiple historical origins to the present. Development of musical theatre understanding and critical observational skills through focus on the ways in which the genre has emerged through interactions between musical theatre artists and their audiences. (F,W)

2010 Stage Movement I. Cr. 2
Open only to theatre majors in B.A. program with sophomore standing or above. Required of B.F.A. acting majors. Recommended for all second year acting students. Introduction to the principles, practices, and exercises in body technique and stage movement. Material Fee as indicated in the Schedule of Classes (F)

2020 Stage Movement II. Cr. 2
Prereq: THR 2010; Open only to and required of B.F.A. theatre acting majors. Continuation of THR 2010. Emphasis on character movement. Material Fee as indicated in the Schedule of Classes (W)

2030 Acting III. Cr. 3
Prereq: THR 1050; Open only to and required of B.F.A. theatre acting majors. Study and exercise in the fundamentals of the actor's craft. Emphasis on the development of the actor's inner resources as

applied to dramatic action, and consideration of basic stage techniques. (F)

2040 Acting IV. Cr. 3

Prereq: THR 2030. Open only to and required of B.F.A. theatre acting majors. Further development of the techniques covered in THR 2030 and basic principles of character building. Emphasis on the development of a role through script, exercises and scene work. (W)

2080 Theatre Laboratory. Cr. 1-4 (Max. 8, B.F.A. acting students; max. 4, B.F.A. technical students and B.A. students)

Open only to theatre majors. Supervised laboratory in technical and managerial facets of theatre in production. (T)

2110 Voice Lab I. Cr. 2

Open only to theatre majors in B.A. program with sophomore standing or above. Introduction to vocal production. Emphasis on relaxation, breathing techniques, and the production of vocal sounds. (F)

2130 Stagecraft. Cr. 3

Open only to theatre majors in the B.A. or B.F.A. program. Principles of scenic construction and painting. Types and utilization of stage scenery. Laboratory projects coordinated with University Theatre productions. Material Fee as indicated in the Schedule of Classes (T)

2140 Production Laboratory. Cr. 1 (Max. 6)

Open only to theatre majors in the B.A. or B.F.A. program. Participation in University theatre productions as actors, designers, technicians, publicist, assistant director, choreographer, or other approved capacity. (T)

2160 Technical Theatre Problems. Cr. 2 (Max. 8)

Open only to B.F.A. technical theatre majors with junior standing or above. Participation in theatre productions as stage manager or assistant stage manager. (T)

2170 Voice Lab II. Cr. 2

Prereq: THR 2110. Open only to and required of B.F.A. theatre acting majors. Continuation of vocal production work and an introduction to consonant sounds. (Y)

2180 Stage Management. Cr. 3

Open only to theatre majors in B.A. or B.F.A. program. Study of activities except acting that take place on stage or backstage during a technical performance and during rehearsal period. (T)

2320 (THR 2320) Musical Theatre Performance I. (MUA 2320) Cr. 3

Studio course; examining styles of musical theatre performance; applying acting techniques to interpret styles throughout the era of musical theatre. Material Fee as indicated in the Schedule of Classes (F)

2330 (THR 2330) Musical Theatre Performance II. (MUA 2330) Cr. 3

Studio course; continuation of THR 2320. Material Fee as indicated in the Schedule of Classes (F)

2500 Introduction to Design for the Theatre. Cr. 3

Prereq: THR 2130 recommended. Open only to theatre majors in B.A. or B.F.A. program. Methods and materials laboratory course. Practical exercises. Prerequisite to stage, costume or lighting design; techniques of costume, lighting design; rendering, drafting, perspective, color, and design. (F)

2860 (MUA 2860) Opera Workshop. Cr. 1 (Max. 8)

Prereq: consent of director. Material Fee as indicated in the Schedule of Classes (I)

3010 Acting V. Cr. 3

Prereq: THR 2040. Open only to and required of B.F.A. theatre acting majors. Theories and methods of acting verse drama. (F)

3020 Stage Movement III. Cr. 2

Prereq: THR 2020. Open only to and required of B.F.A. theatre acting majors. Styles of stage movement: Commedia, Moliere, Restoration. Emphasis on period deportment, manners, and dance forms. Material Fee as indicated in the Schedule of Classes (F)

3040 Stage Movement IV. Cr. 2

Prereq: THR 3020. Open only to and required of B.F.A. theatre acting majors. Styles of stage movement: Shakespeare. Emphasis on Renaissance deportment, manners, and dance forms. Material Fee as indicated in the Schedule of Classes (W)

3050 Principles of Makeup. Cr. 2

Open only to theatre majors in B.A. or B.F.A. program. Fundamentals of theatre makeup. Laboratory projects coordinated with University Theatre productions. Material Fee as indicated in the Schedule of Classes (T)

3070 WSU Touring Theatre. Cr. 1-2 (Max. 6)

Admission by audition only. Open only to theatre majors in B.A. or B.F.A. program. (T)

3080 Voice Lab III. Cr. 2

Prereq: THR 2170. Open only to and required of B.F.A. theatre acting majors. Continuation of vocal and articulation work and an introduction to rhythm and tempo in the speaking voice. (W)

3090 Voice Lab IV. Cr. 2

Prereq: THR 3080. Open only to and required of B.F.A. theatre acting majors. Continuation of vocal articulation and vocal music techniques; harmonizing them in performance. (Y)

3110 Principles of Theatre Management. Cr. 3

Open only to theatre majors in B.A. or B.F.A. program. Introduction to the principles and practices of theatre management. Season selection, advertising, budgeting, marketing and fundraising are among the areas to be covered. (Y)

3210 Dance Styles of Musical Theatre. Cr. 3

Open only to students in B.A. and B.F.A. programs; by audition only. Tap, jazz and dance of the American musical theatre tradition. Emphasis on skills for performing and auditioning for Broadway and movie musicals. (Y)

3410 Applied Theatre Studies: Community Possibilities. Cr. 3

Open only to theatre majors in B.A. or B.F.A. program. Fundamental theory and practical technique of applied theatre work, especially process drama and playbuilding. Focus on community situations including intergenerational dynamics, community health and social work effectiveness, and areas of outreach involvement. (Y)

3460 Applied Theatre Studies: Theatre in Education. Cr. 3

Open only to theatre majors in B.A. or B.F.A. program. Fundamentals of applied theatre work, especially story drama, process drama, and theatre-in-education (TIE). Focus on the artist as teacher; the visiting artist in the classroom, after-school drama programming, performing as a member of a TIE team. (Y)

3490 Applied Theatre Practicum. Cr. 1-4 (Max. 8)

Open only to theatre majors in B.A. or B.F.A. program. Prereq: consent of instructor. Supervised students work in schools, with youth programs, and in community service settings, implementing applied theatre projects. (Y)

3710 (THR 3710) World Performance Studies I. (THR 6710) Cr. 3

Research/studio course examining styles of the late twentieth century to the present; includes spoken word, dance, and multi-media performance art. Introduction to directors and performers such as:

Robert Wilson, Spalding Gray, Sekou Sundiata, Robert LePage, Peter Brook. Emphasis on creating ensemble performance work. (F)

3760 (THR 3760) World Performance Studies II. (THR 6760) Cr. 3

Advanced research/studio. Emphasis on solo works and their makers; may include Anna Deveare Smith, Eric Bogosian, Laurie Anderson. Creation of solo performances. (W)

3990 Directed Study. Cr. 1-3 (Max. 9)

Prereq: theatre major with 16 credits in the Department. (T)

4997 Theatre Capstone Experience. Cr. 3

Prereq: final semester standing; prior consent of instructor and undergraduate department adviser. Open only to theatre majors in B.A. or B.F.A. program. Capstone experience in specific concentration (B.A., B.F.A. acting, B.F.A. design/technical theatre). Development of a personal electronic portfolio demonstrating computer proficiency. (W)

4998 Capstone Honors Thesis. Cr. 3

Prereq: B.A. or B.F.A. Theatre Honors status; final semester senior standing; coreq: senior capstone course: THR 3410 or THR 3460 (for B.A.); or THR 3030 (for acting B.F.A.). Culminating project for theatre honors students: research for scholarly/creative activity. (S)

5010 Theatre Costuming I. Cr. 3

Open only to theatre majors at sophomore level or above. Introduction to costume design and construction. Laboratory projects coordinated with University Theatre productions. Material Fee as indicated in the Schedule of Classes (F)

5020 Theatre Costuming II. Cr. 3

Open only theatre majors in upper division or above. Advanced costume design projects concentrating on the expression of character through design principles. Further development of drawing and rendering skills. (W)

5050 Play Direction. Cr. 3

Open only theatre majors in upper division or above. Principles and theories of stage movement, blocking, casting, rehearsing. Students required to direct scenes and one-act plays for class presentation. (F)

5070 Stage Lighting. Cr. 3

Open only to theatre majors at sophomore level or above. Theory and practice in stage lighting. Examination of lighting in composition and the aesthetics of light through projects in the stage lighting laboratory. Discussion of applications of lighting instrumentation and control equipment to theatrical production. Participation in lighting University Theatre productions is required. (F)

5080 Stage Design. Cr. 3 (Max. 6)

Open only to theatre majors at sophomore level or above. The scenic designer's multiple analysis of a play. Practice in evolving a technique of scenic design by study of selected plays with execution of sketches and working drawings. (I)

5090 Advanced Stage Design. Cr. 3 (Max. 6)

Open only to theatre majors in upper division or above. Prereq: THR 5080. Laboratory theory course in stylistic characteristics of modern stage designs. Advanced problems in scenic design. (I)

5100 Theatre History I. Cr. 3

Required of all B.F.A. majors. Open only to theatre majors at sophomore level or above. The development of the physical theatre and the evolution of production methods in Greek, Medieval, Renaissance, and English Restoration theatres with the correlation of the cultural environment of each period. Material Fee as indicated in the Schedule of Classes (F)

5120 Development of the Drama I: Greek to Eighteenth Century. Cr. 3

Open only to theatre majors in upper division or above. Plays from the Greek through the eighteenth century, including Shakespeare; relation of drama to an era and its theatre. (F)

5130 (ENG 5890) Writing for Theatre. Cr. 3 (Max. 6)

Prereq: ENG 3830 or consent of instructor. Advanced study, in a workshop setting, of dramatic structure and writing for the theatre, terminating in the writing of an original stage play. (I)

5140 Introduction to Scene Painting. Cr. 3

Open only to theatre majors in upper division or above. Laboratory and demonstration course as an introduction to painting for the stage, with an emphasis on the materials, texturing techniques, three-dimensional effects and the beginning work from painter's elevations. Material Fee as indicated in the Schedule of Classes (I)

5150 Advanced Scene Painting. Cr. 3

Open only to theatre majors in upper division or above. Laboratory and demonstration course for the design or technical theatre student. Materials, techniques, styles of scene painting. Material Fee as indicated in the Schedule of Classes (I)

5170 Modern Acting Styles and Theories. Cr. 3

Prereq: three undergraduate courses in acting or equivalent experience. Open only to theatre majors at sophomore level or above. Advanced lecture and performance course to develop the process of analysis, creation, and performance of dramatic characters as required by today's film, television and theatre disciplines. (S)

5190 Costume History for the Theatre. Cr. 3

Open only to theatre majors at senior or graduate level. Survey of historical trends and patterns in the development of costume as related to various periods and genres of theatre. (I)

5210 Theatre History II. Cr. 3

Prereq: THR 5100 or consent of instructor. Open only to theatre majors at sophomore level or above. Continuation of THR 5100. From English and continental eighteenth century to contemporary European and American theatres. Material Fee as indicated in the Schedule of Classes (W)

5220 Black Dramatic Literature and Performance. (AFS 5220) Cr. 3

Open only to theatre majors with upper division or graduate status. Critical study of significant black dramatists of the American stage: Willis Richardson, Marita Bonner, Randolph Edmonds, Langston Hughes, Alice Childress, Lorraine Hansberry, Ed Bullins, Amiri Baraka, Ntozake Shange, and August Wilson. (Y)

5230 Pioneers of the Modern Theatre. Cr. 3

Open only to theatre majors with upper division or graduate status. Stanislavski, Meyerholdt, Artaud, Gordon Craig, Brecht; lectures and creative projects. (B)

5250 Playwriting. Cr. 3

Open only to theatre majors with upper division or graduate status. Introduction to the craft of writing for the stage. Students required to write a full-length dramatic script. (B)

5300 Advanced Stage Lighting Design. Cr. 3

Prereq: THR 5070; theatre major with senior or graduate standing, or consent of instructor. Not open to freshman or sophomore students. Examination of situations and responsibilities encountered in professional lighting design. Project work based on large-scale, complex requirements. Material Fee as indicated in the Schedule of Classes (I)

5500 Special Topics in Theatre. Cr. 1-3 (Max. 6)

Open only to theatre majors. Specialized studies in theatre performance, history, criticism, management, design, and technology. Topics to be announced in Schedule of Classes. (T)

5550 Case Writing of Creative Ventures. Cr. 3

Team activity of researching and writing a business case study for an organization in the Detroit region that is engaged in a service learning activity with community and/or University partners. (F,W)

5600 Study Abroad: Moscow Art Theatre School. Cr. 3

Prereq: audition and/or interview. Intensive training in acting or another branch of theatre. Study is conducted on-site at the Moscow Art Theatre School, Moscow, Russia. (S)

5650 (THR 5650) Study Abroad: Directed Study in Russian Theatre. (THR 7650) Cr. 1-3

Coreq: THR 5600. Open only to theatre majors. Focused studies on Russian theatre, performance, design and production; directed studies in contemporary Russian. (S)

5993 (WI) Writing Intensive Course in Theatre. Cr. 0

Prereq: junior or senior standing, consent of instructor, satisfactory completion of the BC and IC requirement; coreq: THR 5120 or 6120. Offered for S and U grades only. No degree credit. Required for all majors. Open only to upper division theatre majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a designated corequisite; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. (T)

6030 Creative Dramatics for Children. Cr. 3

Open only to theatre majors. Creative dramatics and formal playmaking for and by children. (I)

6040 Children's Theatre Play Production. Cr. 3

Prereq: THR 6030 recommended. Theory and practice of organization, selection, direction, production of plays for children's audiences in schools, churches and communities. (I)

6080 Advanced Stage and Film Makeup. Cr. 2

Prereq: THR 3050. Open only to theatre majors. Continuation of basic principles applied in THR 3050; emphasis on new makeup materials; experimentation with prosthesis and design for problem makeup. Material Fee as indicated in the Schedule of Classes (I)

6120 Development of the Drama II: Nineteenth Century to Modern. Cr. 3

Open only to upper division or graduate theatre majors. Plays and theories of the theatre from the nineteenth century to modern times; relation of drama to an era and its theatre. (W)

6300 Advanced Studies in Theatre Management. Cr. 3

Open only to students in M.F.A. program in theatre management; or by consent of instructor. Topics include: arts advocacy and arts in society, strategic planning and organizational strategies for producing theatres, other issues. (I)

6500 Public Relations and the Theatre. Cr. 3

Open only to M.F.A. theatre management students; or by consent of instructor. Press writing and public relations for arts organizations. Topics include: writing, media relations, controlling public image. (I)

6550 Marketing the Theatre. Cr. 3

Open only to M.F.A. theatre management students; or by consent of instructor. Marketing strategies for arts organizations. Topics include: subscription and membership sales, individual ticket sales. (I)

IRVIN D. REID HONORS COLLEGE

DEAN: Jerry Herron

Foreword

The Irvin D. Reid Honors College offers students a comprehensive curriculum that promotes achievement, academic excellence, graduation and orientation to a successful career.

The Honors curriculum is city-based and service-oriented. The College challenges students to engage the world around them as problem-solvers and leaders. The program requires that students inform themselves about what it means to be citizens, of this city, this country, and the world. Honors gives students tools to be catalysts for innovation and improvement, and the skills necessary to create effective solutions.

Benefits of the Honors College include special faculty advising, guest lectures, local and national research/presentation opportunities, access to honors living and learning communities, designated Honors floors in the residence halls, an Honors Student Association, peer advisors, early Honors priority registration, and more. Honors students may also receive research awards to support their senior theses or projects. Typically, Honors classes are small and are taught by members of the regular faculty.

Honors Mission

The Honors College is a community of scholars within a large urban research university. It is the mission of the College to promote informed, engaged citizenship as the basis for academic excellence relevant to a diverse metropolitan area as well as a global setting. The Honors College experience is founded on four principles: community, service, research, and career orientation, with each being a focus of emphasis for one year throughout a four-year program.

Students who are admitted to the Honors College as current WSU students or as transfer students are encouraged to pursue Honors in their major as well as participate in Honors community opportunities such as joining the Honors Student Association (HSA) and electing Honors sections of other General Education courses. The Honors application is available online at www.honors.wayne.edu and in the Honors College.

YEAR ONE: COMMUNITY

The first of the four principles that define the Honors College experience is community, which is the focus of year one. Honors freshmen admitted to the College through Scholars Day are expected to take a two-semester sequence, Honors 1000, (SS) The City; and P S 1010, (AI) American Government (honors section). HON 1000 is historical in orientation and will examine cities and the kinds of urban communities people have made, concentrating on city-making in North America. In the winter semester, P S 1010, (AI) American Government deals with the city in a political context.

The aims of the Honors first-year curriculum are to understand urban communities in general and Detroit in particular, and to integrate Honors freshmen within the Honors community. Honors freshmen receive a Cultural Passport to acquaint them with some of the fine experiences Detroit has to offer.

YEAR TWO: SERVICE

Year two involves service-learning, which takes the skills students have cultivated in the classroom and puts them to use in real-world situations. Service-learning courses provide valuable experience and help the communities WSU serves. These courses combine academic skills and hands-on practice. Students work with course instructors and classmates to perform research and reflect on elements of service projects. Honors collaborates with community partners, organizations that know how to target needs and monitor students' work, to achieve maximum benefit for all participants.

Service learning is not volunteering but involves serving and learning. It provides solid, needed work to the community and enriches student knowledge and understanding of society while advancing academic preparation in a particular field of study. For example, some students participate in the Detroit Fellows Tutoring Project, a service-learning opportunity within Honors. Tutors earn two-four Honors credits while teaching reading skills to children in kindergarten through fourth grade.

Other students undertake community-based service projects that grow out of the Honors first year course. These projects may range from archaeological digs to working with non-profits on marketing materials; service-learning involves students as responsible, active participants in the life of their community.

To document completion of the service learning requirement, students will register for HON 3000, a zero (0) credit, pass-fail course, in the semester in which an approved service learning course is elected.

YEAR THREE: RESEARCH

In year three, students are encouraged to develop individual, funded research projects. Hands-on research experience provides important preparation for graduate school as well as professional opportunities.

Working with full-time faculty mentors, students can apply for Undergraduate Research Grants which provide funding up to $2,300. Students can apply to present work at the University's Undergraduate Research Conference, sponsored by the Honors College. This annual event showcases the University's best undergraduate research projects and allows student researchers the opportunity to share their work through panel and poster presentations. Students may be selected to present their work at the Michigan Undergraduate Research Forum or the National Conferences on Undergraduate Research. Financial support is available for students accepted at these symposia.

Through research projects, students become vital contributors to the research mission at the University.

YEAR FOUR: CAREER

Students begin working on a career plan the day they enter the University which culminates in year four when they do a senior thesis project, HON 4998. This represents the summation of their undergraduate work and is the first step toward a postgraduate career. The thesis is a creative project or a substantial research-based project written in collaboration with a faculty mentor in the student's major. Completion of the thesis is required to graduate with honors.

Honors graduates are better prepared by virtue of the career-building experiences beginning with the freshman seminar and including undergraduate research projects, faculty mentoring and scholarship opportunities. These experiences are beneficial in applying for jobs, as well as graduate or professional study.

Degree Programs

Bachelors Degrees with University/Departmental Honors options:

SCHOOL OF BUSINESS

Accounting: B.S., B.A.
Business Logistics: B.S., B.A.
Finance: B.S., B.A.
Information Systems Management: B.S., B.A.
Management: B.S., B.A.
Marketing: B.S., B.A.

COLLEGE OF EDUCATION

Art Education: B.A., B.S.
Career and Technical Education: B.A., B.S.
Elementary Education: B.A., B.S.
English Education: B.A., B.S.
Exercise and Sport Science: B.A., B.S.
Foreign Language Education: B.A.
Health Education: B.A., B.S.

Kinesiology Pedagogy: Physical Education: B.A., B.S.
Mathematics Education: B.A., B.S.
Music: B.A., B.S.
Science Education: B.A., B.S.
Social Studies Education: B.A., B.S.
Special Education: B.A., B.S.

COLLEGE OF ENGINEERING

Chemical Engineering: B.S.
Civil Engineering: B.S.
Electrical Engineering: B.S.
Industrial Engineering: B.S.
Mechanical Engineering: B.S.

COLLEGE OF FINE, PERFORMING AND COMMUNICATION ARTS

Art: B.A., B.F.A
Art History: B.A.
Communication: B.A.
Dance: B.S., B.F.A.
Film: B.A.
Journalism: B.A.
Music: B.A., B.M.
Public Relations: B.A.
Speech Communication: B.A.
Theatre: B.A., B.F.A.

COLLEGE OF LIBERAL ARTS AND SCIENCES

Anthropology: B.A.
Asian Studies: B.A.
Biological Sciences: B.A., B.S.
Biomedical Physics: B.S.
Chemistry: B.A., B.S.
Classics: B.A.
Computer Science: B.A., B.S.
Criminal Justice: B.S.C.J.
Dietetics: B.S.
Economics: B.A.
English: B.A.
Geography: B.A.
German: B.A.
History: B.A.
Mathematics: B.A., B.S.
Near Eastern Studies: B.A.
Near Eastern Languages: B.A.
Nutrition and Food Science: B.A., B.S.
Philosophy: B.A.
Physics: B.A., B.S.
Political Science: B.A.
Psychology: B.A., B.S.
Public Affairs: B.P.A.
Romance Languages: B.A.
Slavic Studies: B.A.
Sociology: B.A., B.A.S.

COLLEGE OF NURSING

Nursing: B.S.N.

EUGENE APPLEBAUM COLLEGE
OF PHARMACY AND HEALTH SCIENCES

Anatomic Pathologists' Assistant: B.S.

SCHOOL OF SOCIAL WORK

Social Work: B.S.W.

College Directory

Dean:
Jerry Herron: 313-577-3030

Senior Faculty Advisor:
Carl Freeman: 313-577-2793

Administrative Manager/Business & Operations:
Stuart May: 313-993-4026

Office Services Clerk:
Antonio Austin: 313-577-2440

Senior Student Services Officer:
Nancy Galster: 313-577-8523

Honors Curriculum Coordinator and University Undergraduate Research Coordinator: Kevin Rashid: 313-577-2445

Honors Academic Advisor:
Liza Lagman Sperl: 313-577-9075

Program Associate:
Craig Phelps: 313-577-9872

Senior Communications Officer:
Kevin Piotrowski: 313-577-4621

Director of Development for Honors and Scholarships:
Kathryn Rusak: 313-577-9933

Assistant Professor (Research), Community Engagement@Wayne:
Elizabeth Barton: 313-577-5198

Program Manager for Community Engagement@Wayne:
Monita Mungo: 313-577-9216

Web site: http://honors.wayne.edu

Mailing address for all offices: Irvin D. Reid Honors College, Wayne State University, 2100 Undergraduate Library, 5155 Gullen Mall, Detroit, MI 48202

Honors Programs

University-wide Honors Curriculum

Honors curricula are designed to meet the needs of highly motivated students with superior abilities. Honors courses are of four kinds: regular courses with honors designated sections, honors courses offered under various departmental subject areas (for a list of these see below), Honors College courses offered under the HON subject area code, and regular courses taken as honors caliber course work by individual students (see below under Honors-Option Course Work).

Many Honors courses fulfill University General Education Requirements (see page 18) and there are no maximum credit restrictions on the number of Honors credits applicable towards graduation. Completion of any Honors course leads to Honors-designated transcript notation for the course. The accumulation of a sufficient number of Honors credits leads to an Honors degree. Honors degrees are earned by satisfying departmental honors requirements or Honors College requirements, or both.

Students whose cumulative grade point average (g.p.a.) is at least 3.3, but who are not formally admitted to the Honors College, are eligible to elect honors courses to enrich their educational experiences. Such requests should be directed via e-mail to honors@wayne.edu

The University-wide Honors College allows undergraduate students in any College or School of the University to pursue individually-designed Honors curricula which complement their majors. Students may pursue the University-wide Honors Curriculum only, or a College/Departmental Honors curriculum in conjunction with the University-wide Honors Curriculum.

Admission

Honors students are admitted to Wayne State University through the regular admission process; they are officially enrolled in the School/College sponsoring the major of their intended degree program, and obtain admission to the Honors College by one of the following methods:

Scholars Day: Incoming freshmen (high school seniors) must have a minimum grade point average (g.p.a.) of 3.5 on a 4.0 scale in addition to an ACT score of 21 or higher and have been admitted to the University by January 15. These students are eligible to be invited to Scholars Day and to be considered for scholarships and acceptance to the Honors College.

Matriculated Students: Students who have a cumulative g.p.a. of 3.3 or above at Wayne State University may apply for admission to the Honors College.

Transfer Students: Students with a cumulative g.p.a. of 3.3 at another postsecondary institution are eligible to apply for admission to the College. Transferred Honors credits from another postsecondary institution will be considered towards completion of College/Departmental Honors.

Application to the Honors College is available through the Honors office or online at www.honors.wayne.edu. Applications are accepted on a continual basis and are processed in October, February, and June of each year.

College Requirements

The Honors Advisor shall develop with the student an individual program of study and the academic record of each student will be reviewed at regular intervals to determine satisfactory progress consistent with that program. To remain in the University Honors College, a student normally will be expected:

a) to pursue a course of study consistent with the objectives of the Honors College;

b) to maintain a cumulative g.p.a. greater than or equal to 3.3; however, Colleges/Departments may establish a higher g.p.a. for retention in a College/Department program; and

c) satisfy the University General Education Requirements (see page 18).

A student whose cumulative g.p.a. falls below 3.3 and is, for that reason, dropped from the Honors College, may reapply when his/her cumulative g.p.a. is 3.3 or higher.

Graduation: For graduation with University Honors, students must complete a minimum of thirty-six credits in honors-designated courses, with at least three of these being at the upper division level (including HON 1000, and the honors section of PS 1010), an independent research project, essay or thesis, at least one 4200-level Honors seminar, and completion of the Honors College service learning requirement) with a minimum cumulative grade point average of 3.3.

Honors Degrees

Students may declare and graduate with Departmental Honors, University Honors, or both. Most Departments offer Departmental Honors. Please visit the Honors web site at www.honors.wayne.edu or the Honors office for a current list of available programs.

A student who satisfactorily completes a Departmental Honors curriculum or a University Honors curriculum will receive the appropriate Honors designation on both the diploma and the academic transcript. Approval of the Honors College is necessary for graduation with Departmental or University Honors. Students who complete the requirements of both the University-wide Honors College and a college/department/school Honors Program shall have both designations on the transcript and the diploma. Only a single senior essay, thesis, or project shall be required.

University Honors Requirements (effective for students matriculating Fall 2008 or later): Students pursuing University Honors must complete:

1) at least thirty-six credits in Honors-designated course work, including HON 1000, and the honors section of PS 1010; and

2) elect at least one 4200-level seminar offered by the Honors College (HON 4200-4280); and

3) fulfill the HON 3000 Service Learning Requirement; and

4) maintain a g.p.a. of 3.3 or higher and a minimum cumulative 3.3 g.p.a.

Service Learning Requirement (HON 3000): Effective Fall 2008, Service-learning is required for graduation with University Honors. The purpose of the requirement is to better prepare students for productive lives in a diverse urban and global setting through community-based education and civic engagement.

Objectives of the Honors Service-Learning Requirement are: to enhance academic learning opportunities by integrating theory with service to the community; to learn how to work effectively with diverse populations; to develop communication, negotiation, and problem solving abilities; and to increase research skills.

Examples of service learning opportunities include the Detroit Fellows Tutoring Project, specially-designated sections of general education and department courses, and study abroad experiences such as the Pro-Health Belize trip. For more information and for service learning offerings per semester, please visit www.honors.wayne.edu.

Generally, students will complete six Honors General Education courses (including HON 1000, and the honors section of P S 1010) and three upper-level Honors classes in the major.

Departmental Honors Requirements: Students seeking a degree with Departmental Honors must contact their major department or the Honors College for specific requirements (see the appropriate departmental section of this bulletin). However, all departmental Honors programs require: 1) at least twelve credits in Honors-designated coursework, including a senior essay or thesis or project done in the student's major department, and 2) at least one 4200-level seminar offered through the Honors College (HON 4200-4290). A g.p.a. of 3.3 (higher in some departments) is required for graduation.

Honors Sections and Departmental Courses

The following courses either have Honors sections or are open only to Honors students. A compiled list of the Honors Course Offerings for the current semester is available at www.honors.wayne.edu. Honors sections generally require permission to register, which may be obtained via e-mail to honors@wayne.edu. For descriptions of the courses in the following partial list, see the appropriate Departmental sections of this bulletin.

ANTHROPOLOGY

ANT 2100 -- (SS) Introduction to Anthropology: Cr. 3-4
ANT 3110 -- Detroit Minorities: Arabs, Hispanics, African Americans: Cr. 3-4
ANT 4999 -- Honors Research and Thesis: Cr. 3-6

ART HISTORY

A H 1110 -- (VP) Survey of Art History: Ancient through Medieval: Cr. 3-4
A H 1120 -- (VP) Art History Survey Renaissance through Modern: Cr. 3-4
A H 5998 -- Honors Thesis: Cr. 3

BIOLOGY

BIO 1030 -- (LS) Biology Today: Cr. 3-4
BIO 1050 -- (LS) An Introduction to Life: Cr. 3-4
BIO 1500 -- Basic Life Diversity: Cr. 4
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3-4
BIO 3070 -- Genetics: Cr. 4-5
BIO 6990 -- Honors Directed Study in Biology: Cr. 1-4
BIO 6999 -- Terminal Essay: Honors Program: Cr. 2

BASIC ENGINEERING

B E 2550 -- Basic Engg. IV: Numerical Meth. and Computer Programming.: Cr. 3
B E 5998 -- Engineering Honors Thesis: Cr. 1-4

CHEMISTRY

CHM 2999 -- Honors Research Problems in Chemistry: Cr. 2-4
CHM 1410 -- (PS) Chemical Principles I: General/Organic: Cr. 6
CHM 1420 -- Chemical Principles II: Organic: Cr. 6
CHM 5998 -- Honors Thesis Research in Chemistry: Cr. 2-4 (Max. 8)

CLASSICS

CLA 1010 -- (PL) Classical Civilization: Cr. 3-4
CLA 2000 -- Greek Mythology: Cr. 3-4
CLA 2100 -- (PL) Classical Origins of Western Thought: Cr. 3

COMMUNICATIONS

COM 1010 -- (OC) Oral Communication: Basic Speech: Cr. 3
COM 4996 -- Senior Honors Thesis: Cr. 3

CRIMINAL JUSTICE

CRJ 4998 -- Honors Thesis in Criminal Justice: Cr. 3-6

COMPUTER SCIENCE

CSC 4999 -- Honors Thesis: Cr. 3-6

ECONOMICS

ECO 2010 -- (SS) Principles of Microeconomics: Cr. 3-4
ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 3-4
ECO 4997 -- Senior Honors Seminar: Cr. 4

ENGLISH

ENG 1050 -- (BC) Freshman Honors: English I: Cr. 4
ENG 3010 -- (IC) Intermediate Writing: Cr. 3
ENG 4990 -- Directed Study: Honors Program: Cr. 3-6
ENG 4991 -- Honors Seminar: Cr. 3-6
ENG 4992 -- Honors Project: Cr. 3

FRENCH

FRE 2700 -- (PL) Anguish and Commitment: European Existentialist Literature: Cr. 3-4

GEOGRAPHY

GPH 4990 -- Directed Study: Honors Program Cr. 2-12 (Max. 16)

HISTORY

HIS 1300 -- (HS) Europe and the World: 1500-1945: Cr. 3-4
HIS 1400 -- (HS) The World Since 1945: Cr. 3-4
HIS 3250 -- The Family in History: Cr. 3-4
HIS 5995 -- Honors Seminar: Cr. 3

MATHEMATICS

MAT 2010 -- Calculus I: Cr. 4
MAT 2020 -- Calculus II: Cr. 4
MAT 2030 -- Calculus III: Cr. 4

NUTRITION AND FOOD SCIENCE

NFS 3230 -- Human Nutrition: Cr. 3-4
NFS 5990 -- Honors Directed Study: Cr. 1-4

PHILOSOPHY

PHI 1020 -- (PL) Honors Intro. to Philosophical Systems: Cr. 3-4
PHI 1040 -- (PL) Honors Intro. to Philosophical Problems: Cr. 3-4
PHI 1860 -- Honors Introductory Symbolic Logic: Cr. 3
PHI 2320 -- (PL) Introduction to Ethics: Cr. 3-4
PHI 3550 -- (PL) Metaphysics: Cr. 3
PHI 3600 -- Space, Time and the Philosophy of Physics: Cr. 3
PHI 4870 -- Honors Directed Reading: Cr. 4
PHI 4890 -- Honors Proseminar: Cr. 4

PHYSICS

PHY 1040 -- (PS) Einstein, Relativity and Quanta: Cr. 3-4
PHY 5990 -- Directed Study: Cr. 1-3

POLITICAL SCIENCE

P S 1010 -- (AI) American Government: Cr. 4
P S 4995 -- Senior Honors Paper: Cr. 4

PSYCHOLOGY

PSY 1010 -- (LS) Introductory Psychology: Cr. 4
PSY 2400 -- Developmental Psychology: Cr. 4
PSY 2600 -- Psychology of Social Behavior: Cr. 4
PSY 4991 -- Honors Directed Study: Cr. 2-4
PSY 4998 -- Senior Thesis Seminar: Cr. 3-6

SOCIOLOGY

SOC 2000 -- (SS) Understanding Human Society: Cr. 3
SOC 2020 -- (SS) Social Problems. Cr. 3
SOC 5870 -- Violence in the Family: Cr. 3-4

Honors-Option Course Work

The Honors Option allows a student in any course above the 2000 introductory level taught by a regular faculty member to elect honors caliber coursework, provided the instructor agrees to furnish commensurate extra instruction. If a grade of 'B' (3.00) or above is earned in the course and in the additional work, the student will receive honors credit for the course on his/her transcript. Application forms for the Honors Option are available in the Honors College office and online at www.honors.wayne.edu. The application form must be signed by the instructor and departmental honors adviser and should be returned to the Honors College Office by the end of the fourth week of classes. At the end of the semester the instructor will be asked to submit an evaluation of the Honors Option project and the final grade for the class via e-mail to honors@wayne.edu.

The Honors Thesis

To graduate with University and/or Department Honors, students must complete an Honors thesis or creative project during junior/senior year. The thesis must be supervised by a full-time member of a department and the paper must be a minimum of twenty pages in length. University Honors students complete HON 4998; the proposal form (available online at www.honors.wayne.edu) should be submitted within the fourth week of classes in the semester the thesis work will be completed. Departmental Honors students complete a thesis course specific to their major department must follow departmental guidelines. Students pursuing both Department and University Honors may use the department thesis to fulfill the University Honors thesis requirement.

HONORS COURSES (HON)

The following courses, numbered 0900-6999, are offered for undergraduate credit. For interpretation of numbering system, signs and abbreviations, see page 504.

1000 (SS) The City. Cr. 0-3

Prereq: freshman honors standing. Urban phenomena, past and present; quality and nature of urban areas; critical approaches to urban issues. (Y)

2000 (AI) Citizenship. Cr. 0-3

Prereq: freshman honors standing. Recent American urban ideas, institutions and social movements within broader context of global change and conflict; strategies for city-related research. (Y)

2100 (CLA 2100) (PL) Classical Origins of Western Thought. Cr. 3

Prereq. for HON students: minimum 3.3 cumulative g.p.a. (3.5 g.p.a. for entering freshmen). Classical foundations of contemporary Western Thought. Topics include: relations between the sexes, democracy, slavery, war, social criticism, rationality, relations between parents and children, literature and the performing arts. (Y)

3000 Service Learning Requirement. Cr. 0

Offered for S and U grades only. Prereq: written approval of Honors Program; coreq: HON 4990 or an approved service learning course. Required for all students graduating with University Honors. Students are involved in community-based education and promotion of civic engagement. (T)

4200 (PL) Seminar in Philosophy and Letters. Cr. 3 (Max. 9)

Prereq: junior or senior standing; minimum 3.3 cumulative g.p.a. Analysis of meanings given to human experience through study of philosophy or letters. Honors variant of an approved PL course in General Education Program. (Y)

4220 (LS) Seminar in Life Science. Cr. 3

Prereq: junior or senior standing; minimum 3.3 cumulative g.p.a. Analysis of aspects, methods, and important issues in various areas of the life sciences. Honors variant of an approved LS course in General Education Program. (Y)

4230 (PS) Seminar in Physical Science. Cr. 3

Prereq: junior or senior standing; minimum 3.3 cumulative g.p.a. Analysis of modern theory and data, implications and possibilities in the physical sciences. Honors variant of an approved PS course in the General Education Program. (Y)

4240 (HON 4240) (VP) Seminar in Visual and Performing Arts. (A H 4240) Cr. 3 (Max. 9)

Prereq: junior or senior standing; minimum 3.3 cumulative g.p.a. Analysis of ways the visual or performing arts may be appreciated, evaluated, and criticized. Honors variant of an approved VP course in the General Education Program. (Y)

4250 (HS) Seminar in Historical Studies. Cr. 3 (Max. 9)

Prereq: junior or senior standing; minimum 3.3 cumulative g.p.a. Studies of periods of history in which there has been major transition or change. Honors variant of an approved HS course in General Education Program. (Y)

4260 (FC) Seminar in Foreign Culture. Cr. 3 (Max. 9)

Prereq: junior or senior standing; minimum 3.3 cumulative g.p.a. Humanistic or social science investigation of peoples and institutions in other cultures. Honors variant of an approved FC course in General Education Program. (Y)

4280 General Honors Seminar. Cr. 3

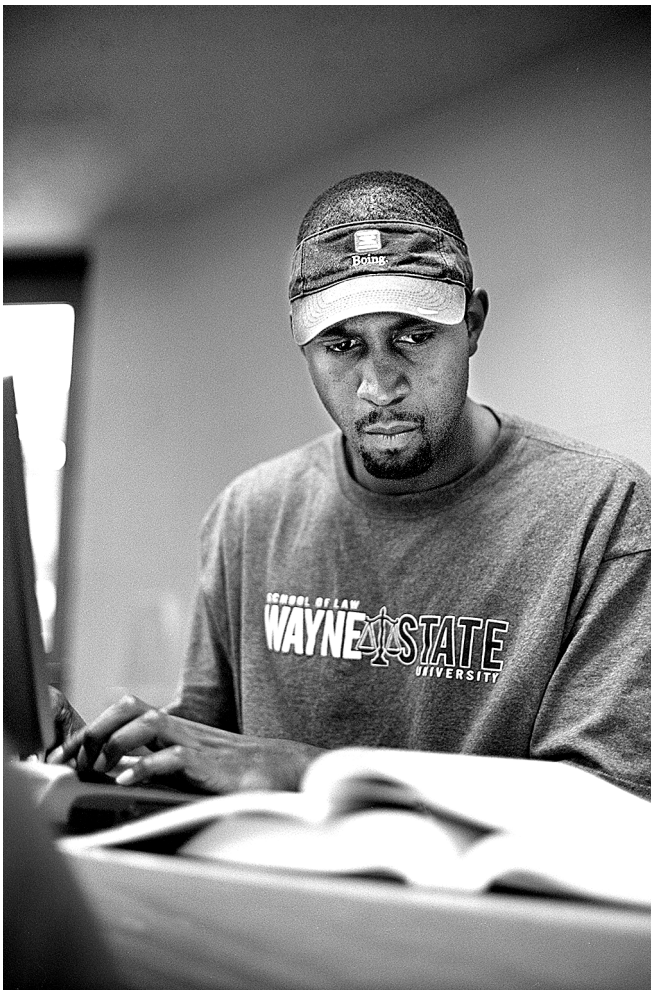
Prereq: junior or senior standing; minimum 3.3 cumulative g.p.a. In-depth exploration of important concepts and approaches in liberal studies. Topics to be announced in Schedule of Classes. (Y)

4990 Directed Study. Cr. 1-4 (Max. 16)

Prereq: 3.3 g.p.a. and written consent of director. May be offered for regular letter grades or S and U grades. (Y)

4998 University Honors Thesis. Cr. 3-6

Prereq: junior or senior standing and consent of University Honors Program Director. Open only to University honors students. For students not concurrently in departmental/college Honors program. (T)



Academic Regulations

For complete information regarding academic rules and regulations of the University, students should consult the general information section of this bulletin, beginning on page 5. The following additions and amendments apply to the Irvin D. Reid Honors College.

Attendance

Regularity in attendance and performance is necessary for success in college work. Attendance requirements will be announced by instructors at the beginning of each course.

Normal Program Load

The requirements for graduation are based upon an average program of fifteen credits per semester for eight semesters. A normal program load should not exceed eighteen credits.

Because two hours of outside preparation are normally expected for each class hour, a fifteen credit program calls for approximately forty-five hours of class attendance and study per week. Students who undertake such a program should expect to give it their full time and energy. A few hours of employment a week may be safely added by capable students.

Extra Credits

Extra credits are credits taken in excess of the normal program load of eighteen credits. Students with 3.0 (or above) grade point averages may take more than eighteen credits when their proposed programs carry the written approval of the adviser and the Dean.

Accelerated Graduate Enrollment Program ('AGRADE')

Accelerated Graduate Enrollment: Some Departments of the University permit academically superior majors to petition for admission into the College's 'AGRADE' program. 'AGRADE' procedures enable qualified seniors to enroll simultaneously in the undergraduate and graduate programs and apply a maximum of fifteen credits towards both a bachelor's and master's degree in the major field. Students electing 'AGRADE' programs may expect to complete the bachelor's and master's degrees in five years of full-time study.

An 'AGRADE' applicant may petition the Graduate Committee of the major Department for acceptance into the program no earlier than the semester in which ninety credits are completed. Applicants must have an overall grade point average at the *cum laude* level and not less than a 3.6 grade point average in the major courses already completed. If the student's petition is accepted, the student's faculty adviser shall develop a graduate Plan of Work, specifying the 'AGRADE' courses to be included in subsequent semesters.

Credits earned through 'AGRADE' are considered Honors credits towards graduation with University and/or Department Honors. Students are asked to submit a copy of the approved 'AGRADE' plan of work to the Honors Advisor. Each 'AGRADE' class will be processed as an Honors Option and the notation added to the student's transcript.

For more details about the 'AGRADE' program, contact the chairperson of the major department.

Graduation with Academic Distinction

Graduation with distinction (*Summa Cum Laude, Magna Cum Laude*, and *Cum Laude*), will be determined by the colleges) granting the students degree.

Probation

Low Grade Point Average: If a student's grade point average falls below 3.30, the student will be placed on honors probation. The student will be allowed one additional fall or winter term immediately following the fall below 3.30 to improve his/her grade point average before being considered academically ineligible. A student may reapply to the Honors College once his/her cumulative grade point average is at 3.30 or above.

Cheating and Plagiarism

The principle of honesty is recognized as fundamental to a scholarly community. Students are expected to honor this principle and instructors are expected to take appropriate action when instances of academic dishonesty are discovered. An instructor, on discovering such an instance, may give a failing grade on the assignment or for the course. The instructor has the responsibility of notifying the student of the alleged violation and the action being taken. Both the student and the instructor are entitled to academic due process in all such cases. Acts of dishonesty may lead to suspension or exclusion. Information on procedures is available in the Office of the Dean.

Academic Advising

Advising for Honors requirements is available on a walk-in basis and via e-mail. Freshman and sophomore students in some of the special curricula are required to consult departmental advisers or advisers in other colleges. All students are encouraged to consult the undergraduate adviser in their prospective major department. Juniors and seniors are assigned to advisers in their major departments, and their course elections in the last two years are arranged in consultation with these departmental advisers.

Accommodations and Accessibility

In accordance with Wayne State University policy, accommodations will be provided for students with learning disabilities. The Educational Accessibility Services office is located in the Undergraduate Library, Suite 1600. Please call (313) 577-1851 to schedule an appointment for an intake interview with an EAS Learning Specialist.

Special Programs

It is important that students feel connected to their life's work while they are still students because a career is not something one pursues after college; it is a vital part of each student's academic orientation while still in school. To facilitate this the Honors College sponsors four Start programs, as outlined below, designed for students who are certain of their career path while high school seniors. The Start programs provide access to professional school faculty and ongoing seminars, beginning the first day of a student's Wayne State career.

The four Honors College Start programs in: medicine, business, engineering, and pharmacy and health sciences provide conditionally guaranteed admission to professional schools and specialized internship and shadowing opportunities.

MedStart

MedStart is a unique Bachelor of Science/Doctor of Medicine degree program that provides a four-year, full-tuition Presidential Scholarship and conditionally guarantees admission to Wayne State's School of Medicine for up to fifteen selected freshmen per year.

Highly competitive, this program trains medical innovators and creative thinkers. MedStart nurtures future leaders in medicine by treating student members as part of the medical community from the day they enter as freshmen. The program emphasizes mentoring and research opportunities and provides immediate contact with School of Medicine faculty and upperclassmen. MedStart undergraduates

also are Honors students and must meet the requirements set forth by the Honors College.

All MedStart students complete a two-credit, directed study course that requires them to attend a monthly seminar at the School of Medicine; shadow a physician for a prescribed number of hours; and become involved in community service. All students write a monthly journal detailing their experiences.

B Start

B Start is an innovative, five-year Honors College program that conditionally guarantees admission to the Master of Business Administration (M.B.A.) program in the Wayne State University School of Business Administration. B Start trains future business leaders by emphasizing mentoring and research opportunities with business school faculty. As part of an introductory B Start course, students attend monthly seminars in the School of Business Administration and are responsible for logging their activities in monthly journals.

HealthPro Start

HealthPro Start is a unique program leading to a professional degree in one of eight areas:

Pharmacy
Clinical Laboratory Sciences
Physical Therapy
Mortuary Science
Occupational Therapy
Anatomic Pathologists' Assistant
Radiation Therapy Technology
Radiologic Technology
Pharmaceutical Sciences

Acceptance to HealthPro Start conditionally guarantees admission to the program of choice within the Eugene Applebaum College of Pharmacy and Health Sciences provided that as grade point average and participation requirements are met.

HealthPro Start trains innovators and critical thinkers, nurturing future leaders by treating students as part of the Pharmacy and Health Sciences community. The program emphasizes mentoring and research opportunities. HealthPro Start undergraduates also are Honors students and must meet the requirements set forth by the Honors College.

Engineering GradStart

GradStart is a unique program in the College of Engineering for select incoming freshmen who are interested in pursuing a doctoral degree. Students are exposed to research throughout the undergraduate program, allowing them to gain first-hand experience and a head start on selecting laboratories for Honors theses and dissertation projects. GradStart participants are guaranteed admission to the College of Engineering Graduate Program of their choice, with financial support from the department for the first year of graduate study.

Urban Scholars/Leaders

The Urban Scholars/Leaders Scholarship Program develops, trains, and retains future Detroit leaders, providing coordinated academic and social support. Created in 2006, the program recognizes and promotes outstanding leaders and scholars from the city of Detroit. The aim of the program is to create a route into Honors, and into scholarship funding for students who might not qualify for merit-based awards, but whose commitment to the community is no less deserving of reward. Unlike many merit-based scholarships, the Urban Scholars/Leaders Scholarship Program engages students in leadership skills training, coaching, and mentoring provided by upper level students, supportive faculty members, and community leaders from the private and public sectors. The Urban Scholars/Leaders Scholarship Program links scholarship with leadership in order to develop the future leaders of Detroit.

In addition to academic preparation, students are exposed to mentoring and shadowing within the University context, and community service and leadership engagement throughout metropolitan Detroit. Recipients of the Urban Scholars/Leaders Scholarship Program receive full support for four years and a comprehensive academic support package. The expectation is that by the end of their sophomore year, Urban Scholars/Leaders will be eligible to join the Honors College.

Web site: honors.wayne.edu/usl

Other Curricular Opportunities

Community Engagement@Wayne

To obtain the greatest benefit from their education, students need both academic courses and real-world experiences. CommunityEngagement@Wayne provides the mechanism to strengthen courses and implement service-learning opportunities in the vibrant metropolitan Detroit community. Building on the Honors College mission of promoting informed, engaged citizenship, CommunityEngagement@Wayne provides faculty with the tools necessary to strengthen course content; students with the opportunity to reciprocate to the community and apply classroom theories in hands-on experiences; and community organizations with the chance to receive assistance from some of Wayne State's most dedicated citizens.

Web site: communityengagement.wayne.edu

Detroit Fellows Tutoring Project

Detroit Fellows earn two to four Honors credits while teaching reading skills to Detroit Public School students in kindergarten through fourth grade. This is a special opportunity for Honors College students and is open to all majors. On an hours-per-week basis Detroit Fellows work three hours (earning two credits), five hours (earning three credits) or seven hours (earning four credits) at a designated school. Tutors work during regularly scheduled school hours: 7:30 a.m. to 3:30 p.m.

Detroit Fellows receive training and participate in a weekly seminar to discuss various tutoring techniques. Writing assignments reflective of this experience and an end-of-semester evaluation are also required.

Web site: honors.wayne.edu/dftp

Emerging Scholars Program (ESP)

Wayne State University's Emerging Scholars Program is a special Honors-level calculus and pre-calculus program designed to support students who want and/or need to excel in mathematics and who are willing to do the work required for such success. It is available to students in MAT 1800 (pre-calculus), MAT 2010 (calculus I) and MAT 2020 (calculus II).

Any student who hopes to pursue a degree in science, engineering, medicine, mathematics or math education is strongly urged to take his or her math courses within ESP. Students enroll in designated sections of MAT 1800, 2010 and 2020, taught by specially trained faculty members. They also attend a two-hour workshop, twice a week, where they work together in groups on challenging problems, gaining a deeper understanding of the mathematics involved.

Web site: www.math.wayne.edu/esp.html

Honors Student Association

The Honors Student Association (HSA) provides networking experiences for students from various academic disciplines throughout WSU. The organization also serves to provide Honors students with the opportunity to become involved in diverse social, academic, and service activities. The Honors Student Association has eight executive board members; the positions include: president, vice president, secretary, treasurer, two public relations officers, and two webmas-

ters. Elections for executive board positions are held annually at the end of winter semester.

The faculty adviser for HSA is Nancy Galster, the special initiatives coordinator for the Honors College. The faculty adviser can be contacted by e-mail ad4469@wayne.edu or phone at 313-577-8523.

Model United Nations

The Honors College sponsors a Model United Nations (MUN) conference annually for high school students from around Michigan. MUN helps students learn the art of diplomacy and compromise and acquire a better understanding how the United Nations operates. High school students are recruited to serve as MUN ambassadors. Honors students provide leadership and recruit fellow students to serve as facilitators.

Web site: honors.wayne.edu/modelun

Office of Undergraduate Research (OUR)

The Office of Undergraduate Research sponsors OUR award recipients and independent WSU undergraduate researchers for the presentation of research findings at conferences across the country. Students are encouraged to undertake individual research or internship opportunities, with support provided by an Undergraduate Research Award, which offers funding up to $2,300 for students and $750 for faculty mentors for research expenses.

Web site: undergradresearch.wayne.edu

Study Abroad

Honors students may apply to a variety of semester, year-long, and short-term study abroad programs through Wayne State University's Study Abroad and Global Programs. See www.study-abroad.wayne.edu for a list of various programs by subject areas, country, length, and language.

Funding may be available to Honors scholarship students who choose to study abroad during fall or winter terms. Students are encouraged to apply for WSU's Global Grant to offset some of their additional expenses. Applications are available on the Study Abroad Web site after November 1.

Summer Service Learning in China

The Summer Service Learning Program (using service to teach ideas outside of the classroom) is a four-week travel experience to rural China. Students interact with Chinese students, teachers and local government officials. Students selected receive special training and orientation in CHI 1005 and CHI 3390, specifically designed for this program. Honors students can receive up to six Honors credits for SSL program.

Web site: studyinchina.wayne.edu

ProHealth Belize Experience

Honors students have the opportunity to participate in a spring break service-learning experience in San Ignacio, Belize, and its surrounding communities. Wayne State University students collaborate with ProWorld Service Corps for a short-term service-learning program. Primary project focus is on health care, including rural health outreach campaigns, health education, research, and additional projects selected by the community. This travel program offers students hands-on experience in a developing Central American nation.

LAW SCHOOL

DEAN: Robert Ackerman

The Study of Law at Wayne State University

History and Goals of the Law School

Wayne State University Law School has been a source of lawyers for Michigan and the rest of the nation for more than seventy years. Founded by a group of public-spirited lawyers led by Judge Allan Campbell, in cooperation with the Board of Education of the City of Detroit, the School was established in 1927 as part of the Colleges of the City of Detroit. The Law School along with the affiliate colleges grew and flourished and were subsequently renamed Wayne University. In 1956, the University joined the University of Michigan and Michigan State University as one of the State's three major public universities, and was renamed Wayne State University.

Wayne State University is an institution dedicated to excellence in education and research. The focus of the Juris Doctor (J.D.) program is preparation of lawyers for the wide variety of professional opportunities available with law firms, corporations, public interest groups, government, and many law-related fields. The rich and varied educational program not only teaches the legal rules by which our business and personal affairs are governed in a complex society, but also instills an appreciation of the larger role of the legal profession as it shapes society's values and institutions. The program stresses experiences designed to develop the skill of written expression, and to provide oral advocacy training in trial and appellate settings. In addition to the traditional classroom component, the Law School offers the opportunity to enrich legal education with real-life legal experience. Students are encouraged to take advantage of the special opportunities available in the Detroit metropolitan area for internships with judges, prosecutors' and defenders' offices, and public interest law practices.

The Law School's faculty is actively involved in scholarly research. Professors at Wayne State University Law School make significant contributions to the understanding of issues in environmental law, taxation, criminal procedure, constitutional law, urban law and many other fields. Their books and articles contribute to the depth and quality of classroom instruction. It is the interaction of teaching and research which creates an especially stimulating environment for the law student.

The Law School takes great pride in its diversity. The full-time faculty includes individuals experienced in local, state and federal government, others who have served as judicial clerks for federal judges, a number with backgrounds in private practice, and others who are well known public interest advocates. They combine excellent academic credentials with practical experience and are committed to excellence in classroom teaching and to advancing the state of professional knowledge through scholarship. The Law School is also fortunate to be able to recruit professional part-time faculty from the Detroit metropolitan area. Respected judges and practitioners contribute valuable and specialized perspectives to the adjunct faculty.

Accreditation

Wayne State University Law School is accredited by both of the major national accrediting agencies for legal education: the American Bar Association and the Association of American Law Schools. Accreditation inquires should be addressed to the American Bar Association Section of Legal Education and Admissions to the Bar, 321 North Clark Street, Chicago, IL 60610 (312-988-6738).

National Recognition

The Law School has a Chapter of the Order of the Coif, the national honorary society dedicated to the highest standards of legal scholarship. Membership is limited to the top ten percent of each graduating class, elected by the faculty.

Law School Setting

Wayne State University is located in the heart of the University/Cultural Center area about four miles from downtown Detroit. Within a few blocks of the Law School are the Detroit Public Library, the Detroit Institute of Arts, the International Institute, the Detroit Historical Museum, the Detroit Science Center, and the Museum of African American History. South of the main campus is the Detroit Medical Center and the Wayne State University Medical School. State and federal courts and offices are concentrated in the downtown area.

The Law School is located on the main campus adjacent to the Ferry and Gullen Malls, convenient to the major University library complex and the University's Hilberry Theatre, which houses one of the most distinguished graduate theatre repertory companies in the United States. The Law School complex includes the classroom building, the Law Library, and a three-story expansion which opened in fall 2000. The expansion houses all student services offices, law publications suites and faculty offices, and features a 250-seat auditorium. The classroom building has five auditoriums with terraced seating designed to enhance the educational experience. There is also a lounge area for informal conversation between classes. During the fall 2010, construction began on another addition to the Law School, The Damon J. Keith Center for Civil Rights. The Center named for the Honorable Damon J. Keith is expected to open in 2012.

Arthur Neef Law Library

The Arthur Neef Law Library is the second largest academic law library in Michigan, and in the top forty within the United States. The Law Library is noted for its collections and for the services provided by its law librarians and staff. With over 625,000 print volumes and micro-volume equivalents, the Law Library is the major legal research center for Wayne Law faculty and students, members of the state and local bars, Wayne State alumni, and members of the Detroit community.

In addition to a comprehensive collection of Michigan legal materials, the Law Library contains reported decisions of the highest courts and most of the lower courts of all states and territories of the United States as well as statutory compilations for these jurisdictions. It also collects other federal and state materials such as legislative reports, session laws, administrative regulations, court rules and practice materials. The Law Library's treatise collection is extensive. In addition, the Law Library provides research aids such as digests, citators, legal encyclopedias, dictionaries, legal form books, and a wealth of other secondary sources.

The Law Library is a selective depository for U. S. government documents and provides these resources in print and digital formats. Special collections include the Alwyn V. Freeman International Law Collection, the Driker Antitrust Law Collection, the Jewish Law Collection, Michigan probate court opinions, Michigan Superfund site documents, U.S. Supreme Court Records and Briefs (original volumes from 1897-1935 and microfiche to date), Michigan Supreme Court Records and Briefs from 1854 to date, and the U.S. Congressional Serial Set from 1818 to date. Many web-based resources are linked from the Law Library's online home page at: http://www.lib.wayne.edu/lawlibrary/.

The total combined collections of the University's five libraries exceed three million volumes. All Wayne State students have access to the resources in the Shiffman Medical Library, the Purdy/Kresge Graduate Library, the Science and Engineering Library and the Adamany Undergraduate Library. These collections provide a rich

resource for the multidisciplinary research. Resources that are not part of the Wayne State University Library System may be obtained quickly for WSU faculty and students from other libraries within the State and beyond. The collections of the Detroit Public Library and the Detroit Institute of the Arts are within walking distance from the Law School and are accessible through the Detroit Area Library Network (DALNET).

Virginia C. Thomas, serves as Director of the Law Library. She is assisted by a staff of experienced professional librarians. The Law Library staff includes an assistant director and three public services librarians. Full-time support staff and student assistants contribute to the research and service mission of the Law Library. Reference and research assistance are available on-site and online.

Most study spaces in the Law Library make use of natural light. Reading tables and carrels, in addition to comfortable seating areas, are available throughout the Law Library and offer "plug-in" or wireless access to networked resources. Fourteen study rooms located throughout the library are reserved for the exclusive use of Wayne Law students.

A twenty-four station computer lab, featuring personal computers and high-speed printers, is also situated within the Law Library. Additional public computer workstations within the library offer easy access to the online catalog and other web-based resources. While on campus, Wayne Law students also have access to more than 1,700 computers in other WSU libraries. Please consult the Law Library's home page for more information: http://www.lib.wayne.edu/lawlibrary/

Law Degrees

The Law School offers academic programs leading to the degrees of Juris Doctor (J.D.) and Master of Laws (LL.M.). The J.D. is a graduate degree requiring a baccalaureate degree as a prerequisite. The LL.M. is a graduate degree offered by the Law School in the fields of taxation, labor and employment law, and corporate and finance law which requires as prerequisite the J.D. or its equivalent.

JURIS DOCTOR

MASTER OF LAWS

MASTER OF LAWS in Corporate and Finance Law

MASTER OF LAWS in Labor and Employment Law

MASTER OF LAWS in Taxation

Law School Directory

Admission — J.D. Program: 313-577-3937
Financial Aid: 313-577-5142
Records and Registration, Law School: 313-577-3978
Dean of Students Office: 313-577-3997

Web: Please visit our website at: http://www.law.wayne.edu

Letters should be addressed to the appropriate department and building at Wayne State University, Detroit, Michigan 48202. The telephone area code is 313.

Admission Policies and Procedures

Preparation for Law Study

The Law School has no requirements with respect to the content of pre-legal education, but its Admissions Committee will take into account the nature of college work completed as well as the grades achieved. Proficiency in the English language, both written and spoken, and in analytical skills is essential to the study of law.

The suggestions for prelaw preparation in the *Official Guide to U.S. Law Schools*, published by the Law School Admission Council, are excellent. This guide contains material on the legal profession and the study of law, and information on each American Bar Association (ABA) accredited law school. It may be ordered from the Law School Admission Services, and is available in most bookstores and libraries. Prospective students are welcome to come into the Law School Admissions Office, during the regular office hours, to look at the Official Guide and other law school reference materials.

Admission Policy

An applicant for admission to the Wayne State University Law School J.D. program must have a bachelor's degree from a regionally accredited college or university. (Prior to registration, each admitted student must arrange for the Law School to receive an official transcript from the degree-granting institution, evidencing the grant of the degree.) Each applicant must also take the Law School Admission Test (LSAT) and register with the Law School Data Assembly Service (LSDAS).

It is the goal of the Law School's Admissions Committee to ensure that the entering class is composed of the most highly qualified applicants. The Committee believes that, initially, the educational process during law school and the legal profession are best served by an admissions process that results in the selection of a diverse and talented student body.

The Committee considers positively the following factors, among others, in reaching admissions decisions:

1) the applicant's academic achievement and potential, as shown by the LSAT score and undergraduate grade point average;

2) an applicant's demonstrated capacity to overcome or persevere against:

a) socio-economic disadvantage, bearing in mind the applicant's socio-economic background while he/she attended elementary and secondary school and as an undergraduate student; whether the applicant would be the first generation of his/her family to attend or graduate from an undergraduate program or from graduate or professional program; the applicant's responsibilities while attending elementary and secondary school and as an undergraduate student, including whether he/she was employed and whether he/she helped to raise children; or

b) substantial obstacles such as family or personal disability (such as attendance at a school identified, for reasons of low student achievement or graduation rate, as "in need of improvement" under the No Child Left Behind Act), and prejudice or discrimination;

3) any special circumstances suggesting that the applicant's LSAT score do not accurately reflect his or her academic potential; such as the age of the applicant's Grade Point Average as an index of academic achievement and promise; any marked improvement in grades shown in the later years of college, or other special circumstances the candidate brings to the attention of the Admissions Committee in his or her personal statement or elsewhere in his/her application; and

4) other factors that contribute to a diverse and engaged law school student body and legal profession, including but not limited to geographic residence (including in the city of Detroit); work and volunteer experience, leadership qualities, commitment to community service and communication skills, multilingual proficiency, experience of life in a foreign country or on a Native American tribal reservation, and other qualities of background and experience not ordinarily well represented in the student body.

Applicants are urged to discuss these factors in their personal statement which is required as part of the application process. An individual writing a letter of recommendation for an applicant should address such factors also.

Admissions Decisions: Applicants with high index scores are administratively admitted and applicants with very low scores may be administratively denied admission. Applicants who are neither administratively admitted nor denied are placed in the discretionary pool. The Admissions Committee reviews applications from the discretionary pool and decides whether to admit, deny or wait list. Although a rolling admissions process is generally employed, discretionary admit decisions are the most difficult and usually are made later in the admission year. The Admissions Committee is composed of Law School faculty members assisted by administrative staff. The administrative staff provides information, recommendations and other assistance to the faculty members who vote on the individual applications.

Reconsideration: An applicant may request reconsideration of an adverse admission decision by writing a letter to the Assistant Dean for Recruitment and Admissions stating the specific reasons why reconsideration is thought to be merited. The application will be then reviewed and reconsidered by the Admissions Committee. In the past, applicants who have successfully petitioned for reconsideration are those who have submitted updated information such as new test scores or additional grades.

Deferred Admission: The Law School does not defer admissions. An admittee who withdraws from the class must submit a new application and fee for the subsequent year for which he or she seeks admission.

Reduced Program: The first-year day program curriculum is mandatory, but day students who have child care responsibilities or significant health care concerns may be permitted to take a slightly reduced course load. The applicant must submit a written request prior to registration to the Assistant Dean for Recruitment and Admissions setting forth the personal circumstances justifying the request for admission as a reduced-load student.

Visit to the Law School: Prospective applicants are encouraged to visit and tour the Law School and University campus, attend a first-year class, participate in informal discussions with students about law school, and consult with a member of the Admissions Office staff about admission policies, procedures and other concerns.

Transfer Student

A transfer applicant must have completed all of the first-year day or evening courses required by his or her ABA-accredited law school. Applicants must have superior law school academic credentials to be offered admission. Transfer students are admitted to the fall term only. The application deadline for transfer applicants is July 1.

A transfer applicant's file will be ready for consideration when the Admissions Office has received all of the following:

1) The Law School Application for Admission;

2) An official transcript sent directly from the applicant's law school including the final grades recorded for all law school courses completed (a photocopy will not be accepted);

3) A letter of good standing from the dean of the applicant's law school;

4) A copy of the applicant's LSDAS Report;

5) An official transcript sent directly from the applicant's degree-granting undergraduate school.

Application Procedure

There is a great deal of competition for the entering class of the Law School. The Law School received more than 1750 applications for the 2008-2009 academic year, and fewer than one-third of the applicants were offered admission. The median undergraduate grade point average of the 2008-2009 entering class was 3.49 and the median LSAT score was 154. Applicants for admission to the first-year class are admitted to the fall term only.

Application Instructions for Admission to the First-Year Class: Applications for admission are accepted October 1 through March 15. Applicants are encouraged to apply early, as the Law School has a rolling admissions process.

The applicant's file will be ready for consideration when the Admissions Office has received the following:

1) The Law School Application for Admission signed and dated by the applicant, with all required information on the application.

2) The non-refundable application fee of $50.00 submitted with the application. Checks or money orders should be made payable to Wayne State University. Checks drawn on Canadian or other foreign banks should carry the notation 'Payable in U.S. Funds Plus Service Charge.' Applicants should not send cash.

3) A brief personal statement designed to call the attention of the Admissions Committee to any experiences, interests, unusual circumstances, or any other information which the applicant believes would help the Committee evaluate his or her potential for success at the Law School. The Law School does not grant requests for personal interviews, so it is important for the applicant to include any special circumstances in his or her personal statement.

4) The LSDAS Report, sent by LSDAS, which will include the applicant's LSAT score(s), copies of transcripts from all of the U.S. undergraduate schools the applicant has attended, and an analysis and summary of the transcripts. (The applicant must direct each U.S. undergraduate school attended to send a transcript to LSDAS. If the applicant's transcripts are not sent directly to LSDAS, LSDAS will not complete its report and the application will be incomplete.)

An applicant with a degree from an educational institution outside the United States must also submit a notarized copy of the undergraduate transcript, translated into English. An applicant who earned his or her bachelor's or equivalent degree from a college or university outside the United States, Canada or Puerto Rico, may not be eligible to subscribe to LSDAS and should refer to the Law Services Information Book or contact LSDAS for advice.

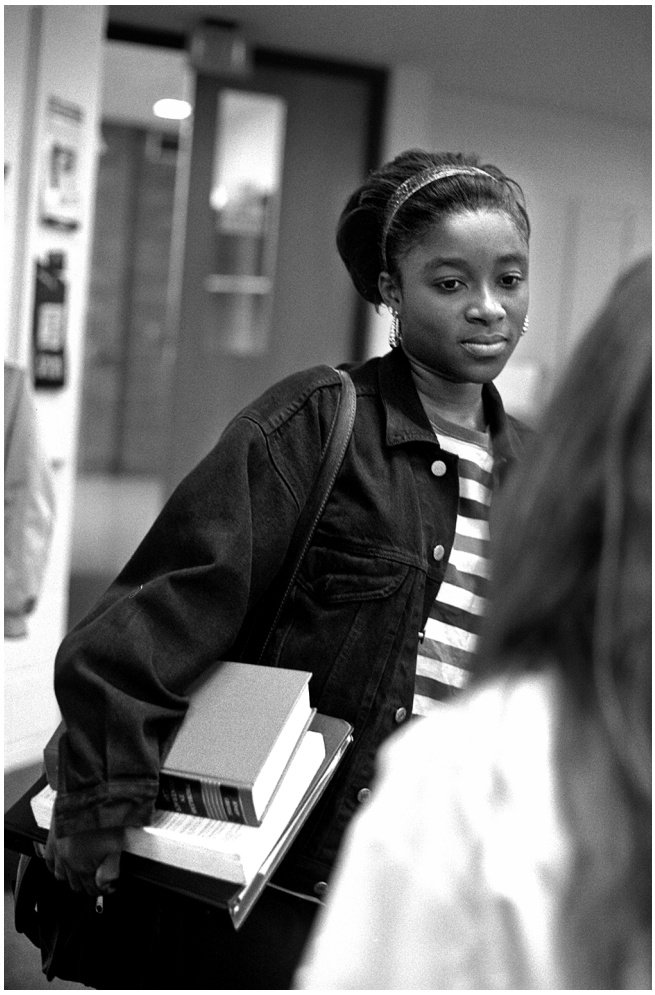
5) A letter of recommendation from an individual, such as a college professor or department chairperson, who can comment on the applicant's intellectual abilities and academic performance. An applicant who has been out of school for a number of years may substitute a letter of recommendation from an employer. Letters of recommendation should be sent directly to Law Services by the recommender. Only one letter of recommendation is required, but the Admissions Office will review up to two letters.

Guest Student

Fall and/or Winter Term(s): The transfer applicant requirements and procedures outlined above apply to a law student who wishes to enroll at the Wayne State University Law School for one or two terms as a guest student and who intends to transfer credit back to his or her 'home' law school. In the case of a guest student, the letter of good standing should also include a statement granting permission for the applicant to attend the Wayne State University Law School for

the semester(s) indicated, and agreement to transfer credits earned at the Law School, and any other requirements or limitations.

Summer Term: A student from another ABA-accredited law school may take one or two summer courses at the Wayne State University Law School, provided the student is in good standing and receives permission from his or her 'home' law school. Application should be made on the Law School Summer Guest Application available from the Admissions Office.



Juris Doctor (J.D.) Program

First Year Day Program

The first-year day program is a full-time two-semester program which begins only in the fall. Students must take all required first-year courses. The fall term curriculum consists of Contracts, Civil Procedure A, Torts, Criminal Law, and Legal Writing and Research, for a total of fifteen credits. In the winter term, students complete the second semester of Contracts, The Regulatory State, and Legal Writing and Research as well as Property and Constitutional Law I for a total of fifteen credits. **Students in the day program are strongly discouraged from employment of any type during the first year.**

Evening Program

The Law School offers a part-time program which enables students to complete their J.D. requirements in four to six years. The first-year evening curriculum is mandatory and consists of two semesters of Civil Procedure, Contracts, and Legal Writing and Research. In the second year of the evening program, students take Property, Torts, Criminal Law, and Constitutional Law I, and may choose additional electives. Most evening classes are held from 6:10 to 8:10 p.m., Monday through Thursday. To provide a wider selection for evening students, several classes are also offered from 4:00 to 6:00 p.m., Monday through Friday. Class size is generally smaller in evening courses than in day classes.

Combined Day/Evening Program

The combined day/evening program is designed to meet the needs of students who wish to complete law school in three years, but who prefer to take as many classes as possible in the evening. The program may be elected by any applicant.

In the combined day/evening program, first-year students must take Civil Procedure, Contracts, and Legal Writing and Research in the evening, and Property or Torts during the day. (Students who wish may take both Property and Torts and an elective during the day of the first year.) Criminal Law will be taken in the evening of the second semester of the second year.

Students in the combined program who complete all six courses open to them will have twenty-seven credits at the end of their first year, only three credits short of the thirty credits completed by full-time day students. These three credits can be readily made up during the summer or in subsequent academic years, allowing students in the combined day/evening program to complete the degree in three years if they so choose.

Legal Writing and Research

The Law School is noted for its excellent legal writing and research program, which is conducted by five full-time lecturers, one of whom serves as director of the program. The textbook and related materials, developed by current and former instructors at the Law School, are used by many other law schools around the country.

A major part of the first-year curriculum is Legal Writing and Research, taught in small sections. The two-semester course begins with a mandatory orientation program. Following orientation, students meet with their instructors in weekly class sessions and in frequent individual conferences. In the fall term, class time is primarily devoted to the development of writing, organization, and case analysis skills. Students learn to use library materials by researching a legal problem in small groups.

In the winter term, instructors teach oral and written appellate advocacy skills. Students draft an appellate brief relying on a comprehensive trial court record, and deliver an appellate oral argument before a three-judge panel of practicing attorneys.

Upperclass Program

After completing the required first-year day or combined day/evening curriculum, or the first- and second-year evening curriculum, students may choose among an extensive listing of elective courses and seminars, including interdisciplinary courses covering a broad range of subjects.

Students may elect courses in the day or evening or a combination of day and evening courses. It is not uncommon for evening students to elect day classes, and for day students to elect evening classes. Upperclass students may change from one program to the other as their schedules require, and may elect courses in the eight-week summer term to accelerate or to accommodate individual needs.

Degree Requirements

The requirements for the Juris Doctor degree are:

1. A bachelor's or equivalent degree upon admission.

2. Completion of a minimum of eighty-six semester credits, with an overall grade point average of 2.0 ('C') or better for all credits.

3. Completion with a final grade of at least 'D' of each of the following courses: Contracts, Property, Civil Procedure, Criminal Law, Torts, Constitutional Law I, and Professional Responsibility. Additionally, Legal Research and Writing must be completed with a final grade of at least a Low Pass. Students must complete a professional skills course and an upper level writing requirement.

4. Three years in residence must be completed. Students earn years in residence at the rate of .05 residence years for each semester credit completed. A student may not earn more than one-half year in residence for a fall or winter term in which ten or more credits are completed, and not more than one-quarter year in residence for a summer term in which five or more credits are completed.

5. The final year of study must be completed in residence at the Wayne State University Law School.

6. Students who enter as full-time students must complete the degree requirements within five years of the date they enter. Students who enter as part-time students must complete the degree requirements within six years of the date they enter.

Academic Regulations

The faculty of the Law School has adopted academic regulations which cover degree requirements, examinations, and other academic matters. Compliance with the regulations is required of all law students. The academic regulations are available in the Law School Records Office and on our Website.

SPECIAL CURRICULAR PROGRAMS

Internships

Upperclass students have the opportunity to earn academic credit while interning on a part-time basis for distinguished judges or a variety of governmental and non-profit agencies in the Detroit area. With the consent of both the dean and the faculty, students may also arrange for special public interest internships outside the Detroit metropolitan area. The internship program provides a unique opportunity for students to gain practical experience while concurrently pursuing their classroom studies.

Intellectual Property Law Institute (IPLI)

The ILPI was created in 1987 by the State Bar of Michigan and the law faculties of Wayne State University, the University of Detroit Mercy, and the University of Windsor, Ontario. The IPLI offers an exceptional, rich curriculum for law students and lawyers, comprised of courses and seminars in intellectual property law in patent, copyright, trademark, computer and related technology, communications media, and entertainment law. Law students who enroll in IPLI courses pay tuition to their home institution, and credit for courses taken at other institutions is transferred to the home institution.

International Programs

The Law School offers many courses in the area of international law. It also sponsors several international study and exchange programs: The Freeman Fellowship, for study at the Hague Academy of International Law (Netherlands); Wayne State University—Utrecht (Netherlands) law faculty and student exchange program; and the Wayne State University Law School—University of Warwick (England) Law School student exchange program. The Law School also allow its upperclass students to enroll in other ABA approved study-abroad programs sponsored by other law schools.

Combined Law and Graduate Studies

Law School students may pursue a master's degree in a field other than law concurrently with their legal education. Upon completion of their first year of law study, students may apply to the Law School for *permission* to take a concurrent degree program and to the appropriate school or college of the University for *admission* as a master's candidate. If admitted, students may divide their time between the Law School and the concurrent program of study, devoting sufficient time to each to meet the academic and residence requirements of both schools. This program will require a minimum of four years of study at the University.

Students who are not interested in a master's degree, but who are interested in taking graduate level courses related to their legal training in other schools and colleges of the University may receive credit toward their law degree for the satisfactory completion of such work. The student must first secure the approval of the Dean to register for such courses. For detailed information on graduate courses and programs in the University, consult the other school and college sections of this bulletin.

Concurrent Degree Programs: The Law School offers the following concurrent degree programs: J.D./M.A., Economics; J.D./M.A., History; J.D./M.A., Political Science; J.D./M.A.D.R.; and J.D./M.B.A. See the respective departmental sections in the College of Liberal Arts and Sciences section and the School of Business Administration section of this bulletin for further details.

Bar Examinations

Students who contemplate practicing law in states other than Michigan should consult Bar examiners of those states at the earliest opportunity with reference to the requirements of such states. In several states, prospective candidates are required to notify the Bar examiners at the beginning of their law study of their intention of taking the examination upon graduation.

Information regarding the Michigan Bar examination can be obtained by writing to The State Bar of Michigan Committee on Character and Fitness, 306 Townsend, Lansing, MI 48933-2083.

Although the curriculum of the School is not primarily designed for preparing students to pass the various state bar examinations, substantially all of the subject matter of the examinations is covered adequately in the regular courses. However, the objective of the School is the development of an understanding of the theory of the law, its application, and the techniques of practice — in other words, to prepare a student for the practice of law.

COLLEGE OF LIBERAL ARTS and SCIENCES

DEAN: Robert L. Thomas

Foreword

The College of Liberal Arts and Sciences conducts instruction and research in a wide variety of disciplines and serves the academic interests of a diverse student population. Courses and degree programs are offered in mathematics and the sciences, the social sciences, humanistic studies, and foreign languages.

The bachelor's degree programs provide instruction in the basic areas of learning and offer opportunity to focus on fields of special interest. All programs emphasize communication, both written and spoken, and the use of precise and thoughtful language. Students are stimulated to think and read critically and to become familiar with the tools of research so that learning may be a lifelong process. Intellectual growth is encouraged by developing in students the necessary independence, resourcefulness and judgment in early studies so that advanced courses may be selected with confidence.

Most fields of study in the College offer students both theoretical and practical training. In fields of special interest, a solid knowledge of underlying principles may thus be strengthened by practical training and experience.

The College of Liberal Arts and Sciences also serves students whose academic interests extend over several Departments. Interdisciplinary programs such as American Studies, Environmental Science, Linguistics, Religious Studies, and Women's Studies offer varied individualized curricula.

The undergraduate programs of the College of Liberal Arts and Sciences are strengthened by the graduate programs which lead to the master's and doctoral degrees in various disciplines. Professors in the College teach both graduates and undergraduates; research projects may involve both graduates and undergraduates; some specialized classes are available to both graduate students and those undergraduates enrolled in the upper division. This opportunity for association with graduate students and research personnel enriches the experience of many undergraduate students.

In the College of Liberal Arts and Sciences, students are provided with the skills, knowledge, and understanding on which to build professional and personal development in today's rapidly changing world.

DEGREE PROGRAMS

BACHELOR OF ARTS with majors in:

- Africana Studies
- American Studies
- Anthropology
- Biological Sciences
- Chemistry
- Classics
- Computer Science
- Economics
- English
- Film Studies
- Geology
- German
- History
- Information Systems Technology
- Linguistics
- Mathematics
- Near Eastern Studies
- Nutrition and Food Science
- Philosophy
- Physics
- Political Science
- Psychology
- Romance Languages
- Sociology
- Speech-Language Pathology
- Urban Studies

BACHELOR OF ARTS HONORS with majors in:

- Anthropology Honors
- Biological Sciences Honors
- Chemistry Honors
- Classics Honors
- Economics Honors
- English Honors
- Geology Honors
- German Honors
- History Honors
- Near Eastern Studies Honors
- Nutrition and Food Science Honors
- Philosophy Honors
- Political Science Honors
- Psychology Honors
- Romance Languages Honors
- Sociology Honors
- Speech-Language Pathology Honors
- Urban Studies Honors

BACHELOR OF SCIENCE with majors in:

- Biochemistry and Chemical Biology
- Geology
- Mathematics
- Nutrition and Food Science
- Psychology

BACHELOR OF SCIENCE HONORS with majors in:

- Geology Honors
- Mathematics Honors
- Nutrition and Food Science Honors
- Psychology Honors

SPECIAL BACHELOR'S DEGREES in:

- Biological Sciences (Bachelor of Science in Biological Sciences)
- Chemistry (Bachelor of Science in Chemistry)
- Computer Science (Bachelor of Science in Computer Science)
- Criminal Justice (Bachelor of Science in Criminal Justice)
- Dietetics (Bachelor of Science in Dietetics)
- Environmental Science (Bachelor of Science in Environmental Science)
- Physics (Bachelor of Science in Physics)
- Public Affairs (Bachelor of Public Affairs)
- Slavic Studies (Bachelor of Arts in Slavic Studies)

SPECIAL BACHELOR'S HONORS DEGREES

- Bachelor of Science in Biological Sciences Honors
- Bachelor of Science in Chemistry Honors
- Bachelor of Science in Computer Science Honors
- Bachelor of Science in Criminal Justice Honors
- Bachelor of Public Affairs Honors
- Bachelor of Arts in Slavic Studies Honors

POST BACHELOR CERTIFICATES

- Post Bachelor Certificate In Computer Science
- Post Bachelor Certificate In Dietetics

MASTER OF ARTS with majors in:

- Anthropology
- Applied Mathematics
- Biological Sciences
- Chemistry
- Classics
- East European Studies
- Economics
- English
- French
- German
- History
- Italian
- Mathematics
- Mathematical Statistics
- Multidisciplinary Science
- Near Eastern Languages
- Nutrition and Food Science
- Philosophy
- Physics
- Political Science
- Psychology
- Sociology
- Spanish
- Speech-Language Pathology

MASTER OF ARTS IN INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY

MASTER OF ARTS IN LANGUAGE LEARNING

MASTER OF ARTS IN LINGUISTICS

MASTER OF INDUSTRIAL RELATIONS

MASTER OF PUBLIC ADMINISTRATION with majors in

- Criminal Justice
- Public Administration

MASTER OF URBAN PLANNING

MASTER OF SCIENCE with a major in:

- Biological Sciences
- Chemistry
- Computer Science
- Criminal Justice
- Geology
- Molecular Biotechnology
- Nutrition and Food Science
- Physics

DOCTOR OF PHILOSOPHY with majors in:

- Anthropology
- Biological Sciences
- Chemistry
- Computer Science
- Economics
- English
- History
- Mathematics
- Modern Languages
- Nutrition and Food Science
- Philosophy
- Physics
- Political Science
- Psychology
- Sociology
- Speech-Language Pathology

DOCTOR OF AUDIOLOGY

GRADUATE CERTIFICATE IN AMERICAN STUDIES

GRADUATE CERTIFICATE IN ARCHIVAL ADMINISTRATION

GRADUATE CERTIFICATE IN PEACE AND SECURITY STUDIES

GRADUATE CERTIFICATE IN SCIENTIFIC COMPUTING

GRADUATE CERTIFICATE IN WORLD HISTORY

College Directory

DEAN: Robert L. Thomas: 2155 Old Main; 313-577-2515

ASSOCIATE DEANS:

Christine Chow: 2155 Old Main; 313-577-2520
Miriam Greenberg: 2155 Old Main; 313-577-2516
Donald Haase: 2155 Old Main; 313-577-2818
Joe Rankin: 2155 Old Main; 313-577-2094

STUDENT SERVICES OFFICE

Office: 2155 Old Main; 313-577-5188, 313-577-3117
Andrea Harp: 2155 Old Main; 313-577-5188
Elizabeth Stone: 2155 Old Main; 313-577-2516

DEPARTMENTAL/PROGRAM OFFICES

Africana Studies: Rm. 11002, 5057 Woodward Avenue; 313-577-2321
American Studies: Rm. 9201.1, 5057 Woodward Avenue; 313-577-8627
Anthropology: 3054 Faculty/Admin. Bldg.; 313-577-2935
Biological Sciences: 1360 Biological Sciences; 313-577-2873
Chicano-Boricua Studies: 3324 Faculty/Admin. Bldg.; 313-577-4378
Chemistry: 123 Chemistry; 313-577-2595
Classical and Modern Languages, Literatures, and Cultures: 487 Manoogian; 313-577-3002
Communication Sciences and Disorders: 207 Rackham Bldg.; 313-577-3339
Computer Science: 431 State Hall; 313-577-2477
Criminal Justice: 3291 Faculty/Admin. Bldg.; 313-577-2705
Economics: 2074 Faculty/Admin. Bldg.; 313-577-3345
English: Rm. 9408, 5057 Woodward Avenue; 313-577-2450
Environmental Science Program: 0224 Old Main; 313-577-6412
Foreign Language Technology Center: 385 Manoogian; 313-577-3022
Geology: 0224 Old Main; 313-577-2506
History: 3094 Faculty/Admin. Bldg.; 313-577-2525
Interdisciplinary Studies: 1261 Faculty/Admin. Bldg.; 313-577-0833
International Studies: 355 Manoogian; 313-577-8072
Jewish Studies: 3089 Faculty/Admin. Bldg.; 313-577-2679
Junior Year in Germany Program: 401 Manoogian; 313-577-4605
Labor Studies: 3178 Faculty/Admin. Bldg.; 313-5772191
Linguistics: Rm. 10303.1, 5057 Woodward Avenue; 313-577-8642
Master of Arts in Industrial Relations: 3146 Faculty/Amin. Bldg.; 313-577-0175
Mathematics: 1150 Faculty/Admin. Bldg.; 313-577-2479
Multidisciplinary Science: 220 Physics Bldg.; 313-577-7816
Nutrition and Food Science: 3009 Science Hall; 313-577-2500
Peace and Conflict Studies: 2320 Faculty/Admin. Bldg.; 313-577-3453
Philosophy: Rm. 1202, 5057 Woodward Avenue; 313-577-2474
Physics and Astronomy: 135 Physics; 313-577-2721
Political Science: 2040 Faculty/Admin. Bldg.; 313-577-2630
Psychology: 7th Floor, 5057 Woodward Avenue; 313-577-2800
Religious Studies: Rm 9203.1, 5057 Woodward Avenue; 313-577-7717
Sociology: 2228 Faculty/Admin. Bldg.; 313-577-2930
Urban Studies and Planning: 3198 Faculty/Admin. Bldg.; 313-577-2701
Women's Studies: Rm. 12100.3, 5057 Woodward; 313-577-6331

Website: http://www.clas.wayne.edu

Mailing address for all offices: (Department Name), College of Liberal Arts and Sciences, Wayne State University, 4841 Cass Avenue, Detroit, Michigan 48202

Bachelor's Degree Requirements

Credits

Candidates for the degrees Bachelor of Applied Studies, Bachelor of Arts, Bachelor of Science, or any special degree must complete at least 120 credits. Certain curricula may require additional credits above this minimum. At least fifteen credits must be earned in courses numbered 3000 or above. (For 'Restrictions on Credit' see page 276.)

Grade Point Average: All students are required to maintain an overall grade point average of 'C' (2.0) for all degree work elected. See 'Grade Point Average,' page 42.

GENERAL EDUCATION REQUIREMENTS

University-wide General Education Requirements and College-wide Group Requirements are designed to enhance students' basic skills and to promote intellectual breadth. These requirements assure minimal competence in those skills needed to succeed in college and professional life and provide a selective introduction to the increasingly broad range of academic disciplines represented at the University. They serve to emphasize the fundamental means and essential knowledge required for continuing self-education and intellectual growth.

As of Fall 1991, all entering undergraduate students must satisfy both University General Education Requirements (see page 18) and College of Liberal Arts and Sciences Group Requirements (see below). Students who first enrolled prior to Fall 1991 should consult with their advisers regarding University General Education Requirements and College Group Requirements. While these two sets of requirements substantially overlap and complement each other, College Group Requirements, in several respects, supplement and modify the University program by requiring additional course work or restricting the applicability of certain specific courses.

Competency Requirements

The College of Liberal Arts and Sciences requires the establishment of the same academic skills and competencies as are set forth in the University General Education Program (see page 18).

College Group Requirements

Group Requirements for students in the College of Liberal Arts and Sciences overlap considerably with those of the University General Education Program (see page 18). However, they are not identical, and students must make sure that their course elections satisfy both sets of requirements. Courses taken in fulfillment of the Group Requirements must be taken for a letter grade and may not be taken for the grade of Passed (P).

The following are statements of important differences between the University General Education Program and the College Group Requirements.

1) The College requires three courses in the natural sciences — one more than is required by the University.

2) The College requires two courses in the social sciences (SS) -— one more than is required by the University.

3) The College requires an additional course in the humanities as may be found under the heading of Civilizations and Societies (see below).

4) The College requires three courses in a foreign language. (Foreign language competency is not a part of the University General Education Requirements.)

In each category, the Group Requirement must be satisfied by election from an approved list of courses. Courses not on the list will not be accepted as fulfilling the requirement. University General Education requirements may be found beginning on page 18. The following list of Group Requirements cite only exceptions to the University lists. Since changes may occur after the publication of this bulletin, please consult the University Advising Center for the up-to-date list of approved courses.

AMERICAN SOCIETY AND INSTITUTIONS (AI): The College list is the same as the University list. One course is required.

FOREIGN CULTURE (FC): Students in the College of Liberal Arts and Sciences may satisfy the University General Education Requirement in Foreign Culture by successfully completing a three-course sequence (through 2010 or 2110) in a single foreign language.

FOREIGN LANGUAGE: All students in the College of Liberal Arts and Sciences (excepting those pursuing a Bachelor of Public Affairs degree) must successfully demonstrate language proficiency equivalent to the three-course basic sequence in a single foreign language. Proficiency is proven by completing courses numbered 1010 (1100, 1110), 1020, and 2010 in one of the following subject area codes: ARB, ARM, CHI, FRE, GER, GRK, HEB, ITA, JPN, LAT, POL, RUS, SPA, SWA, and UKR; as well as GRK 1110, 1120, and 2110. Those continuing the study of a foreign language begun in high school or at another college will be placed at the appropriate level in the sequence as determined by means of qualifying examinations or interviews administered by the various language departments of the University. Students must complete the sequence to demonstrate proficiency. The College Foreign Language Group Requirement will be considered satisfied by those students whose test scores place them beyond the intermediate (third course) level.

Bilingual Students: The College Foreign Language Group Requirement will be considered satisfied for students who were born in and completed their secondary education in a country whose language is not English. However, no credit (through course work or by examination) will be granted to such students for elementary- or intermediate-level courses in that language. Bilingual students who satisfy the Foreign Language Group Requirement in this manner will simultaneously fulfill the University General Education Requirement in Foreign Culture.

HISTORICAL STUDIES (HS): The College list is the same as the University list. One course is required.

LIFE SCIENCE (LS): The College of Liberal Arts and Sciences requires one course from the following shortened list to satisfy its Group Requirement in Life Sciences: ANT 2110; BIO 1030, 1050, 1510; HON 4220; NFS 2030; PSY 1010, 1020.

NATURAL SCIENCE THIRD COURSE (LS, PS): A third course in the Natural Science area is required. It cannot be chosen from the same department as either of the other two courses with which the student fulfills the Physical Science or Life Science requirement. All courses on the University list for Life Science or Physical Science are acceptable. Also, students may elect NFS 3230 as the third course in Natural Science (a course which is not on the University General Education list).

PHILOSOPHY AND LETTERS: The College list is the same as the University list. One course is required.

PHYSICAL SCIENCE (PS): The College of Liberal Arts and Sciences requires one course from the following shortened list to satisfy its Group Requirement in Physical Science: CHM 1000, 1020, 1220, 1225, 1410; HON 4230; PHY 1020, 1040, 1070, 2130, 2170, 3100.

SOCIAL SCIENCE (SS): The College list is the same as the University list. Two courses (taken from different departments) are required.

VISUAL AND PERFORMING ARTS (VP): The College list is the same as the University list. One course is required.

CIVILIZATIONS AND SOCIETIES: This College Group Requirement is not part of the University General Education Requirements. Students must complete one course from the following (cross listed versions of these courses are indicated in parentheses): AFS 2010; A S 2010; ARM (or GER, POL, RUS, SLA, UKR) 3410; ARM (or POL, RUS, SLA, UKR) 3710; CBS 2100 (SPA 2400), 2110 (SPA 2500); CLA 2000; ENG 2600, 3600; FRE 2710, 2720; GER 2710, 2720; GRK 3710; ITA 2710, 2720; NE 2000, 2010; POL 2710; RUS 3510.

Note: The Junior Year in Germany experience also meets the Civilizations and Societies requirement.

Curriculum Requirements

A curriculum usually designates a general area of interest and/or eventual choice of profession. By choosing the General Curriculum, students indicate only an intention to take a degree in one of the Departments of the College or that their final academic goal has not as yet been determined. Since educational interests may change during a college career, curricula may be altered at any time by consulting an academic adviser.

Some curricula outline specific programs of study. Others are governed only by the Group Requirements, future major requirements and recommendations. Group, curricular, and major requirements may be modified from time to time during a student's course of study, and students should periodically consult with appropriate advisers. Descriptions of the various curricula will be found in the Undergraduate Curricula section below; see page 279.

Science Requirement for B.S. Degrees

Bachelor of Science Degrees: Students who are candidates for Bachelor of Science degrees must successfully complete sixty credits in the natural sciences, computer science, advanced logic, statistics, and mathematics. Credits completed to satisfy the College Group Requirements in Natural Science may be applied to the sixty credits.

Combined Degrees: Students who are candidates for Bachelor of Science degrees in Combined Degree programs must complete all required science credits, but conditions vary as follows: pre-dental and pre-medical students must complete a minimum of forty credits, and pre-law students a minimum of sixty credits, in the natural sciences and mathematics before entering their respective professional schools.

Special Degrees: Students who are candidates for the Special Degrees Bachelor of Science in Biological Sciences, Bachelor of Science in Chemistry, or Bachelor of Science in Physics must fulfill the sixty-credit requirement in the natural sciences, computer science, advanced logic, statistics, and mathematics. Candidates for other Special Bachelor of Science degrees must complete the College Group Requirement in Natural Science and any additional science and mathematics courses required by the curriculum which they are following.

Major Requirements

A major is a program of concentrated study in a department or area within the College. Specific course requirements for majors are listed in this bulletin under each of the Departments or areas of the College. Students may declare majors at any time but generally select areas of concentration during their sophomore year and formally declare majors by the beginning of their junior year. Students must complete all courses in their majors with an overall average of 'C' (2.0).

Declaration of Major: To declare a major, students should consult a Departmental adviser well in advance of making a formal declaration, since the acceptance of a declared major is subject to the advice and consent of the department concerned. Declaration of Major forms are available in the University Advising Center, 1600 Adamany Library. A 2.00 cumulative g.p.a. is required to declare a major. At the time of formal declaration, the student must present to the Department a current transcript and a Degree Audit from University Advising, obtain the signature of the Department Chairperson or designated representative on the Declaration form and file it in the Liberal Arts and Sciences Student Services Office, 2155 Old Main. All courses elected or changed by the student after the declaration of a major should be approved by the Department adviser.

The major must include at least twenty credits in one subject, exclusive of introductory courses and inclusive of some advanced work. No more than forty-six credits in the major subject (including introductory courses) may be counted toward a degree. For majors which require intensive study in a particular subject, more than forty-six credits are allowed.

Within the above limits, each major program has specific requirements which may be modified from time to time; it is, therefore, each student's responsibility to keep informed of the current requirements in his/her major department.

For interdepartmental or field majors, the rule regarding minimum credits required in one subject is waived.

The major completed is part of the degree designation on the diploma.

Double Major: Students wishing to declare double majors must obtain approval from the Chairpersons or delegated representatives of each Department or intended major program. For students to graduate with double majors, the major requirements in both areas of concentration must be fulfilled. Students must complete all courses in both majors with an over-all grade point average of 'C' (2.0). Both majors are designated on the diploma.

Students enrolled in Colleges and Schools other than the College of Liberal Arts and Sciences and who wish to graduate with a double major, one component of which is in a Liberal Arts and Sciences curriculum, must satisfy all College of Liberal Arts and Sciences Group Requirements, as well as the major requirements of the Department. (See also 'Combined Degrees' and 'Concurrent Degrees' below.)

Minor Fields

The College of Liberal Arts and Sciences offers the option of a minor. Students may choose to fulfill a minor but are not required to do so. In general, minors require eighteen to twenty-one credits. Courses which bear limitations prohibiting their election for major credit may not be elected for minor credit.

Students enrolled in colleges and schools other than the College of Liberal Arts and Sciences and who wish to declare a minor in a Liberal Arts and Sciences curriculum, may do so by satisfying the minor requirements of the curriculum involved. They need not satisfy the Group Requirements of the College of Liberal Arts and Sciences.

Students are strongly encouraged to consult with Departmental advisers for course selections. The notation of the minor will appear on the transcript but not on the diploma. To declare a minor, students should consult a Departmental adviser to obtain an approval signature. Program approval forms are available from the University Advising Center, 1600 Adamany Library.

For an index to all minor programs described in this bulletin see page 17.

Co-Majors

The following subjects may be taken in conjunction with another major leading to a Bachelor's Degree: Chicano-Boricua Studies, International Studies, Peace and Conflict Studies, and Women's Studies.

Combined Degrees and Second Degrees

A Combined Degree (B.A. or B.S.) is granted by the College of Liberal Arts and Sciences in cooperation with approved schools of Dentistry, Medicine, and Law, which do not require a bachelor's degree for admission. Candidates for Combined Degrees must complete ninety credits in the College of Liberal Arts and Sciences, all University requirements, all College requirements, make reasonable progress (as determined by the major Department) toward completing a major, and complete satisfactorily the first year's work in an approved professional school. Courses taken in the first year of professional school may be applied toward the required fifteen credits in advanced courses. Students who fail to pass any course ordinarily required during the first year of professional work forfeit the right to a Combined Degree. Such cases may be reopened only after the student completes the second year of professional work.

Students who have received a degree from Wayne State University or any other accredited institution may obtain a second bachelor's degree in another academic area by registering in the appropriate undergraduate College. Graduates of Wayne State University who have earned degrees from the College of Liberal Arts and Sciences may be ranked as undergraduates by declaring new majors and indicating a desire to earn a second undergraduate degree. Graduates of other Wayne State University Schools or Colleges must transfer to the College of Liberal Arts and Sciences. A student from another institution must be admitted to the College by the University Admissions Office.

In order to be granted second degrees, students must complete a minimum of thirty credits beyond the first degree in the College and satisfy all University, College and major requirements. This includes all College Group Requirements not overlapping with University General Education Requirements. Generally no second degree will be granted in the academic area in which the first degree was earned.

Concurrent Degrees and Double Majors

Students who have satisfied all requirements for two different major programs leading to degrees offered by the College and who have accumulated 150 or more degree credits may apply for both degrees simultaneously. However, students intending to earn concurrent degrees are required to obtain permission from the Office of the Dean prior to the accumulation of 120 degree credits. A more usual procedure for students satisfying the requirements of two different major programs is to declare a double major and graduate with one degree, in which case as few as 120 degree credits may be required. (See also 'Major Requirement' and 'Combined Degrees', above.)

Restrictions on Credit

Repeated Subject: Degree credit will NOT be granted for course work in which credit has already been granted. (Students who wish to repeat a course in which they did not receive credit originally must file a repeat form at the time of registration.) Since similar courses may have different names dependent upon the college and the semester in which a course is offered, students are advised to make certain that they do not offer repeated course work as credit toward a degree.

Maximum Credits in One Subject: Students may not count toward a degree more than forty-six credits in any one subject except for special curricula which specify additional courses in the curriculum outline.

Over-Age Credits: Students attempting to complete majors after a protracted interruption in their education, or those attending the University on a part-time basis over an extended period of time may find that some early course work is outdated. In such cases, a department may require refresher work or a demonstration that the student is prepared for advanced courses in the department.

Restrictions on Transfer Credit: No more than sixty-four semester credits may be applied toward graduation from two-year colleges.

Restricted Courses: Degree credit for restricted courses is given only within the approved limits specified below.

Professional Courses: Students may elect a maximum of sixteen credits as cognate work from elected courses offered for degree credit by the several professional schools and colleges within the University. Eight of these credits may be elected with the approval of an academic adviser prior to the declaration of a major, and eight additional credits may be chosen with the approval of the major department. Where academic advisers have approved fewer than eight credits, the major department may approve degree credit up to the sixteen maximum credits allowed. In curricula which specifically require professional courses in excess of the maximum, additional credits may be elected.

Specialized Courses: Unless a curriculum specifies otherwise, the maximum amount of degree credit which may be earned in certain specialized areas is limited as follows:

Dance (approved courses) — 16 credits maximum
Health — 8 credits maximum
Applied Music (including the limitation stated in the paragraph below) — 16 credits maximum
Physical Education (activity) — 4 credits maximum

A total of not more than four credits from the following list of courses may be counted toward a degree unless a curriculum specifically requires more extensive elections:

COM 2240 -- Forensics Practicum: Cr. 1-2
MUA 2800 -- University Bands: Cr. 1
MUA 2810 -- University Symphony Orchestra: Cr. 1
MUA 2820 -- Jazz Big Band: Cr. 1
MUA 2830 -- Men's Chorus: Cr. 1
MUA 2840 -- Choral Union: Cr. 1
MUA 2850 -- Concert Chorale: Cr. 1
MUA 2870 -- Women's Chorale: Cr. 1
MUA 2880 -- Chamber Music and Special Ensembles: Cr. 1

Combined Degrees: Courses taken in the first year of professional school may be applied toward the required fifteen credits in advanced courses.

Residence

To qualify for a baccalaureate degree in the College of Liberal Arts and Sciences, a minimum of thirty credits must be earned in the College. The last thirty credits applicable to the degree, not including credit by special examination, must be completed in an undergraduate college or school of Wayne State University. Credit by special examination may not be counted as residence credit, but such credit, if earned during a semester in which the student is registered, will not be considered an interruption of residence.

In special circumstances, senior residence may be interrupted with the approval of the student's major Department and the Educational Adjustment Committee; however, when the candidate has fewer than the minimum thirty credits of residence in the College of Liberal Arts and Sciences, no such exceptions are permitted.

For the Combined Degree, the residence requirement must be completed in the College of Liberal Arts and Sciences at Wayne State University prior to admission to the professional school.

Academic Regulations

For complete information regarding academic rules and regulations of the University, students should consult the General Information Section of this bulletin, beginning on page 18. The following additions and amendments apply to the College of Liberal Arts and Sciences.

Attendance

Regularity in attendance and performance is necessary for success in college work. Attendance requirements will be announced by instructors at the beginning of each course.

Normal Program Load

The requirements for graduation are based upon an average program of fifteen credits per semester for eight semesters. A normal load should not exceed eighteen credits.

Because two hours of outside preparation are normally expected for each class hour, a fifteen credit program calls for approximately forty-five hours of class attendance and study per week. Students who undertake such a program should expect to give it their full time and energy. A few hours of employment a week may be safely added by capable students.

Extra Credits

Extra credits are credits taken in excess of the normal load of eighteen credits. Students with 3.0 (or above) grade point averages may take more than eighteen credits when their proposed programs carry the written approval of the adviser and the Dean.

Retention of Records

Term papers and examinations shall either be returned to students or retained by the instructor for a minimum of six months. Thereafter they may be destroyed. Instructors shall retain grade books for at least five years following the end of a term, and instructors who leave the institution shall give grade books for courses conducted during the past five years to their department chairperson. Five years after the end of a course, grade books may be returned to the instructor or destroyed by the department.

Honors College

Students in the College may request permission to take honors courses by e-mailing honors@wayne.edu, if they have a cumulative grade point average of 3.3 or above. For a description of the Irvin D. Reid Honors College and a list of honors-related classes, see the section beginning on page 254.

‘AGRADE’ Program

Accelerated Graduate Enrollment: Some Departments of the College permit academically superior majors to petition for admission into the College's ‘AGRADE’ program. ‘AGRADE' procedures enable qualified seniors in the College of Liberal Arts and Sciences to enroll simultaneously in the undergraduate and graduate programs of the College and apply a maximum of fifteen credits towards both a bachelor's and master's degree in the major field. Students electing ‘AGRADE’ programs may expect to complete the bachelor's and master's degrees in five years of full-time study.

An ‘AGRADE’ applicant may petition the Graduate Committee of the major Department for acceptance into the program no earlier than the semester in which ninety credits are completed. Applicants must have an overall grade point average at the *cum laude* level and not less than a 3.6 grade point average in the major courses already completed. If the student's petition is accepted, the student's faculty adviser shall develop a graduate Plan of Work, specifying the ‘AGRADE’ courses to be included in subsequent semesters.

For more details about the ‘AGRADE’ program, contact the chairperson of the major department or the Graduate Office of the College of Liberal Arts and Sciences (313-577-5188).

Phi Beta Kappa

Phi Beta Kappa, the nation's oldest honor society, was founded at the College of William and Mary in Virginia on December 5, 1776. The one hundred and fifty-sixth chapter of the society, Gamma of Michigan, was installed at Wayne State University on January 16, 1953 under a charter granted to the College of Liberal Arts by the United Chapters of Phi Beta Kappa. Membership in the chapter is restricted to its charter members and to those members of the junior and senior classes of the College of Liberal Arts and Sciences who have been elected to membership by the chapter and who have formally accepted election and participated in initiation ceremonies of this or some other cooperating chapter. In addition, all members of the University staff who have been elected to membership by other chapters of Phi Beta Kappa automatically become affiliated members of the local chapter for the duration of their stay at the University.

Election to membership is restricted to students with at least two academic years of residence in the College of Liberal Arts and Sciences, and is based not only on high scholarship and integrity, but also on breadth and depth of program. Students who wish further information are urged to consult with the secretary of the chapter concerning requirements for membership.

Graduation with Academic Distinction

Candidates eligible for the bachelor's degree may receive a special citation on their diplomas under the following circumstances: The designations of ‘Summa Cum Laude,’ ‘Magna Cum Laude,’ and ‘Cum Laude’ will be conferred upon graduating students whose cumulative grade point averages at Wayne State University fall within approximately the upper five per cent, the next five per cent. and the next ten per cent of the senior class, respectively. The grade points used to identify the lower limits for each designation will be based upon the grade points attained by seniors at these percentile levels during the preceding academic year. Only students who have earned sixty or more credits at Wayne State University are eligible to graduate with one of the above distinction citations.

Dean’s List

The Dean's List of academically superior students is compiled each fall and winter term based on the following criteria: A 3.6 grade point average for students registered for full-time programs of twelve credits or more which contribute to the grade point base; and a 4.0 grade point average for students registered for between six and eleven credits. Students who receive marks of 'I' or 'W or 'X' and grades of 'N' or 'U' are not eligible. (For explanation of these marks and grades, see page 41.)

Academic Probation

Low Grade Point Average: If a student's cumulative grade point average falls below 2.0, the student will be placed on academic probation. The student will be required to obtain permission from the University Advising Center before registering. Such permission will be granted only after an interview during which the student and adviser identify previous causes of failure and formulate a plan for future success.

Registration: A student on academic probation must have a ‘hold’ released each term before he or she registers. To obtain this release, the student must see an academic adviser in the University Advising

Center. *This hold will not be released after the last day of the final registration for the term for which the student plans to register.*

Restriction: While on academic probation, a student may not represent the College in student activities.

Removal of Academic Probation: Academic probation will be removed at the end of any term in which the student achieves an over-all average of 'C' (2.0) or better for all degree work taken at the University.

Exclusion

Low Grade Point Average: Students on academic probation shall be given two subsequent terms for enrollment on probationary status. At the conclusion of the two terms, a student who has not achieved a cumulative g.p.a. of at least 2.0 shall be excluded from the University. A student excluded from the University may not apply for reinstatement for one calendar year. Such an exclusion will be reviewed by the Probation Committee and the Dean upon the request of the student.

Reinstatement: After one year of exclusion, the student may apply for reinstatement in the College. The decision to reinstate will be based upon evidence presented by the student that circumstances have changed during the year and that the probability of success has increased. The reinstatement application must be returned to the University Advising Center at least six weeks prior to the first day of any registration period.

Cheating and Plagiarism: The principle of honesty is recognized as fundamental to a scholarly community. Students are expected to honor this principle and instructors are expected to take appropriate action when instances of academic dishonesty are discovered. An instructor, on discovering such an instance, may give a failing grade on the assignment or for the course. The instructor has the responsibility of notifying the student of the alleged violation and the action being taken. Both the student and the instructor are entitled to academic due process in all such cases. Acts of dishonesty may lead to suspension or exclusion. Information on procedures is available in the Office of the Dean.

Academic Advising

Freshmen and sophomores are required to consult advisers each time they register. A staff of academic advisers is available in the University Advising Center, 1600 Adamany Library. Students should confer with advisers on all questions concerning degree requirements, academic regulations, course elections, and programs of study. It is of primary importance that students talk with an adviser when they are having difficulties in their academic work. Students may choose either to see a specific adviser or any available adviser. Freshman and sophomore students in some of the special curricula are required to consult departmental advisers or advisers in other colleges. All students are encouraged to consult the undergraduate adviser in their prospective major department.

Juniors and seniors are assigned to advisers in their major departments, and their course elections in the last two years are arranged in consultation with these departmental advisers.

Scholarships and Financial Aid

See Office of Student Financial Aid (page 34) or the Student Services Coordinator in the Dean's Office for additional information and applications, as well as the individual departmental sections below, for additional scholarships.

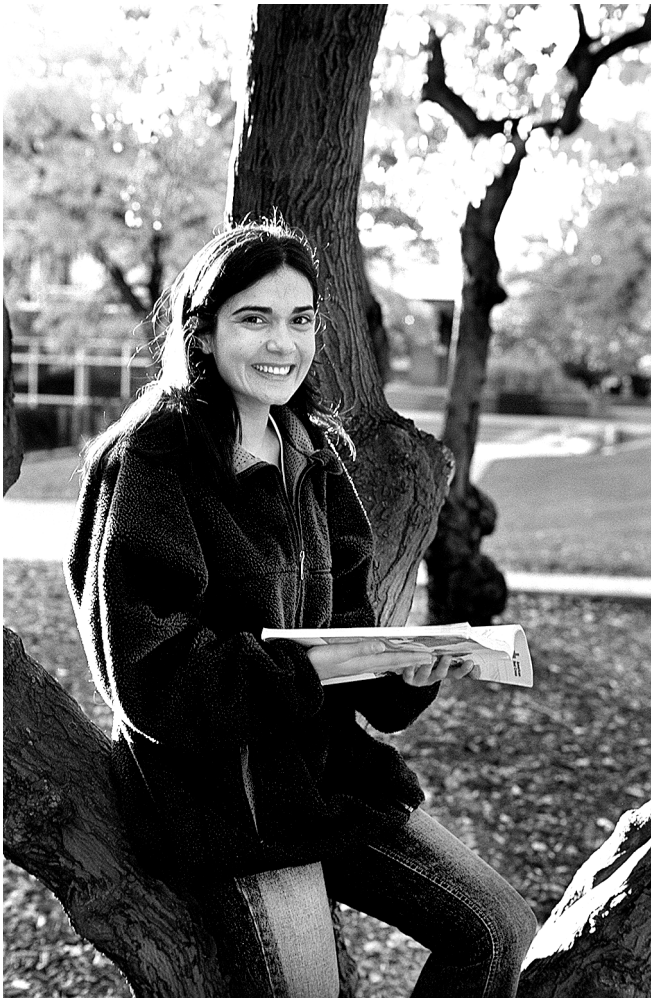
Dr. C. Gary Artinian Endowed Pre-Medicine Scholarship Fund: Award open to full-time students enrolled in pre-medicine or accepted for pre-medicine study who demonstrate financial need. Scholarship is for tuition only.

Hilda Colebank Endowed Memorial Scholarship: Award open to full-time students enrolled in pre-medicine in the College of Liberal Arts and Sciences who have a minimum g.p.a. of 3.0. Recipients are selected on the basis of scholastic achievement.

Perry Feigenson Scholarship Fund: Awarded to any full-time undergraduate in liberal arts who demonstrates financial need and maintains a minimum 3.0 g.p.a. Application deadline is April 30; contact the Office of Student Financial Aid.

Elliot Dov Strom Endowed Memorial Scholarship: Awarded to a full-time student majoring in the sciences who demonstrates financial need.

The Margaret Teal Award: Awarded to full-time students in the College of Liberal Arts and Sciences who have a minimum g.p.a. of 3.0. Recipients are selected on the basis of scholastic achievement and financial need.



Undergraduate Curricula

Students are encouraged to request a curriculum guide for any of the following programs and to consult with an academic adviser in the University Advising Center (1600 David Adamany Library; 313-577-2680). For programs that conclude in the College of Liberal Arts and Sciences, students must declare a major not later than the beginning of their junior year.

GENERAL CURRICULUM

The General Curriculum leads to the degree of Bachelor of Arts or Bachelor of Science. Although it is designed for students who plan to elect a major in a Department or area which does not require a special curriculum, it is an ideal choice for entering students who have not yet decided on a plan of study.

In this curriculum, a wide choice of courses is permitted. The elections suggested below for the first two years are planned to fulfill the University General Education Requirements and the College Group Requirements, but students may vary these elections arranging a program for each semester of three to fifteen credits. The courses elected during the last two years are arranged in consultation with a major adviser.

Suggested Elections

FIRST YEAR

American Society and Institutions: Cr. 0-3
Foreign Language: Cr. 4-8
Humanities: Cr. 3-7
Natural Science: Cr. 3-7
Social Science: Cr. 3-7
Competencies/Electives: Cr. 0-6

SECOND YEAR

American Society and Institutions: Cr. 0-3
Foreign Language: Cr. 4-8
Historical Studies: Cr. 0-4
Humanities: Cr. 3-7
Natural Science: Cr. 3-7
Social Science: Cr. 3-7
Competencies/Electives: Cr. 0-8

PREPROFESSIONAL CURRICULA

Admission to preprofessional curricula implies only that students have selected professional goals. It does not necessarily mean that students will be accepted by the corresponding professional school or college.

Pre-Business Administration

— See page 70.

Pre-Clinical Laboratory Science

— See page 449.

— Cytotechnology Concentration

— See page 451.

Pre-Dentistry

Satisfactory completion of University General Education Requirements, College Group Requirements, a major field, and the basic sciences listed below lead to the bachelor's degree and qualify students for consideration by most schools of dentistry.

Biology or Zoology with laboratory: Cr. 12-16
Chemistry: Inorganic, including qualitative analysis, & lab: Cr. 9-11
Chemistry: Organic with laboratory: Cr. 8-10
English: Cr. 8-12
Physics with laboratory: Cr. 8-10

Recommended electives include psychology, sociology, biochemistry, embryology, and statistics. Because different schools of dentistry may require credits in some or all of these subjects, students are advised to become familiar with *Admission Requirements of U.S. and Canadian Dental Schools*, a brochure which may be ordered from the American Association of Dental Schools, 1625 Massachusetts Avenue N.W., Washington, D.C., 20036.

Pre-Education

— See page 106.

Pre-Engineering

— See page 130.

Pre-Health Science:

Pre-Clinical Laboratory Science

— See page 449.

— Cytotechnology Concentration

— See page 451.

Pre-Law

— See page 265.

Since the requirements for admission to law schools vary from school to school, students should become familiar with the requirements of the school they plan to enter.

For admission to Wayne State University's Law School, applicants should have a bachelor's degree from an accredited college with a strong grade point average. Although no specific courses are required, the faculty of the Law School recommends a strong background in English, with emphasis on grammar and composition, and in the social sciences. Within these fields, the choice of courses should be made in consultation with an academic adviser in the University Advising Center. The following is a suggested list of courses: Classics 3100; Economics 2010, 2020; four courses in English; History 1050, 2040, 2050, 5160, 5170; Philosophy 1010, 1850; Political Science 1010, 3040, 5110; Psychology 1010; Sociology 2000, 3820. An introductory course in accounting is also recommended. For students interested in the practice of law in commercial, corporate, and tax fields, the business administration curriculum may provide a good background.

Law School Admission Test: Each applicant for admission is required to take the Law School Admission Test given by the Educational Testing Service, Princeton, New Jersey. This test is given five times a year in Detroit and at one hundred or more other examination centers located throughout the country. Application blanks and additional information may be obtained from the Testing and Evaluation Office, 698 Student Center.

Pre-Medicine and Pre-Osteopathic Medicine

Satisfactory completion of University General Education Requirements, College Group Requirements, a major field, and the basic sciences listed below lead to the bachelor's degree and qualify a student for consideration by most schools of medicine and osteopathic medicine.

Biology or Zoology with laboratory: Cr. 12-16
English: Cr. 8-12
Inorganic Chemistry (including qualitative analysis) & lab: Cr. 9-11
Organic Chemistry with laboratory: Cr. 8-10
Physics with laboratory: Cr. 8-10

Recommended electives include psychology, sociology, biochemistry, embryology, and statistics. Because different schools of medicine may require credits in some or all of these subjects, students are advised to become familiar with *Medical School Admission Requirements*, a brochure which may be ordered from the Association of American Medical Colleges, 2450 N Street, N.W., Washington, D.C., 20037-1126. The admission requirements of specific schools of osteopathic medicine are available from the American Association of Colleges of Osteopathic Medicine, 6110 Executive Blvd., Suite 405, Rockville, Maryland 20852-3991.

Wayne State University's School of Medicine encourages students to fulfill degree requirements by selecting courses which will contribute significantly to a broad cultural background and by choosing a major in which one is interested. The Committee on Admissions is influenced by the scholarly approach to education, not by the area in which one concentrates.

Pre-Mortuary Science

— See page 455.

Pre-Nursing

— See page 431.

Pre-Occupational Therapy

— See page 463.

Pre-Pathologists' Assistant

— See page 457.

Pre-Pharmacy

— See page 451.

Pre-Physical Therapy

— See page 467.

Pre-Radiation Therapy Technology

— See page 470.

Pre-Radiologic Technology

— See page 473

Pre-Social Work

— See page 484.

Combined Curriculum for Secondary Teaching

This curriculum leads to a bachelor's degree and a Michigan Secondary Provisional Certificate.

The Combined Curriculum for Secondary Teaching is offered in selected majors in cooperation with the College of Education and prepares students for teaching major and minor subjects in the secondary school. In this curriculum, students take the first two years of work in the College of Liberal Arts and Sciences. Courses in the third and fourth years are taken concurrently in both Colleges. In electing courses during the first two years, students should acquire a broad general education while simultaneously electing courses that may be required by their future major department.

Students interested in this program should consult an academic adviser who will supply a curriculum outline, provide guidance, and direct them to the adviser in the major at the beginning of the junior year. Students may also see the Division of Academic Services, Room 489, College of Education, at any time during the first two years for consultation on professional programs they may be planning to pursue.

Students remain registered in the College of Liberal Arts and Sciences and elect Departmental majors at the beginning of the junior year. Students then apply to the College of Education for official admission to the combined curriculum for secondary teaching and must be approved by the College of Education as candidates for teacher certification. During junior and senior years, student program requests will be signed by both a College of Liberal Arts and Sciences major adviser and by the appropriate adviser in the College of Education.

Interdisciplinary Minors

Jewish Studies

Office: 3143 Faculty/Administration Building; 313-577-2525
Coordinator: David Weinberg; 313-577- 6135
E-mail: aa1380@wayne.edu

The Jewish Studies minor engages students who are interested in learning about the history, culture, and languages of Jewish communities. In a variety of courses in history, literature, philosophy, political science, and the Hebrew language, students learn how Jewish thought has influenced the modern world and how it has been influenced in turn by the societies and cultures in which Jews have lived over the past four thousand years.

Minor Requirements: To earn a minor in Jewish Studies, a student must take a minimum of nineteen credits, including:

HEB 1010 -- Elementary Hebrew II: Cr. 4
HIS 3015 -- History of Judaism and Jewish Thought (N E 3015): Cr. 3
HIS 6005 -- Survey of Jewish Civilization and History (N E 6005): Cr. 4

Eight credits taken from the following:

GER 5390 -- The Third Reich and the Holocaust taught in German) Cr. 3- 4
HIS 5460 -- History of the Holocaust: Cr. 4
N E 2010 -- The Bible and Ancient Mythology: Cr. 3
N E 2060 -- (VP) Hebrew/Israeli Film: Trends and Themes in Israeli Cinema: Cr. 3
N E 2700 -- Topics in Middle Eastern Studies: Judaism from King David to the Early Middle Ages: Cr. 1-8
N E 3120 -- Biblical Narratives in English Translation: Cr. 3
N E 3225 -- (FC) Modern Israeli Culture: A Pluralistic Perspective: Cr. 3
N E 6030 -- Poetry of Yehuda Amichai in English Translation: Cr. 3
PHI 2400 -- Introduction to the Philosophy of Religion: Cr. 3
P S 3835 -- Middle East Conflict: Cr. 4
P S 5999 -- Special Topics in Political Sci.: Politics and the Order of Terror: Cr. 1-4

Study Abroad Option:

ED 5998 -- Field Studies: Seeing to Remember: An Interdisciplinary and International Holocaust Field Experience: Cr. 1-8

Religious Studies

Office: Room 10411, 5057 Woodward
Director: Ken Jackson; 313-577-7717
Email: ai4054@wayne.edu

Religion has grown in importance in recent years as a topic of academic as well as public interest. Religious studies as an interdisciplinary academic activity is well established at the majority of colleges and universities across the United States, both sectarian and non-sectarian, private and public. The program in the College of Liberal Arts and Sciences is pursued as an academic, analytic investigation of the world's religions, of religious history, and of the place of religion in world cultures and societies from the ancients to the present. Faculty involved in the religious studies program are drawn from a wide range of traditional academic disciplines: anthropology, history, philosophy, classics, near eastern studies, asian studies, literature, art history, political science, and sociology. Religious studies respects the beliefs and backgrounds of the students who pursue courses in this area, but it also approaches its objects of study in a thoroughly scholarly manner. This program avoids proselytizing and tries to maintain both intellectual openness and critical rigor.

The Wayne State Religious Studies Program, housed in the College of Liberal Arts and Sciences, at present offers an undergraduate Religious Studies Minor and serves as an intercollegiate, interdepartmental, and interdisciplinary faculty body to sponsor visiting lectures and academic conferences on religious studies. Its Director works with a Faculty Steering Committee and group of faculty affiliated with the Program to develop curricular offerings and plan other Program activities. This minor is designed for undergraduates majoring in other areas or disciplines and requires a minimum of twenty-one credits including the following (courses marked with an asterisk (*) are suggested examples):

Minor Requirements (Twenty-one Credits)

1) One course in Comparative Religion:
*N E 1900 -- Comparative Religion: Cr. 3

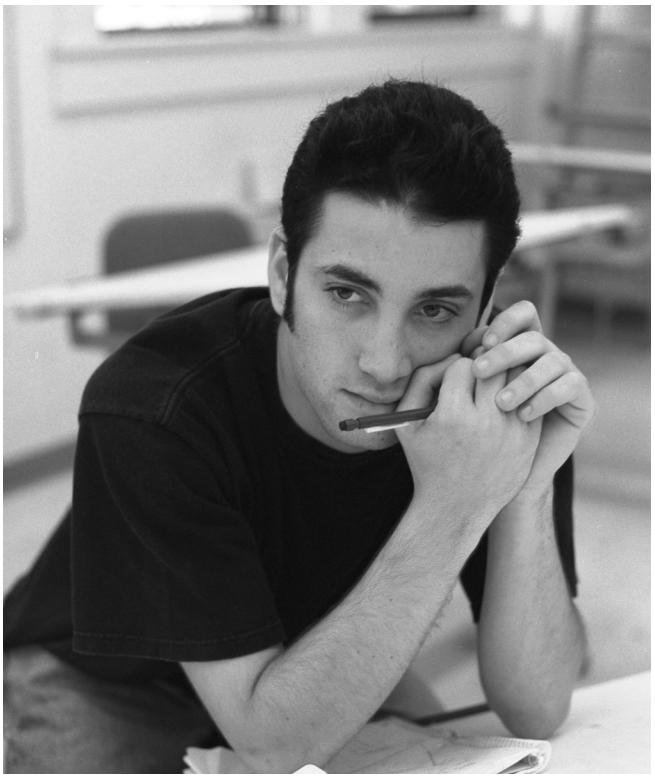
2) A course in one of the following topics:
Philosophy of Religion
PHI 2400 -- Introduction to the Philosophy of Religion: Cr. 3
Anthropology of Religion
*ANT 5370 -- Magic, Religion, and Science: Cr. 3
Sociology of Religion
SOC 2100 (when offered as The Sociology of Religion) or SOC 3350
-- Topics in Sociology: Cr. 3
-- Religion and Social Activism: Cr. 3

3) Broadly based courses on two of the following religions:
*ENG 2500 -- (PL) The English Bible as Literature: Cr. 4
*N E 2000 -- (FC) Introduction to Islamic Civilization of the Near East: Cr. 3
*N E 2010 -- The Bible and Ancient Mythology: Cr. 3
*N E 3010 -- Survey of Jewish History and Civilization (HIS 3010): Cr. 3

4) One course in another religious tradition
* AFS 5260 -- The African Religious Experience: Cr. 3

5) One additional course from Religious Studies electives:
*CLA 3600 -- Religious Experience of the Ancient Greeks and Romans: Cr. 3

6) A team-taught capstone seminar/directed study designed to allow each student to work on an independent project in religious studies with a participating faculty member, and also to meet with other students pursuing the religious studies minor (3 cr.edits).



Study Abroad

African Travel-Study Programs

Ghana and South Africa

Program Office: Department of Africana Studies; 313-577-2321
Coordinator: Eboe Hutchful

The Department of Africana Studies sponsors a summer term (four weeks on site) travel-study experience in the African countries of Ghana and South Africa. This program involves formal registration for graduate or undergraduate credit in Directed Study (AFS 6990). This course is taught by a W.S.U. faculty member as well as faculty members of the The Institute of African Studies at the University of Ghana, at Legon, Ghana, and the University of the Western Cape, at Cape Town, South Africa.

The institute of African Studies was established in 1961 as an interdisciplinary center for scholarship, teaching and research in African history, culture and religion. It offers both undergraduate and graduate instruction by its own faculty and collaborates with the social science departments of the University of Ghana. Located eight miles from Accra and in the shadow of the Aburi Hills, the University of Ghana is a large tranquil campus of original and striking architectural design and is justly considered one of the most beautiful university campuses in Africa. It is a residential university, organized around a hall system, and combines an active academic and social life.

The University of the Western Cape is one of the historically black universities in South Africa, located in the suburb of Constantia, just outside of Cape Town. The University has attracted prominent scholars from all over the continent, and is particularly strong in Africanist social sciences. Like Ghana, South Africa has a glorious history of indigenous culture, state formation, and resistance to European penetration; however, the country came to world attention primarily as a result of the bitter experience of apartheid. Many aspects of South Africa's segregationist history and anti-apartheid struggle evoke the civil rights struggle in the United States. Since 1994, South Africa has been involved in a unique and fragile experiment of racial equality and reconciliation, democracy and economic development.

The objectives of this travel-study program are to introduce students to broad questions of historical continuity and discontinuity, adaptation and readaptation, and syntheses that have characterized African cultures. Particular attention is given to normative values and religious views, economic and political systems, educational and health care systems, and family and community solidarities in the past and present. The program seeks to illuminate the fundamental and broad diversity in African lives as they are structured through traditional cultures, colonial impacts, nationality, gender, and socio-economic differentiation. It is designed to give students a sense of the successes and setbacks and ongoing challenges of African nationhood, and of Africa's relations with the United States and the rest of the world. On a personal basis the goals of the program are:

1) To provide intimate first-hand experience of African life styles and values systems.

2) To encourage among students an appreciation for cultural diversity through exposure to major foreign cultures.

3) To expose African-American students to the African roots of African-American identity, culture and tradition.

4) To equip students with conceptual and intellectual tools to analyze the complexity of cultural and political institutions in Africa.

5) To engage students in critical thinking and field observation in the social sciences.

.

Benin

Program Office: Department of Anthropology; 313-577-2953
Coordinator: Guerin C. Montilus

The Department of Anthropology sponsors a biennial interdisciplinary summer study program in collaboration with the National University of Benin in Cotonou, Republic of Benin, West Africa. Founded in 1984, this program provides first-hand experience of African life styles and value systems through lectures by African instructors and interviews with Benin residents. Depending on student interest, attention is paid to African realities such as geography, history, religion, economy, politics, migration, family and kinship, education and health care systems. This broad range of topics is reflected in the kinds of formal registration available for the program, that is, students may use this travel-study experience as the basis of instruction for a number of different W.S.U. courses offered by other departments and colleges within the University. Both graduate and undergraduate credits are optional and non-credit participants are welcome.

Caribbean Travel-Study Program

Cuba and Haiti

Program Office: Department of Anthropology; 313-577-2953
Coordinator: Guerin C. Montilus

The Caribbean study trip is an interdisciplinary study program sponsored by the Anthropology Department and hosted by the School of Preventive Medicine of the University of Santiago of Cuba and/or the Historical Ethnological Museum of the State University of Haiti, Port-au-Prince, Haiti. Both of these programs offer travel-study experiences which focus on Caribbean realities such as health care, educational systems, geography, history, religion, economy, politics, art, population, migration, family and kinship. The study trip provides first-hand experience of Caribbean life styles and value systems through lectures by Caribbean scholars and field trips guided by Caribbean instructors as well as personal interviews with Caribbean residents. Both graduate and undergraduate credits are optional and non-credit participants are welcome.

Junior Year in Germany
Munich Program

Office: 401 Manoogian Hall; 313-577-4605; Fax: 313-577-3266
E-mail: jym@wayne.edu
Website: http://www.jym.wayne.edu/
Program Director: Mark Ferguson

Not just for German majors, the Junior Year in Germany program is a unique study abroad experience open to students of any major at Wayne State University. Students will earn W.S.U. credit for one academic year towards their degree while spending the year in Germany enrolled at the University of Munich. This program has a national reputation for excellence, and enrolls students from a wide variety of colleges and universities across the country. By spending an entire year abroad, fully integrated into the academic program of a German university and experiencing first-hand everyday life of another society and culture, Junior Year participants acquire valuable linguistic skills and intercultural experiences, giving them distinct advantages in the pursuit of many career goals.

Life in Munich: Munich is a large, fascinating and culturally enriching city. It is renowned for a centuries-long cultivation of the arts, as well as its significant place in Germany's prominent global business community. The city boasts two prestigious opera houses and four symphony orchestras, as well as an array of theaters from the Kammerspielhaus which features classical works, to the Münchner Volkstheater which stages contemporary productions -- all of which are available at reduced student rates. Additionally, there are numer-

ous museums and art galleries featuring some of the finest collections in the world and making this location one of special interest for study in the arts.

ADMISSION REQUIREMENTS: The basic requirements for admission to the Program are: 1) Junior (completion of 60 credits), senior, or graduate standing at Wayne State (students from other universities are eligible with analogous standing at their institution); 2) Two years of college German with a 'B' average; 3) An overall 3.0 g.p.a., or better.

ORIENTATION: The program begins with an orientation period that combines intensive language instruction with an introduction to the German university system to prepare students for their studies at the university. Orientation also includes a variety of activities designed to introduce students to various facets of everyday life in their new surroundings.

LIVING ARRANGEMENTS IN GERMANY: Students are housed in the German university dormitories alongside their German counterparts which encourages maximum immersion in the language and culture. All rooms are single with cooking and common-room facilities. The program offices are centrally located near the University in the city center, where a full-time Resident Director and support staff are available to assist and guide students throughout the year.

COURSES and TUTORIALS: Students who study in Munich may take the following types of courses (all coursework is in German):

1) Courses offered by the Program exclusively for Junior Year students. These courses are fully described in the Program brochure available from the W.S.U. Junior Year Program Office (see above).

2) Courses offered by the German university for which the Program provides a tutor who meets with students once a week for out-of-class tutorials.

3) Courses offered by the German university without Program sponsored tutorials.

Students may take courses in almost any discipline at the German universities if they meet course prerequisites and have the necessary language skills.

INTERNSHIPS and WORK OPPORTUNITIES: The Junior Year in Munich (JYM) can provide opportunities for professional experience and business related internships. In the past, JYM students have held internships with local news journals, publishing houses and several major international firms. The Program also offers the JYM/ISA Consult Pratikum, an internship arrangement with the Dresden branch of ISA Consult, a consulting firm providing research and consultancy services for governmental authorities, public industries, and a wide range of businesses in the private sector throughout Germany. For students interested in Foreign Service, opportunities exist to work with several organizations such as the U.S. Consulate in Munich. Students may also be able to find part-time work in Germany.

SCHOLARSHIPS and LOANS

German-American Cultural Center Scholarship: Award of $500-$1,000 open to W.S.U. students accepted to the Junior Year Program.

Junior Year in Germany Scholarship: Awards of $500-$2,000 open to students accepted to the Junior Year in Germany Program with outstanding achievement and demonstrated financial need.

Max Kade Foundation Scholarship: Awards of $500-$2,000 open to students accepted in the Junior Year in Germany Program with outstanding academic achievement and demonstrated financial need.

Wayne State University students holding Presidential Scholarships or Michigan Competitive Scholarships may use these for Program tuition as well as any Federal grants and loans.

Modern Greek in Thessalonike

Program Office: 440 Manoogian Hall; 313-577-3032
Coordinator: Leonidas Pittos

Since 1972 the Ministry of Culture of the Republic of Greece has made available annual scholarships to support study abroad experiences for students of Modern Greek language and literature at Wayne State University. The scholarships are intended to enable a student to improve his/her knowledge of Greece, its people, and their way of life through study at the international summer school of the Institute for Balkan Studies in the month of August. The course includes three hours of intensive study of modern Greek (at the intermediate or advanced level) each day and two hours of study each day of the history, literature and philosophy, art and archaeology of Greece from ancient to modern times. Successful completion of these courses earns a special certificate for the student who is expected to submit a written report reflecting his/her experiences and accomplishments at the Balkan Institute. The report will be due one month after return from Greece.

ELIGIBILITY

1) Applicants must have a basic speaking, reading, and writing knowledge of modern Greek.

2) Applicants must be currently enrolled at Wayne State University at the time of application and have successfully completed a minimum of three semesters of full-time credit. Applicants must have taken at least one course in modern Greek at W.S.U., but need not be currently enrolled in a modern Greek course.

3) Citizens of Greece are not eligible, nor are previous recipients of the scholarship.

APPLICATION

1) Applicants must complete an application form obtainable from the program coordinator in 440 Manoogian Hall. For consideration for the immediately subsequent summer, applications are due in the departmental office by 5:00 p.m. of the second Monday of March. Late applications will not be considered.

2) Applicants must submit with their forms a 250 - 500 word essay (in English) describing the particular advantages this experience would bring to the student.

SELECTION CRITERIA

1) Excellence of scholarship in general at the university level and especially in modern Greek.

2) Evaluation of the essay.

3) Preference will be given to applicants who have not visited Greece as an adult and to those who are not of Greek descent.

Africana Studies

Office: 11th Floor, 5057 Woodward, Rm. 11002.2; 313-577-2321
Chairperson: Melba J. Boyd
Undergraduate Adviser: Ollie A. Johnson III
Accounts Assistant: Annette Hawkins
Personnel: Joanne Lewan
Web: http://www.clas.wayne.edu/africanastudies

Professors

Melba J. Boyd (Distinguished), Eboe Hutchful, Perry Mars

Associate Professors

Beth Bates (Emerita), Ollie A. Johnson III, Daphne Ntiri

Assistant Professors

Lisa Alexander, David Goldberg, Xavier Livermon, Lisa Ze-Winters

Lecturer

Todd Duncan

Adjunct Professors

Ronald Brown, Jorge Chinea, Michael Goldfield, Guerin Montilius

Degree Program

BACHELOR OF ARTS with a major in Africana Studies

Africana Studies is the systematic study of the historical, cultural, intellectual and social development of people of African descent, the societies of which they are a part, and their contribution to world civilization. Its principal geographic domains are the United States, the Caribbean, Latin America, the African continent, and increasingly Western Europe where large Africana communities reside. The field features a diversity of intellectual approaches and practical interests. Based on an interdisciplinary framework, it draws upon the humanities, and the social and behavioral sciences.

The major in Africana Studies prepares students for a wide range of professional and career opportunities. Majors can continue to graduate (including doctoral level) studies in the humanities, social and behavioral sciences, or pursue professional programs in law, medicine, business, and journalism. Graduates who enter the job market are prepared for careers in human services and public health, education, public relations, community development, urban planning; and more generally for jobs in the public sector, in central cities and urban institutions, or jobs that involve cultural or intergroup relations as well as international affairs. In the context of metropolitan Detroit, Africana Studies graduates will be better prepared to deal with the complexity and diversity of the city's political and demographic realities as they assume important roles of leadership.

Bachelor of Arts with a Major in Africana Studies

Admission Requirements: See the general requirements for undergraduate admission to the University, page 24.

DEGREE REQUIREMENTS: Candidates must complete 120 credits in course work including satisfaction of the University General Education Requirements (see page 18) and the College of Liberal Arts and Sciences Group Requirements (see page 274), as well as the Departmental major requirements cited below. All course work must be completed in accordance with the regulations of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

Major Requirements: Majors must complete at least thirty-six credits in a prescribed course of study, including:

1. AFS 3420 (P S 3820) (four credits).

2. Completion of an approved area of concentration (twenty-nine credits).

3. Writing Intensive Requirement: AFS 5993 taken as corequisite with Field Work (AFS 5991) and/or Directed Study (AFS 6990) (three to eight credits), or any 3000-level AFS course. Students who pursue the 3000-level course option must obtain the permission of the course instructor and the department's undergraduate advisor. .

Areas of Concentration

Cultural Studies and the Arts (twenty-nine credits): This concentration is designed for students who are interested in exploring the relations between cultural expression/production and the social experience of Black life.

1. AFS 2010, 3200, 4240, 5110

2. AFS (ENG) 2390 and/or AFS 5310.

3. Electives from: AFS 1010, 2210; AFS (SOC) 2600; AFS (HIS) 3160; AFS (HIS) 3180; AFS 4240; AFS 5130; AFS (THR) 5220; AFS (HIS) 5320, AFS 5480.

4. One cognate from: A H (AFS) 3750; ANT 3110, ANT (AFS) 5260; ENG 5470, ENG 5480; MUH 3360; COM (AFS) 5040, COM (AFS) 4240.

Development and Public Policy (twenty-nine credits): This concentration emphasizes historical, political and policy dimensions of the economic and social development of Black communities.

1. AFS 2210, 2600, 3160, 3180.

2. Three courses from: AFS 1010, 2010, 3250, 5480; AFS (SOC) 3860; AFS (HIS) 3140, AFS (HIS) 3150, AFS (HIS) 3360, AFS (HIS) 5320, AFS (HIS) 5580; AFS (W S) 5110; AFS (PS) 5030; AFS 5130; AFS (PSY) 5700; AFS (P S) 5740; AFS 6600.

3. Two courses from: AFS (SOC) 3860, AFS (SOC) 5580; AFS 5130; AFS (PSY) 5700.

4. One cognate from: AFS (GPH) 2500; ANT 3110, 3520, 6230; AFS 3610; HIS 3996, 5730; P S (AFS) 5030, P S (AFS) 5740; AFS (P S) 6100; SOC (AFS) 5570; AFS (S W) 6510.

Co-Majors

Students with an interest in africana studies and in anthropology, English, history, sociology, urban studies, and political science are encouraged to consider a co-major in africana studies. Many africana studies courses are cross listed and africana studies co-majors may receive credit for courses taken for another major. The course of study for co-majors or dual majors is determined by the undergraduate adviser and coordinated with the undergraduate adviser of the corresponding department.

Minor in Africana Studies

Students majoring in other fields can minor in africana studies. The minor consists of six AFS courses which must include AFS 3420 and two or more of the following: AFS 2010, 2210, 2600, and 3250. Students wishing to minor in africana studies are encouraged to visit the departmental office for information and counseling. A minor may be declared when filing for graduation.

Internships

Internships are available in which students gain experience through placements in settings similar to those in which they will later be seeking professional roles. These include: community service agencies, community-based self-development organizations, public and private institutions, Black alternative organizations and other appropriate settings. Some students may also do a practicum directly with the Department of Africana Studies, assisting in research, community relations, and in the organization, coordination and conduct of community extension and education service programs. The objective of this mode of study is to offer students the opportunity to synthesize diverse ideas, theories and methodologies with important and practical real world imperatives. Interested students should contact the department's undergraduate adviser.

Financial Aid

Dudley Randall Scholarship Endowment Fund and Coleman A. Young Scholarship Endowment Fund: Only Africana Studies majors are eligible for scholarship awards under these endowed funds. Majors eligible for awards must maintain a minimum g.p.a. of 3.0 in the Department, exhibit qualities of leadership and/or significant service to community development. Recipients are selected by an awards committee, and the amount of the award depends on the funds available.

Summer Study Abroad

This travel program periodically visits Africa and/or Brazil. Through an integrated field/classroom/seminar experience, students are challenged to grow intellectually, as well as to increase their self-awareness and sensitivity to other cultures. For more information, consult the department adviser.

African Language

Students may satisfy the Foreign Culture (FC) General Education Requirement by successfully completing the three-course sequence in Swahili offered by the Department of Classical and Modern Languages, Literatures and Cultures. (See page 330.)

AFRICANA STUDIES COURSES (AFS)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

1010 Introduction to Africana Studies. Cr. 3

An interdisciplinary approach to exploring several broad issues, topics, theories, concepts and perspectives which describe and explain the experiences of persons of African descent in America, the Continent, and the diaspora. (T)

2010 African American Culture: Historical and Aesthetic Roots. Cr. 4

Core requirement for Africana Studies majors. Examination of the historical, traditional and aesthetic bases of a variety of cultural forms -- language, literature, music -- of the Black experience. (T)

2210 (SS) Black Social and Political Thought. Cr. 4

Core requirement for Africana Studies majors. Survey of the Black intellectual and political tradition from the United States, the Caribbean and Africa. (T)

2390 (ENG 2390) (IC) Introduction to African-American Literature: Literature and Writing. Cr. 4

Prereq: grade of C or better in ENG 1020, ENG 1050, former ISP 1510, or equiv. (equiv. means AP credit, IB, CLEP, or transfer credit with grade of C or better). Introduction to major themes and some major writers of African-American literature, emphasizing modern works. Reading and writing about representative poetry, fiction, essays, and plays. (T)

2500 (GPH 2500) Geography of Africa. Cr. 4

Geography of modern Africa: regions, countries, peoples. Physical environment, resource potential, population groups, migrations, economics, development, political systems and conflicts. (I)

2600 Race and Racism in America. (SOC 2600) Cr. 3

Examination of the nature and practice of racism in American society from its historical foundations to its contemporary institutional forms. (B)

3140 (HIS 3140) African American History I: 1400-1865. Cr. 3-4

African origins of Black Americans; transition from freedom to slavery; status of Blacks under slavery. (F)

3150 (HIS 3150) African American History II: 1865 to the Present. Cr. 3-4

The Black experience in national life since emancipation. (W)

3160 Black Urban History. (HIS 3160) Cr. 4

Historical experience of African Americans in urban areas; impact of their communities on urban development from 1860 to contemporary times. (B)

3170 (HIS 3170) Ethnicity and Race in American Life. (AFS 6170) (HIS 6170) Cr. 3-4

Exploration of complicated relationship between ethnic and racial diversity and the making of America. Using historical, literary, and cultural readings and sources to examine key themes: Who was the "Other"? What is an "American"? (B)

3180 Black Social Movements. (HIS 3180) Cr. 4

Prereq: AFS 2210 recommended. Survey of mass or popular Black movements with emphasis on their political and cultural impact, historical continuity and organization. (Y)

3200 The African-American Film Experience Cr. 4

Historical and contemporary portrayals of African American people in narrative and documentary film. Emphasis on filmic approaches to race relations, cinematic elaboration of racial stereotypes, and legitimation functions of film. (Y)

3230 (HIS 3230) The Civil Rights Movement. (HIS 5235) (AFS 5230) Cr. 3

Historically-driven survey of the Civil Rights Movement; focus on African Americans' efforts to enjoy the full benefits of American citizenship. (Y)

3250 (FC) Politics and Culture in Anglophone Caribbean. Cr. 3

Survey of political, economic and cultural life of the Caribbean. Relationship of the Caribbean to U.S. and world political and cultural developments. Interdisciplinary approach: historical, comparative, thematic issues. (Y)

3360 Black Workers in American History. (HIS 3360) Cr. 4

Survey course. Slave and free workers during antebellum period; skill trades, sharecropping, menial labor, coal mining during Reconstruction; labor struggles and job discrimination in the twentieth century. (F,W)

3420 Pan Africanism: Politics of the Black Diaspora. (P S 3820) Cr. 4

Interplay of Pan Africanism as a cultural and socio-political movement in world politics from its origins as a concept to organizing practice worldwide. (Y)

3610 (FC) Interdisciplinary Perspectives on Foreign Culture: The Africans. Cr. 4

Prereq: upper division standing. Humanistic aspects, history, sociocultural institutions of African cultures; theory and methods, comparativist perspectives. (Y)

3750 (A H 3750) African American Art. Cr. 3

Prereq: one 1000-level Art History course. Introduction to African American art from the colonial period to the present, with emphasis on the U.S. and some attention to South and Central America and the Caribbean. (Y)

3860 Race, Class and the Criminal Justice System. (SOC 3860) Cr. 3

Prereq: upper division standing or criminal justice majors or minors. Survey of race and class in the criminal justice system: police, courts, jails and prisons. Socio-economic environment of offenders, and effects of criminal justice process on their ability to function positively within that environment. (T)

4240 African Americans in Television. (COM 4240) Cr. 4

Historical overview of African Americans in radio and television with emphasis on three areas of study: news and documentary; entertainment and advertising; and ownership, employment and access. (Y)

4245 Blacks and Sport in the United States. Cr. 3

Examination of the intersection between race and sport in the United States in order to better understand the role of sport in socialization and culture constructions. (B)

4750 (N E 4750) Colonization and Decolonization in North Africa: The Example of Algeria. Cr. 3

European (French) colonization in North Africa with emphasis on Algeria. Theoretical principles of nineteenth century colonization; emergence of national liberation movements. Socio-economic impact of colonization on Algeria through the 1990s. (Y)

5030 (P S 5030) African American Politics. Cr. 4

Nature and texture of Black politics; various perspectives on politics by Blacks; the impact of Blacks on American politics. (Y)

5040 (COM 4040) Diversity in Interpersonal Communication. (AFS 5040) Cr. 3

Issues and topics related to the study of communication behaviors and patterns in gender, race, social class, and sexual orientation within the United States. (Y)

5110 Black Women in America. (W S 5110) Cr. 3

Social, cultural, artistic and economic development of Black women in America; topics include: racism, sexism, marriage, motherhood, feminism, and the welfare system. (Y)

5130 The Black Family. Cr. 4

Prereq: upper division undergraduate standing. Survey and analysis of historical and social forces relative to the study of the Black family. (Y)

5220 (THR 5220) Black Dramatic Literature and Performance. Cr. 3

Critical study of significant Black dramatists of the American stage: Willis Richardson, Marita Bonner, Randolph Edmonds, Langston Hughes, Alice Childress, Lorraine Hansberry, Ed Bullins, Amiri Baraka, Ntozake Shange, and August Wilson. (Y)

5241 (HIS 5241) American Slavery. (HIS 7241) (AFS 7241) Cr. 4

Rise, expansion, and demise of slavery in the United States. Study of the five generations of Americans who lived with this institution; the unique imprint of slavery on American history and collective memory. (Y)

5260 (ANT 5260) The African Religious Experience: A Triple Heritage. Cr. 3

A triple heritage has contributed to the shaping of lives of African descent: the indigenous, Islamic and Christian religions. Analysis of these legacies, their specificity, interplay and significance in Africa, the Caribbean, South and North America. (B)

5310 Special Topics in Africana Studies. Cr. 3-4

Topics to be announced in Schedule of Classes; topics may include: Caribbean politics, African development, male-female relationships, Negritude. (T)

5320 Black Labor History. (HIS 5320) Cr. 3

Prereq: upper division standing. Offered for undergraduate credit only. History of Black labor from the colonial period to the present . Topics include the development of a dual racial labor system in America; Black workers in the development and evolution of the American labor movement; and Black responses to white working class behavior. (I)

5480 African Americans in the U.S. Political Economy. Cr. 4

Interdisciplinary and case study approach to African American social and economic development. Social stratification in Black communities; growth of Black middle class; racial discrimination in national economy, income disparities between whites and Blacks; and growth of urban Black underclass. (Y)

5570 (SOC 5570) Race Relations in Urban Society. Cr. 3

Theoretical orientations applied analytically to enhance an understanding of the patterned structures of privilege in society which are based on race. Inequality, segregation-desegregation, pluralism; social structural frameworks; some attention to social-psychological aspects of topics such as prejudice and racism. (I)

5580 Law and the African American Experience. (SOC 5580) Cr. 4

Prereq: upper division or graduate standing. In-depth examination of the African American experience with law in the U.S.; historical development of the U.S. Constitution; legal barriers to equality and the influence of race on the law; use of law as a political instrument; participation of Blacks in the legal process; comparisons with other countries. (B)

5700 The Psychology of African Americans. (PSY 5700) Cr. 4

Prereq: upper division standing. Methodological approaches to and theories of Black behavior and personality development. Topics include: race and pathology, life-span and psycho-sexual development, personality formation, social and environmental stress and adaptation. (T)

5740 (P S 5740) Ethnicity: The Politics of Conflict and Cooperation. (PCS 5500) Cr. 4

Current ethnic (racial, linguistic, religious, and cultural) conflicts regionally, nationally and internationally. Introduction to concepts and analytic perspectives for understanding ethnicity as a factor in nation building and maintenance. (Y)

5991 Field Work in the Black Community. Cr. 3-8

Prereq: written consent of instructor. Open only to undergraduate majors. Field placement in community-based, human services, and civic organizations and governmental agencies. (Y)

5993 (WI) Writing Intensive Course in Africana Studies. Cr. 0

Prereq: junior standing, consent of instructor; coreq: AFS 3160, 3180, 3200, 3250, 3420, 3610, or 5110. Offered for S and U grades only. No degree credit. Required for Africana Studies majors. Disciplined writing assignments under the direction of a faculty member. Must be selected in conjunction with a designated corequisite; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. (T)

6100 (P S 6050) Class, Race, and Politics in America. (HIS 5110) (SOC 7330) (U P 7030) Cr. 3

Prereq: senior standing or consent of instructor. Historical and analytic investigation into the role of class and race in American politics. (I)

6170 (HIS 3170) Studies in Ethnicity and Race in American Life. (AFS 3170) (HIS 6170) Cr. 3-4

Exploration of complicated relationship between ethnic and racial diversity and the making of America. Using historical, literary, and cultural readings and sources to examine key themes: Who was the "Other"? What is an "American"? (B)

6455 (U P 6455) Discrimination and Fair Housing. (ECO 6455) (P S 6455) (SOC 6455) (U S 6455) Cr. 3

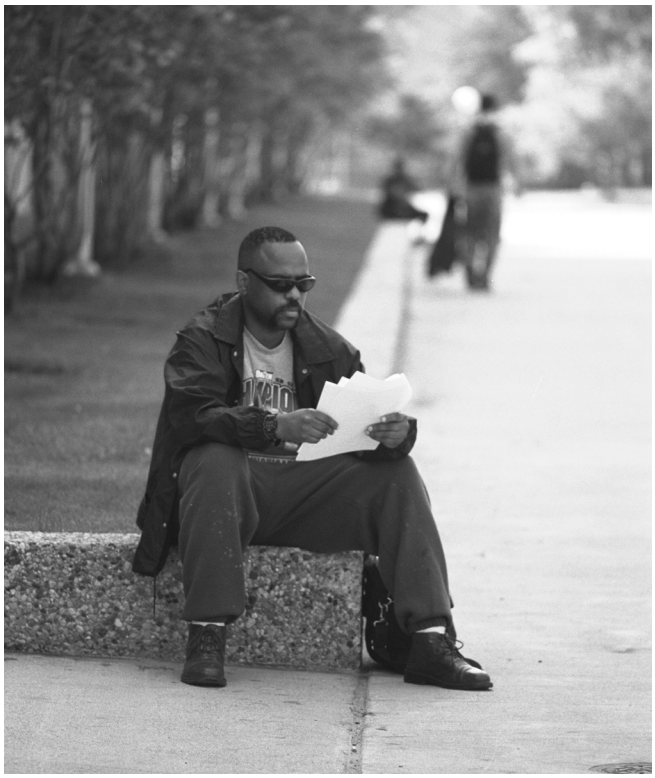
Prereq: senior or graduate standing. Multidisciplinary investigation into the nature, motivations, consequences, and legal/public policy implications of racial/ethnic discrimination in housing and related markets in U.S. metropolitan areas. (B)

6510 (S W 6510) Social Work and the Black Community. Cr. 3

Policy and practice issues for social work assessment and intervention within the black community, including education and health care. (Y)

6990 Directed Study. Cr. 3-8

Prereq: written consent of instructor. Open only to majors and graduate students. Reading and research projects. (Y)



American Studies

Director: Sarika Chandra
E-mail: schandra@wayne.edu
Office: 5057 Woodward, Room 9209.4; 313-577-8631

Web: http://www.americanstudies.wayne.edu

Advisory Committee

Anthropology: Thomas Killion

Art and Art History: Marian Jackson

Chicano-Boricua Studies: Jose Cuello

English: Robert Aguirre, Todd Duncan, Jonathan Flatley, Gwen Gorzelsky, William Harris, Jerry Herron, Janet Langlois, Michael Liebler, Kathryne Lindberg, Steven Shaviro, Kirsten Thompson, Barrett Watten, Lisa Ze Winters

Classical and Modern Languages, Literatures, and Cultures: Alfred L. Cobbs, Donald Haase

History: Marc Kruman, Sandra VanBurkleo, Denver Brunsman, Jorge Chinea, Elizabeth Faue, Liette Gidlow, Kidada Williams

Philosophy: William D. Stine

Political Science: Philip R. Abbott, Timothy Bledsoe, Ronald Brown, Susan Fino, Michael Goldfield, Ewa Golebiowska, Sharon Lean

Degree and Certificate Programs

BACHELOR OF ARTS with a major in American studies
GRADUATE CERTIFICATE IN AMERICAN STUDIES

American Studies is an interdisciplinary program that provides a historical, political, and cultural consideration of the Americas. The program also emphasizes a critical study of "America" and "American" in relationship to global and transnational processes. Students pursing a Bachelor of Arts in this discipline can follow a flexible curriculum by choosing courses from a wide variety of departments including Africana Studies, Anthropology, Art and Art History, Classical and Modern Languages, English, History, Philosophy, Political Science, Sociology, and some interdisciplinary programs, such as Chicano-Boricua Studies and Urban Studies. Interested students should consult the director.

Bachelor of Arts Program

Admission Requirements: See the general requirements for undergraduate admission to the University, page 24.

DEGREE REQUIREMENTS: Candidates must complete 120 credits in course work including satisfaction of the University General Education Requirements (see page 18) and the College of Liberal Arts and Sciences Group Requirements (see page 274), as well as the major requirements cited below. All course work must be completed in accordance with the regulations of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

Major Requirements: Major concentration in American studies consists of at least forty-three credits: a minimum of twenty-five credits in required courses, and eighteen credits in electives (at 3000 level or above), distributed as follows:

American Studies: at least six credits, including A S 2010 and 5010 or 5997.

English: at least nine credits, selected from among ENG 3140 and 5400 through 5490.

History: at least ten credits, including HIS 2040, 2050, and 5190.

Electives: Eighteen credits in course work pertaining to American culture and institutions in at least three departments. Selection of these courses, which may also meet the Liberal Arts College Group Requirements, must be made in consultation with the director of American Studies.

Writing Intensive (WI) Requirement: In American studies, this consists of election of a course in an appropriate department numbered 5993, to be arranged in consultation with the Director of American Studies.

Minor in American Studies

The minor in American studies requires eighteen credits in coursework, distributed as follows:

a. American Studies Core:

A S 2010 -- Introduction to American Culture: Cr. 3-4
A S 5010 -- Topics in American Studies: Cr. 3-4
A S 5997 -- Seminar in American Studies: Cr. 3-4

b. *Electives:* In addition, in consultation with the Director of American Studies, students must take sufficient elective credits (at 3000 level or above) to total eighteen credits. Electives for the minor will be drawn from courses in the cooperating departments and programs.

AMERICAN STUDIES COURSES (A S)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

2010 Introduction to American Culture. Cr. 3-4

Introduction to American culture through the study of literature, art, films, and other cultural expression. (T)

3400 Themes and Genres in American Studies. Cr. 3

Prereq: A S 2010. Inquiry into major themes and genres of American cultural materials. Topics announced in Schedule of Classes. (Y)

5010 Topics in American Studies. Cr. 3-4 (Max. 12)

Inquiry into the concept of America from early American experience to the present. (Y)

5997 Seminar in American Studies. Cr. 3-4 (Max. 8)

Reading, discussion, and individual research oriented toward a common theme or problem in the study of American culture, history and politics. Topics to be announced in Schedule of Classes. (I)

Anthropology

Office: 3054 Faculty Administration Building; 313-577-2935
Chairperson: Andrea Sankar
Academic Services Officer: Susan Ward
Undergraduate Adviser: Thomas Killon

Web: http://www.clas.wayne.edu/Anthropology/

Professors

Barbara C. Aswad (Emerita), Tamara Bray, Bernice A. Kaplan (Emerita), Guerin Montilus, Bernard Ortiz de Montellano (Emeritus), Mark Luborsky, Andrea Sankar

Associate Professors

Allen W. Batteau, Sherylyn H. Briller, Gordon L. Grosscup (Emeritus), Thomas W. Killion, Barry Lyons

Assistant Professors

Stephen Chrisomalis, Jacalyn Harden, Todd Meyers, Nathalie Peutz

Lecturer

Teddi Setzer

Degree Programs

BACHELOR OF ARTS with a major in anthropology
MASTER OF ARTS with a major in anthropology
MASTER OF ARTS with a major in anthropology
DOCTOR OF PHILOSOPHY with a major in anthropology and concentrations in cultural anthropology, archaeology, medical anthropology, physical anthropology, urban anthropology, applied anthropology, business anthropology, and industrial and organizational anthropology

Anthropology is a comparative social science that seeks to understand human behavior within the context of different cultural systems, past and present. Anthropology also seeks to understand human biological evolution and adaptation and their interaction with social and cultural behavior. Anthropology brings a cross-cultural knowledge base and unique methodological and conceptual tools to bear on the understanding of the transformations, problems and interconnections of contemporary societies. The discipline is divided into the fields of cultural, physical, and linguistic anthropology, archaeology, and applied anthropology. Wayne State's department offers a broad-based Bachelor of Arts in anthropology.

Undergraduate training in anthropology is designed for various groups of students: 1) those desiring scientific knowledge of the social and cultural determinants of behavior; 2) those preparing to enter law, medicine, public health, social work, information sciences, or public administration; 3) those preparing for employment in historical or natural science museums; 4) those preparing to serve the business and/or industrial community as specialists in cross-cultural analysis or management consulting; 5) those seeking to enter the field of cultural resource management; 6) those expecting to work with the general public and, therefore, requiring a broad grasp of the nature of society, group behavior and social change; 7) those looking forward to teaching anthropology or another of the social or behavioral sciences; 8) those preparing for a career in another country, in international studies, or in foreign affairs; 9) those planning to pursue careers in law enforcement, police science, or criminal justice; and 10) those who desire to pursue graduate studies in anthropology.

Bachelor of Arts with a Major in Anthropology

The Department offers the Bachelor of Arts degree with a major in anthropology, for which the following admission and degree requirements apply.

Admission requirements for this degree program are satisfied by the general requirements for undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates must complete 120 credits in course work including satisfaction of the University General Education Requirements (see page 18) and the College of Liberal Arts and Sciences Group Requirements (see page 274), as well as the departmental major requirements cited below. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

Major Requirements: Students majoring in anthropology are required to elect a minimum of thirty-one credits in anthropology, including ANT 2100, 2110, 3100, 3200, 3310, 5210, 5310, 5380, 5993 (taken concurrently with ANT 3310 or 5996), and 5996. In addition, at least one culture area course (e.g., ANT 3520, 3540, 3550, 6290, or an acceptable alternative) and one other elective course (ANT 3110, 3150, 5200, 5270, or an acceptable alternative) must be completed. A minimum of fifteen credits must be taken in residence. The capstone course (5996) must be taken in residence. All core courses must be completed with a grade of "C" or better.

Limitations: Students may not elect more than forty-five credits in course work within the Department.

Cognate Requirements: Choices of cognate courses should be discussed with faculty in the Department of Anthropology.

Honors Program for Majors: see description of Honors Program, below.

Honors Program

This program is open to students pursuing a bachelor's degree with a major in anthropology who maintain an overall cumulative grade point average of at least 3.3 and a similar g.p.a. in anthropology courses. Honors majors must demonstrate the ability to do original work by writing an honors thesis during their senior year. The anthropology honors program leads to a degree designation 'With Honors in Anthropology'. Students in the Honors Program must satisfy the following requirements:

1. All requirements for a major in anthropology;
2. Overall g.p.a. of 3.3 or above;
3. Anthropology g.p.a. of 3.3 or above;
4. A minimum of three and a maximum of six thesis credits in anthropology (ANT 4999);
5. An approved honors thesis;
6. One 4000-level honors seminar (HON 4200-4280) offered by the Liberal Arts and Sciences Honors Program.
7. A total of twelve honors-designated credits including ANT 4999, the 4000-level Honors Program seminar, and other honors credits earned in Honors Program courses or in Honors sections of courses offered by other departments.

For information about honors-designated coursework available each semester, including the required 4000-level Honors seminar, visit the Honors College website link at: http://www.honors.wayne.edu/classes.php.

Combined Degree

Students pursuing a degree at an approved school of dentistry, medicine, or law may obtain a combined degree with anthropology; see page 276.

Minor Study in Anthropology

The election of a minor in anthropology is appropriate for students in a variety of disciplines who wish to add a comparative, cross-cultural, or bio-cultural perspective on the study of human beings to their area of specialization. The minor requires a minimum of eighteen credits in anthropology courses including ANT 2100 (offered for three or four credits); two of the following: ANT 2110, 3100, 3200 or 3310; as well as one of the following: ANT 5210, 5380, or 5996. Students must take an additional six credits in anthropology culture area and/or other elective courses. Total credits, other than Anthropology 2100, must equal at least fifteen for all students (including transfer students).

In order for students to gain maximum benefit from their minor in conjunction with their major, it is strongly recommended that they consult with an adviser in the department before electing courses. A list of elective anthropology courses recommended for combination with a variety of majors is available from the Department.

'AGRADE' Program

Accelerated Graduate Enrollment: This program enables qualified seniors in the College of Liberal Arts and Sciences to enroll simultaneously in the undergraduate and graduate programs of the College. Students may apply for the 'AGRADE' Program during the term in which they will complete ninety credits; to qualify, students must have a minimum 3.6 g.p.a. in anthropology and be in the *cum laude* range in their overall g.p.a. For more details about the 'AGRADE' Program, contact the Undergraduate Director and the Graduate Director of the Department of Anthropology (313-577-2935), and the Graduate Officer of the College of Liberal Arts and Sciences.

ANTHROPOLOGY COURSES (ANT)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

2100 (SS) Introduction to Anthropology. Cr. 0-4

Required for majors. Study of humanity, past and present: cultural diversity and change, human evolution, biological variability, archaeology, ethnography, language, and contemporary uses of anthropology. (T)

2110 (LS) Introduction to Physical Anthropology. Cr. 3

Required for majors. Role of hereditary and environmental factors, human genetics, meaning of "race" and racial classifications, fossil records, non-human primate behavior and evolution. (T)

2500 Archaeology of the Great Lakes. Cr. 4

Introduction to Native cultures and archaeology of Michigan and the Great Lakes region, from the first peopling of the region through early historic times; changing patterns of adaptation to the ecology of the Great Lakes region; focus on ancient technologies and material culture, social organization, settlement patterns, economic strategies, and political formations. (Y)

3061 (N E 3061) Oral History in Middle Eastern Tradition. Cr. 3

Methodologies, techniques and applications of oral history used as tools to investigate modern social history of Middle Eastern societies. (W)

3100 Cultures of the World. Cr. 3-4

Required for majors. Only students in Honors Program may register for four credits. Human societies exhibit tremendous variation. How and why do we differ? What do these differences mean in today's world. Explore, contrast, compare, understand cultures like those of the Amazon rain forest, China, Japan, Alaska, India, Central America, and urban America. View their lifestyles, politics, kinship, economics, religions through readings, discussion, film. (T)

3110 Detroit Area Minorities: Arabs, Hispanics, and African Americans. Cr. 3-4

Offered for four credits to Liberal Arts Honors students only. Arab, African American, and Hispanic minorities from the perspective of history, social organization, and cultural background. Topics include: family roles, community structure, migration, religious beliefs, education, health problems. (T)

3150 (FC) Anthropology of Business. Cr. 0-4

Differences between American culture/business practice and the culture/business practice of other countries: assumptions, world view and family structure, organization and language. (T)

3200 (HS) Lost Cities and Ancient Civilizations. Cr. 3

Required for majors. Early civilizations that developed in different parts of the world in comparative perspective. Hypotheses to explain rise and fall of civilizations, in context of ancient cultures. Basics of archaeology: how facts are formed; meaning of "civilization." How understanding of the past shapes understanding of the present. Geared toward the non-major. (Y)

3210 Ancient Africa. Cr. 3

Prereq: ANT 2100, 3200, or consent of instructor. Survey of the archaeological and fossil record of human development in Africa, from faint traces over 300 million years old through the transition to food production, settled life, and civilizations. (B)

3220 The Inca and their Ancestors. (ANT 6510) Cr. 3

Prereq: ANT 2100, 3200, or consent of instructor. Introduction to precolumbian civilizations of South America. Archaeological and ethnohistorical data on ancient cultures; foundations of Inca civilization; major cultures from different regions and periods. (B)

3310 Language and Culture. (LIN 3310) Cr. 3

Required for undergraduate majors. Prereq: ANT 2100 or LIN 2720 or consent of instructor. Explore the rich interconnections of language and culture in distant and local communities, in contexts where languages are declining or developing anew, and in life cycle and ordinary contexts of daily life. Students are also expected to explore their own language and cultural backgrounds and those to which they are drawn. (F)

3400 Medicine, Health and Society. Cr. 3

Prereq: ANT 2100 or consent of instructor. Introduction to concepts in medical anthropology; exploration of healing practices and the institutions shaping those practices. (F)

3520 (FC) Understanding Africa: Past, Present and Future. Cr. 3

In-depth knowledge of Africa through the study of its physiography, prehistory and history, social institutions, and social changes within a global context. (T)

3530 Native Americans. Cr. 3

Survey of Native American cultures north of Mexico in historical and comparative perspective; contemporary Native American issues. (I)

3540 (FC) Cultures and Societies of Latin America. Cr. 3

Latin American social structures and cultural variation, history, and relationship to the United States. Themes include class, race, ethnicity, gender, religion, globalization, and immigration to the United States. (I)

3550 (FC) Arab Society in Transition. (N E 3550) Cr. 3

Distinctive social and cultural institutions and processes of change in the Arab Middle East. Regional variations: background and discussion of current political and economic systems and their relationship to international systems. (I)

3555 Sex and Gender in Prehistoric Societies. Cr. 3

Prereq: ANT 3220 or 5270 recommended. Recent developments in anthropological and archaeological research on women and gender. The engendering of archaeological, anthropological, historical, political, and methodological perspectives. (B)

3600 Topics in Anthropology. Cr. 3

Prereq: ANT 2100. Selected topics or emerging fields in any of the four anthropology subfields (cultural; physical; archaeology; linguistics). Topics to be announced in Schedule of Classes. (I)

3990 Directed Study. Cr. 2-6 (Max. 6)

Prereq: 16 credits in anthropology with grades of A or B; consent of instructor. (T)

4999 Honors Research and Thesis. Cr. 3-6

Prereq: senior standing; 3.3 h.p.a.; 3.3 h.p.a. in anthropology. Open only to majors in anthropology. Research and thesis to be completed under the direction of a faculty member whose expertise includes the student's area of interest. Adviser and a second reader will read the completed thesis. (T)

5060 Urban Anthropology. (SOC 5540) Cr. 3

Prereq: ANT 2100 or consent of instructor. Social-cultural effects of urbanization from a cross-cultural perspective with emphasis on the developing area of the world. The process of urbanization; the anthropological approach in the area of urban studies. (Y)

5140 Biology and Culture. Cr. 3

Prereq: ANT 2100 or 2110 or consent of instructor. Interrelationships between the cultural and biological aspects of humans; human genetic variability, human physiological plasticity and culture as associated mechanisms by which humans adapt to environmental stress. (Y)

5170 Political Anthropology. Cr. 3

Prereq: ANT 2100 or 5200 or consent of instructor. Ethnographic and comparative study of power, politics, and political organizations in non-state and state societies and in the colonial encounter; evolutionary, functionalist, practice-oriented, Marxist, feminist, and Foucauldian approaches to the study of power. (I)

5180 Forensic Anthropology. Cr. 3

Prereq: CRJ 1010 or former CRJ 2000 or ANT 2110 or consent of instructor. Introductory survey of the natural, medical, and behavioral sciences with regard to forensic applications. Topics may include: toxicology, forensic pathology, fingerprints, ballistics, analysis of the human skeleton, body fluid identification. (B)

5210 Anthropological Methods. Cr. 4

Prereq: ANT 2100 or consent of instructor. Required for majors. Intensive introduction to research methods, techniques and issues in anthropology. Students engage in a research experience supervised by the instructor, write a field journal, and complete a final exam. Exercises focus on data collection, data management, and data analysis. Techniques include participant observation, fieldnotes, and interviewing. Students learn how to use software packages employed by anthropological researchers in the computer lab. (Y)

5230 Mixed Methods Research Methodology. Cr. 4

Prereq: ANT 2100, ANT 5380, or ANT 5996. Introduction to statistics for students already trained in anthropological or qualitative methods; statistical concepts and techniques. (S)

5240 Cross Cultural Study of Gender. Cr. 3

Prereq: ANT 2100 or consent of instructor. Evolutionary and cultural bases of gender roles using a world sample; division of labor, marriage and sexual behavior, power and ideology. (I)

5260 The African Religious Experience: A Triple Heritage. (AFS 5260) Cr. 3

A triple heritage has contributed to the shaping of lives of African descent: the indigenous, Islamic and Christian religions. Analysis of these legacies, their specificity, interplay and significance in Africa, the Caribbean, South and North America. (I)

5270 Introduction to Archaeology. Cr. 3

Prereq: ANT 2100 or 3200. For advanced upper-level undergraduates with a background in anthropology, and graduate students. Current theoretical and methodological approaches to investigation of past societies; frameworks include culture history, processual, structuralist, neo-Marxist; methods and techniques used to investigate ancient environments, subsistence strategies, ideologies, and social, political and economic organizations. (Y)

5280 Field Work in Archaeology of the Americas. Cr. 5 (Max. 10)

Prereq: consent of instructor; ANT 5270 recommended. Introduction to reconnaissance and excavation of sites; preparation and cataloging of specimens; analysis of data. Material Fee As Indicated In The Schedule of Classes (B)

5310 Language and Culture. (LIN 5310) Cr. 3

Required for undergraduate majors. Prereq: ANT 2100 or 5200 or consent of instructor. Explore the rich interconnections of language and culture in distant and local communities, in contexts where languages are declining or developing anew, and in life cycle and ordinary contexts of daily life. Students are also expected to explore their own language and cultural backgrounds and those to which they are drawn. (F)

5320 Language and Societies. (LIN 5320) Cr. 3

Prereq: ANT 2100 or 5200 or consent of instructor. Contemporary linguistic anthropologists see language as a form of social action. How has this understanding of language in society evolved? Read classic works of linguistic anthropology and contemporary studies in this growing field. Engage in research in language in society. (W)

5370 Magic, Religion and Science. Cr. 3

Prereq: ANT 2100 or 5200 or consent of instructor. The nature and variety of religious belief and practice; theoretical interpretations. (B)

5380 History of Anthropology. Cr. 3

Prereq: ANT 2100 or 5200 or consent of instructor. Required for majors. History of ideas and explanatory theories in anthropology; continuities and disjunctures in British, French, American, German, Belgian, Russian, and Third World anthropologies. (Y)

5400 Anthropology of Health and Illness. Cr. 3

Prereq: ANT 2100 or consent of instructor. Concepts and theory in medical anthropology from cultural and biological perspectives. Topics include: cross-cultural aspects of sex and gender in health and illness, life course, sexuality, birth and death, bio-cultural approaches to healing and treatment, international health and epidemiology. (B)

5410 Anthropology of Age. Cr. 3

Prereq: ANT 2100 or consent of instructor. Cultural construction of the life course; age categories such as childhood and old age examined from cross-cultural, historical, political and economic perspectives. Special attention to women's aging; role of biology and ethnicity in aging and death and dying. (B)

5420 Anthropology Practicum. (ANT 7420) Cr. 4

Prereq: consent of instructor. Field placement in a health service agency. Students provide volunteer assistance to an agency while conducting participant observation research exercises. Utilization of field experience to learn about urban health issues and research methodology. (I)

5430 (NUR 7515) End-of-Life Issues. (ANT 7430) (LIS 7635) (SOC 5020) (SOC 7020) Cr. 3-4

Physical, spiritual, legal, economic, political, cultural, and ethical issues at the end of life, examined as stories about individuals, families, and communities. (Y)

5510 Mesoamerican Civilization. (CBS 3510) Cr. 3

Prereq: ANT 2100 or consent of instructor, or CBS 2010. Survey of the history and characteristics of cultures in Mesoamerica prior to and after colonization, from the Maya and Olmec to the Aztec and their descendants. (I)

5600 Museum Studies. Cr. 3

Introduction to basics of museums, museum work, and museum theory. Topics include: collections management, data bases, interpretive exhibit methods, current issues in museum studies, legal concerns, role of museums as educational institutions. (I)

5700 Applied Anthropology. Cr. 3

Prereq: ANT 2100 or 5200 or consent of instructor. The application of anthropological concepts and methods to contemporary issues of public concern in the United States and abroad. (B)

5800 Anthropological Perspectives on Business. Cr. 3

Implications of application of the term “business” to a field or activity. Use of anthropolofical approaches to explore how business differs from other forms of authority or commerce, particularly outside the modern, Euro-American sphere. (T)

5991 Directed Study: W.S.U. - Salford Exchange. Cr. 3-9

Prereq: consent of undergraduate adviser. Open only to students admitted to Salford Exchange Program. Credit earned through approved upper division coursework at the University of Salford, England, as part of WSU-Salford Exchange Program. (F,W)

5993 (WI) Writing Intensive Course in Anthropology. Cr. 0

Prereq: junior standing, satisfactory completion of the IC requirement, consent of instructor; coreq: ANT 5310 or 5996 taught by full-time faculty member. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a course designated as a corequisite. See section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing-Intensive Course in the Major requirement. Within first three weeks of enrollment in corequisite course, student must notify instructor of enrollment in ANT 5993. (T)

5996 Capstone Seminar in Anthropology. Cr. 3

Prereq: upper division or graduate standing. Required for majors. Review and integrate central practices and theories in anthropology through discussion of the four major subfields and applied areas of anthropology. Special attention will be given to new developments in the different fields. Recommended for new graduate students without extensive background in anthropology; also open to those outside anthropology who desire a thorough view of research areas and theoretical perspectives in anthropology. (Y)

6230 Cultures of Subsaharan Africa. Cr. 3

Prereq: ANT 2100 or consent of instructor. Subsaharan African cultures and societies; emphasis on both complex and simple political systems. (I)

6290 Culture Area Studies. Cr. 3 (Max. 9)

Prereq: ANT 2100 or 5200 or consent of instructor. Culture and social changes. Origins and functional relationships, regional variation in population, settlement, culture contact, religion, migration, social institutions. Topics to be announced in Schedule of Classes . (I)

6360 (HIS 7860) Oral History: A Methodology for Research. (LIS 7770) Cr. 3

Oral history as a methodology for research. Interviewing procedures and techniques of indexing, transcribing, and analyzing historical content of oral history interviews. (I)

6370 Symbolic Anthropology. Cr. 3

Human ability to create symbols to communicate. Oral tradition and myth; utopia and uchronia and the imaginary construction of the world; art and the eschatological discourse. (I)

6420 Economic Anthropology. Cr. 3

Prereq: ANT 6300 or 6310 or 5200. Use of economic analysis in anthropology. Difference between Western and non-Western economies and economic models; methods of analysis of non-Western economies and non-rationalized sectors of Western economies. (B)

6450 Culture, Health Policy and AIDS. Cr. 3

Prereq: ANT 2100 or consent of instructor. Interface of cultural, scientific and political factors in the formation of health policy. Focus on analysis of the social construction of the HIV epidemic; and political, economic and medical aspects of HIV. (I)

6510 The Inca and their Ancestors. Cr. 3

Prereq: ANT 2100, 3200, or consent of instructor. Study of precolumbian cultures of South America. Archaeological and ethnohistorical data beginning with the Inca; foundations of Inca civilization; major cultures from different regions and periods in South American prehistory. (B)

6550 Practicum in Archaeology. Cr. 2-4 (Max. 8)

Prereq: ANT 5270 or 5280, or consent of instructor. Emphasis on application of theory, practice, and research. Topics include: cultural resource management, ceramic analysis, settlement pattern studies, materialities, historical archaeology, archaeological data management. (Y)

6555 Cultural Resource Management and Public Archaeology. Cr. 3

Prereq: ANT 5270 or ANT 5280 or consent of instructor. Practicum focuses on historical development of historical development of cultural resource management (CRM) in the U.S.; contemporary regulatory framework of CRM; practical experience in project planning, proposal writing, archival research, project management and the reporting process. (B)

6650 Studies in Physical Anthropology. Cr. 2-4 (Max. 12)

Prereq: ANT 2110 or consent of instructor. Selected topics in physical anthropology. Topics to be announced in Schedule of Classes . (I)

6680 Studies in Cultural Anthropology. Cr. 2-4 (Max. 12)

Prereq: ANT 2100 or 5200 or consent of instructor. Selected topics in cultural anthropology. Topics to be announced in Schedule of Classes . (I)

6700 Topics in Medical Anthropology. Cr. 3

Prereq: ANT 2100 or consent of instructor. New and emerging topics in medical anthropology or topics presented by visiting faculty in areas of theory, practice, and methodology. (B)

6710 Medical Anthropology: Alcohol/Drug Use and Abuse. Cr. 3

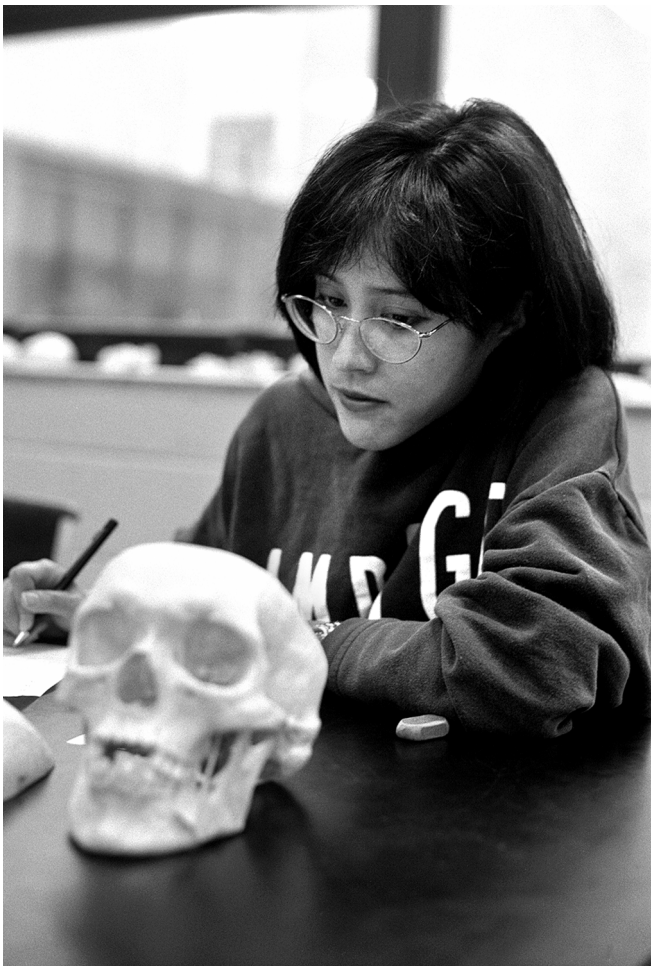
Prereq: ANT 2100 or consent of instructor. Biological and cultural aspects of alcohol and drug use and abuse considered in the context of medical anthropology and its theory, practice and research. (B)

6990 Grant Proposal Writing for the Social Sciences. Cr. 3

Prereq: advanced graduate standing or consent of instructor. Grant and proposal writing organized around elements of writing and research design; includes defining the research question, problem orientation, research objectives, funding sources, target audience, and project evaluation. (B)

6992 Field Practicum in Business/Organizational Anthropology. Cr. 2-8

Prereq: consent of instructor. Students gain firsthand experience in conceptualizing, conducting, and/or implementing applied research in business and other organizations. (F,W)



Biological Sciences

Office: 1360 Biological Sciences; 313-577-2873
Fax: 313-577-6981
Chairperson: David L. Njus
Associate Chairperson: Edward Golenberg
Academic Staff, Roberta DeMeyer, Krystyn Purvis, Linda VanThiel, Kimberly Walkowiak Hunter
Web: http://www.clas.wayne.edu/biology/

Professors

Robert Arking, Walter Chavin (Emeritus), David R. Cook (Emeritus), D. Carl Freeman, Stanley K. Gangwere (Emeritus), Miriam Greenberg, Garrett Heberlein (Emeritus), R. Anton Hough (Emeritus), Hiroshi Mizukami (Emeritus), William S. Moore, David L. Njus, Claude M. Rogers (Emeritus), John D. Taylor (Emeritus), William L. Thompson (Emeritus), James D. Tucker

Associate Professors

Kuo-Chun Chen, Philip R. Cunningham, Marcus Friedrich, Edward Golenberg, Victoria Meller, Aleksandar Popadic, Ann Sodja, Mark VanBerkum

Assistant Professors

Athar Ansari, Karen A. Beningo, William W. Branford, Choong-Min Kang, Daniel M. Kashian, Donna Kashian, Lori Pile, Christopher Steiner, Xiang-Dong Zhang

Assistant Professor, Research

Karen Myhr

Senior Lecturer

Kirstin Parkin

Degree Programs

BACHELOR OF ARTS with a major in Biological Sciences
BACHELOR OF SCIENCE in Biological Sciences
MASTER OF ARTS with a major in Biological Sciences
MASTER OF SCIENCE with a major in Biological Sciences
MASTER OF SCIENCE in Molecular Biotechnology
DOCTOR OF PHILOSOPHY with a major in Biological Sciences and concentrations in cell, developmental, and neurobiology; evolutionary and organismal biology; molecular biology and biotechnology

Bachelor of Arts
With a Major in Biological Sciences

GENERAL BIOLOGY TRACK

The Bachelor of Arts degree is for students who desire a broad liberal arts education with specialization in biology. It is not recommended for students anticipating admission into graduate or medical school.

Students contemplating a major program in biological sciences should consult with the departmental undergraduate adviser no later than the beginning of the sophomore year.

Admission requirements for the College are satisfied by the requirements for general undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete at least 120 credits in course work including satisfaction of the College Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the major requirements listed below. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274. Students must receive a grade of 'C-minus' or better in all biology courses. A grade point average of 2.0 ('C') in both biology and general required courses is required for graduation.

Major Requirements: A minimum of thirty-two credits beyond BIO 1500 and 1510 are required of the major. Students must declare their major after completing BIO 2600, and before electing higher-level courses. Courses through the 6000 level may be elected in the final year, providing the proper prerequisites have been taken. Courses that have an '8' as the second digit may NOT be used for department major credit. At least twelve of the thirty-two credits must be taken in residence.

BIOLOGY MAJOR COURSE REQUIREMENTS

BIO 1500 -- Basic Life Diversity: Cr. 4
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
BIO 2200 -- (LS) Introductory Microbiology: Cr. 4
BIO 2600 -- Intro. to Cell Biology: Cr. 3
BIO 3070 -- Genetics: Cr. 5
BIO 4200 -- Evolution: Cr. 3
BIO Electives 3000 level and above: Cr. 11 (total)
(BIO electives must include a minimum of two lecture based 3000 - 6000 level BIO courses.)

Students must choose one of the following course sequences: (Additional courses from these sequences may be used as BIO electives as long as prerequisite requirements are met)

BIO 3100 and BIO 4110
-- Cellular Biochemistry: Cr. 3
-- (WI) Biomedical Technology and Molecular Biology: Cr. 4

BIO 3200 and BIO 4120
-- Human Physiology: Cr. 3
-- (WI) Comparative Physiology: CR. 4

BIO 3500 and BIO 4130
-- Ecology and the Environment: Cr. 3
-- (WI) General Ecology: Cr. 4

Cognate Requirements: Candidates for the Bachelor of Arts degree in biological sciences are required to take CHM 1220, 1230, 1240, 1250, and STA 1020 or MAT 2210, and MAT 1800.

NOTE: In addition to the courses outlined above, students must satisfy all General Education Requirements and elect sufficient additional credits to achieve the minimum 120 credits required for graduation.

Bachelor of Science
in Biological Sciences

The Bachelor of Science degree is for those students who wish to follow a career in the sciences and/or those planning to enter post-graduate professional schools. Students contemplating a major program in biological sciences should consult with the Departmental undergraduate adviser no later than the beginning of the sophomore year. Students must declare their major after completing BIO 2600, and before electing higher-level courses. The major program incorporates all of the regular College Group Requirements.

Admission Requirements: See above, under Bachelor of Arts degree.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete at least 120 credits in course work including satisfaction of the College Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the major requirements listed below. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274. Students must receive a grade of 'C-minus' or better in all biology courses. A grade point average of 2.0 ('C') in both biology and general required courses is required for graduation.

Major Requirements: A minimum of thirty-two credits beyond BIO 1500 and 1510 are required of the major. Courses through the 6000 level may be elected during the final year, providing the proper prerequisites have been taken. Courses that have an '8' as the second digit may NOT be used for Department major credit. At least twelve of the thirty-two credits must be taken in residence.

BIOLOGY MAJOR COURSE REQUIREMENTS

BIO 1500 -- Basic Life Diversity: Cr. 4
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
BIO 2200 -- (LS) Introductory Microbiology: Cr. 4
BIO 2600 -- Intro. to Cell Biology: Cr. 3
BIO 3070 -- Genetics: Cr. 5
BIO 4200 -- Evolution: Cr. 3
BIO Electives 3000 level and above: Cr. 11 (total)
(BIO electives must include a minimum of two lecture based 3000 - 6000 level BIO courses.)

Students must choose one of the following course sequences: (Additional courses from these sequences may be used as BIO electives as long as prerequisite requirements are met)

BIO 3100 and BIO 4110
-- Cellular Biochemistry: Cr. 3
-- (WI) Biomedical Technology and Molecular Biology: Cr. 4

BIO 3200 and BIO 4'120
-- Human Physiology: Cr. 3
-- (WI) Comparative Physiology: CR. 4

BIO 3500 and BIO 4130
-- Ecology and the Environment: Cr. 3
-- (WI) General Ecology: Cr. 4

Cognate Requirements for the B.S. Degree: B.S. majors in biological sciences must complete CHM 1220, 1230, 1240, 1250, 2220, 2230, 2280, 2290; PHY 2130/2131 and 2140/2141 or PHY 2170/2171 and 2180/2181; and MAT 2010, 2020, and 2210 or STA 1020 in their curricula. Majors should take the Placement Examination of the Department of Mathematics as soon as possible upon entry into the freshman year.

Bachelor's Degree with Honors in Biological Sciences

The Department participates in the honors program and works with individual students to develop a curriculum satisfying honors degree requirements (see above) as well as fulfilling the expectations of the Department. Students interested in an honors degree should contact the departmental advising office and/or the Chairperson of the Undergraduate Curriculum Committee.

Program Requirements: The Bachelor of Arts or Bachelor of Science degree with Honors in Biological Sciences requires fourteen honors credits in Biology and at least ten additional honors credits, which includes an Honors Seminar (HON 4200-4998).

The fourteen credits are comprised of: The honors laboratory sections of Biology 1500 and Biology 1510 (four credits each); If a student does not have honors in Biology 1500 and 1510 then he/she must take eight credits of Biology courses with an honors option; Four credits of Directed Study, which must be BIO 6990 (honors credit); The remaining two credits are satisfied with Biology 6999, the Terminal Essay course

To be awarded an honors degree, Students must maintain a g.p.a. of at least a 3.3 in the major, and accumulate twenty-four honors credits.

'AGRADE' Program

Accelerated Graduate Enrollment: The 'AGRADE' Program is designed for outstanding seniors who wish to complete bachelor's and master's degrees in five years of full-time study. For further details and eligibility requirements regarding the 'AGRADE' Program and Biological Sciences, contact the Department Advising Office, 1360 Biological Sciences Building.

Minor in Biological Sciences

Completion of the minor in biological sciences requires twenty-two to twenty-three biology credits including the following: BIO 1500, 1510, 3070, 4200 and one from each of the following two pairs: BIO 2200 or 2600, and BIO 3100 or 3200.

Departmental Academic Policies

Student's Responsibility: It is each student's responsibility to learn the major requirements, policies, and procedures governing the program they are following and to act accordingly. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274. Students should consult the Biological Sciences Department Advisor regularly in order to verify that their Biology requirements are being met in a timely fashion. Although the advisor will provide assistance, the responsibility for fulfilling degree requirements remains with the student.

Declaration of Major: Students should declare their major after completing BIO 1500 and BIO 1510 with a 'C-minus' or better. Major requirements are established by the declaration of major date. Students who do not formally declare their major are susceptible to program changes made by the Department. Recent program changes may not be reflected in the University Bulletin if they are established after the printing of the Bulletin.

Prerequisites/Corequisites: Students are required to follow all prerequisites and corequisites listed for each Biology course. Please refer to the Biological Sciences Department Advisor and the Class Schedule for accurate listings of prerequisite requirements.

Grade Requirements: All students are required to complete BIO courses with a 'C-minus' or better to satisfy the prerequisite requirements. Students with grades below a 'C-minus' in prerequisite coursework are required to retake the course before proceeding to the subsequent courses in the program.

Combined Degree with Dentistry and Medicine: Students majoring in biological sciences who are candidates for a combined degree must complete the same requirements listed above for biological sciences majors except that a minimum of sixteen credits are required in biological sciences beyond BIO 1500 and 1510.

Over-Age Credits: A student attempting to complete a biological sciences major after a prolonged interruption of his/her education may find that some of the previous course work in biological sciences is

out of date. In such cases, the record will be reviewed and the Department may require the student to fulfill biological sciences course requirements existing at the time of his/her return.

Transfer Students should consult with the Departmental undergraduate adviser during the semester prior to their transfer (after a transfer evaluation has been completed by the Transfer Credit Office).

Determination of course equivalency will be made by the Departmental undergraduate adviser in conjunction with the Transfer Credit Evaluation Unit of Undergraduate Admissions (Office of Admissions, University Welcome Center). The Department reserves the right for the final determination of course equivalency.

Transfer students contemplating a combined degree with dentistry or medicine must complete the same requirements listed above for biological science majors except that a minimum of twelve credits are required *in residence* in biological sciences beyond BIO 1500 and 1510.

Advanced Placement in Biological Sciences may be obtained by earning the following scores in the AP Qualifying Examination:

Score of 5: Credit is awarded for BIO 1500 and BIO 1510 (eight credits). Students are eligible to enroll in subsequent courses providing the prerequisites for them have been met.

Score of 3 or 4: Credit is awarded for BIO 1510 (four credits). Students with a score of 3 or 4 are eligible to register in BIO 1500.

BIOLOGY COURSES (BIO)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

FEES: Most laboratory courses have a non-returnable materials fee and are so indicated in the Schedule of Classes. Breakage fees are not withheld, but students are financially responsible for the repair or replacement of University materials damaged or destroyed in classroom procedures.

1030 (LS) Biology Today. Cr. 3-4 (LCT: 3; OR LCT: 3; DSC: 1)
Not for biology major credit. Offered for four credits to Honors students only. Challenges to modern society from population growth, new diseases, environmental degradation, urban pollution; medical advances and ethical dilemmas in decoding human genome; impact of biological findings on political and personal decisions; issues considered in context of principles and strategies of modern biological research. (F,W)

1050 (LS) An Introduction to Life.
Cr. 4 (LCT: 3; OR LCT: 3; LAB: 3)
Meets General Education Laboratory Requirement when elected for 4 credits. For the non-science major and as a prereq. to BIO 1500/1510. No credit after BIO 1500 or BIO 1510. A factual and conceptual treatment of modern biology at the cell, organismal, and population levels of organization. Material Fee As Indicated In The Schedule of Classes (T)

1500 Basic Life Diversity. Cr. 4 (LAB: 3; LCT: 3)
Prereq: BIO 1050 with grade of C-minus or above; or ACT score of 21 or above (ACT scores valid for only 2 years); or passing score on BIO placement exam; or BIO 1510 with grade of C-minus or above. Required of all biological sciences majors. No credit after former BIO 1520. Physiology,ecology, evolution, and systematics, their principles, strategies and outcomes in both structure and function. Material Fee As Indicated In The Schedule of Classes (T)

1510 (LS) Basic Life Mechanisms. Cr. 4 (LAB: 3; LCT: 3)
Prereq: BIO 1050 with grade of C-minus or above; or ACT score of 21 or above (ACT scores valid for only 2 years); or passing score on BIO placement exam; or BIO 1500 with grade of C-minus or above. Only Engineering students may elect for three credits. BIO 1500 and BIO 1510 required of all biological sciences majors. Factual and conceptual treatment of cell molecules, cell structure, metabolism, genetics, and development. For the science major and certain preprofessional programs. Meets General Education laboratory requirement. Material Fee As Indicated In The Schedule of Classes (T)

2200 (LS) Introductory Microbiology. Cr. 4 (LAB: 4 ;LCT: 3)
Prereq: BIO 1510 with grade of C-minus or above; BIO 1500 recommended for Biology majors. Bacteria and their basic biology; the relationship of microorganisms to man and other living forms, including their ecological importance and their role in the causation of disease; laboratory exercises paralleling the above principles. Material Fee As Indicated In The Schedule of Classes (T)

2600 Introduction to Cell Biology. Cr. 3
Prereq: BIO 1500 and BIO 1510 with grades of C-minus or above. An advanced introduction to the structural and functional biology of the eucaryotic cell. Molecular, biochemical, and functional material learned in other courses reviewed and synthesized as it related to the cell. (T)

2870 Anatomy and Physiology. Cr. 5 (LAB: 4; LCT: 3)
Prereq: BIO 1510 with grade of C-minus or above. No credit if taken after BIO 4120 or former BIO 3400. No major credit for Biological Sciences majors. Systems, functions, organization of the mammal; emphasis on humans. Detailed study of structure and function of the major systems of the body: skeletal, nervous, muscular, endocrine, circulatory, respiratory, digestive, excretory, and reproductive. Material Fee As Indicated In The Schedule of Classes (T)

2990 MARC Seminar. Cr. 1 (Max. 4)
Prereq: consent of instructor. Open only to MARC trainees. Students in Minority Access to Research Careers program meet weekly to present assigned seminars on scientific topics of current interest; assigned readings from journals in the field; written synopsis of the assigned reading and oral presentation required. (F,W)

3070 Genetics. Cr. 5
Prereq: BIO 2200 and BIO 2600 with grades of C-minus or above. Offered for five credits to Honors students only; includes lab experience. Material fee applies only when offered for five credits. Transmission, nature and action of genetic material in organisms. Laboratory experiments to demonstrate principles of genetics. Material Fee As Indicated In The Schedule of Classes (T)

3100 Cellular Biochemistry. Cr. 3 (LCT: 3)
Prereq: BIO 2200 and BIO 2600; and CHM 1220, 1230, 1240, and 1250, or CHM 1410. Biosynthesis and metabolism of proteins, carbohydrates, lipids, steroids, amino acids and nucleic acids. The basic principles of enzyme kinetics in living systems. (T)

3200 Human Physiology. Cr. 3
Prereq: BIO 2200 and BIO 2600 with grade of C-minus or above; or BIO 2870 with grade of C-minus or above. Basic principles of human physiology, including major systems from a cellular, molecular, and integrative approach. (F)

3300 Pathophysiology. Cr. 3
Prereq. or coreq: BIO 3200 or BIO 4120. Basic principles and applications of physiological concepts to human and animal disease. (F)

3500. Ecology and the Environment. Cr. 3
Prereq: BIO 2200 and BIO 2600 with grades of C-minus or above. Introduction to key ecological concepts illustrated with contemporary environmental issues; basic population, community, ecosystem, landscape, and global ecology. (F)

3990 Directed Study. Cr. 1-4 (Max. 8)

Prereq: written consent of instructor and Departmental undergraduate officer; minimum 3.0 g.p.a. Only four credits may apply toward biology elective. Primarily for biology majors who wish to continue in a field beyond that covered in regular courses; to be taken under direction of Biological Sciences faculty. (T)

4110 (WI) Biomedical Technology and Molecular Biology. Cr. 4

Prereq: BIO 3070 and BIO 3100 with grades of C-minus or above. General principles of molecular biology of prokaryotes and eukaryotes. Includes structures of DNA, RNA, and protein, DNA replication and repair, transcription and translation, gene regulation and gene expression. Emphasis on applications in medical biology and biotechnology. Fulfills General Education Writing Intensive Course in the Major requirement; each student writes reports, and one long research paper on a topic approved by the instructor, in addition to other course writing requirements. (F,W)

4120 (WI) Comparative Physiology. Cr. 4 (LCT: 3)

Prereq: BIO 3070 and BIO 3200 with grades of C-minus or above. Physiological processes at the molecular, cellular, and organismal levels. Comparing major physiological systems across groups of organisms. Lab consists of physiology exercises and lab reports that allow students to explore major conceptual themes in physiology. Fulfills General Education Writing Intensive Course in the Major requirement; each student writes reports, and one long research paper on a topic approved by the instructor, in addition to other course writing requirements. (T)

4130 (WI) General Ecology. Cr. 4 (LAB: 3; LCT: 3)

Prereq: BIO 3070 and BIO 3500 with grades of C-minus or above; consent of departmental adviser for Environmental Sciences majors. Principles of population, community, and systems ecology. Fulfills General Education Writing Intensive Course in the Major requirement; each student writes at least three short (3 page minimum) critiques of appropriate scientific papers and one long (15 page minimum) paper on topic approved by instructor, in addition to other course writing requirements. Material Fee As Indicated In The Schedule of Classes (W)

4200 Evolution. Cr. 3

Prereq: BIO 3070; and BIO 3100 or BIO 3200 or BIO 3500; with grades of C-minus or above. Evidence for mechanisms of evolution at the molecular, organismal and population level. (F,W)

4600 Invertebrate Zoology. Cr. 4

Prereq: completion of biology core curriculum courses or consent of instructor. Evolutionary history and phylogeny of invertebrata (exclusive of Protista). Laboratory emphasis on systematics and type genera with additional demonstrations of phyletic diversity in form and function. Material Fee As Indicated In The Schedule of Classes (Y)

4630 Histology. Cr. 4 (LAB: 4; LCT: 3)

Prereq: BIO 2600 or BIO 2870 with grades of C-minus or above. Characteristics and identification of normal mammalian tissues. Micro-anatomy of the mammal. Functional interpretation of microstructure and fine structure. Material Fee As Indicated In The Schedule of Classes (F)

4710 Comparative Vertebrate Morphology and Evolution. Cr. 5 (LAB: 6; LCT: 3)

Prereq: completion of biology core curriculum or consent of instructor. Vertebrate features of systems in the body used as fundamentals to understanding biological evolution. Philosophies of evolutionary biology, paleontology, and techniques of cladism and phylogenetic reconstruction. Material Fee As Indicated In The Schedule of Classes (S)

5040 Biometry. Cr. 0-4 (LCT: 3; LAB: 3)

Prereq: BIO 3070 or 4130; and MAT 1800, with grades of C-minus or above. Quantitative methods in biology. Statistical approach to data analysis and the design of experiments. Laboratory section permits actual analysis of selected statistical problems. Material Fee As Indicated In The Schedule of Classes (Y)

5060 Special Topics. Cr. 1-6 (Max. 6)

Prereq: BIO 1500 and BIO 1510 with grades of C-minus or above. Formalized treatment of the current state of knowledge in a significant area of biology. Topics to be announced in Schedule of Classes. (Y)

5080 (PSY 5080) Cellular Basis of Animal Behavior. Cr. 3

Prereq: BIO 2600 with a grade of C-minus or above. Relationship between behavior and neuroscience using a variety of animal models, each examined from the level of natural behavior progressively to the cellular level. Topics include: sensory systems, motor behavior, and learning. (W)

5100 Aquatic Ecology. Cr. 4 (LCT: 3; LAB: 4)

Prereq: BIO 1500 and one course in chemistry with grade of C-minus or above; or consent of instructor. Field course: physical, chemical and biological processes occurring in lakes, streams and wetlands. Course assumes basic knowledge of ecology and chemistry. (Y)

5180 Field Investigations in Biological Sciences. Cr. 0-12 (Max. 20) (FLD: 6)

Prereq: BIO 1500, BIO 1510; and either BIO 2200 or BIO 2600; each with grade of C-minus or above. Field studies of one to fifteen weeks, emphasizing biological principles and techniques demonstrated in the field. Material Fee As Indicated In The Schedule of Classes (S)

5330 Principles and Applications of Biotechnology I. Cr. 3

Prereq: BIO 2200, 3100, and 3070; or equiv.; with grades of C-minus or above Review of origins of molecular biotechnology and its characteristic technologies; survey of applications of biotechnology to problems in industries. (F)

5440 Terrestrial Ecology. (BIO 7440) Cr. 0-6

Open only to undergraduates. Prereq: BIO 1500 and BIO 4130, each with grade of C-minus or above; or consent of instructor. Ecology of forests and grasslands. Field study and interpretation of ecological processes. Importance of species-site relationships and disturbance history. Material fee as listed in Schedule of Classes. (B)

5490 Population and Community Ecology. (BIO 7490) Cr. 3 (LCT:3)

Prereq: BIO 1500 and BIO 4130 or consent of instructor. Population dynamics of animals and plants. Life history theory. Species interactions. Structure and dynamics of communities. (B)

5540 Ecosystem and Landscape Ecology. (BIO 7540) Cr. 3

Prereq: BIO 1500 and BIO 4130 or consent of instructor. Ecosystem productivity. Carbon dynamics and nutrient cycling in ecosystems. Causes of ecological pattern on landscapes. Interrelationships of ecological pattern and process. (B)

5610 Structural Embryology. Cr. 1 (LAB: 4)

Prereq. or coreq: BIO 5620 with grade of C-minus or above. Slides, models, and 4-D computer programs used to enable the student to know and recognize the cascade of structural changes that take place during the embryological developmental pathways. Material Fee As Indicated In The Schedule of Classes (W)

5620 Developmental Biology. Cr. 3 (LCT: 3)

Prereq: BIO 3070 with grade of C-minus or above. An analytical and comparative study of genetic and cellular mechanisms and their interaction with environmental factors to effect the developmental mechanisms which produce the adult organism. Origin and unfolding

of structural patterns characteristic of different species; their evolutionary origins. (F)

5640 Cancer Biology. Cr. 3 (LCT: 3)

Prereq: BIO 2600, BIO 3070, and BIO 3100, with grades of C-minus or above; or consent of instructor. Introduction to integrated analysis of cancer and cell biology, pathology, etiology and therapy. (F)

5680 (PSL 5680) Basic Endocrinology. Cr. 3

Prereq: BIO 3200 or BIO 4120 with grade of C-minus or above, or consent of instructor. Basic description of the human endocrine system, the endocrine control of several physiologic processes (growth, development, metabolism and reproduction), and a description of common endocrine disorders. (F)

5750 Biology of Aging. (BIO 7750) Cr. 3 (LCT: 3)

Prereq: BIO 3070 with grade of C-minus or above, or consent of instructor. Aging and senescence viewed as fundamental biological processes common to most organisms. Empirically-based discussion of investigative methods and accepted facts regarding aging, coupled with critical discussion of behavioral and biological interventions believed to retard or reverse the aging process; critical analysis of theoretical interpretations of this data. (W)

5993 (WI) Writing Intensive Course in Biological Sciences. Cr. 0

Prereq: senior standing; satisfactory completion of the IC requirement; consent of department; coreq: BIO 4120 or BIO 5997 or BIO 6997. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a course designated as a corequisite. See Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. Students required to write three short papers (3-5 pp.) and one long paper (15-20 pp., not including bibliography) in addition to other writing requirements in each course. (T)

5996 Senior Research. Cr. 1-2 (Max. 3)

Prereq: written consent of instructor and biology adviser; minimum 3.0 g.p.a. Original research. To be taken under direction of Biological Sciences faculty. (T)

5997 Senior Seminar. Cr. 2 (SMR: 1)

Prereq: senior standing in biological sciences; completion of biology Core Courses; consent of instructor. Must be taken in semester student is graduating. Aspects of current biological research. (F,W)

6000 Molecular Cell Biology I. Cr. 3 (LCT: 3)

Prereq: BIO 2600 and BIO 3100 with grades of C-minus or above. Analysis of cell structure at the molecular and cellular levels and the physiological consequences of these structures: isolation, physicochemical properties, and biological attributes of cells, organelles, and biopolymers including nucleic acids, proteins, and lipids. (F)

6010 Molecular Cell Biology II. Cr. 3 (LCT: 3)

Prereq: BIO 6000 with grade of C-minus or above. Analysis of cell regulation at the molecular level. Cell development and differentiation. Genetic mechanisms including: DNA synthesis and repair, mechanism of gene expression and control. (W)

6020 Methods of Analyses. Cr. 4 (LCT: 2; LAB: 6)

Prereq: BIO 5330 or BIO 6330 with grade of C-minus or above; or consent of instructor for undergrad. students. Design and execution of experiments in molecular biology. Topics include: laboratory safety, scientific documentation, database searching, development of experimental protocols, error analysis, solutions and buffers, electrophoretic separation of proteins and nucleic acids, basic immunohistochemistry, bioimaging, and scientific ethics. Material Fee As Indicated In The Schedule of Classes (F)

6030 Physiological Genetics of Modern Disease. (BIO 7030) Cr. 3 (LCT: 3)

Prereq: BIO 2600 and BIO 3070 with grades of C-minus or above. Physical and chemical properties of the genetic material; the fundamental mechanisms concerned with its replication, function, mutation, recombination and regulation; molecular basis of evolution. A critical presentation of interdisciplinary subjects of biology, biochemistry and biophysics in relation to recent advances in genetic engineering. (I)

6055 (ANA 6050) Biology of the Eye. (PYC 6050) Cr. 3

Prereq: BIO 2600 and BIO 3100 with grades of C-minus or above. Introduction to biology of eye structure/function, and to causes and clinical treatments of eye-related disorders and diseases. Material Fee As Indicated In The Schedule of Classes (Y)

6060 Molecular Evolution. Cr. 3 (LCT: 3)

Prereq: BIO 3070; prereq. or coreq: BIO 4200, all with grades of C-minus or above. Patterns and processes of evolutionary change on the DNA sequence level. Emphasis on models of nucleotide substitutions, and genic evolution. Methods of phylogenetic inference. (I)

6070 Human Genetics. Cr. 3 (LCT: 3)

Prereq: BIO 3070 with grade of C-minus or above. Principles of genetics as applied to humans. Topics include pedigree analysis, simple and complex inheritance patterns, cytogenetics, development and sex determination, role of mutations in disease, genes and cancer, genetic testing and forensics, genomics, linkage, genetics of behavior, and human evolution. (I)

6080 Microbial and Cellular Genetics. (BIO 7080) Cr. 4 (LCT: 4)

Prereq: BIO 3070 or equiv. with grade of C-minus or above. Principles and current progress in genetics at the molecular and cellular levels. Emphasis on those features of microorganisms and cultured animal and human cells appropriate for the study of the fundamental mechanisms concerning recombination, replication, metabolic functioning. (I)

6090 Population Genetics. Cr. 3 (LCT: 3)

Prereq: BIO 3070 with grade of C-minus or above; BIO 4110 recommended. Theoretical bases for microevolutionary change in natural populations of organisms; basic to study of evolutionary genetics and evolutionary ecology. (I)

6120 Molecular Biology Laboratory I. Cr. 3 (LCT: 1; LAB: 6)

Prereq: BIO 6010 with grade of C-minus or above, or written consent of instructor. Laboratory exercises illustrate methods and concepts of molecular biology and recombinant DNA analysis. Material Fee As Indicated In The Schedule of Classes (W)

6160 Proteins and Proteomics. Cr. 3 (LCT: 3)

Undergrad. prereq: BIO 3100 or CHM 5600 or CHM 6620 with grade of C-minus or above. Structure and dynamics of proteins at the molecular level. Strategies used to biochemically purify, analyze, and characterize proteins. (B)

6180 Membrane Biology. Cr. 3 (LCT: 3)

Prereq: one year of biology and chemistry; BIO 2200 or 4120; BIO 6000 or 6160 recommended. Comprehensive analysis of cellular and model membranes integrating molecular structure and physiological properties. Structural, dynamic, and physiological properties examined, including molecular and macromolecular assemblies, physical and chemical analysis of molecular motion, functional aspects including trans-membrane signaling. (I)

6190 Advanced Special Topics. Cr. 1-6 (Max. 6)

Prereq: consent of instructor or department. Formalized treatment of current state of knowledge in a significant area of biology. Topics to be announced in Schedule of Classes. (I)

6240 Introduction to Biotechnology for Teachers. Cr. 3

Prereq: BIO 2600; teaching certificate. Open only to middle or high school teachers. Theories and technologies in the use of genomics; proteomics and bioinformatics techniques currently used for research and commercial applications. Web-based course. (I)

6330 Principles and Applications of Biotechnology II. Cr. 3

Prereq: BIO 5330 with grade of C-minus or above or written consent of instructor. Application of molecular biology and recombinant DNA technology of contemporary eukaryotic systems. Topics include: specialized application of PCR for cloning, generation of antibodies, the expression of recombinant proteins in cultured cells and transgenic animal models. (W)

6450 Aquatic Botany. Cr. 4 (LCT: 3; LAB: 3)

Prereq: BIO 4130 with grade of C-minus or above. Systematics, physiology and ecology of algae and higher aquatic plants. Material Fee As Indicated In The Schedule of Classes (I)

6620 Advanced Evolution. Cr. 3

Prereq: BIO 4200 with grade of C-minus or above, or consent of instructor. Continuation of BIO 4130; emphasis on evolutionary biology. Topics include: history of evolutionary thought, origins of life, evolution of the cell, evolution of genes, evolution and behavior, evolution of life history traits, phylogenetics, historical biogeography, tempo and mode of evolution, species concepts and speciation, nature of adaptation and adaptive radiations. (I)

6640 Advanced Ecology. Cr. 3 (LCT: 3)

Prereq: BIO 4130 with grade of C-minus or above. Discussion and analysis of recent topics in ecological theory. (I)

6690 Neurobiology I. Cr. 3 (LCT: 3)

Prereq: BIO 3100; prereq. or coreq: BIO 4120, with grades of C-minus or above. Electrical and chemical signal transmission and signal processing in the nervous system. Integration of these functions into complex sensory and control mechanisms. Molecular mechanisms of electrical excitability and ion channels, neurotransmitters and receptors, second messengers, and feedback circuits. Neurobiology of motor control, sensory and regulatory systems. (W)

6840 (PHC 6340) Chemical Basis of Pharmacology. (CHM 6340) Cr. 3 (LCT: 3)

Prereq: CHM 2220 and 2230 and BIO 1510 or equiv. Not applicable for biological sciences major credit. Mechanisms of action and metabolism of commonly-used drugs and toxic substances from the cellular level to whole biological systems. (Y)

6990 Honors Directed Study in Biology. Cr. 1-4

Prereq: written consent of instructor and department honors adviser in semester preceding election of course. Open only to junior or senior biology majors. To be taken under direction of Biological Sciences faculty. (T)

6994 Technical Communication in Molecular Biotechnology. Cr. 1-6

Prereq: admission to molecular biotechnology program or consent of instructor. Methods of written and oral communication in the biotechnology field. (W)

6997 Senior Seminar: Honors Program. Cr. 2 (SMR: 2)

Prereq: completion of Core Courses and a minimum of two credits in BIO 6990. Open only to Honors students in biology. (F,W)

6999 Terminal Essay: Honors Program. Cr. 2

Prereq: consent of department and Honors adviser; senior standing and BIO 6990. Preparation of a terminal essay, satisfactory completion of which assures Honors graduation, providing performance in preceding Honors courses has been at Honors level; to be taken under direction of Biological Sciences faculty. (T)

Chemistry

Office: 169 Chemistry Building; 313-577-7784
Chairperson: James H. Rigby; e-mail: jhr@chem.wayne.edu
Associate Chairperson: Charles H. Winter
Academic Services Officers: Erin Bachert, Melissa Barton

Web: http://www.chem.wayne.edu

Professors

Ashok S. Bhagwat, Stephanie L. Brock, Jin K. Cha, Vladimir Chernyak, Christine S. Chow, Darrell D. Ebbing (Emeritus), John F. Endicott (Emeritus), Karl H. Gayer (Emeritus), Zhongwu Guo, Richard B. Hahn (Emeritus), Carl R. Johnson (Emeritus), Tokuji Kimura (Emeritus), Richard L. Lintvedt (Emeritus), W. Martin McClain (Emeritus), John P. Oliver (Emeritus), Colin F. Poole, Morton Raban (Emeritus), Gene P. Reck (Emeritus), James H. Rigby, Mary T. Rodgers, Louis J. Romano, David B. Rorabacher (Emeritus), John SantaLucia, George H. Schenk (Emeritus), H. Bernhard Schlegel, Calvin L. Stevens (Emeritus), Arthur Suits, Charles H. Winter

Associate Professors

David M. Coleman, Andrew L. Feig, Tamara Hendrickson, Mary Kay Pflum, Claudio N. Verani

Assistant Professors

Matthew Allen, Peter R. Andreana, Andrés G. Cisneros, Jeremy Kodanko, Wen Li, Tiffany Mathews, David Rueda, Sarah Trimpin

Associate Professor, Research

Regina Zibuck

Senior Lecturers

Maryfrances Barber, Michael Maguire, Barbara Munk

Degree Programs

BACHELOR OF SCIENCE with a major in Biochemistry and Chemical Biology
BACHELOR OF ARTS with a major in Chemistry
BACHELOR OF SCIENCE in Chemistry
BACHELOR OF SCIENCE in Chemistry with concentration in Biochemistry
MASTER OF ARTS with a major in Chemistry
MASTER OF SCIENCE with a major in Chemistry
DOCTOR OF PHILOSOPHY with a major in Chemistry and concentrations in analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, and physical chemistry

The courses offered by this Department are designed to serve the needs of three distinct groups of students: a) those majoring in chemistry with the intention of entering the chemical profession, b) those majoring in chemistry with the intention of entering other professional fields, and c) those majoring in other subjects who desire to elect chemistry courses as part of their programs. Students intending to major in chemistry should refer to the bachelor's degree programs below.

Students with no prior experience in chemistry may elect Chemistry 1000 (for non-science majors); Chemistry 1020 (for non-science majors and certain preprofessional students); or Chemistry 1040, which is intended for students who need higher-level chemistry work but who fail to qualify for Chemistry 1220 or 1225 or whose math/sci-

ence skills are weak. Students who have had a year or more of high school chemistry or the equivalent may register for Chemistry 1220 (or 1225) or 1410 (for science and preprofessional majors) provided that they meet the other eligibility requirements outlined below. Election of any one of these courses will satisfy the University General Education Requirement for a physical science.

Terminal Chemistry Courses: Chemistry 1000 is a terminal survey course designed primarily to acquaint non-science students with the principles of chemistry in a format requiring minimal mathematical skills. When elected for four credits, this course includes a laboratory which satisfies the University General Education Requirement for a laboratory course.

Chemistry 1020 and 1030 represent a terminal sequence designed to introduce the basic principles of chemistry and survey the various fields of chemistry for non-science majors and certain preprofessional students such as pre-nursing, occupational health, engineering technicians and others.

Foundational Chemistry: Chemistry 1040 is designed as the beginning chemistry course for science majors, preprofessional students, and other students who have had little prior experience in chemistry and/or mathematics. Chemistry 1220 (or 1225) and 1230 are complementary and corequisite courses which should be taken during the same term. Chemistry 1220 is a classroom-focused course which includes only lecture and related quiz/discussion sessions. Chemistry 1230 is a laboratory-focused course which includes laboratory and related lecture sessions. This also describes the succeeding corequisite sets Chemistry 1240 and 1250, Chemistry 2220 and 2230, and Chemistry 2280 and 2290.

General Chemistry: Chemistry 1220/1230 are designed as the beginning courses for science majors and preprofessional students who have a good background in high school chemistry. (Chemistry 1225/1230 is the sequence for students in the College of Engineering.) Eligibility for Chemistry 1220/1230 must be established by passing a placement examination, covering basic high school material, which is administered by Testing, Evaluation, and Student Life Research, 698 Student Center Building. The qualifying examination is administered several times prior to and during registration.

Chemistry 1410 is the highest level beginning course in chemistry and usually is elected by chemistry majors or by students who have a strong background in high school chemistry and plan to take at least one year of college chemistry. To qualify for Chemistry 1410, a student must receive a superior score on the Chemistry 1220 Placement Examination, or receive a score of 3 or better on the National Advanced Placement Exam in Chemistry (see below), or show other evidence of superior academic potential (receipt of Wayne State Scholarship, admission to the Honors Program, etc.). The two-course sequence Chemistry 1410 and 1420 is equivalent to Chemistry 1220/1230, Chemistry 1240/1250, and Chemistry 2220/2230.

The sequence of Chemistry 1220/1230 and 1240/1250, or 1410 and 1420, are prerequisite to all higher numbered courses in chemistry.

Credit for Advanced Placement: Advanced placement college credit in chemistry shall be awarded for scores earned in the chemistry placement examination as follows:

Score of 4 or 5: Credit awarded for Chemistry 1220/1230 and 2280 (eight credits); student is eligible to enroll in Chemistry 1240 or 1420.

Score of 3: Credit awarded for Chemistry 1220/1230 (five credits); student is eligible to enroll in either Chemistry 1240 or 1410.

Bachelor of Arts with a Major in Chemistry

This curriculum allows students to major with a maximum of forty-six credits in chemistry while providing flexibility for exposure in other cognate fields. This degree is appropriate for students in science-oriented preprofessional programs such as medicine and dentistry, as well as for students entering secondary science teaching. For individuals interested in entering a graduate program in chemistry or pursuing a position in the chemical industry upon graduation, it is recommended that the additional requirements for professional certification by the American Chemical Society (outlined below) be completed.

Those interested in Phi Beta Kappa should consult with the secretary of the Wayne State University Chapter in order to determine the maximum amount of credits allowed in the major, as well as other general requirements.

Admission requirements for the College are satisfied by the general requirements for undergraduate admission to the University; page 24. Students planning to major in chemistry should consult with an adviser in the Chemistry Department not later than the beginning of their sophomore year.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Arts degree must complete 120 credits in course work. This must include satisfying the University General Education Requirements (see page 18) and the College Group Requirements (see page 274), as well as the major requirements cited below. All course work must be completed in accordance with the academic procedures of the University and the College; see sections beginning on page 18, 36, and 274.

Major Requirements: Those who wish to follow the general curriculum in the College of Liberal Arts and Sciences for the B.A. degree with a major in chemistry must complete the following courses:

1. Chemistry 1220/1230, 1240/1250, 2220/2230, 2280/2290, 3020, 5400 (or 5420 or 5440), 5550, 5600, and at least one of the following: 5160, 5440, 5510, 6040, 6240, 6440, 6620 or 6640. A minimum of fifteen credits in chemistry must be earned at Wayne State University. Qualified students may substitute 1410 and 1420 for 1220/1230, 1240/1250, 2220/2230.

2. Physics 2170/2171 and 2180/2181.

3. Mathematics 2010, 2020 and 2030.

4. Language requirement: three semesters of any language (German, French, or Russian preferred).

5. A minimum grade of 'C' is required in prerequisite courses.

ACS Certification: B.A. candidates may receive certification by the American Chemical Society upon graduation by completing Mathematics 2150 and 2250 or 2350, as well as the following chemistry courses in addition to those required for the B.A. degree: Chemistry 5420 and 5440 (rather than 5400), 5160, and two additional advanced laboratory courses (5510, 5570, 5999).

To receive certification, students must submit an application along with a transcript to the Chemistry Department Curriculum Committee prior to the end of the final term.

Recommended Program

NOTE: Further changes in the chemistry curriculum are anticipated and may affect the courses included in the degree programs outlined in this bulletin. Interested students should consult a chemistry undergraduate adviser for current requirements.

FIRST YEAR

Fall Semester

CHM 1220/1230: Cr. 5
English 1020 (BC): Cr. 4
Mathematics 2010: Cr. 4
Competency Requirement: Cr. 3
Total credits: 16

Winter Semester

CHM 1240/1250: Cr. 5
English (2000 level): Cr. 3
Mathematics 2020: Cr. 4
Competency Requirement: Cr. 4
Total credits:16

SECOND YEAR

Fall Semester

CHM 2220/2230: Cr. 5
Physics 2170/2171: Cr. 5
Mathematics 2030: Cr. 4
Competency Requirement: Cr. 3
Total credits: 17

Winter Semester

CHM 2280/2290: Cr. 5
Physics 2180/2181: Cr. 5
Group Requirements: Cr. 6
Total credits: 16

THIRD YEAR

Fall Semester

CHM 5600: Cr. 3
Language I: Cr. 4
Group Requirements: Cr. 7
Total credits: 14

Winter Semester

CHM 3020: Cr. 3
CHM 5400 (or 5420 or 5440): Cr. 3-4
Group Requirement: Cr. 4
Language II: Cr. 4
Total credits: 14-15

FOURTH YEAR

Fall Semester

CHM Elective (or 5550): Cr. 2-4
Language III: Cr. 4
Group Requirements: Cr. 6
Total credits: 12-14

Winter Semester

CHM 5550 (WI) (or CHM elective): Cr. 2-4
Group Requirements: Cr. 10
Total credits: 12-14

— With Honors in Chemistry (B.A.)

1. All B.A. requirements in chemistry must be fulfilled including a full year of physical chemistry (CHM 5420 and 5440) plus one additional elective (CHM 5160, 5510, 6620, or 6640).

2. Minimum g.p.a.: 3.3 overall; 3.3 in chemistry courses.

3. Minimum of four credits in independent research (Chemistry 2999 or 5999). Research should commence in the junior year (or earlier).

4. Completion of one semester of an Honors Program 4200-level seminar (consult the Schedule of Classes under 'Honors Program'). This course may be used in partial fulfillment of College Group Requirements and can be elected in either the junior or senior year.

5. At least fifteen credits in honors-designated course work, including at least four credits in Chemistry 2999 and 5998; the recommended chemistry honors courses; an HON 4200-level honors seminar; and honors credits in other departments or from other HON courses.

6. Submission of a B.A. thesis or of a manuscript suitable for publication in a refereed chemical journal (covering the undergraduate research project) to the Honors Subcommittee in Chemistry which will act to accept or reject the thesis (or manuscript).

7. An oral examination covering the B.A. Honors Research Project, by the Honors Subcommittee in Chemistry.

8. Chemistry 1410 and 1420 are strongly recommended for students intending to earn an honors degree in Chemistry.

Bachelor of Science in Chemistry

This degree offers a strong background for students interested in a career in chemistry or in a professional field with a strong reliance on chemistry. It is particularly recommended for students planning to do graduate work in chemistry and chemically-related fields. The degree is offered with two options: 1) Bachelor of Science in Chemistry, and 2) Bachelor of Science in Chemistry with a concentration in biochemistry. The first option is designed primarily for those planning to enter the chemical profession and other professional fields. The second option is designed primarily for students planning careers in biochemical and biomedical areas. Students may take a maximum of forty-six credits in chemistry. (Note: Those interested in Phi Beta Kappa should consult with the secretary of the Wayne State University Chapter in order to determine the maximum number of chemistry credits allowed.)

Admission requirements are satisfied by the general requirements for undergraduate admission to the University; see page 24. Students planning to major in chemistry should consult with an adviser in the Chemistry Department not later than the beginning of their sophomore year.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Science in Chemistry degree must complete 120 credits in course work including satisfaction of the University General Education Requirements (see page 18) and the College Group Requirements (see page 274), as well as the major requirements cited below. All course work must be completed in accordance with the academic procedures of the University and the College; see sections beginning on page 18, 36, and 274.

Major Requirements for Option One: Those who wish to follow the curriculum in the College for the B.S. in Chemistry degree must complete the following courses:

1. Chemistry 1220/1230, 1240/1250, 2220/2230, 2280/2290, 3020, 5020, 5160, 5420, 5440, 5510, 5550, 5600, 5570 and any one of the following: CHM 6040, 6060, 6240, 6440, 6620 or 6640. By the first semester of the senior year, the student must enroll for at least two credits in Senior Research in Chemistry (CHM 5999 or 5998). The student must work under the direction of a faculty member of the Department of Chemistry. It is advised that the student consult with the faculty during the term prior to beginning work, in order to choose the area and staff member under whose direction this research will be carried out. At the conclusion of the project, the student must present a written report for approval by the Chairperson of the Department.

2. Physics 2170/2171 and 2180/2181.

3. Mathematics 2010, 2020, 2030, and 2150 (or 2250 or 2350).

4. Language requirement: three semesters of any language (German, French, or Russian are preferred).

5. A minimum grade of 'C' is required in prerequisite courses.

At least fifteen credits in chemistry plus Senior Research (CHM 5999) must be earned at Wayne State University. Superior students

may substitute CHM 1410 and 1420 for 1220/1230, 1240/1250, and 2220/2230. Reducing the number of required hours in chemistry will permit such students to elect chemical research (CHM 2999) as early as the summer following the freshman year.

Recommended Program

NOTE: For recent changes in the following chemistry curriculum students should consult a Chemistry undergraduate adviser.

FIRST YEAR

Fall Semester

CHM 1220/1230: Cr. 5
English 1020 (BC): Cr. 4
Mathematics 2010: Cr. 4
Competency Requirement: Cr. 3
Total credits: 16

Winter Semester

CHM 1240/1250: Cr. 5
English (2000 level): Cr. 3
Mathematics 2020: Cr. 4
Competency Requirement: Cr. 3
Total credits: 15

SECOND YEAR

Fall Semester

CHM 2220/2230: Cr. 5
Mathematics 2030: Cr. 4
Physics 2170/2171: Cr. 5
Competency Requirement: Cr. 3
Total credits: 17

Winter Semester

CHM 2280/2290: Cr. 5
CHM 3020: Cr. 3
CHM 5600: Cr. 3
Physics 2180/2181: Cr. 5
Total credits: 16

THIRD YEAR

Fall Semester

CHM 5420: Cr. 3
CHM 5510: Cr. 2
MAT 2150 (or 2250 or 2350): Cr. 3-4
Language I: Cr. 4
Group Requirement: Cr. 3
Total credits: 15-16

Winter Semester

CHM 5440: Cr. 4
CHM 5550: Cr. 2
Language II: Cr. 4
Group Requirements: Cr. 6
Total credits: 16

FOURTH YEAR

Fall Semester

CHM 5020: Cr. 3
CHM 5999: Cr. 2
Language III: Cr. 4
CHM 5160: Cr. 3
Group Requirement: Cr. 3
Total credits: 15

Winter Semester

Advanced CHM Course: [1] Cr. 3
CHM 5570: Cr. 3
Group Requirements: Cr. 12
Total credits: 18

Substitutions in B.S. in Chemistry Curriculum (Option One only): In recognition of the diverse backgrounds required for various careers in chemistry, students may petition the Chemistry Curriculum Committee for approval to substitute advanced courses numbered 5000 or above from another discipline (such as physics, mathematics, biology, engineering) for the following B.S. requirements: 1) MAT 2150 (or 2250 or 2350); 2) CHM 5510 and 5570; 3) Chemistry elective. Such petitions for substitutions must be submitted in writing accompanied by a detailed statement of justification and a current transcript, and must be approved prior to registration in the alternative courses. Decisions regarding approval of such requests will be based on their legitimacy in terms of the student's professional goals. It is suggested that students consult the Chairperson of the Chemistry Curriculum Committee before filing such a petition.

Major Requirements for Option Two (Biochemistry): Those who wish to follow the curriculum for the B.S. in Chemistry with a concentration in biochemistry must complete the following courses (NO substitutions are allowed in the Option Two program: B.S. in Chemistry with a concentration in biochemistry):

1. CHM 1220/1230, 1240/1250, 2220/2230, 2280/2290, 3020, 5020, 5160, 5400, 5550, 5570, 6610, 6620 and 6640. In addition, students must enroll in *one* of the following: CHM 5510, MAT 2150, 2250, or 2350. By the first semester of the senior year, the student must enroll for at least two credits in Senior Research in Chemistry (CHM 5999 or 5998). The student must work under the direction of a faculty member of the Department of Chemistry. It is advised that the student consult with the faculty during the term prior to beginning work, in order to choose the area and staff member under whose direction this research will be carried out. At the conclusion of the project, the student must present a written report for approval by the Chairperson of the Department.

2. Physics 2170/2171 and 2180/2181.

3. Biology 1510, 2200, and 3070 or 6000.

4. Mathematics 2010, 2020, and 2030.

5. Language requirement: three semesters of any language (German, French, or Russian are preferred).

6. A minimum grade of 'C' is required in prerequisite courses.

At least fifteen credits in chemistry plus Senior Research (CHM 5999) must be earned at Wayne State University. Superior students may substitute CHM 1410 and 1420 for 1220/1230, 1240/1250, and 2220/2230. Reducing the number of required hours in chemistry will permit such students to elect chemical research (CHM 2999) as early as the summer following the freshman year.

Recommended Program

NOTE: Further changes in the chemistry curriculum are anticipated and may affect the courses included in the degree programs outlined in this Bulletin. Interested students should consult a Chemistry undergraduate adviser for current requirements.

FIRST YEAR

Fall Semester

CHM 1220/1230: Cr. 5
English 1020 (BC) or 1050 (BC): Cr. 4
Mathematics 2010: Cr. 4

1. May be taken in the fall semester.

Competency Requirement: Cr. 3
Total credits: 16

Winter Semester

CHM 1240/1250: Cr. 5
English (2000 level): Cr. 3
Mathematics 2020: Cr. 4
Biology 1510: Cr. 4
Total credits: 16

SECOND YEAR

Fall Semester

CHM 2220/2230: Cr. 5
Competency Requirement: Cr. 3
Mathematics 2030: Cr. 4
Physics 2170/2171: Cr. 5
Total credits: 17

Winter Semester

CHM 2280/2290: Cr. 5
CHM 3020: Cr. 3
PHY 2180/2181: Cr. 5
Biology 2200: Cr. 4
Total credits: 17

THIRD YEAR

Fall Semester

CHM 6620: Cr. 3
Biology 3070: Cr. 4
CHM 5510 or MAT option: Cr. 2-4
Competency Requirement: Cr. 3
Total credits: 16-18

Winter Semester

CHM 5400: Cr. 4
CHM 5550: Cr. 2
Language II: Cr. 4
Group Requirements: Cr. 6
Total credits: 16

FOURTH YEAR

Fall Semester

CHM 5020: Cr. 3
CHM 5160: Cr. 3:
CHM 5999: Cr. 2
Language III: Cr. 4:
Group Requirements: Cr. 6
Total credits: 18

Winter Semester

CHM 5570: Cr. 3
CHM 6610: Cr. 2
CHM 6640: Cr. 3
Group Requirements: Cr. 9
Total credits: 17

— With Honors in Chemistry (B.S.)

1. *All* regular requirements for the Bachelor of Science in Chemistry degree must be fulfilled (no substitutions).

2. Minimum g.p.a.: 3.3 overall; 3.3 in chemistry courses.

3. Minimum of four credits must be earned in independent research (CHM 2999, 5998); this should commence in the junior year (or earlier).

4. Completion of one semester of an HON 4200-level honors seminar. (For information about honors-designated coursework available each semester, including the required 4000-level Honors seminar, visit the Honors College website link at: http://www.honors.wayne.edu/classes.php.) This course may be used to partially fulfill college Group Requirements and can be elected in either the junior or senior year.

5. Submission of a B.S. thesis (covering the undergraduate independent research project), or of a manuscript suitable for publication in a refereed chemical journal, to the Honors Subcommittee in Chemistry which will act to accept or reject the thesis (or manuscript).

6. An oral examination covering the B.S. Honors Research Project, by the Honors Subcommittee in Chemistry.

7. CHM 1410 and 1420 are strongly recommended for students intending to obtain an honors degree.

Bachelor of Science with a Major in Biochemistry and Chemical Biology

This degree offers students the opportunity to develop in-depth knowledge in five areas of biological chemistry (bioorganic, bioinorganic, bioanalytical, biophysical. and health sciences). The program teaches key chemical concepts and develops student ability to apply them to a wide variety of biological problems. The program serves to develop and train graduates who will be well prepared to enter graduate or professional schools as well as careers in the chemical, pharmaceutical, biomedical, agricultural and bioinformatic industries.

(Note: Those interested in Phi Beta Kappa should consult with the secretary of the Wayne State University Chapter in order to determine the maximum number of chemistry credits allowed.)

Admission requirements are satisfied by the general requirements for undergraduate admission to the University; see page 24. Students planning to major in biochemistry and chemical biology should consult with an adviser in the Chemistry Department not later than the beginning of their sophomore year.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Science with a major in Biochemistry and Chemical Biology degree must complete 122 credits in course work including satisfaction of the University General Education Requirements (see page 18) and the College Group Requirements (see page 274), as well as the major requirements cited below. All course work must be completed in accordance with the academic procedures of the University and the College; see sections beginning on page 18, 36, and 274.

Major Requirements: Those who wish to follow the curriculum in the College for the B.S. with a major in Biochemistry and Chemical Biology degree must complete the following courses:

1. Chemistry 1220/1230, 1240/1250, 2220/2230, 2280/2290, 3000, 5400, 6610, 6620, 6635, and 6640. By the first semester of the senior year, the student must enroll for at least two credits in Senior Research in Chemistry (CHM 5999 or 5998). The student must work under the direction of a faculty member of the Department of Chemistry. It is advised that the student consult with the faculty during the term prior to beginning work, in order to choose the area and staff member under whose direction this research will be carried out. At the conclusion of the project, the student must present a written report for approval by the Chairperson of the Department.

2. Nine credits in approved advanced chemistry courses. Please see a chemistry undergraduate adviser for appropriate electives.

3. Physics 2170/2171 and 2180/2181.

4. Mathematics 2010, 2020, and 2210

5. Biological Sciences 1510 and 2200

6. Language requirement: three semesters of any language (German, French, or Russian are preferred).

7. A minimum grade of 'C' is required in prerequisite courses.

At least fifteen credits in chemistry plus Senior Research (CHM 5999) must be earned at Wayne State University. Superior students may substitute CHM 1410 and 1420 for 1220/1230, 1240/1250, and 2220/2230. Reducing the number of required hours in chemistry will permit such students to elect chemical research (CHM 2999) as early as the summer following the freshman year.

NOTE: Further changes in the chemistry curriculum are anticipated and may affect the courses included in the degree programs outlined in this Bulletin. Interested students should consult a Chemistry undergraduate adviser for current requirements.

FIRST YEAR

Fall Semester

CHM 1220/1230: Cr. 5
English 1020 (BC) or 1050 (BC): Cr. 4
Mathematics 2010: Cr. 4
Competency Requirement: Cr. 3
Total credits: 16

Winter Semester

CHM 1240/1250: Cr. 5
English (2000 level): Cr. 3
Mathematics 2020: Cr. 4
BIO 1510: Cr. 4
Total credits: 16

SECOND YEAR

Fall Semester

CHM 2220/2230: Cr. 5
Biology 2200: Cr. 4
Physics 2170/2171: Cr. 5
Competency Requirement: Cr. 3
Total credits: 17

Winter Semester

CHM 2280/2290: Cr. 5
CHM 3000: Cr. 3
Physics 2180/2181: Cr. 5
Group Requirement: Cr. 4
Total credits: 17

THIRD YEAR

Fall Semester

CHM 6620: Cr. 3
CHM 5999: Cr. 2
MAT 2210: Cr. 4
Language I: Cr. 4
Competency Requirement: Cr. 3
Total credits: 16

Winter Semester

CHM 6610: Cr. 2
CHM 6635: Cr. 3
Language II: Cr. 4
Group Requirements: Cr. 6
Total credits: 15

FOURTH YEAR

Fall Semester

Advanced Elective: Cr. 2-4
Advanced Elective: Cr. 2-4
Language III: Cr. 4:
Group Requirements: Cr. 6
Total credits: 14-18

Winter Semester

CHM 5400: Cr. 4
CHM 6640: Cr. 3
Advanced Elective: Cr. 2-4
Group Requirements: Cr.6
Total credits: 15-17

— With Honors in Biochemistry and Chemical Biology (B.S.)

1. All regular requirements for the Bachelor of Science with a major in Biochemistry and Chemical Biology degree must be fulfilled (no substitutions).

2. Minimum g.p.a.: 3.3 overall; 3.3 in chemistry courses.

3. Minimum of four credits must be earned in independent research (CHM 2999, 5998); this should commence in the junior year (or earlier).

4. Completion of one semester of an HON 4200-level honors seminar. (For information about honors-designated coursework available each semester, including the required 4000-level Honors seminar, visit the Honors College website link at: http://www.honors.wayne.edu/classes.php.) This course may be used to partially fulfill college Group Requirements and can be elected in either the junior or senior year.

5. Submission of a B.S. thesis (covering the undergraduate independent research project), or of a manuscript suitable for publication in a refereed chemical journal, to the Honors Subcommittee in Chemistry which will act to accept or reject the thesis (or manuscript).

6. An oral examination covering the B.S. Honors Research Project, by the Honors Subcommittee in Chemistry.

7. CHM 1410 and 1420 are strongly recommended for students intending to obtain an honors degree.

Minor in Chemistry

Students majoring in other fields who desire to obtain a minor in chemistry must complete the following courses: CHM 1220/1230, 1240/1250, 2220/2230, 2280/2290, and at least nine additional credits earned at Wayne State University in Chemistry courses numbered 3000 or above, excluding seminar and research courses (CHM 2999, 4850, 5999, etc.). Typically, the latter nine credits could be satisfied by electing some combination of: CHM 3020, 5020, 5160, 5400, 5420, 5440, 5600, 6060, 6440, or 6640. Superior students may substitute CHM 1410 and 1420 for: 1220/1230, 1240/1250, and 2220/2230.

Financial Aid

Also see Office of Student Financial Aid, page 34.

James C. French Endowed Undergraduate Chemistry Scholarship: Award open to any undergraduate chemistry major enrolled for at least eight credits. Selection is based primarily on scholastic achievement and secondarily on basis of financial need. Award is to be used for educational expenses, including tuition, books, fees. Application deadline is April 4; contact the Chemistry Department Undergraduate Office

George H. Wheatley Scholarship: Award open to full-time undergraduate students majoring in chemistry with a minimum 3.0 g.p.a. Application deadline is April 4; contact the Chemistry Department Undergraduate Office.

Jane and Frank Warchol Foundation Scholarship: Any full-time or part-time undergraduate student majoring in chemistry. Selection is based on scholastic achievement as well as on the basis of financial need. Applicants expressing strong entrepreneurial goals will be favored in the award process. Award is to be used for tuition and other educational expenses, including books, fees. Application deadline is April 4; contact the Chemistry Department Undergraduate Office.

Chemistry Undergraduate Scholarship: Any full-time undergraduate student majoring in chemistry. Selection is based on scholastic achievement with special emphasis on performance in chemistry courses. Application deadline is April 4; contact the Chemistry Department Undergraduate Office.

CHEMISTRY COURSES (CHM)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

FEES: Most laboratory courses have a non-refundable materials fee and are so indicated in the Schedule of Classes. Students are financially responsible only for the repair or replacement of University materials lost, damaged, or destroyed in classroom procedures.

1000 (PS) Chemistry and Your World. Cr. 0-4 (LCT: 3; LAB: 3)
Meets General Education Laboratory Requirement when elected for 4 credits. Facts and theories from analytical, inorganic, organic, and physical chemistry, and from biochemistry; their consequences in life processes and the environment. Material Fee As Indicated In The Schedule of Classes (F,W)

1020 (PS) Survey of General Chemistry. Cr. 0-4 (LCT: 3; QUZ: 1; LAB: 3)
Prereq: intermediate high school algebra recommended. Meets General Education Laboratory Requirement. High school chemistry not required. First course in the terminal sequence consisting of CHM 1020 and CHM 1030. Matter and energy in chemistry, chemical symbols and equations, structure and properties of atoms, introduction to chemical bonding; periodicity in chemistry, solids, liquids, gases, solutions, acids and bases, and equilibrium. Material Fee As Indicated In The Schedule of Classes (F,W)

1030 Survey of Organic/Biochemistry. Cr. 0-4 (LCT: 3; QUZ: 1; LAB: 3)
Prereq: A grade of C-minus or above in CHM 1020. Organic and biological chemistry; brief introduction to organic chemistry, emphasizing classes of compounds important in biochemical processes; survey of biochemistry with applications to nutrition, physiology, and clinical chemistry; protein structure; intermediary metabolism; molecular biology; and metabolic regulation. Material Fee As Indicated In The Schedule of Classes (F,W)

1040 Chemistry Skills and Reasoning. Cr. 4
Prereq: placement by examination. No credit after any other chemistry course. Reasoning and mathematical skills needed for development of a scientific approach in chemistry. (F<W)

1220 (PS) General Chemistry I. Cr. 0-4
Prereq: passing score on chemistry placement exam or a grade of C-minus or above in CHM 1040; Math Department placement into or beyond MAT 1800; coreq: CHM 1230. Satisfies General Education laboratory requirement upon completion of both CHM 1220 and 1230. Only two credits after CHM 1020. Introduction to the principles of chemistry for students with high school background in chemistry. Chemical structure, bonding, and reactivity. (T)

1225 (PS) General Chemistry I. Cr. 0-3
Open only to students in College of Engineering. Prereq: passing score on chemistry placement exam or a grade of C-minus or above in CHM 1040; Math Department placement in or beyond MAT 1800; coreq: CHM 1230. Satisfies General Education laboratory requirement upon completion of both CHM 1225 and 1230. Only one credit after CHM 1020. Introduction to principles of chemistry for students with high school background in chemistry. Chemical structure, bonding, and reactivity. (T)

1230 General Chemistry I Laboratory. Cr. 0-1
Prereq: passing score on chemistry placement exam or a grade of C-minus or above in CHM 1040, placement beyond MAT 0995; prereq or coreq: CHM 1220 or 1225. Satisfaction of General Education lab requirement is awarded only upon successful completion of both the prereq./coreq. course and this lab course. Laboratory course to introduce the scientific method, properties of materials, the role of energy, structure and spectroscopy. Material Fee As Indicated In The Schedule of Classes (T)

1240 Organic Chemistry I. Cr. 0-4
Prereq: A grade of C-minus or above in CHM 1220, or CHM 1070, or CHM 1050; or equiv.; coreq: CHM 1250. Introductory organic chemistry combined with the general principles of chemistry. Carbon compounds and chemical bonding, acid-based chemistry, stereochemistry and introductory organic reactions. (T)

1250 Organic Chemistry I Laboratory. Cr. 0-1
Prereq: A grade of C-minus or above in CHM 1220 and CHM 1230 or equiv.; prereq. or coreq: CHM 1240. Integrated general/organic chemistry laboratory focusing on spectroscopy, acid-based chemistry, molecular modeling and organic reactions as well as some attention to chromatography. Material Fee As Indicated In The Schedule of Classes (T)

1410 (PS) Chemical Principles I: General/Organic Chemistry. Cr. 0-6
Prereq: Advanced placement in chemistry with a score of 3, 4, or 5; or outstanding performance on chemistry placement exam; or show other evidence of superior academic potential; or consent of instructor. Meets General Education laboratory requirement. Accelerated approach to blended general/organic chemistry. Material Fee As Indicated In The Schedule of Classes (F)

1420 Chemical Principles II: Organic Chemistry. Cr. 0-6
Prereq: A grade of C-minus or above in CHM 1410 or equiv. Accelerated approach to organic/bio-organic chemistry. Material Fee As Indicated In The Schedule of Classes (W)

2220 Organic Chemistry II. Cr. 0-3
Prereq: A grade of C-minus or above in CHM 1240 and 1250 or equiv.; coreq: CHM 2230. Organic reactions of functional groups such as aldehydes, ketones and related carbonyl compounds. Extensive discussion of the interface of organic/biochemistry and bioinorganic chemistry. (T)

2230 Organic Chemistry II Laboratory. Cr. 0-2
Prereq: A grade of C-minus or above in CHM 1240 and CHM 1250 or equiv.; prereq. or coreq: CHM 2220. Synthesis of organic and bioorganic compounds. Material Fee As Indicated In The Schedule of Classes (T)

2280 General Chemistry II: Analytical Chemistry. Cr. 0-3
Prereq:A grade of C-minus or above in CHM 1240 and 1250, or 1410,; or equiv.; coreq: CHM 2290. Concepts and calculations regarding kinetics, equilibrium, thermodynamics for a variety of reac-

tion types. Qualitative and quantitative examples and applications. (T)

2290 General Chemistry II: Analytical Chemistry Laboratory. Cr. 0-2

Prereq: A grade of C-minus or above in CHM 1240 and 1250 or equiv.; prereq. or coreq: CHM 2280. Study and use of acid-base redox, solubility precipitation, and complex forming reactions and equilibria in qualitative and quantitative chemistry. Material Fee As Indicated In The Schedule of Classes (T)

2999 Honors Research Problems in Chemistry. Cr. 2-4

Prereq: CHM 1240/1250 or CHM 1410; consent of chairperson. Research projects under the direction of a senior faculty member. (T)

3000 Metals in Biology. Cr. 3

Only two credits if elected after CHM 3020. Prereq: A grade of C or above in CHM 1240 or equiv. Descriptive approach to metals involved in biological systems. (I)

3020 Intermediate Inorganic Chemistry I. Cr. 3 (LCT: 3)

Only two credits apply if elected after CHM 3000. Prereq: A grade of C-minus or above in CHM 1240 or equiv. Emphasizes chemistry of the main group elements and includes basic coordination chemistry of the transition metals. (W)

4850 Frontiers in Chemistry. (CHM 8850) Cr. 1 (Max. 2)

Prereq: junior or senior Chemistry major. Offered for S and U grades only. Fields of fundamental chemistry now under investigation, presented by invited specialists actively engaged in research. (F,W)

5020 Intermediate Inorganic Chemistry II. Cr. 0-3

Prereq: A grade of C-minus or above in CHM 3020; and 5420 or 5400 or 5440 or equiv. Transition metal chemistry. Coordination compounds and organometallics. Bonding theories and reactivity. Synthesis, purification, and characterization of inorganic compounds with an emphasis on transition metal compounds. Material Fee As Indicated In The Schedule of Classes (F)

5160 Instrumental Analytical Chemistry. Cr. 3

Prereq: A grade of C-minus or above in CHM 5400 or 5420 or 5440 or equiv.; PHY 2180 or equiv. Required of B.S. and ACS-approved B.A. majors. Application of modern instrumental methods to quantitative analysis. Methods that relate instrumental response to chemical concentrations or content. Calibration, data handling, and data evaluation. Emission, flame, infrared, Raman, fluorescence, and magnetic resonance spectroscopy. Mass spectrometry. Electrochemical methods. Chromatography. (F)

5400 Biological Physical Chemistry. Cr. 4

Prereq: A grade of C-minus or above in CHM 2280 or equiv., MAT 2020 or equiv.; prereq. or coreq: MAT 2030, PHY 2170, or equiv. Presentation of physical chemistry topics: thermodynamics, solution equilibria, chemical kinetics, quantum chemistry, spectroscopy, statistical mechanics, transport processes, and structure with biological applications. (W)

5420 Physical Chemistry I. Cr. 3

Prereq: A grade of C-minus or above in CHM 2280, MAT 2020; prereq. or coreq: MAT 2030, PHY 2170, or equiv. Only two credits applicable toward degree after CHM 5400. Chemical thermodynamics, phase equilibrium, solutions, surface chemistry, electrochemistry. (F)

5440 Physical Chemistry II. Cr. 4

Prereq: A grade of C-minus or above in CHM 2280, MAT 2020 or equiv.; prereq. or coreq: MAT 2030, PHY 2170 or equiv. Only three credits applicable to degree after CHM 5400. Kinetic theory, empirical and theoretical kinetics, quantum theory, atomic and molecular structure, molecular spectroscopy, statistical mechanics. (W)

5510 Chemical Synthesis Laboratory. Cr. 0-2

Prereq: A grade of C-minus or above in CHM 2220 and CHM 2230; or CHM 1420. Advanced techniques for the synthesis, purification and characterization of organic compounds. Material Fee As Indicated In The Schedule of Classes (F)

5550 (WI) Physical Chemistry Laboratory. Cr. 0-2

Prereq. or coreq: CHM 5400 or 5420 or 5440 or equiv., and PHY 2180 or equiv. Principles of measurement. Fundamental investigations of thermodynamics. Fundamental spectroscopic and kinetic measurements. Material Fee As Indicated In The Schedule of Classes (F,W)

5570 Instrumental Analytical Chemistry Laboratory. Cr. 0-3 (LCT:1; LAB:6)

Prereq. or coreq: A grade of C-minus or above in CHM 5160 or equiv. Lecture and laboratory experiments covering electronics, measurement, and instrumentation. Principles and analytical applications of electrochemistry, chromatography, and spectroscopy including UV-visible, IR, magnetic resonance, and mass spectroscopy. Material Fee As Indicated In The Schedule of Classes (W)

5600 Survey of Biochemistry. Cr. 3

Only two credits apply if elected after CHM 6620. A grade of C-minus or above in Prereq: CHM 1420 or 2220 or equiv. Protein structure and its relationship to function. Principles of enzyme catalysis. Allosteric regulation of protein function and enzyme catalysis. Pathways of carbohydrate, fat, and protein metabolism in eukaryotic organisms. Introduction to mechanisms of energy coupling and photosynthesis. Information transfer in living systems. Molecular biology. (F,W)

5740 Topics in Chemistry for High School Chemistry Teachers. Cr. 1-6 (Max. 20)

Topics include: principles of chemistry; descriptive chemistry; inorganic, organic, analytical, physical chemistry; biochemistry. Topics to be announced in Schedule of Classes. (I)

5998 Honors Thesis Research in Chemistry. Cr. 2-4 (Max. 8)

Prereq: consent of chairperson. Open only to students in College Honors Program with junior standing in chemistry program; elect no later than first senior semester. Original investigation under direction of senior staff member. Submission of B.S. thesis or manuscript in publication format. Presentation of public lecture on B.S. research. (T)

5999 Senior Research in Chemistry. Cr. 2-4 (Max. 8)

Prereq: consent of chairperson. Open only to students with junior standing in chemistry program; must be elected no later than first senior semester. Original investigation under the direction of a senior staff member. Submission of B.S. thesis or manuscript in publication format. (T)

6040 Chemical Applications of Group Theory. (CHM 7040) Cr. 3

Prereq: A grade of C-minus or above in CHM 5020 and 5440 or equiv. Symmetry in chemical systems, development and use of character tables. Application of group theory to structure, bonding, spectroscopy and reactions. (I)

6060 Solid State Materials Chemistry. (CHM 7060) Cr. 3

Prereq: A grade of C-minus or above in CHM 5020 or equiv. Solid state structure and bonding. Crystallography, defects and non-stoichiometry. Phase diagrams. Synthesis and properties of extended solids and nanomaterials. (I)

6070 Advanced Bioinorganic Chemistry. (CHM 7070) Cr. 3

Prereq: A grade of C-minus or above in CHM 3000. Applications of inorganic chemistry principles to understanding biological systems including metalloenzymes. (I)

6170 Advances in Bioanalytical Chemistry. (CHM 7170) Cr. 3

Prereq: A grade of C-minus or above in CHM 5160. How analytical methods are used to obtain information regarding biological systems. (I)

6240 Organic Spectroscopy. (CHM 7240) Cr. 3

Prereq: A grade of C-minus or above in CHM 1420 or 2220 or equiv. Application of IR, NMR, UV, and mass spectrometry to the identification of organic compounds. Emphasis on interpretation of spectra, especially NMR. Recommended for students intending to do graduate or industrial work in organic chemistry. (W)

6270 Advanced Bioorganic Chemistry and Drug Design. (CHM 7270) Cr. 3

Prereq: A grade of C-minus or above in CHM 6620. Studies of biological problems using organic synthetic methods and applications to drug design. (I)

6340 (PHC 6340) Chemical Basis of Pharmacology. (BIO 6840) Cr. 3

Prereq: A grade of C-minus or above in CHM 1420 or 2220 and BIO 1510 or equiv. Mechanisms of action and metabolism of commonly-used drugs and toxic substances from the cellular level to whole biological systems. (Y)

6440 Computational Chemistry. (CHM 7440) Cr. 3

Prereq: A grade of C-minus or above in CHM 5440 or equiv. Aspects of computational chemistry pertinent to effective use of molecular modeling techniques. Molecular mechanics, semi-empirical and ab initio calculations, molecular dynamics. Material Fee As Indicated In The Schedule of Classes (I)

6570 Computational Biochemistry and Bioinformatics. (CHM 7570) Cr. 3

Prereq:A grade of C-minus or above in CHM 5400. Application of computational and molecular modeling software tools to biochemical problems. (I)

6610 (WI) Biological Chemistry Laboratory. Cr. 0 or 2

Prereq: A grade of C-minus or above in CHM 6620 or equiv. Open only to chemistry majors. Biochemistry and Chemical Biology majors are encouraged to have CHM 6635 as either a co-requisite or a prerequisite to this course. Basic experiments in isolation, purification, and analysis of biomolecules. Techniques currently used in molecular biology and recombinant DNA procedures stressed. Material Fee As Indicated In The Schedule of Classes (Y)

6620 Metabolism: Pathways and Regulation. (CHM 7620) Cr. 3

Only two credits apply if elected after CHM 5600. Prereq: A grade of C-minus or above in CHM 2220 or 1420 or 2260 or equiv. Major metabolic pathways of carbohydrate, fatty acid, amino acid, and nucleotide synthesis and degradation. Pathways and mechanisms of energy generation. Hormonal and allosteric regulation of enzyme activity. (F)

6635 Tools of Molecular Biology. (CHM 7635) Cr. 3

Prereq: A grade of C-minus or above in CHM 6620. Principles underlying genetic and biochemical methods; complements work in lab CHM 6610. (Y)

6640 Molecular Biology. (CHM 7640) Cr. 3

Prereq: A grade of C-minus or above in CHM 6620 or equiv. Nucleic acid structure and function. Mechanism and control of replication, transcription, and translation. Mutation, genetic recombination, and recombinant DNA. Membranes and organelles. (W)

6660 Biomolecular Interactions. (CHM 7660) Cr. 3

Prereq: A grade of C-minus or above in CHM 1420 or CHM 2220 or equiv. The role of molecular interactions in determining the structure and reactivity of complex biological molecules. Experimental approaches for evaluating the nature of these interactions. (I)

6740 Laboratory Safety. Cr. 1-2

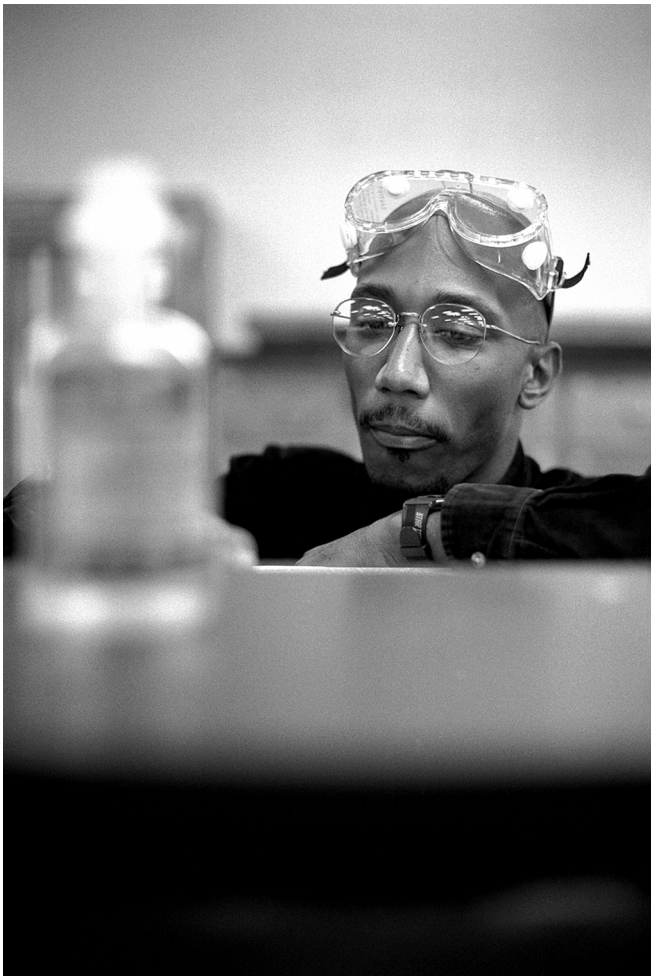
Not for chemistry major credit. Offered for S and U grades only. Required for all graduate degrees in chemistry. Discussion and demonstration of safe laboratory practice. Use, storage and disposal of ordinary and hazardous substances; personal protection devices; regulations and codes. (F,W)

6750 Glassblowing. Cr. 1

Prereq: graduate standing or consent of instructor. Offered for S and U grades only. Introduction to the fundamentals of glassblowing as applied to the repair and fabrication of scientific equipment in the research laboratory. Material Fee As Indicated In The Schedule of Classes (I)

6990 Directed Study. Cr. 1-4 (Max. 8)

Prereq: consent of department. (T)



Chicano-Boricua Studies

Office: 3326 Faculty Administration Building; 313-577-4378
Fax: 313-993-4073

Director: Jorge L. Chinea

Associate Director for Recruitment and Retention:
Ethriam Cash Brammer

College-to-Career Program Manager: Raquel Castañeda-López
(e-mail: ba4863@wayne.edu)

CBS Scholars Program Manager: Tamara Serrano Chandler
(e-mail: tamaraserrano@wayne.edu)

Teaching Faculty

Jorge L. Chinea, Josée Cuello, Nicole Trujillo-Pagán

Affiliate Faculty

Jorgelina Corbatta

Purpose

The Center for Chicano-Boricua Studies (CBS) strives to promote equitable access to a quality university education to students interested in Latino and Latin American issues and culture, and to enhance the environment of diversity on the campus. The Center accomplishes its mission through a four-part program in: 1) student services; 2) research on Latina/o and Latin American issues; 3) internal University advocacy on Latina/o perspectives; and 4) outreach to the Latina/o and larger off-campus communities. The research and teaching specializations of the faculty associated with the Center are Mexican history, Caribbean history, South American literature, United States Latina/o history and student learning strategies in higher education.

Academic Self-Empowerment Program

Chicano-Boricua Studies' comprehensive student services are based on a leadership development and academic self-empowerment model. The program, which is one of the University's Learning Communities, is designed to enhance the transition from high school to the University. It strengthens students' abilities to integrate themselves into the University environment and improves their preparation, planning and commitment for academic, professional and life achievement. The program serves the needs and goals of students at various levels of accomplishment, from honor students to those who need extra support to hone their university learning skills. The goal of the program is to educate students for more than career skills, but also to become sensitive individuals with an appreciation for the life of the mind, wisdom of the world, and a sense of ethical responsibility to society. Students have access to the Center's resources throughout their student career and as alumni.

Admission: The requirements for admission to the CBS Learning Community are competitive and include: submission of an official Wayne State Application for Undergraduate Admission; a personal interview; interest in learning about Latino/Hispanic history and culture; and demonstrated potential for academic and personal growth.

Chicano-Boricua Studies Co-Major

The Chicano-Boricua Studies Co-Major Program is the equivalent of a Latina/o-Latin American Studies co-major. The multi-disciplinary program of study is designed to strengthen the career preparation of students in all majors who plan to work in national and international multicultural environments where knowledge about Latin America, the Caribbean, Latino Studies, and multicultural diversity would be a valuable asset. Completion of the co-major is noted on the student's transcript.

Admission: Students submit a Declaration of Major Form at the beginning of their junior year. (See page 275 for instructions on declaring a major.)

Co-Major Requirements: Completion of the following core courses (fifteen credits) and a minimum of eighteen credits from the list of elective courses. Appropriate courses may be substituted with the prior approval of the Center's Director.

Required Core Courses (fifteen credits)

CBS 2100 -- Chicano Literature and Culture: Cr. 3
CBS 2110 -- Puerto Rican Literature and Culture: Cr. 3
CBS 2410 -- (FC) History of Mexico: Cr. 3
CBS 2420 -- (FC) History of Puerto Rico and Cuba: Cr. 3
CBS 2430 -- History of Latinos in the United States: Cr. 3
CBS 3610 -- Seminar in Latino Urban Problems I: Cr. 3

Elective Courses (eighteen credits)

ANT 3110 -- Detroit Area Minorities: Cr. 3
ANT 3220 -- The Inca and their Ancestors: Cr. 3
ANT 3540 -- (FC) Cultures and Societies of Latin America: Cr. 3
ANT 5510 -- Mesoamerican Civilizations: Cr. 3
HIS 3995 -- Special Topics in History: Latin America: Cr. 1-4
P S 3735 -- Politics of Latin America: Cr. 4
SPA 4630 or SPA 4640
-- Survey of Spanish American Literature I: Cr. 3
-- Survey of Spanish American Literature II: Cr. 3
SPA 5560 -- Spanish American Cultures and Their Traditions: Cr. 3
SPA 6600 -- Spanish American Colonial Literature: Cr. 3
SPA 6620 -- The Spanish American Novel II: Cr. 3
SPA 6630 -- Spanish American Poetry: Cr. 3
SPA 6670 -- Latin American Novel to 1900: Cr. 3

CHICANO-BORICUA STUDIES COURSES (CBS)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

1410 Student Success Seminar. Cr. 2 (Max. 4)

Prereq: consent of instructor. Open only to students in Chicano-Boricua Studies program. Developing academic and leadership skills; self-empowerment. (T)

2100 (CBS 2100) Chicano Literature and Culture. (SPA 2400) Cr. 3

Examination of Chicano literature. Themes and figures in a social and historical context. (B)

2110 (CBS 2110) Puerto Rican Literature and Culture. (SPA 2500) Cr. 3

Examination of Puerto Rican literature. Themes and figures in a social and historical context. (B)

2410 (CBS 2410) (FC) History of Mexico. (HIS 2440) Cr. 3

Historical development of Mexico and the Mexican people from the Spanish conquest to the present. Interaction of political, social, economic and cultural influences. (Y)

2420 (FC) History of Puerto Rico and Cuba. Cr. 3

Historical development of Puerto Rico and Cuba from the pre-Columbian period to the present. Interaction of political, social, economic and cultural influences. (I)

2430 (CBS 2430) History of Latinos in the United States. (HIS 2430) Cr. 3

Historical development of people of Hispanic descent in the United States from the early nineteenth century to the present. Cultural conflict, interaction of political, social, and economic forces. (Y)

2450 (HIS 1910) Latin America from Independence to the Present. Cr. 3

Latin America from early nineteenth century to the 1980s. (Y)

3510 (ANT 5510) Mesoamerican Civilization. Cr. 3

Prereq: ANT 2100 or consent of instructor. Survey of the history and characteristics of culture in Mesoamerica prior to colonization, from the Maya and Olmec to the Aztec. (Y)

3610 Seminar in Latino Urban Problems I. Cr. 3

Historical and current issues in economics, politics, and culture involving the multi-racial and multi-ethnic Latino population of the United States. (I)

3710 (CBS 3710) Learning About Your Community Through Research. (SOC 3710) Cr. 4

Prereq: consent of instructor. Blend of participatory, in-service, and classroom work to enhance undergraduate research skills by linking social science theories and concepts to hands-on community-based learning opportunities. (F)

3800 (SPA 3800) Spanish for Heritage Learners. (CBS 3800) Cr. 3

Prereq: SPA 2025 or consent of instructor. Review of grammar and composition for Spanish heritage learners. Conducted entirely in Spanish. (Y)

3990 Directed Study. Cr. 1-3

Prereq: consent of instructor. Special topics are addressed by students and faculty. (F,W)

5239 (HIS 5239) Latin American Migration to the United States. (HIS 7239) Cr. 3

Causes, dynamics, and impact of Latin American migration to the United States. (I)

5560 (SPA 5560) Spanish American Cultures and their Traditions. Cr. 3

Prereq: SPA 4610 or SPA 4620 or consent of instructor. Panorama of Latin American civilization and culture from the pre-Colombian period to the present. (Y)

Classical and Modern Languages, Literatures, and Cultures

Office: 485 Manoogian Hall; 313-577-3002
Chairperson: Margaret E. Winters
Academic Services Officers: Darrell Brockway, Terrie Pickering

Website: http://www.clas.wayne.edu/languages

Professors

Jorgelina Corbatta, Donald Haase, Francisco J. Higuero, Kathleen McNamee, Donald E. Schurlknight, Donald C. Spinelli, Michele Valerie Ronnick, Charles J. Stivale, Margaret E. Winters

Associate Professors

Catherine Barrette, Kenneth Brostrom, Eugenia Casielles, Alfred L. Cobbs, Anne E. Duggan, Victor Figueroa, Michael J. Giordano, Lisabeth Hock, Joel B. Itzkowitz, Jennifer Sheridan Moss, Kate Paesani, Roslyn Abt Schindler, May Seikaly, Kenneth R. Walters

Assistant Professors

Alina Cherry, Raffaele DeBenedictis, Vanessa DeGifis, Annie Higgins, Sandra Hobbs, Leisa Kauffmann, Thomas D. Kohn, Haiyong Liu,Felecia Lucht, James Michels, Elena Past, Jose Rico-Ferrer, Anne Rothe, Abderrahman Zouhir

Senior Lecturers

Mark Ferguson, Isamu Fukuchi, Alina Klin, Laura Kline

Lecturers

Lakhdar Choudar, Edith Covensky, Yoshika Ellicott, Bruce Fox, Silvia Giorgini-Althoen, Connie Green, Saeed Khan, Rie Masuda, Yue Ming, Leonidas Pittos, Luisa Quintero, Marilynn Rashid, Soraya Saatchi, Maha Saker, Carole Verhelle, Talia Weltman-Cisneros

Director of Foreign Language Technology Center

Sangeetha Gopalakrishnan

Adjunct Faculty

Robert Holley, Hans-Peter Soeder, Dickran Toumajan

Emeritus Professors

Ernest J. Ament, Fernande Bassan, Achim Bonawitz, Frank J. Corliss, Jr., Andrea di Tommaso, Penrith Goff, Jesus Gutierrez, Louise M. Jefferson, Louis Kibler, Richard W. Minadeo, Sol Rossman, Aleya A. Rouchdy, Donald Spinelli, Ivan Starr, Guy Stern, Richard Vernier, A. Monica Wagner

Degree Programs

BACHELOR OF ARTS with Majors in Asian Studies, Classics, German, Near Eastern Languages, Near Eastern Studies, Romance Languages, and Slavic Studies

MASTER OF ARTS with a major in Classics, German, Near Eastern Languages, and Romance Languages

MASTER OF ARTS in Language Learning

DOCTOR OF PHILOSOPHY with a major in Modern Languages

This Department offers courses and programs of instruction in sixteen different languages, as listed below. In addition to language learning, the Department focuses on the cultures and literatures of ancient Greece and Rome, as well as the modern world, in courses taught both in languages indigenous to these regions as well as in English translation. The study of other languages, literatures, and cultures not only provides important perspectives on the world, but also sharpens analytical and reasoning skills, deepens understanding of English, and enhances the quality of one's writing. Linguistic and broadly-based cultural studies provide excellent grounding for various professional programs, including law, business, medicine or health sciences, teaching at the high school or university level, library and information science, and museum practice. Languages, literatures, and cultures are also an excellent foundations for students interested in pursuing careers that do not require post-graduate education, for example, in government, publishing, tourism, and business, any field in which intelligence, communication skills, and a broad liberal education are valued.

The Department offers programs in both major and minor concentration as well as cognate course work that can provide perspectives for majors in other departments. A student who wishes to major or minor in one of our degree programs should meet with a Departmental adviser as soon as possible after entering the University.

Bachelor of Arts Degrees

Admission requirements for these programs are satisfied by the requirements for undergraduate admission; see page 24.

A student who wishes to major or minor in the Department should plan his/her program with the Departmental undergraduate adviser as soon as possible after entering the University. Each major's program is arranged to satisfy the individual student's interests and purposes, whether they be to combine majors and minors for teacher certification, to acquire language skills needed for technical work in other areas of study, to enrich professional background, or to broaden general cultural development.

DEGREE REQUIREMENTS: Students must complete 120 credits in course work including satisfaction of the University General Education Requirements (see page 18) and the College of Liberal Arts and Sciences Group Requirements (see page 274), as well as the major requirements cited below. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

Major Requirements in Asian Studies

A major concentration in Asian studies consists of a concentration in either Chinese or Japanese; or joint study of both languages.

The major with a concentration in Chinese or Japanese requires twenty credits in the language or language-related courses, including linguistics, beyond first year proficiency. In addition, the student must take sixteen credits in elective courses (with a maximum of four of those credits coming from additional language and/or linguistics courses). Electives include but are not limited to the disciplines of anthropology, business management, history, economics, linguistics, and political science.

The major with a joint study in both Chinese and Japanese requires first-year proficiency in both Chinese and Japanese: sixteen credits including eight credits of first year proficiency in each language (or demonstration of first year proficiency in each language). Beyond that, the student must take twelve credits of language and/or linguistics courses in one of the two languages and eight credits of such courses in the other language. In addition, the student must take nine credits in elective courses which include but are not limited to the disciplines of anthropology, business management, history, economics, interdisciplinary studies, linguistics, and political science.

Asian Studies Concentrations: A major concentration in Asian studies consists of a concentration in either Chinese or Japanese; or joint study of both languages.

The major with a concentration in Chinese or Japanese requires twenty credits in the language or language-related courses, including linguistics, beyond first year proficiency. In addition, the student must take sixteen credits in elective courses (with a maximum of four of those credits coming from additional language and/or linguistics courses). Electives include but are not limited to the disciplines of anthropology, business management, history, economics, linguistics, and political science.

The major with a joint study in both Chinese and Japanese requires first-year proficiency in both Chinese and Japanese: sixteen credits - eight credits of first year proficiency in each language (or demonstration of first year proficiency in each language). Beyond that, the student must take twelve credits of language and/or linguistics courses in one of the two languages and eight credits of such courses in the other language. In addition, the student must take nine credits in elective courses which include but are not limited to the disciplines of anthropology, business management, history, economics, interdisciplinary studies, linguistics, and political science.

Minor Requirements in Asian Studies

A minor in Asian Studies consists of a minimum of twenty-two credits. These include eleven credits in Chinese language or Japanese language beyond 1010-1020. They also include at least six credits in an elective course on China or Japan or Asia in general.

Asian Studies Minor: A minor in Asian Studies consists of a minimum of twenty-two credits. These include eleven credits in Chinese language or Japanese language beyond 1010-1020. They also include at least six credits in an elective course on China or Japan or Asia in general.

Major Requirements in Classics

A major in Classics consists of satisfying one of the following sets of concentration requirements:

A Concentration In Ancient Greek, requiring:

1. Twenty-four credits in Ancient Greek (exclusive of Greek 1010 and 1020);

2. CLA 1010 (Classical Civilization), and CLA 2000 (Greek Mythology), both preferably taken during the freshman or sophomore year) (six credits);

3. CLA 3800 (Survey of Greek Literature) (three credits);

4. CLA 5993 (Writing Intensive) taken in conjunction with a Classics, Greek, or Latin course 3000-level or above, during the senior year (zero credits); and

5. One additional Classics course at the 2000-level or above (three to four credits).

A Concentration In Latin**,** requiring:

1. Twenty-four credits in Latin (exclusive of Latin 1010 and 1020);

2. CLA 1010 (Classical Civilization), and Classics 2000 (Greek Mythology), both preferably taken during the freshman or sophomore year) (six credits);

3. CLA 3825 (Survey of Latin Literature) (three credits);

4. CLA 5993 (Writing Intensive) taken in conjunction with a Classics, Greek, or Latin course 3000-level or above, during the senior year (zero credits); and

5. One additional Classics course at the 2000-level or above (three to four credits).

***A Concentration In Both Ancient Greek And Latin*,** requiring:

1. Sixteen credits in either Ancient Greek or Latin (exclusive of Greek or Latin 1010 and 1020);

2. Sixteen credits of course work in the other language;

3. CLA 1010 (Classical Civilization) and CLA 2000 (Greek Mythology), both preferably taken during the freshman or sophomore year) (six credits);

4. Either Classics 3800 (Survey of Greek Literature) or Classics 3825 (Survey of Latin Literature) (three credits); and

5. CLA 5993 (Writing Intensive) taken in conjunction with a Classics, Greek, or Latin course 3000-level or above, during the senior year (zero credits)

A Concentration In Classical Civilization, requiring:

1. Greek or Latin 2010 (four credits);

2. CLA 1010 (Classical Civilization) and CLA 2000 (Greek Mythology) preferably taken during the freshman or sophomore year (six credits);

3. CLA 3150 (Athens and the Ancient Greek World) and CLA 3700 (The Golden Age of Rome) (six credits);

4. PHI 2100 (Ancient Philosophy) (three credits);

5. CLA 3800 (Survey of Greek Literature) AND CLA 3825 (Survey of Latin Literature) (six credits);

6. Two courses in Art History, one chosen from each of the following two categories citing Greek or Roman emphasis (please note that enrollment in Art History courses requires special permission; contact the Classics undergraduate advisor.) (six credits):

Greek Art and Archaeology:
A H 3240 -- Mythology in Greek Art: Cr. 3
A H 5210 -- Hellenistic Art: Cr. 3
A H 5260 -- Classical Greek Art: Cr. 3
A H 5310 -- The Ancient City of Athens: Cr. 3
A H 5320 -- Neoclassical Architecture in Britain: Cr. 3

Roman Art and Archaeology:
A H 5250 -- Ancient Rome: Cr. 3
A H 5270 -- Roman Painting and Sculpture: Cr. 3
A H 5300 -- The Christian Roman Empire: Cr. 3

CLA 5300 may be substituted for one of the above Art History courses in either category:
CLA 5300 -- Materials and Methods in Classical Studies: Cr. 3-6

7. CLA 5993 (Writing Intensive) taken in conjunction with a Classics, Greek, or Latin course 3000-level or above, during the senior year (zero credits);

8. A Minimum of five credits in electives from the following list:
ANT 3200 -- (HS) Lost Cities and Ancient Civilizations: Cr. 3
ANT 5270 -- Introduction to Archaeology: Cr. 3
ANT 5600 -- Museum Studies: Cr. 3

A H 3070 -- Art & Archaeology of Ancient Egypt: Cr. 3
A H 5320 -- Neoclassical Architecture in Britain: Cr. 3

In addition to these Art History courses, any Art History course from the above list under number 6 (see "Greek Art and Archaeology" and "Roman Art and Archaeology") not used to fulfill the Art History requirement may be used to fulfill the elective requirement. Note: enrollment in Art History courses requires special permission; contact the Classics undergraduate advisor.

CLA 2100 -- (PL) Classical Origins of Western Thought: Cr. 3
CLA 2200 -- (PL) Introduction to Greek Tragedy: Cr. 3-4
CLA 3010 -- The Ancient Book: Cr. 1
CLA 3030 -- Caesar: Writer and Soldier: Cr. 1
CLA 3040 -- Athletics in Antiquity: Cr. 1-2
CLA 3050 -- Cleopatra: Cr. 3
CLA 3060 -- Medea in African American Literature: Cr. 3
CLA 3100 -- Law and Ancient Society: Cr. 3-4
CLA 3190 -- Topics on Women in Antiquity: Cr. 3 (Max. 6)
CLA 3250 -- The Ancient City: Cr. 3-4
CLA 3300 -- Coins and Coinage of the Greeks and Romans: Cr. 3
CLA 3350 -- Plutarch's Lives of the Noble Greeks and Romans: Cr. 3
CLA 3600 -- Religious Experience: Ancient Greeks and Romans: Cr. 3
CLA 3930 -- Topics in Classical Civilization: Cr. 1-4 (Max. 8)
CLA 3999 -- Further Studies in Mythology: Cr. 3
CLA 5200 -- Special Studies: Cr. 1-4 (Max. 8)

COM 2190 -- Rhetorical Theory: Cr. 3

GKA 2020 and above; GRK 1010-2010 if Latin is the major language
GKM 3710 -- (FC) Modern Greek Literature and Culture in English: Cr. 3

HIS 5330 -- History of Ancient Greece: Cr. 3
HIS 5340 -- History of Ancient Rome: Cr. 3
HIS 5360 -- The Early Middle Ages: 300-1000: Cr. 3

LAT 2020 and above; LAT 1010-2010 if Greek is the major language

N E 2010 -- The Bible and Ancient Mythology: Cr. 3
N E 3060 -- Ancient Near East Literature: Cr. 3

PHI 5400 -- Presocratic Philosophy: Cr. 3
PHI 5410 -- Plato: Cr. 4
PHI 5420 -- Aristotle: Cr. 4

Recommended Cognate Courses: All majors in the Department are strongly urged to take as many courses as possible from the list above and in the literatures of other languages, including English.

Combined Curriculum for Secondary Teaching: Students who are preparing to teach Latin in the secondary schools and who wish to obtain a B.A. degree with a concentration in Latin must complete the concentration in Latin as outlined above and the requirements for this curriculum set by the College of Education. For further information on this curriculum, see 'Secondary Teaching,' under Undergraduate Curricula, page 280.

Minors and Cognate Study in Classics

Minor Requirements in Ancient Greek: A minor in Ancient Greek consists of twenty credits excusive of Ancient Greek 1010 and 1020 and Clasics 1010 (Classical Civilization). Students are also encouraged to elect Classics 2000 (Greek Mythology) during their freshman or sophomore year.

Minor Requirements in Latin: A minor in Latin, consists of twenty credits exclusive of Latin 1010 and 1020 and Classics 1010 (Classical Civilization). Students are also encouraged to elect Clasics 2000 (Greek Mythology) during their freshman or sophomore year.

Minor Requirements in both Ancient Greek and Latin: A minor in both Ancient Greek and Latin consists of twelve to sixteen credits in either ancient Greek or Latin, exclusive of GKA or LAT 1010 and 1020, plus twelve credits in the other language, plus Classical Civilization (CLA 1010). Students are also encouraged to elect Classics 2000 (Greek Mythology) during their freshman or sophomore year.

Minor Requirements in Classical Civilization: A minor in Classical Civilization consists of twenty-six to twenty-eight credits distributed as follows:

1. Ancient Greek or Latin 1010 and 1020 (eight credits);

2. CLA 1010 (Classical Civilization) or CLA 2000 (Greek Mythology) (three to four credits);

3. CLA 3700 (The Golden Age of Rome) or CLA 3150 (Athens and the Ancient Greek World) (three credits);

4. PHI 2100 (Ancient Philosophy) (three credits);

5. CLA 3800 (Survey of Greek Literature) or CLA 3825 (Survey of Latin Literature) (three credits);

6. One of the following three-credit courses: A H 3240 (Mythology in Greek Art), A H 5250 (Ancient Rome), A H 5210 (Hellenistic Art), A H 5270 (Roman Painting and Sculpture), A H 5260 (Classical Greek Art), A H 5300 (The Christian Roman Empire), A H 5310 (The Ancient City of Athens), or CLA 3400 (The Bronze Age in the Aegean) (three credits). (Please note that enrollment in Art History courses requires special permission; contact the Classics undergraduate advisor.);

7. One additional Classics course numbered CLA 2000 or higher (three to four credits).

Minor Requirements in Modern Greek Studies: A Minor in Modern Greek Studies consists of six courses distributed as follows: four courses in Modern Greek language including the sequence GKM 1010[1], 1020[1], 2010[1], 2020, plus one course in Modern Greek language or culture at the 3000-level or above, plus one elective course in Classics selected from among CLA 1010, 2000, 2100, 2200, 3100, 3190, 3250, 3300, 3600, 3700, 3999, 5200; HIS 5330, 5340; PHI 2100, 5400, 5410, and 5420.

Recommended Cognate Courses: All minors in the Department are strongly urged to take as many courses as possible from the list under Major Requirements cited above, as well as in the literatures of other languages, including English.

Major Requirements in German

Major Requirements in German: A major in German must satisfactorily complete thirty-one credits in German courses, including German 2020, 2310, 2710, 2720, 3100, 3200, 4600, 5100, 5993, and two courses in German on the 5000 or 6000 level.

For the interdisciplinary focus, students must complete two courses from the following options: HIS 3010, 5490, 5500, 5440; P S 2710, 3715; ECO 1000, 2010, 2020; GPH 3200; MKT 5750, or 5860.

All majors are strongly urged to elect courses in cognate fields, such as history, political science, or art history.

Minors and Cognate Study in German

Minor in German: Students wishing to obtain a minor in German shall complete German 2020, 2710, 2720, 3100, 3200, and 2310 or 2991.

Major Requirements in Near Eastern Studies

Near Eastern Languages Majors: A major concentration in Near Eastern languages consists of a concentration in either Arabic or Hebrew; or joint study of both languages.

The Near Eastern Languages major with a concentration in Arabic or Hebrew consists of thirty-six credits. This includes twenty-four credits in language, linguistics, or literature beyond ARB 1020 or HEB 1020. The remaining twelve credits are in elective courses in ancient Near East, Israeli culture/civilization, Arab culture/Islamic civilization, or Islamic and modern Middle East history.

The Near Eastern Languages major with a joint study in both Arabic and Hebrew consists of twenty-nine credits beyond first-year proficiency in both Arabic and Hebrew. This includes twelve credits in elective courses in either Arabic or Hebrew language, linguistics, or literature courses, as well as eight credits in such courses in the other language. The remaining nine credits are in elective courses in ancient Near East, Israeli culture/civilization, Arab culture/Islamic civilization, or Islamic and modern Middle East history.

Near Eastern Studies Major: A major concentration in Near Eastern studies consists of thirty-eight credits. This includes eleven credits in language, linguistics, or literature beyond ARB 1020 or HEB 1020. The remaining twenty-seven credits are in elective courses with no less than six credits in three of the following four subject areas: ancient Near East, Israeli culture/civilization, Arab culture/Islamic civilization, or Islamic and modern Middle East history.

Minor Requirements in Near East Studies

Arabic Minor: A minor in Arabic consists of twenty credits. This includes eleven credits in Arabic language, linguistics or literature beyond ARB 1020. The remaining seven credits are in cognate courses in related areas such as N E 2000, 2030, 2040, or 3550.

Hebrew Minor: A minor in Hebrew consists of twenty credits. This includes eleven credits in Hebrew language or literature courses beyond HEB 1020. The remaining nine credits are in cognate courses in related areas such as N E 2060, 3225, 5240, or 6030.

Near Eastern Studies Minor: A minor in Near Eastern Studies consists of seventeen credits. This includes nine credits in NE courses beyond N E 1900. The remaining eight credits are in Arabic or Hebrew courses beyond ARB 1020 or HEB 1020.

Romance Language Concentration Requirements

All majors with concentrations in Italian and Spanish are required to take a minimum of two cognate courses approved by the adviser. They are encouraged to take as much work as possible in the literatures of other languages, both ancient and modern, as well as in history, philosophy, linguistics, art, and music.

Major concentration requirements in French: There is one French concentration offered by the Department, with an optional course selection at the 6000 level, for either French literature or French culture.

A concentration in French consists of: French 2100, 2110; either 2710 or 2720; 3200, 3300, 4610, 4620, 5100, 5200; either 5305 or 6400; and a choice of one course in Option A or Option B: Option A (Culture Studies) — FRE 6450 or 6470; Option B (Literary Studies) — one course from FRE 6510, 6630, 6650, 6770, 6810, 6840, 6860, 6991.

Majors with a concentration in French are required to take at least three cognate courses to be selected in consultation with the undergraduate major adviser.

Major concentration requirements in Italian: The major concentration in Italian at Wayne State University is designed for maximum flexibility, offering students educational choices which can help prepare them for a wide variety of careers, including teaching, diplomacy, tourism, design, fine and performing arts, music, law, medicine, and international business, among others. A student with a particular historical or thematic interest can focus on history, art, music, literature, international studies, and other studies while completing a major concentration or a minor in Italian. Of thirty-six credits required for a major concentration, at least twenty-four credits beyond ITA 2010 must be completed in Italian courses with significant Italian-language content, while the remaining credits can be elected from courses offered in a number of related disciplines.

Majors are required to take ITA 6610: Dante: Divine Comedy, one course in Renaissance Studies (ITA 6680), and one course in Italian literature and culture of the nineteenth century or later.

1. Students who place out of one or more of the introductory Greek courses must take a corresponding number of additional electives, including any GRK course.

Gagliano Program: Students may also take courses in Italian language, literature, and culture in the Wayne summer program in Gagliano Aterno, Italy. The Gagliano program offers students the opportunity to complete up to eight hours of course work in six weeks.

Major concentration requirements in Spanish: A student concentrating in Spanish is required to take: Spanish 2025, 3100, 3300; 4610 or 4620; 4630 or 4640; 5100, 5200; either 5550 or 5560 or 5570; plus one elective at the 3000 level or above; one literature course at the 6000 level or above; and two electives at the 5000 or 6000 level.

Teacher Preparation Curricula: Students who are preparing to teach French, Italian, or Spanish in the secondary schools and who wish to obtain a B.A. degree with a concentration in one of these languages must complete the appropriate concentration as defined above. For Information regarding this curriculum see page 280.

Preparation for Careers in Business: Foreign language majors who do not plan to teach may wish to consider a series of courses in the School of Business Administration which will provide some background for potential employment with multinational corporations. These courses will also prepare them for entrance into the Master of Business Administration degree program after completion of the B.A. For information, contact the Associate Dean of the School of Business Administration, 226 Prentis Building, telephone: 313-577-4503.

Minors and Cognate Study in Romance Languages

Minor Requirements in French: A French minor requires the completion of eighteen to twenty credits in French 2010; 2710 or 2720; 2100, 2110; 3300 or 3200; 4610 or 4620; and one 5000- or 6000-level course. A student who places out of French 2010 through the placement examination or advanced placement may opt to take French 2710 or 2720.

Minor Requirements in Italian: A minor in Italian can be completed with eighteen credits of course work. Of these at least twelve credits must be in Italian courses beyond ITA 2010 and containing significant Italian-language content; the remaining six credits may be taken as cognate courses. Minors must take at least one 6000 level literature course.

Minor Requirements in Spanish: A minor in Spanish requires the completion of SPA 3300 and five other courses for a minimum of eighteen credits. With the guidance of the undergraduate director, courses may be chosen from the following: (language) SPA 2025, 3040, 3050, 3100, 3200, 5100, 5200, 5300, 5400, 6400; (culture) SPA 5550, 5560, 5570; (literature) SPA 4610, 4620, 4630, 4640; and any 6000-level literature course.

Major Requirements in Slavic Studies

Major Requirements in Slavic Studies: Students majoring in Slavic Studies select: 1) a concentration in Polish or Russian; and 2) an interdisciplinary focus or language focus.

For the Polish concentration, students must complete POL 2060 (eight credits),POL 3000, POL 3030,,POL 2710; SLA 2310, either POL/SLA 3750 or RUS 3710, and one of the following courses: POL/SLA 3800, RUS 2700, 3050, 5600, 5650, or SLA 3310. The Writing Intensive requirement is satisfied by completing POL 5993.

For the Russian concentration, students must complete RUS 2020, 3010, 3020, 2710; SLA 2310, either RUS 3710 or SLA 3750, and one of the following courses: RUS 2700, 3050, 5600, 5650,SLA 3310 or SLA 3800/RUS 3810. The Writing Intensive requirement is satisfied by completing RUS 5993.

For the interdisciplinary focus, students must complete two of the following courses: ECO 1000, 2020; GPH 3200; HIS 3010, 5490, 5500, 5440; MKT 5750, 5860; P S 2710, 3715; THR 5600

For the language focus, students concentrating in Russian must complete two Ukrainian language courses or two Polish language courses. Students concentrating in Polish must complete two Ukrainian language courses or two Russian language courses.

Minor Requirements in Slavic Studies

Minor in Polish: Students wishing to obtain a minor in Polish shall complete SLA 2060 (8 credits), 3030, 2710, and one course from the following options: SLA 2310, 3310, or POL 3750 or 3800.

Minor in Russian: Students wishing to obtain a minor in Russian shall complete RUS 2020, 3010, 3020, 2710, and one course from the following options: SLA 2310, 3310, 3750, or SLA 3800/RUS 3810.

Honors Program, Departmental

Qualified majors may apply for participation in the Departmental Honors Program. Only a student who has demonstrated superior ability in one of the Departmental majors and who shows promise of acquiring greater breadth and depth of knowledge through tutorial study will be admitted to the program. As preparation for admission, the student is required, during the freshman and sophomore years, to acquire basic knowledge of their major language. To be recommended for an honors degree a student must maintain a cumulative grade point average of at least 3.3. He/she must accumulate at least fifteen credits in honors-designated course work, including at least one 4000-level seminar offered through the Honors College (see the Schedule of Classes under 'Honors Courses' for seminar topics), and the Departmental credits associated with completion of a Senior Thesis.

Honors Program in Classics

it is recommended that students pursuing honors degrees in classics acquire basic knowledge of both of the languages (Greek and Latin) and they are encouraged to elect CLA 1010 (Classical Civilization) and 2000 (Greek Mythology). Once the honors candidate has been admitted to the program (normally at the end of the sophomore year) he/she shall fulfill the normal requirements for the elected major. In the senior year students should elect a minimum of eight credits in HON 4990, which will prepare them for writing Senior Honors Essay. One of the 4000-level interdisciplinary seminars offered by the Honors College is required, as well as the seminar (HON 4280) as part of the required fifteen credits. Finally, written and oral comprehensive examinations must be successfully completed in the senior year. The diploma of a successful honors candidate will read 'Graduation with Honors in Classics'.

Eligible students who are interested in the program should consult the department undergraduate adviser. For information about honors-designated coursework available each semester, including the required 4000-level Honors seminar, visit the Honors College website link at: http://www.honors.wayne.edu/classes.php.

Joint Degree Program in German and Mechanical Engineering

Qualified students may earn both a B.A. in German and a B.S. in Mechanical Engineering through a dual degree program offered by the Department of German and Slavic Studies and the Department of Mechanical Engineering. Students in this program must complete the requirements for a major in German through the College of Liberal Arts and Sciences and the requirements for a major in Mechanical Engineering through the College of Engineering. This five-year

course of study includes participation in the Junior Year in Munich Program and an internship while in Germany. Students with this dual major are eligible to apply for scholarships available through the Department of German and Slavic Studies and the Junior Year in Munich Program. For more information contact the major advisers in either German or Mechanical Engineering.

General Education Group Requirements

Foreign Language

Students may satisfy the Foreign Language Group Requirement (see page 274) by completing the third course of an elementary language sequence, or by a special examination through which one might place out of the requirement. Students electing language study should do so as early as possible and continue it without interruption. The courses numbered 1010, 1020, (1060) and 2010 are essentially a continuum designed to give students command of the basic elements of the language. The 'target' language is the primary language of the classroom. There are several in-class examinations in each course; group finals are given. The learning of a foreign language requires: a) regular class attendance; b) class participation; and c) two hours of concentrated study for each hour in class.

Placement: Students continuing the study of any of the languages cited on page 274 and begun in high school or in another college should consult with the Department undergraduate adviser to determine the level of at which to continue coursework (phone: 313-577-3002). The main criteria for placement of these students is the Departmental placement exam. The number of years of high school language study does not effectively correspond to language course sequences at the university level. Students with sufficiently high placement exam scores will be deemed to have satisfied the Foreign Language Group Requirement. For information on the Placement Examination, contact the Department at 313-577-3002. Examinations are scheduled by appointment at the Department Office, 487 Manoogian Hall. (A fee is charged.)

The satisfaction of the College of Liberal Arts and Sciences Foreign Language Group Requirement also satisfies the University General Education Foreign Culture (FC) Requirement.

Foreign Culture

As noted above, satisfaction of the College of Liberal Arts and Sciences Foreign Language Group Requirement also satisfies the Foreign Culture Requirement of the University General Education Program (see page 18). Modern Greek 3710 also satisfies the Foreign Culture Requirement. Classics 1010, 2100 and 2200 satisfy the Philosophy and Letters (PL) requirement.

'AGRADE' Program

Accelerated Graduate Enrollment: The Department encourages academically-superior majors to petition for admission into the College's 'AGRADE' program. Qualified seniors may apply a maximum of fifteen credits toward both a bachelor's and a master's degree. Students electing the 'AGRADE' Program may expect to complete the bachelor's and master's degrees in five years of full-time study. For more details, contact the graduate director (Classics, French, Italian, or Spanish): 313-577-3002. Students should consult with the director in their junior year regarding this opportunity.

Financial Aid and Awards

ARABIC SCHOLARSHIPS

Salim Khaldieh Memorial Scholarship: Dr. Salim Khaldieh, who passed away on April 10, 2001, taught Arabic for four years in the Department of Near Eastern and Asian Studies. He played a major role in the development of the Arabic program and the recruitment of students. As a tribute to Dr. Khaldieh the Department has established the Salim Khaldieh Memorial Scholarship for students studying Arabic language and culture.

Rouchdy-Fakhoury Endowed Scholarship: The Rouchdy-Fakhouri Endowed Scholarship provides financial support for students studying Arabic in the Department of Near Eastern and Asian Studies. It also aims to provide meritorious undergraduate or graduate students with financial support to enroll in the Department of Near Eastern and Asian Studies (NEAS) and pursue their education in the field of Arabic Language. The number and amount of awards will be determined by the funds available in the scholarship's beneficiary account.

Asmaa Jamil - DaimlerChrysler Endowed Scholarship: Provides financial assistance to undergraduate and graduate students in the field of Near Eastern Studies. The number and amount of awards will be determined by the funds available in the scholarship's beneficiary account.

CLASSICS AND MODERN GREEK SCHOLARSHIP

Study Abroad: Students in Classics and Modern Greek are strongly urged to make study abroad a priority during their college experience. Through its consortial relation with the Hellenic Society Paideia, students can earn WSU credit in Greek universities for an academic semester or year or for summer study. Scholarship help is available: contact the undergraduate adviser (313-577-6591). The Department also participates in the Wayne in Abruzzo program, which enables students to earn WSU credit in courses in Italian and Classics. For information on financial support for such study, students should contact the Undergraduate Adviser (313-577-6591) or the instructor of Modern Greek (313-577-3032).

See also page 278, above, and the section on the Office of Student Financial Aid, page 34.

GERMAN AND SLAVIC SCHOLARSHIPS

Concordia Singing Society Foundation Scholarships for Study in Germany: Awards made annually to American undergraduate or graduate students for the study of language, music, arts or culture in German-speaking countries. Applications are available online and in the office year-round, and the deadline for submission is March 6. Three documents should be submitted with the completed application: 1) one letter of recommendation from a teacher or professor; 2) a statement of purpose (250-500 words, typed, double-spaced) describing the applicant's plans for study or independent research in Germany and how this experience will contribute to meeting his/her academic goals; 3) a current transcript. Number and amount of awards vary.

Uwe K. Faulhaber Scholarship for Undergraduate German Language Studies: Open to all officially-declared German majors and minors. Applications are available online and in the office year-round, and the deadline for submission is March 6. Three documents should be submitted with the completed application: 1) a current transcript; 2) one letter of recommendation from a Wayne State instructor, and 3) a one-page, typed, double-spaced essay explaining how the applicant perceives the role of German Studies in his/her undergraduate education and in life after graduation. Number and amount of awards vary.

Friends of German Studies Scholarship: Award open to undergraduates enrolled in German language, literature, or culture courses, offered through Wayne State German Studies Area. Awards made by faculty nomination.

German General Scholarships: Awards made to students of German languages, literature, and culture. Number and amount of awards vary. Awards made by faculty nomination.

Also see page 278, above, and the section on the Office of Student Financial Aid, page 34. For further information, contact the Department Office.

HEBREW SCHOLARSHIPS

Kape Memorial Scholarship: This scholarship is open to any full-time undergraduate or graduate student in the Department who has demonstrated a serious and sustained interest in the study of Hebrew, and who has demonstrated financial need. The amount of the award varies depending on funds available; contact the Department for details.

Other Hebrew Scholarships: Scholarships in the form of Israeli Bonds are given to students who minor in Hebrew by the B'nai Brith Hillel Foundation on campus. Hillel membership is required.

ROMANCE LANGUAGE SCHOLARSHIPS

Claude and Samuel Astrachan Foreign Study Annual Scholarship Fund: Annual award or awards made to students accepted for study in any approved Summer Study Program, based on academic excellence and need.

Himmel Fund: Provides financial assistance in support of the humanities, to graduate and undergraduate students, primarily in the form of awards, travel, books, and scholarships. Preference is given to students of high academic achievement.

Dr. D.L. Pucci Memorial Award: Annual award made to an advanced student of Italian language, based on academic excellence.

Carosello Italiano Scholarship for Canadian Students: Annual award or awards made to Canadian students in advanced Italian courses, based on academic excellence and need.

SLAVIC SCHOLARSHIPS

Slavic Scholarships: Awards made to students of Slavic languages, literatures, and cultures. Number and amount of awards vary. Awards made by faculty nomination.

Study Abroad

See *Study Abroad and Global Programs*, page 48, and Study Abroad, page 282 above.

Arabic Language and Culture at the American University of Cairo or Lebanese American University: See Study Abroad and Global Programs, page 48

Junior Year in Munich Program: Juniors, seniors, or graduate students who would like to spend a year studying at the University of Munich are encouraged to contact the Junior Year in Germany Office, 471/473 Manoogian Hall; 313-577-4605; (www.jym@wayne.edu).

Classics and Modern Greek Scholarship: see previous section, above.

Summer Program in Italy: see *Gagliano Program:* page 312.

Study Abroad in Poland: two-week study-abroad program offered in May

UNDERGRADUATE COURSES

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

COURSES OFFERED IN ENGLISH

No knowledge of a foreign language is presumed or required for the following courses, which are conducted in English with all readings in English. (For foreign language courses, see the section 'Foreign Language Instruction,' below.)

Armenian Cultural Studies in English (ARM)

3410 (SLA 3410) (FC) New Soil, Old Roots: The Immigrant Experience. (GER 3410) (POL 3410) (RUS 3410) (UKR 3410) Cr. 3

Armenian, German, Jewish, Polish, Russian and Ukrainian immigration to the United States the effects of immigration on the cultures (language, literature, religion, politics, music, art and theatre) of these ethnic groups and their influence on American life. (Y)

3700 (SLA 3700) The Changing Face of Europe. (GER 3700) (POL 3700) (RUS 3700) (UKR 3700) Cr. 1-2

Special topics relating to Eastern and Central Europe. (I)

4750 (FC) Survey of Armenian Culture and Literature: The Modern Period. Cr. 3

The great awakening; great expectations shattered by genocide. Dawn of new hope; cultural explosion in homeland and in the diaspora. (W)

Asian Studies Courses (ASN)

1710 (HIS 1710) (HS) History of Modern East Asia. Cr. 3

From beginning of nineteenth century to the present; emphasis on political, social, economic developments in China, Japan and Korea. (I)

2150 (PHI 2150) (FC) Chinese Philosophy.) Cr. 3

Main philosophical traditions from ancient to pre-Communist China. Readings from Confucianism. Taoism, Mohism, Legalism, Buddhism, Neo-Confucianism, and the Chinese Enlightenment. (W)

2710 (JPN 2710) Japanese Culture. Cr. 3

Survey of Japanese culture from its beginning to the present day. Japanese thought, religion, art, society, literature, films. (F)

3010 Contemporary Chinese Pop Culture. (CHI 3010) Cr. 3

Contemporary Chinese culture: historical, political, economical, and global perspectives. (W)

3825 (HIS 3825) History of Modern China. (ASN 5825) (HIS 5825) Cr. 4

From early 1600s to the present; political, economic, and social changes. (I)

3840 (HIS 3840) China and the World. (HIS 6840) (ASN 6840) (CHI 3840) (CHI 6840) Cr. 4

History of China as it has interacted with the world over the last two thousand years. Focus on global flow of trade goods, ideas and ideologies, religions and people. (Y)

3855 (HIS 3855) History of Pre-Modern Japan. (ASN 5855) (HIS 5855) Cr. 4

Japanese history from its mythical origins to early nineteenth century; political, economic, social, cultural developments. (B)

3865 (HIS 3865) History of Modern Japan. (ASN 5865) (HIS 5865) Cr. 4

Japanese history from the early nineteenth century to the present; emphasis on political, economic, and social developments. (Y)

3875 (HIS 3875) Women in Japanese History. (ASN 5875) (HIS 5875) Cr. 4

From ancient times to the present. Reading-intensive course. (B)

Classics In English Translation Courses (CLA)

1010 (PL) Classical Civilization. Cr. 3-4

Survey of the culture and civilization of Ancient Greece and Rome, in particular those aspects that laid the political, social, and cultural framework of the modern world. (T)

1230 Word Origins: English Words from Greek and Latin. Cr. 3-4

Vocabulary-building course designed to enlarge English vocabulary and increase understanding and spelling proficiency through a study of Greek and Latin roots of English words; aspects of interpreting and remembering legal, medical, and scientific vocabularies included. (T)

2000 Greek Mythology. Cr. 3-4

Typical myths related to religion, custom, ethics, philosophy, art, literature. (T)

2100 (PL) Classical Origins of Western Thought. (HON 2100) Cr. 3

Prereq. for Honors students: 3.3 cumulative g.p.a. (3.5 g.p.a. for entering freshmen). Classical foundations of contemporary Western Thought. Topics include: relations between the sexes, democracy, slavery, war, social criticism, rationality, relations between parents and children, literature and performing arts. (I)

2200 (PL) Introduction to Greek Tragedy. Cr. 3-4

Dramatic and literary qualities of representative plays of Aeschylus, Sophocles and Euripides. The origin and development of Greek tragedy related to the enduring quality and contemporary relevance of these dramas. (T)

3010 The Ancient Book. (CLA 5010) Cr. 1

History of writing and publication in the Classical world of the Ancient Greeks and Romans, focusing on interrelated activities of authors, scribes, and readers. (I)

3030 Caesar: Writer and Soldier. Cr. 1

Prereq: CLA 1010 or equiv. Life of C. Julius Caesar examined through structured reading in English of significant sources. (I)

3040 Athletics in Antiquity. Cr. 1-2

Use of literary, artistic, and archaeological evidence to examine the competitive sports of antiquity and the phenomenon of quadrennial games like the Olympics. (I)

3050 Cleopatra. (CLA 5050) Cr. 3

Cleopatra as a figure of history and of myth, using sources ranging from ancient texts to contemporary websites, literature, history, art and film. Use of methodologies that classicists employ to focus on this single aspect of the ancient world; study of a historical problem that is plagued with biases. (I)

3060 Medea in African American Literature. Cr. 3

Ancient sources about Medea; her presence in work of four African American authors: W.E.B. DuBois, Countee Cullen, Toni Morrison, and Percival Everett. (I)

3100 Law and Ancient Society. (CLA 5100) Cr. 3-4

Law systems of ancient Greece and Rome; law codes of Solon and of the Twelve Tables. Issues include: family law, rights of women and children, interpersonal relations; judges, juries, and courtroom procedure. Students study actual cases from ancient times. (I)

3150 Athens and the Ancient Greek World. (CLA 5150) Cr. 3-4

Cultural history of ancient Greece from the time of the first Olympic games (776 BCE) to the reign of Alexander the Great and the advent of the Hellenistic kingdoms (336 BCE); focus on the greatest of the Greek city-states, Athens. (B)

3190 Topics on Women in Antiquity. Cr. 3 (Max. 6)

Topics on roles of women and views of gender and sexuality in ancient Greece and Rome, drawn from fields such as literature, art, drama, and law. (I)

3250 The Ancient City. (CLA 6250) Cr. 3-4

Infrastructure, architecture, planning, and social and political forces that shaped the great cities of the ancient world, with particular attention to the growth of Rome. (I)

3300 Coins and Coinage of the Ancient Greeks and Romans. Cr. 3

Origin and uses of coined money in the Greco-Roman world; economic, social, political, cultural impact of coinage on Greek and Roman civilization from the Sixth Century B.C.E. to end of Second Century C.E. (I)

3350 Plutarch's Lives of the Noble Greeks and Romans. (CLA 5350) Cr. 3

Structured reading of one of the formative works in the Western canon, which has had lasting influence on Biography as a genre and upon individuals such as William Shakespeare, Jean-Jacques Rousseau, Ralph Waldo Emerson, William Wordsworth, George Bernard Shaw, Harry Truman, Robert Lowell, Barbara Chase-Riboud, and many others. (I)

3400 The Bronze Age in the Aegean. Cr. 3

Survey of culture, art, and archaeology of the prehistoric period in the Aegean; emphasis on Bronze Age Minoan and Mycenaean civilizations and their contribution to classical and western civilization. (I)

3600 Religious Experience Among the Ancient Greeks and Romans. (CLA 5600) Cr. 3

Polytheism among the Greeks and Romans. Topics include: sacrifice, prayer and supplication, festivals, burial, healing, priests and priesthood, temples and sacred sites, divination and extispicy, ruler cult, religion and politics. (I)

3700 The Golden Age of Rome. (CLA 5700) Cr. 3-4

Interdisciplinary approach to the most important period of Roman history: the beginning of The Roman Empire under Augustus; history, politics, literature, art. (B)

3800 Survey of Greek Literature. (CLA 5800) Cr. 3-4

Representative sampling of important Greek literary texts in English translation. (B)

3825 Survey of Latin Literature. (CLA 5825) Cr. 3-4

Representative sampling of important Latin literary texts in English translation. (B)

3930 Topics in Classical Civilization. Cr. 1-4 (Max. 8)

In-depth study of some aspects of Greek and Roman civilization. Topics to be announced in Schedule of Classes. All readings in English. (T)

3999 Further Studies in Mythology. (CLA 6260) Cr. 3 (Max.6)

Prereq: CLA 2000 or equivalent introductory mythology course in any other department or consent of instructor. A more in-depth study of mythology with special reference to particular classical myths or theories. (I)

5100 Law and Ancient Society. Cr. 3

Law systems of Ancient Greece and Rome. Law codes of Solon and of the Twelve Tables. Issues include: family law, rights of women; courtroom procedure. Study of actual cases from antiquity. (I)

5190 Topics on Women in Antiquity. Cr. 3 (Max. 6)

Topics on roles of women and views of gender and sexuality in ancient Greece and Rome, drawn from literature, art, drama, and law. (I)

5200 Special Studies. Cr. 1-4 (Max. 8)

In-depth study of some aspect of Greek and Roman civilization. Topics may be drawn from the fields of literature, archaeology, art and history, and will be announced in Schedule of Classes . All readings in English. (I)

5250 Greek and Roman Drama. Cr. 3-4

Critical interpretations of Greek and Roman tragedy and comedy, as represented, for example, in the works of Aeschylus, Sophocles, Euripides, Aristophanes, Menander, Plautus, Terence, and Seneca. Historical development of theatre design and dramatic staging. (I)

5300 Methods and Materials in Classical Studies. Cr. 3-6

Prereq: CLA 1010; Classics or Art History major or consent of instructor. Introduction to various aspects of the material culture of Greek and Roman antiquity and to methods for approaching its study. (B)

5990 Directed Study. Cr. 1-4 (Max. 8)

Prereq: consent of instructor. Directed independent research in depth on a topic or author not treated in the regular classics offerings, culminating in a course paper. (T)

5993 (WI) Writing Intensive Course in Classical Civilization. Cr. 0

Prereq: junior standing, satisfactory completion of the IC requirement, consent of instructor; coreq: any Classics, Greek, or Latin course numbered 3000 or higher which satisfies major requirement. Offered for S and U grades only. No degree credit. Required for all majors. Grade in CLA 5993 is independent of grade in corequisite course. Disciplined writing assignments under the direction of a faculty member. Must be selected in conjunction with a designated corequisite; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. (T)

6250 The Ancient City. (CLA 3250) Cr. 3-4

Infrastructure, architecture, planning, and social and political forces that shaped the great cities of the ancient world, with particular attention to the growth of Rome. (I)

6260 (CLA 3999) Further Studies in Mythology. Cr. 3 (Max. 6)

Prereq: CLA 2000 or equivalent introductory mythology course in any other department, or consent of instructor. An in-depth study of mythology with special reference to particular classical myths or theories of myth. (I)

French In English Translation Courses (FRE)

2991 (GER 2991) (PL) Understanding the Fairy Tale. Cr. 3

Fairy tale's meaning and role in Western society from the Brothers Grimm to Walt Disney. Methods of fairy-tale interpretation. All lectures and reading in English. (B)

2700 (GER 2700) (PL) Anguish and Commitment: European Existentialist Literature. (ITA 2700) (RUS 2700) (SPA 2700) Cr. 3-4

Only students in Honors Program may register for four credits. A team-taught interdisciplinary study in English of representative works by European existentialist writers: Dostoevsky, Hesse, Kafka, Pirandello, Sartre, Camus and Unamuno. (B)

2710 (FC) Introduction to French Civilization I. Cr. 3

An overview of France's great contributions to world culture, from the time of the Gauls to the French Revolution. French history, thought, art, architecture, society, geography, and institutions; illustrated with slides and films; includes visits to Detroit Institute of Arts. (T)

2720 (FC) Introduction to French Civilization II. Cr. 3

From the French Revolution to contemporary times. French way of life, its moral and intellectual foundations, its culture and institutions; their transformation under the stress of the twentieth century. (B)

2990 (FRE 2990) Topics in Romance Studies: in English Translation. (ITA 2990) (SPA 2990) Cr. 3

Individual themes, critical issues, special problems, or trends in interdisciplinary studies. Course is team-taught. (F,W)

6991 Contemporary French Criticism and Literary Theory. Cr. 3

Theory and practice of contemporary French criticism; structuralist and post-structuralist writers: Barthes, Greimas, Derrida, and Lyotard. French majors required to do readings in French. (I)

German Cultural Studies in English (GER)

2310 (PL) Short Fiction from Central Europe and Russia. (SLA 2310) Cr. 3

Explores how writers use short fictional forms, such as parable, short story, fairy tale, and satire, to express important themes in the Central and Eastern European experience, including violence and cruelty, freedom and imprisonment, utopian visions, and urban life. (Y)

2700 (PL) Anguish and Commitment: European Existentialist Literature. (FRE 2700) (ITA 2700) (RUS 2700) (SPA 2700) Cr. 3-4

Only students in Honors Program may register for four credits. A team-taught interdisciplinary study in English of representative works by European existentialist writers: Dostoevsky, Hesse, Kafka, Pirandello, Sartre, Camus, and Unamuno. (B)

2710 (FC) Survey of Germanic Culture I. Cr. 3

Development of Germanic people from their origin to 1835; their major contributions of cultural significance to the Western world. (F)

2720 (FC) Survey of Germanic Culture II. Cr. 3

Development of Germanic people from 1835 to the present; the Nazi period; and World War II. (W)

2991 (PL) Understanding the Fairy Tale. (FRE 2991) Cr. 3

Fairy tale's meaning and role in Western society from the Brothers Grimm to Walt Disney. Methods of fairy-tale interpretation. All lectures and reading in English. (B)

3410 (SLA 3410) (FC) New Soil, Old Roots: The Immigrant Experience. (ARM 3410) (POL 3410) (RUS 3410) (UKR 3410) Cr. 3

Armenian, German, Jewish, Polish, Russian and Ukrainian immigration to the United States, its effects on the cultures (language, literature, religion, politics, music, art and theatre) of these ethnic groups and its influence upon American culture. (Y)

3700 (SLA 3700) The Changing Face of Europe. (ARM 3700) (POL 3700) (RUS 3700) (UKR 3700) Cr. 1-2

Special topics relating to Eastern and Central Europe.. (I)

5350 Early German Film. Cr. 3

Film as new medium emerging out of late 19th century mass culture; films produced during Weimar Republic and under fascism as they responded to modernization, industrialization, and urbanism through story and imagery. Taught in English. (F)

5400 Cultural Studies and Criticism. (GER 7400) Cr. 3-4

Exploration of key concepts and major figures for scholarship in literary and cultural studies. Readings and class in English. Open to students from diverse disciplines. (I)

Greek: Byzantine and Modern Greek Studies Courses In English Translation (GKM)

3590 Byzantine Civilization. (GKM 5590) Cr. 3

Survey of Byzantine culture, religion, society, and literature from late Antiquity to 1453, through secondary and primary sources in translation. (B)

3710 (FC) Modern Greek Literature and Culture in English. Cr. 3

No knowledge of modern Greek required for this course; all readings in English translation; satisfies General Education requirement in Foreign Culture; does not satisfy foreign language requirement. Survey of the culture and civilization of modern Greece through a study of their literature, customs, festivals and popular art. (T)

3720 Modern Greek Cities: An Historical-Ethnographic Study. (GKM 5720) Cr. 3

Historical and ethnographic survey of the communities and culture of modern Greek urban centers, from the early modern period to the present. (Y)

5590 Byzantine Civilization. (GKM 3590) Cr. 3

Survey of Byzantine culture, religion, society, and literature from late Antiquity to 1453, through secondary and primary sources in translation. (Y)

Hebrew Studies in English Courses (HEB)

5240 (N E 5240) Survey of Modern Hebrew Literature in English. Cr. 3

From the nineteenth century to present; tradition vs. enlightenment; pioneerism, local color, and urban literature; Holocaust; the New Wave in modern Israeli literature. Course taught in English. (Y)

Italian In English Translation Courses (ITA)

2700 (GER 2700) (PL) Anguish and Commitment: European Existentialist Literature. (FRE 2700) (RUS 2700) (SPA 2700) Cr. 3-4

Only students in Honors Program may register for four credits. A team-taught interdisciplinary study in English of representative works by European existentialist writers: Dostoevsky, Hesse, Kafka, Pirandello, Sartre, Camus, and Unamuno. (B)

2710 (FC) Italian Culture and Civilization I. Cr. 3

Overview of development of Italian culture and civilization from their origins to 1500; emphasis on those aspects that prepared the political, social, cultural and intellectual groundwork of Humanism and the Renaissance. Taught in English. (Y)

2720 (FC) Italian Culture and Civilization II. Cr. 3

Prereq: ITA 2710 recommended. Overview of Italian culture and civilization from 1500 to 1947: the Renaissance, Italian contributions to science, Unification of Italy, the Fascist era, the new republic. Taught in English. (Y)

2990 (FRE 2990) Topics in Romance Studies: in English Translation. (SPA 2990) Cr. 3

Individual themes, critical issues, special problems, or trends in interdisciplinary studies. Course is team-taught. (F,W)

5150 Italian Cinema. Cr. 3 (Max. 9)

Concentrated study of specific trends or the development of individual directors. Topics to be announced in Schedule of Classes . Material Fee As Indicated In The Schedule of Classes (B)

6500 Introduction to Literary Criticism. Cr. 3

Overview of various currents of critical theory, focusing on literary and cinematographic texts. The two-fold pedagogical approach, theoretical and empirical, will use semiotics as a disciplinary tool of analysis and apply it to the textual material studies in this course. (I)

Near Eastern Studies Courses (N E)

1900 Comparative Religion. Cr. 3

Origins of religion: its social importance, its structure (fetish, totemism, myth, ritual). Pre-historic religion and the major religious traditions. (W)

2000 (FC) Introduction to Islamic Civilization of the Near East. Cr. 3

The origin of Islam; growth of Islamic thought and institutions; Islamic revival and reform in modern times. (Y)

2010 The Bible and Ancient Mythology. Cr. 3

The Bible and Biblical religion in the context of its antecedents in the ancient world. (Y)

2030 (HS) The Age of Islamic Empires: 600-1600. (HIS 1800) Cr. 3

Historical evolution of the Islamic world from birth of Islam to height of Ottoman Empire. Islamic history and civilization in a world-historical context; developments indigenous to specific regions, such as Islamic Spain. (Y)

2040 (HS) The Modern Middle East. (HIS 1810) Cr. 3

Survey of Middle East history in modern era, focusing on the nineteenth and twentieth centuries. Ottoman history from 1600: impact of European imperialism and nationalist movements, resulting in development of modern state systems, regional/national conflicts, Islamic response to modernization. (Y)

2050 East Meets West: Intercultural Skills for Engineers. Cr. 3

Open only to students in College of Engineering. Task-based intercultural communication course to facilitate global team project work for undergraduate engineering students. Primary focus on Near Eastern and Asian cultures: Islamic, Hindu, Chinese, Japanese; geography, language, culture. (F)

2060 Hebrew/Israeli Film: Trends and Themes in Israeli Cinema. Cr. 3

Evolution of Hebrew/Israeli cinema from the beginning of the twentieth century to the present. Collectivism to individual concerns. From Yaakov Ben-Dov to Joseph Cedar. Course taught in English; films have English subtitles. (F)

2700 Topics in Middle Eastern Studies. Cr. 1-8 (Max. 8)

Specialized topics related to the Middle East: language, literature, etc. (Y)

3010 Survey of Jewish Civilization and History. (HIS 3010) (HIS 6005) (N E 6005) Cr. 4

History of the Jewish people from their biblical origins to the contemporary period. Study of primary documents as a means of understanding how Jews have responded to the challenges of living in both the Diaspora and a Jewish State. (I)

3015 (HIS 3015) History of Judaism and Jewish Thought. Cr. 4

Development of Judaism and Jewish thought from early beginnings in the Hebrew Bible to contemporary American Jewish religious developments. (F)

3040 Twentieth Century Middle East. (HIS 3320) Cr. 3

The contemporary Middle East; emphasis on social and economic development. Investigation of issues that identify the region, such as oil, gender issues, fundamentalism, and regional conflicts. (Y)

3060 Ancient Near East Literature. Cr. 3

Concentration on wisdom literature and the wisdom teacher. (F)

3061 Oral History in Middle Eastern Tradition. (ANT 3061) Cr. 3

Methodologies and practices of oral history. Study of the culture, history and shared experiences of Diaspora communities originating from the Middle East. (W)

3120 Biblical Narratives in English Translation. Cr. 3

Class taught in English; texts are available in both Hebrew and English. Emergence of Israel's United Monarchy starting with King Saul. Emphasis on text interpretations (in English) from historical and literary perspectives. (F)

3220 Arab Culture through Travel Literature: In the Footsteps of Ibn Batuta. (ARB 3220) (ARB 6220) (N E 6220) Cr. 3

Open only to undergraduates. A global and interdisciplinary introduction to the Middle East, through study of texts written by Arab and Western travelers who visited the Middle East, from the Middle Ages to the present. (Y)

3225 Modern Israeli Culture: A Pluralistic Perspective. Cr. 3

Minorities in Israel; the Kibbutz; women in public life; the Arab in Israeli literature; the press; education; technology; archaeology; music and dance. Taught in English. (W)

3320 Muhammad: Life of the Prophet. Cr. 3

Introduction to the historical Muhammad in context of religious, political, social and economic life of seventh century Arabia. Aspects of his career, from religious to secular, including his relationship with other religious communities. (B)

3520 Women and Gender in Middle East History. (W S 3520) Cr. 3

Women's role in Middle East history; impact of religion, culture, social and economic change on construction of gender in the Middle East. (Y)

3550 (ANT 3550) (FC) Arab Society in Transition. Cr. 3

Distinctive social and cultural institutions and processes of change in the Arab Middle East. Regional variations; background and discussion of current political and economic systems and their relations to international systems. (I)

3990 Directed Study. Cr. 3-6 (Max. 9)

Prereq: consent of chairperson. Readings; consultations and reports. (T)

4750 Colonization and Decolonization in North Africa: The Example of Algeria. (AFS 4750) Cr. 3

European (French) colonization in North Africa with emphasis on Algeria. Theoretical principles of nineteenth century colonization; emergence of national liberation movements. Socio-economic impact of colonization on Algeria through the 1990s. (Y)

5000 Globalization, Social History and Gender in the Arabian Gulf. (HIS 5960) (HIS 7960) Cr. 3

Social history of the Arabian Gulf (especially Bahrain, Qatar, and the UAE) in the age of globalization. Contemporary history with special emphasis on gender relations as an index of current social developments in the region. (Y)

5030 Great Cities of the Near East. Cr. 3

Illustrated study of the urban centers of the Near East: Mecca, Baghdad, Cairo, Jerusalem and others. (Y)

5100 (ARB 5100) Teaching of Arabic as a Foreign/Second Language (TAFL). Cr. 3

Theoretical and conceptual framework of second language learning. Proper training in pedagogy as related to learning Arabic as a foreign/second language. (Y)

5110 History and Development of Islamic Political Thought. (P S 5760) Cr. 3

Prereq: N E 2030, N E 3040; or consent of instructor or chairperson. Historical analysis of political Islam through study of the precepts and historical vicissitudes impacting the Islamic world from within and from external forces. (F,W)

5210 (ARB 5210) Arabic Sociolinguistics. (LIN 5210) Cr. 3

No knowledge of Arabic required. Arabic dialectology; Arabic as a minority language in contact. Theories and techniques developed outside Arabic, and their applicability to Arabic situations. (F)

5220 Muslim Personal Law. Cr. 3

Study of Muslim family law, with attention to the status of women and children in the law. Areas include: betrothal, marital contracts, forms of marital dissolution, laws of inheritance, and child custody. Focus on classical interpretation of the law, and its application in modern times. (F)

5230 (ARB 5230) Structure of Arabic. (LIN 5230) Cr. 3

No knowledge of Arabic required. Survey of historical constitution and theoretical structure of Arabic. (Y)

5240 (HEB 5240) Survey of Modern Hebrew Literature in English. Cr. 3

From the nineteenth century to present; tradition vs. enlightenment; pioneerism, local color, and urban literature; Holocaust; the New Wave in modern Israeli literature. Course taught in English. (Y)

5300 Qur'an: History and Interpretation. (N E 7300) Cr. 3

Prereq: written consent of instructor. Traditional and revisionist narratives of the canonization of the Qu'ran; textual features of the Qu'ran; history of qur'anic hermeneutics and exegesis (Y)

5700 Topics in Middle Eastern Studies. Cr. 1-4 (Max. 8)

Special topics in Middle Eastern politics, language, and literature. (Y)

5710 Islam and the Challenge of Modernity. Cr. 3

Influence of Enlightenment values and colonial institutions on the social, political, and ideological structures of the Islamic World. (B)

5990 Directed Study. Cr. 1-6 (Max. 16)

Prereq: undergrad., consent of chairperson; grad., consent of chairperson and graduate adviser. (T)

5993 (WI) Writing Intensive Course in Near Eastern and Asian Studies. Cr. 0

Prereq: junior standing, satisfactory completion of the IC requirement, consent of instructor; coreq: any 3000-level or higher course in the department. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a designated corequisite; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. (T)

6030 Poetry of Yehuda Amichai in English Translation. Cr. 3

Reading and analysis of characteristics, themes and forms in the poetry of Yehuda Amichai from 1956 to the present. Class is taught in English. (W)

6120 Arab Women Through Literature. Cr. 3

Prereq: N E 2040 or N E 3040 or consent of instructor. Arabic literature by women, expressing gender vision of society, history, and women's role in Arab world and North Africa. (B)

6500 Religion and Society. Cr. 3

Role of religion in societies from ancient to contemporary times. Religion as related to science, violence, patriarchy, feminism, art, government, ethics, and issues of religious pluralism. (I)

Polish Cultural Studies in English (POL)

2710 (FC) Survey of Polish Culture. Cr. 3

Introductory cultural survey from beginnings of Polish state to present. Polish society and cultural developments analyzed in comparative contexts. (Y)

3410 (SLA 3410) (FC) New Soil, Old Roots: The Immigrant Experience. (ARM 3410) (GER 3410) (RUS 3410) (UKR 3410) Cr. 3

Armenian, German, Jewish, Polish, Russian and Ukrainian immigration to the United States, its effects on the cultures (language, literature, religion, politics, music, art and theatre) of these ethnic groups and its influence upon American culture. (F)

3700 (SLA 3700) The Changing Face of Europe. (ARM 3700) (GER 3700) (RUS 3700) (UKR 3700) Cr. 1-2

Special topics relating to Eastern and Central Europe. (I)

3750 (POL 3750) Polish and Yugoslavian Auteur Cinema. (SLA 3750) Cr. 3

Two national cinemas presented through films of auteurs: Andrzej Wajda, Krzysztof Kislowski, Dusan Makavejev and Emir Kusturica; films include: Kanal, Double Life of Veronique, WR: or the Mystery of the Organism, and Underground. (W)

3800 (SLA 3800) Topics in Slavic Studies. (RUS 3810) (UKR 3800) Cr. 3 (Max. 9)

Special topics relating to Slavic languages, literatures, and cultures, such as drama, the Gulag, and contemporary Polish culture. (Y)

Russian Cultural Studies in English (RUS)

2700 (GER 2700) (PL) Anguish and Commitment: European Existentialist Literature. (FRE 2700) (ITA 2700) (SPA 2700) Cr. 3-4

Only students in Honors Program may register for four credits. A team-taught interdisciplinary study in English of representative works by European existentialist writers: Dostoevsky, Hesse, Kafka, Pirandello, Sartre, Camus, and Unamuno. (W)

2710 (FC) Study of Russian Culture. Cr. 3

Survey of Russian culture from the tenth century to the present day. Introduction to Russian history, art, architecture, literature, music, religious practices, intellectual thought, and cuisine, as well as various aspects of daily life from the Tsarist period to the present day. (T)

3410 (SLA 3410) (FC) New Soil, Old Roots: The Immigrant Experience. (ARM 3410) (GER 3410) (POL 3410) (UKR 3410) Cr. 3

Armenian, German, Jewish, Polish, Russian and Ukrainian immigration to the United States, its effects on the cultures (language, literature, religion, politics, music, art and theatre) of these ethnic groups and their influence on American life. (Y)

3600 (PL) Nineteenth-Century Russian Literature. (RUS 5600) Cr. 3

Major Russian writers, including Pushkin, Dostoevsky, Tolstoy,Chekhov, and others. How literature reflects and grows out of history; how culture is affected by writers and poets. Taught in English; readings in English. (F)

3650 (PL) Russian Literature Since 1900. (RUS 5650) Cr. 3

Twentieth century Russian literature as it explores the universal questions of love, death, rebirth, spirituality, and despair against a background of war, revolution, political oppression and economic collapse. Close analysis of major works of prose and poetry as well as literary currents such as Russian modernism, Socialist Realism, and post-modernism. Taught in English; readings in English. (B)

3700 (SLA 3700) The Changing Face of Europe. (ARM 3700) (GER 3700) (POL 3700) (UKR 3700) Cr. 1-2

Special topics relating to Eastern and Central Europe (I)

3810 (SLA 3800) Topics in Slavic Studies. (POL 3800) (RUS 3810) (UKR 3800) Cr. 3 (Max. 9)

ISpecial Slavic literary and cultural politics. (Y)

5600 (RUS 3600) Nineteenth-Century Russian Literature. Cr. 3-4

For advanced undergraduate and graduate students interested in Russian literature. Major nineteenth-century authors: Pushkin, Dostoevsky, Chekhov, Tolstoy, Chekhov, and others. Close readings of works introduce traditions and thematic concerns within historical and socio-cultural contexts; relevant intellectual, religious, political factors. Taught in English; readings in English. (F)

5650 (RUS 3650) Russian Literature Since 1900. Cr. 3-4

For advanced undergraduate and graduate students interested in literature. Twentieth century Russian literature as it explores the universal questions of love, death, rebirth, spirituality, and despair against a background of war, revolution, political oppression and economic collapse. Close analysis of major works of prose and poetry as well as literary currents such as Russian modernism. Social Realism, and post-modernism. Taught in English, readings in English. (W

Slavic Cultural Studies in English (SLA)

2310 (GER 2310) (PL) Short Fiction from Central Europe and Russia. Cr. 3

Explores how writers use short fictional forms, such as parable, short story, fairy tale, and satire, to express important themes in the Central and Eastern European experience, including violence and cruelty, freedom and imprisonment, utopian visions, and urban life. (Y)

3310 Women in the Slavic World. Cr. 3

Women in Russia and Eastern Europe. Changing status and roles of women examined through folklore, painting, literature, music and film, as well as historical texts and artifacts. (B)

3410 (FC) New Soil, Old Roots: The Immigrant Experience. (ARM 3410) (GER 3410) (POL 3410) (RUS 3410) (UKR 3410) Cr. 3

Armenian, German, Jewish, Polish, Russian and Ukrainian immigration to the United States, its effects on the cultures (language, literature, religion, politics, music, art and theatre) of these ethnic groups and their influence upon American life. (Y)

3700 The Changing Face of Europe. (ARM 3700) (GER 3700) (POL 3700) (RUS 3700) (UKR 3700) Cr. 1-2

Special topics relating to Eastern and Central Europe. (I)

3710 (VP) Russian and East European Film. Cr. 3

Major Russian, Polish, Czech, Ukrainian and Armenian films viewed and discussed from historical, cultural and aesthetic points of view. (Y)

3750 (POL 3750) Polish and Yugoslavian Auteur Cinema. Cr. 3

Two national cinemas presented through films of auteurs: Andrzej Wajda, Krzysztof Kislowski, Dusan Makavejev and Emir Kusturica; films include: Kanal, Double Life of Veronique, WR: or the Mystery of the Organism, and Underground. (W)

3800 Topics in Slavic Studies. (POL 3800) (RUS 3810) (UKR 3800) Cr. 3 (Max. 9)

Special topics relating to Slavic languages, literatures, and cultures, such as drama, the Gulag, and contemporary Polish culture. (Y)

5400 Cultural Studies and Criticism. (SLA 7400) Cr. 3-4

Important concepts and major figures in Slavic contributions to literary and cultural theory. Readings and class in English. Open to students from diverse disciplines. (F)

5840 (MKT 5840) Special Topics on Economic Transition in Emerging Republics. Cr. 3

Issues in Eastern Europe's transition from a centrally-controlled command economy to a free-market economy. Topics include: infrastructure reform, decentralization and privatization, the banking system, reforms and changes in social structures. (I)

Spanish in English Translation Courses (SPA)

2400 (CBS 2100) Chicano Literature and Culture. Cr. 3

Examination of Chicano literature. Themes and figures in a social and historical context. (B)

2500 (CBS 2110) Puerto Rican Literature and Culture. Cr. 3

Examination of Puerto Rican literature. Themes and figures in a social and historical context. (B)

2700 (GER 2700) (PL) Anguish and Commitment: European Existentialist Literature. (FRE 2700) (ITA 2700) (RUS 2700) Cr. 3-4

Only students in Honors Program may register for four credits. A team-taught interdisciplinary study in English of representative works by European existentialist writers: Dostoevsky, Hesse, Kafka, Pirandello, Sartre, Camus, and Unamuno. (B)

2990 (FRE 2990) Topics in Romance Studies: in English Translation. (ITA 2990) Cr. 3

Individual themes, critical issues, special problems, or trends in interdisciplinary studies. Course is team-taught. (F,W)

Ukranian Cultural Studies in English (UKR)

3410 (SLA 3410) (FC) New Soil, Old Roots: The Immigrant Experience. (ARM 3410) (GER 3410) (POL 3410) (RUS 3410) Cr. 3

Armenian, German, Jewish, Polish, Russian and Ukrainian immigration to the United States, its effects on the cultures (language, literature, religion, politics, music, art and theatre) of these ethnic groups and their influence on American life. (Y)

3700 (SLA 3700) The Changing Face of Europe. (ARM 3700) (GER 3700) (POL 3700) (RUS 3700) Cr. 1-2

Special topics relating to Eastern and Central Europe. (I)

3800 (SLA 3800) Topics in Slavic Studies. (POL 3800) (RUS 3810) (UKR 3800) Cr. 3 (Max. 9)

Special Slavic literary and cultural politics. (Y)

Language Learning Courses (LGL)

5750 (ENG 5750) Theories of Second Language Acquisition. (LIN 5750) Cr. 3

The complex processes involved in learning a foreign/second language, including the nature of inter language and the individual and collective factors influencing learner success and the effectiveness of instruction. (Y)

5810 Teaching Foreign Languages: Receptive Skills. (LED 5810) (LED 7810) (LGL 7810) Cr. 3

Prereq: consent of instructor. Latest research on acquisition of reading and listening skills in a foreign language. Difference between receptive and productive language use; how methods of foreign language teaching treat the instruction of the receptive skills. (B)

5820 Teaching Foreign Languages: Productive Skills. (LED 5820) (LED 7820) (LGL 7820) Cr. 3

Prereq: consent of instructor. Current research on acquisition of speaking and writing skills in a foreign language. Difference between productive and receptive language use; how various methods of foreign language teaching treat the instruction of productive skills. (B)

5830 Technology in the Foreign Language Classroom. (LED 5830) (LED 7830) (LGL 7830) Cr. 3

Prereq: consent of instructor. Types of current technology; review of research on effectiveness of language classroom technologies; evaluation of technologies; development of activities for use in classroom. (B)

5850 Foreign Language Instruction. (LED 5850) (LED 7850) (LGL 7850) Cr. 3

Prereq: consent of instructor. Theoretical basis of second language teaching models; historical overview of methodologies; current trends in teaching of reading, writing, listening, speaking, and culture. Implications of methodology on materials, classroom techniques, and testing. (B)

5860 Foreign Language Testing. (LED 5860) (LED 7860) (LGL 7860) Cr. 3

Prereq: consent of instructor. Means of assessing students' knowledge of a foreign language. Topics include: ACTFL Oral Proficiency Interview; testing of reading, writing speaking and listening skills; means of testing grammar and culture; testing as it relates to program goals. (Y)

FOREIGN LANGUAGE INSTRUCTION

For courses on culture and literature taught in English, see the preceding section.

ARABIC COURSES (ARB)

1010 Elementary Arabic I. Cr. 4

Vocabulary, forms, syntax, graded readings. Material Fee As Indicated In The Schedule of Classes (F)

1020 Elementary Arabic II. Cr. 4

Prereq: ARB 1010 or consent of instructor. Continuation of ARB 1010. Material Fee As Indicated In The Schedule of Classes (W)

2010 (FC) Intermediate Arabic I. Cr. 4

Prereq: ARB 1020 or consent of instructor. Continuation of grammar, readings in classical and modern prose. Material Fee As Indicated In The Schedule of Classes (F)

2020 Intermediate Arabic II. Cr. 4

Prereq: ARB 2010 or consent of instructor. Continuation of ARB 2010. (W)

3010 Business Arabic. Cr. 3

Prereq: ARB 2020. Introduces learners of Arabic to language functions associated with business and travel. Communication for immediate use; emphasis on educated spoken Arabic. Situational dialogues built around units to address topics related to business such as job interview, airplane ticket purchase, and the like. (W)

3110 Advanced Arabic I. Cr. 3

Prereq: ARB 2020 or equiv. Third year Arabic language course: advanced Arabic grammar, complexities of sentence construction in various styles (literary, political, and scientific texts; written media; business correspondence). (F,W)

3120 Advanced Arabic II. Cr. 3

Prereq: ARB 3110 or equiv. Completion of ARB 3110; variations between classical Arabic and modern standard Arabic. (F,W)

3210 Spoken Arabic. Cr. 3 (Max. 9)

Prereq: ARB 1010 and 1020 or equiv. Introduction to authentic spoken Arabic. Language of everyday life; phonology and script. Communication for immediate use. (F)

3220 (N E 3220) Arab Culture through Travel Literature: In the Footsteps of Ibn Batuta. (ARB 6220) (N E 6220) Cr. 3

Open only to undergraduates. A global and interdisciplinary introduction to the Middle East, through study of texts written by Arab and Western travelers who visited the Middle East, from the Middle Ages to the present. (Y)

3300 Conversation and Composition. Cr. 3

Prereq: ARB 2010 or consent of instructor. Functional usage of language and communication in context. Critical essays written about topics discussed in class to improve writing skills. (F,W)

3990 Directed Study. Cr. 3-6 (Max. 9)

Prereq: consent of chairperson or instructor. Readings, periodic reports and consultations. (T)

5010 Medieval Arabic Texts. Cr. 3

Prereq: ARB 2010 or consent of instructor. Reading and translation of Arabic Medieval texts. Literature, language, religion and biography. (Y)

5020 Media Arabic. Cr. 3

Prereq: two years of Arabic study through ARB 2020. Language pertinent to media communications: written, visual and audio material. Background in origin and development of journalism in the Arab world. Current major newspapers and magazines used as basic reading materials. (W)

5100 Teaching of Arabic as a Foreign/Second Language (TAFL). (N E 5100) Cr. 3

Theoretical and conceptual framework of second language learning. Proper training in pedagogy as related to learning Arabic as a foreign/second language. (Y)

5130 Classical Arabic Literature in Translation. Cr. 3

From pre-Islamic period (Jahiliya) to the downfall of the Umayad dynasty in Andalusia (1492). (W)

5140 Modern Arabic Literature in Arabic and English. Cr. 3

Prereq: ARB 2020 or consent of instructor. Literature and culture of Arab Nahda period (Renaissance beginning in nineteenth century), down to the present. Fiction, drama, biography, poetry. Course is offered in both Arabic and English. (Y)

5210 Arabic Sociolinguistics. (LIN 5210) (N E 5210) Cr. 3

No knowledge of Arabic required. Arabic dialectology; Arabic as a minority language in contact. Theories and techniques developed outside Arabic, and their applicability to Arabic situations. (F)

5230 Structure of Arabic. (LIN 5230) (N E 5230) Cr. 3

No knowledge of Arabic required. Survey of historical constitution and theoretical structure of Arabic. (Y)

5990 Directed Study. Cr. 3-6 (Max. 9)

Prereq: undergrad., consent of chairperson; grad., consent of chairperson or instructor. Readings; periodic consultations and reports. (T)

ARMENIAN COURSES (ARM)

1010 Elementary Armenian I. Cr. 4

Introduction to sounds, spelling, speaking, reading, writing, grammar; emphasis on ability to speak and read Armenian. Introduction to ancient Armenian culture. Material Fee As Indicated In The Schedule of Classes (I)

1020 Elementary Armenian II. Cr. 4

Prereq: ARM 1010 or equiv. Continuation of ARM 1010. Introduction to medieval Armenian culture. Material Fee As Indicated In The Schedule of Classes (I)

2010 (FC) Intermediate Armenian. Cr. 4

Prereq: ARM 1020 or equiv. Conversation, grammar, reading, composition. Introduction to modern Armenian culture. Material Fee As Indicated In The Schedule of Classes (I)

CHINESE COURSES (CHI)

1005 Introduction to Chinese Culture and Language. Cr. 3

Does not satisfy any University language requirement. Conversational Chinese, Chinese culture and customs, everyday Chinese street signs and symbols essential to travel and business in China. (T)

1006 Chinese Learning Community. Cr. 1

Prereq: CHI 1005 or above. Experiential learning course; participation in Chinese cultural events and supplemental Chinese language sessions. Students comment on a minimum of eight approved events via a discussion board, attend language sessions, and present a final project. (F,W)

1010 Elementary Chinese I. Cr. 4

Introduction to the written and spoken forms of Chinese. (Y)

1020 Elementary Chinese. Cr. 4

Prereq: CHI 1010. Continuation of CHI 1010. (Y)

2010 (FC) Intermediate Chinese. Cr. 4

Prereq: CHI 1020 or consent of instructor. Completion of Chinese language sequence. (Y)

2020 Intermediate Chinese II. Cr. 4

Prereq: CHI 2010 or consent of instructor. Continuation of CHI 2010. (W)

2050 Gateway to Chinese Civilizations. Cr. 3

Introduction to Chinese culture, society, and politics. (T)

3010 (ASN 3010) Pop Culture. Cr. 3

Introduction to Chinese pop culture: values, functions, and changes. (W)

3022 Introduction to Chinese Literature. Cr. 3

Genres and traditions of Chinese literature; influence on China of today. (T)

3100 Advanced Chinese I. Cr. 4

Prereq: CHI 2020 or equiv. Continuation of CHI 2020. (F)

3200 Advanced Chinese II. Cr. 4

Prereq: CHI 3100 or equiv. Continuation of CHI 3100. (W)

3840 (HIS 3840) China and the World. (HIS 6840) (ASN 3840) (ASN 6840) (CHI 6840) Cr. 4

History of China as it has interacted with the world over the last two thousand years. Focus on global flow of trade goods, ideas and ideologies, religions and people. (Y)

3990 Directed Study. Cr. 1-6

Prereq: consent of chairperson. Directed study tailored to student and faculty interests and specializations. (T)

4010 Business Chinese. Cr. 3

Prereq: CHI 3200 or equiv. Basic knowledge of business Chinese; basic abilities of listening, speaking, reading, writing, and translating in business Chinese. (F)

5210 Introduction to Chinese Linguistics. (LIN 5220) Cr. 3

Writing, sound and grammar systems of Chinese; interaction between Chinese language and Chinese society. (F)

5220 Languages of Asia. (JPN 5220) (LIN 5100) Cr. 3

Introduction to major language families in Asia; grammar, sounds, language contacts. (W)

5230 Grammar of Chinese. (LIN 5240) Cr. 3

Chinese grammar from perspectives of negation, question formation, aspects and different parts of speech, and the like. (F)

5300 Teaching Chinese as a Second Language. (LED 5300) Cr. 1-3

Prereq: CHI 3100 or equiv. Introduction to basic teaching grammar and sound rules and general teaching methodology. (W)

FRENCH COURSES (FRE)

1010 Elementary French. Cr. 4

Introduction to the French language and Francophone cultures through interactive and communicative reading, writing, listening, and speaking activities to develop language and cultural proficiency. No experience with French is needed. Material Fee As Indicated In The Schedule of Classes (T)

1020 Elementary French. Cr. 4

Prereq: FRE 1010 or placement. Continuing development of French language and Francophone cultural proficiency through interactive and communicative reading, writing, listening and speaking activities. Material Fee As Indicated In The Schedule of Classes (T)

1060 Elementary French I and II. Cr. 6

Only four credits awarded after completion of FRE 1010. Prereq: one year of high school French or one semester college French. Designed for students with previous experience in French or another Romance language who would like an abbreviated review before continuing their studies. The first third of the semester is an accelerated review of FRE 1010; the remainder of the semester covers FRE 1020 coursework. (T)

2010 (FC) Intermediate French. Cr. 4

Prereq: FRE 1020 or placement. Continuing development of French language and Francophone cultural proficiency through interactive and communicative reading, writing, listening and speaking activities. Completion of this course fulfills the General education requirement for foreign language and culture. Material Fee As Indicated In The Schedule of Classes (T)

2100 Intermediate Grammar, Conversation and Composition I. Cr. 3

Prereq: FRE 2010. Special attention to development of language skills. Conducted entirely in French; discussion based on reading from contemporary materials. (T)

2110 Intermediate Grammar, Conversation and Composition II. Cr. 3

Prereq: FRE 2100. Continuation of FRE 2100. (Y)

3200 Conversation and Composition. Cr. 3

Prereq: FRE 2100 or 2110. Discussion and composition based on readings in contemporary French social and cultural topics. (W)

3300 Readings in French and Francophone Literature and Culture. Cr. 3

Prereq: FRE 2010. An initiation into the reading of various literary genres. Methods and vocabulary to discuss and analyze the essays, poems, short novels, and plays under consideration. (F,W)

4610 Introduction to Literary Textual Analysis. Cr. 3

Prereq: any two of FRE 2100, 2110, 3300. Major genres and periods of French and francophone literatures; strategies of reading drawn from contemporary critical approaches. (F)

4620 Topics in Sociocultural Analysis. Cr. 3

Prereq: any two of FRE 2100, 2110, 3300. Initiation into reading a range of different media, verbal and visual, in French and francophone cultural texts, from poetry to prose (fictional and non-fictional), to painting, photography, architecture, and other media. (W)

5100 (WI) Advanced Composition. Cr. 3

Prereq: any two of FRE 2100, 2110, 3200 or consent of instructor. Spoken French in the context of French civilization. Readings and writing skills based on contemporary French texts, translations. (W)

5200 French Phonetics and Pronunciation. Cr. 3

Prereq: any two of FRE 2100, 2110, 3200 or consent of instructor. A systematic study of French sounds, phonetic transcriptions; practice in the language laboratory; intensive drills in accurate pronunciation and intonation. (F)

5305 Advanced Grammar and Stylistics. Cr. 3

Prereq: any two of FRE 2100, 2110, 3200, or consent of instructor. Advanced French grammar. Translation exercises from English to French; study of appropriate grammar rules. (F)

5500 History of the French Language. (FRE 7500) Cr. 3

Prereq: FRE 5200. External and internal history of the French language, including an overview of Late Latin and a detailed examination of the phonological, morphological, syntactic and lexical changes from Latin to French, with linguistic analysis of texts. (B)

5990 Directed Study. Cr. 1-4 (Max. 8)

Prereq: consent of adviser. (T)

5998 Honors Thesis in French. Cr. 3-6

Prereq: consent of French undergraduate adviser. Open only to Honors students in French. (T)

6400 Introduction to French Linguistics. Cr. 3

Prereq: FRE 5200 or written consent of instructor. Study of various linguistic systems at work in the French language: phonology, morphology, syntax, semantics. (B)

6450 French Civilization. Cr. 3

Prereq: any two of FRE 3200, 4610, 4620, or consent of instructor. Introduction to French history and society from origins of France to the Fifth Republic; interrelation of socio-political developments to cultural movements in French art and thought. (B)

6470 Contemporary French Society and Institutions. Cr. 3

Prereq: any two of FRE 3200, 4610, 4620, or consent of instructor. French political and social institutions and practices since World War II. Comparative study of examples from American institutions and practices. (B)

6510 French Sixteenth Century Literature. Cr. 3

Prereq: FRE 4610 or 4620 or consent of instructor. Study of the principal genres represented by: Marot, Sceve, Labe, Du Bellay, Ronsard, D'Aubigne, Montaigne and others. Topics to be announced in Schedule of Classes. (B)

6630 French Seventeenth Century Literature. Cr. 3

Prereq: FRE 4610 or 4620 or consent of instructor. Historical background, religious and literary movements. Development of the Classical ideal in literature, salons, and academies. Representative authors of non-dramatic literature and the theatre (Corneille, Moliere and Racine). Content varies to cover a genre, literary movement, school or period. Topics to be announced in Schedule of Classes . (B)

6650 French Eighteenth Century Literature. Cr. 3

Prereq: FRE 4610 or 4620 or consent of instructor. The four major philosophes: Montesquieu, Diderot, Voltaire and Rousseau; precursors such as Cyrano, Fontenelle and Bayle. Developments in prose fiction and theatre; representative works of these genres. Content varies to cover a genre, literary movement, school or period. Topics to be announced in Schedule of Classes . (B)

6770 Studies in French Literature. Cr. 3

Prereq: FRE 4610 or 4620 or consent of instructor. Study of one of the major literary genres: prose, poetry or drama; its development from origins to present time. Emphasis on textual analysis. Topics to be announced in Schedule of Classes. (B)

6810 French Nineteenth Century Literature. Cr. 3

Prereq: FRE 4610 or 4620 or consent of instructor. Romanticism, Realism, Naturalism, Parnassian poetry, and the theatre of the second half of the nineteenth century. Chateaubriand, Hugo, Flaubert, Zola, Leconte de Lisle, Becque, and others. Course content will vary to cover a genre, or literary movement, school or period. Topics will be announced in the Schedule of Classes . (B)

6840 French Twentieth Century Literature. Cr. 3

Prereq: FRE 4610 or 4620 or consent of instructor. Literary movements and representative authors from the turn of the century to the present. Course content will cover a genre or literary movement, school or period. Topics to be announced in Schedule of Classes. (B)

6860 Francophone Literatures. Cr. 3 (Max. 6)

Prereq: FRE 4610 or 4620 or consent of instructor. Studies in literature of French expression as represented in the distinct traditions of Africa and the West Indies, Canada and Switzerland. Topics to be announced in Schedule of Classes . (B)

GERMAN COURSES (GER)

1010 Elementary German I. Cr. 4

Development of ability to speak and read German. Material Fee As Indicated In The Schedule of Classes (T)

1020 Elementary German II. Cr. 4

Prereq: GER 1010 or placement. Continuation of GER 1010. Material Fee As Indicated In The Schedule of Classes (T)

1060 Intensive German. Cr. 6

Prereq: previous knowledge or study of German or consent of instructor. Accelerated, intensive treatment of material normally treated in GER 1010 with a gradual slowing to treat the material in GER 1020. GER 1060 will accommodate learners with previous knowledge of the language while still providing them with review and practice, encouraging them to build on the knowledge of German they have. (I)

2010 (FC) Intermediate German I. Cr. 4

Prereq: GER 1020 or placement. Continuation of GER 1020. Reading of graded German literature and grammar review. Material Fee As Indicated In The Schedule of Classes (T)

2020 Intermediate German II. Cr. 4

Prereq: GER 2010 or equiv. Continuation of GER 2010. (T)

2500 Speaking German. Cr. 1 (Max. 2)

Prereq. or coreq: GER 2010. Offered for S and U grades only. Students meet once weekly to participate in variety of speaking activities, such as presentations, role-playing and simulations, pair work exchanges, small or whole group discussions. (I)

3100 Intermediate Composition and Conversation I. Cr. 3

Prereq: GER 2020 or equiv. German of common usage. Practical approach to contemporary idioms. (Y)

3200 Intermediate Composition and Conversation II. Cr. 3

Prereq: GER 2020 or equiv. German of common usage. Practical approach to contemporary idioms. (Y)

4600 Proseminar: Modern German Literature. Cr. 3

Prereq: GER 3100 and GER 3200; or consent of instructor. Introductory seminar in German Studies; building skills in critical reading, research and writing. Focus is on a selected literary or cultural topic. (I)

5100 Advanced Composition and Conversation. Cr. 3

Prereq: GER 3100 or 3200 or equiv. Emphasizes improvement of student's oral and written command of German. Detailed study of modern German syntax. (B)

5300 Children's Literature and Culture. (GER 7300) Cr. 3-4

Historical, cultural and critical aspects of German children's literature; includes works for young children and adolescents. (I)

5390 The Third Reich and Holocaust. (GER 7390) Cr. 3-4

Survey of major literary and filmic representations of the Third Reich and the Holocaust; theories of Holocaust aesthetics, representation and reception. (I)

5650 Romanticism. (GER 7650) Cr. 3-4 (Max. 8)

German Romantic literature and thought in a European context. Survey of Romanticism as a period is linked to studies of specific writers, genres, and cultural developments. (I)

5670 Literature in the Age of Industrial Revolution. (GER 7670) Cr. 3-4 (Max. 8)

Nineteenth-century literary and cultural texts emanating from the period of rising industrialization in the German-speaking world. (I)

5720 Enlightenment and Sturm und Drang. (GER 7720) Cr. 3-4 (Max. 8)

Lessing, the Storm and Stress movement, Goethe, Schiller; literary and cultural achievements. (I)

5730 The Classical Age. (GER 7730) Cr. 3-4 (Max. 8)

Goethe, Schiller, and the literary background of Weimar and German Classicism. (I)

5770 Modernism. (GER 7770) Cr. 3-4 (Max. 8)

Fin-de-siecle Germany and Austria, modernism and the metropolis, modernism and the new media (film, radio), art and politics of the Weimar Republic. (I)

5780 Texts and Contexts Since 1945. (GER 7780) Cr. 3-4 (Max. 8)

Recent and contemporary literary and cultural works in context of the political, social and intellectual developments since 1945. (I)

5790 Topics in German Studies. (GER 7790) Cr. 1-4 (Max. 12)

Special topics in German studies, focusing on culture, literature, language, or area studies. Topics to be announced in Schedule of classes. (I)

5800 Literature and Cultures of Minorities. (GER 7800) Cr. 3-4

Focuses on literature by and about marginalized groups and on their cultures in postwar Germany. (I)

5990 Directed Study. Cr. 1-4 (Max. 8)

Undergrad. prereq: written consent of German chairperson; grad. prereq: written consent of German graduate adviser and chairperson. (T)

5993 (WI) Writing Intensive Course in German. Cr. 0

Prereq: junior standing, satisfactory completion of the IC requirement, consent of instructor; coreq: GER 4600 or any 5000-level German literature course. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a course designated as a corequisite; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. (F,W)

6100 Critical Approaches to German Studies. Cr. 3-4

Prereq: consent of major adviser required for undergraduates. Major critical approaches to German literature and cultural texts, and the questions and problems that drive contemporary German studies. (B)

ANCIENT GREEK COURSES (GKA)

Effective Fall 2011 the Department changed the course prefix for all Ancient Greek courses from GRK to GKA, but did change the course numbers, thus all GKA prerequisites cited in the following courses should be read as former GRK numbers.

1010 Elementary Ancient Greek I. Cr. 4

Basic vocabulary, forms, grammar, and introduction to ancient Greek culture. (F)

1020 Elementary Ancient Greek II. Cr. 4

Prereq: GKA 1010. Continuation of GKA 1010 with increasing emphasis on reading ability. (W)

2010 (FC) Intermediate Ancient Greek I. Cr. 4

Prereq: GKA 1020. Review of Greek grammar, and readings from selected Greek prose authors such as Plato and Lysias. (F)

2020 Intermediate Ancient Greek II. Cr. 4

Prereq: GKA 2010 or consent of instructor. Introduction to genre; poetic language, meters, sociological and historical context; reading of selected passages from the Iliad or the Odyssey; study of the fundamentals of Homeric Greek. (W)

3300 Greek Tragedy. Cr. 4

Prereq: GKA 2020 or equiv. or consent of instructor. One tragedy of Euripides, Sophocles, or Aeschylus, supplemented by selections from the dramas of the other two playwrights. (I)

5100 Ancient Greek Prose Composition. Cr. 2-4

Prereq: GKA 2020 or equiv. or consent of instructor. Practice in the essentials of writing idiomatic and stylistic Greek prose. Instruction will be guided by readings and imitation of exemplary Greek prose authors. (I)

5200 Ancient Greek Lyric Poetry. Cr. 4

Prereq: GKA 2020 or equiv. or consent of instructor. Personal lyric poetry as a reflection of individual and society in the culture of the post-Homeric Greek world. (I)

5350 Readings in Ancient Greek History and Culture. Cr. 1-3 (Max. 6)

Prereq: one 3000-level Greek course, consent of instructor; coreq: enrollment in a CLA course numbered 5000 or above. Readings in Greek primary sources relevant to the associated CLA course (which is taught in English). (T)

5500 Ancient Greek Historians. Cr. 4

Prereq: GKA 2020 or equiv. or consent of instructor. Prose style and historiographic techniques of ancient historians; selections from Herodotus, Thucydides, Xenophon, and Polybius. (I)

5600 Ancient Greek Epic Poetry. Cr. 4

Prereq: GKA 2020 or equiv. or consent of instructor. Study in ancient Greek of Homer, Hesiod, Apollonius Rhodius and others. Theory of oral vs. literary composition, the Homeric question, metrics. (I)

5840 Ancient Greek: Attic Orators. Cr. 4

Prereq: GKA 2020 or former GRK 2600 or equiv. or consent of instructor; grad. prereq: consent of graduate adviser. Evolution of Greek prose style and historical context of the development of rhetoric in selected works of Attic orators. (I)

5990 Directed Study. Cr. 1-4 (Max. 8)

Prereq: undergrad., consent of instructor and Classics coordinator; grad., consent of instructor and Classics graduate adviser. (T)

6250 Ancient Greek Drama. Cr. 4-8 (Max. 8)

Prereq: GKA 2020 or equiv. or consent of instructor. Selected readings from the plays of Aeschylus, Sophocles, or Euripides or from the plays of Aristophanes or Menander. History and theory of the development of Greek drama and its subsequent influence on world literature. (I)

MODERN GREEK (GKM)

Effective Fall 2011 the Department changed the course prefix for all Modern Greek courses from GRK to GKM, and changed the course numbers: 1110 to 1010; 1120 to 1020; 2110 to 2010; and 2610 to 2020, thus students already having taken Modern Greek courses should read prerequisites cited in the following courses accordingly.

1010 Elementary Modern Greek I. Cr. 4

Training in pronunciation, conversation and reading; introduction to the culture of Greece today. Material Fee As Indicated In The Schedule of Classes (F)

1020 Elementary Modern Greek II. Cr. 4

Prereq: GKM 1010 or equiv. Continuation of GKM 1010. Material Fee As Indicated In The Schedule of Classes (W)

2010 (FC) Intermediate Modern Greek I. Cr. 4

Prereq: GKM 1020 or equiv. Review of grammar, practice in oral and written modern Greek, based on readings in modern Greek literature. Material Fee As Indicated In The Schedule of Classes (F)

2020 Intermediate Modern Greek II. Cr. 4

Prereq: GKM 2010 or equiv. Special attention to vocabulary enrichment and writing compositions. Class conversation based on reading of cultural materials and short stories. Translation exercises from English to Greek; study of appropriate grammar rules. (W)

HEBREW COURSES (HEB)

1010 Elementary Hebrew I. Cr. 4

Grammar, vocabulary, graded readings, discussions. Material Fee As Indicated In The Schedule of Classes (F)

1020 Elementary Hebrew II. Cr. 4

Prereq: HEB 1010 or consent of instructor. Continuation of HEB 1010. Material Fee As Indicated In The Schedule of Classes (W)

2010 (FC) Intermediate Hebrew I. Cr. 4

Prereq: HEB 1020 or consent of instructor. Review of grammar, readings in modern Hebrew texts. Material Fee As Indicated In The Schedule of Classes (F)

2020 Intermediate Hebrew II. Cr. 4

Prereq: HEB 2010 or consent of instructor. Continuation of HEB 2010. (W)

3990 Directed Study. Cr. 1-4

Prereq: consent of chairperson. Readings; consultations and reports. (T)

5990 Directed Study. Cr. 3-6 (Max. 9)

Prereq: undergrad., consent of chairperson; grad., consent of chairperson and graduate officer. Readings; consultations, reports. (T)

ITALIAN COURSES (ITA)

1010 Elementary Italian. Cr. 4

Ear training, grammar, reading, writing, speaking; emphasis on ability to speak and read Italian. Material Fee As Indicated In The Schedule of Classes (T)

1020 Elementary Italian. Cr. 4

Prereq: ITA 1010 or placement. Continuation of ITA 1010. Composition, conversation, reading of simple modern prose. Material Fee As Indicated In The Schedule of Classes (T)

2010 (FC) Intermediate Italian I. Cr. 4

Prereq: ITA 1020 or placement. Grammar review, composition, conversation, reading, discussion of contemporary Italian culture. Material Fee As Indicated In The Schedule of Classes (T)

2020 Intermediate Italian II. Cr. 3

Prereq: ITA 2010 or placement. Continued study of Italian grammar, conversation, composition, and contemporary culture. (T)

3030 Introduction to Italian Cultural Studies. Cr. 3

Prereq: ITA 2010. Continued study of Italian language; emphasis on reading Italian materials treating various aspects of Italian culture. (Y)

3100 Italian Conversation. Cr. 3

Prereq: ITA 2020 or placement. Conversation based on current topics and reading materials. (T)

3200 Culture and Politics in Contemporary Italy. Cr. 3

Prereq: ITA 2020 or placement. Advanced study of Italian grammar, phonetics, and syntax in context of an examination of Italian society. (T)

4610 Text and Context I: Origins to 1700. Cr. 3

Prereq: ITA 2020 or consent of instructor. Representative works or selections from the writings of the major authors from the thirteenth through the seventeenth centuries, studied in their cultural context. (F)

4620 Text and Context II: 1700 to the Present. Cr. 3

Prereq: ITA 2020 or consent of department. Representative works or selections from the writings of the major authors from the eighteenth through twentieth centuries, studied in their cultural context. (W)

5100 Advanced Composition. Cr. 3

Prereq: ITA 3200 or consent of instructor. Variety of forms and styles of writing (fiction, literary essay, journalistic writing, etc.), formal and informal usage, colloquial usage, regional variations. (W)

5200 Italian Phonetics and Diction. Cr. 3

Prereq: ITA 3100 or consent of instructor. Systematic study of Italian phonetics, with practical exercises. Diction, proper breathing, dialectical variations, and some linguistic theory. (Y)

5570 Topics in Italian Studies. Cr. 3 (Max. 9)

Prereq: ITA 4610, ITA 4620, or consent of instructor. In-depth study of author or group of authors, genre, historic period, or particular literary or cultural movement. Topics to be announced in Schedule of Classes. (B)

5990 Directed Study. Cr. 1-4 (Max. 8)

Prereq: consent of adviser. (T)

5993 (WI) Writing Intensive Course in Italian. Cr. 0

Prereq: junior standing, consent of instructor; coreq: any 3000- or 6000-level Italian literature course. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with designated corequisite; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. (F,W)

6400 History of the Italian Language. Cr. 3

Prereq: ITA 3200 or consent of instructor. Italian language from beginnings to present time. Representative texts from various periods. (Y)

6610 Dante: Divine Comedy. Cr. 3 (Max. 6)

Prereq: ITA 3200 or consent of instructor. A close reading of Dante's Commedia, with attention to sources, background, and interpretation. (B)

6680 Studies in Renaissance Literature and Culture. Cr. 3 (Max. 9)

Prereq: ITA 4610 or consent of instructor. The major contributions of the Italian Renaissance, including lyric poetry from Petrarch to Marino; Boccaccio and the Novella Tradition; Humanism; the epic poetry of Boiardo, Ariosto and Tasso; Machiavelli and the political essayists. Topics to be announced in Schedule of Classes. (Y)

6690 Studies in Baroque Literature and Culture. Cr. 3

Prereq: ITA 4610 or consent of instructor. Poetry of Tasso, Marino, Marinisti and Anti-Marinisti. Prose writings of Galileo, Bruno, Campanella, and Tesauro. Topics to be announced in Schedule of Classes. (B)

6700 Studies in Eighteenth-Century Literature and Culture. Cr. 3 (Max. 9)

Prereq: ITA 4620 or consent of instructor. Particular author, genre or literary movement in the historical and cultural context of eighteenth-century Italy. Topics to be announced in Schedule of Classes. (B)

6800 Studies in Nineteenth-Century Literature and Culture. Cr. 3 (Max. 9)

Prereq: ITA 4620 or consent of instructor. Particular author, genre or literary movement in the historical and cultural context of nineteenth-century Italy. Topics to be announced in Schedule of Classes. (B)

6870 Studies in Modern Italian Fiction. Cr. 3 (Max. 9)

Prereq: ITA 4620 or consent of instructor. Study of a genre, movement, theme, or period. Topic announced in Schedule of Classes. (Y)

6900 Studies in Twentieth-Century Literature and Culture. Cr. 3 (Max. 9)

Prereq: ITA 4620 or consent of instructor. Particular author, genre or literary movement in the historical and cultural context of twentieth-century Italy. Topics to be announced in Schedule of Classes. (B)

JAPANESE COURSES (JPN)

1010 Elementary Japanese I. Cr. 4

Introduction to written and spoken Japanese. (F)

1020 Elementary Japanese II. Cr. 4

Prereq: JPN 1010, placement or consent of instructor. Continuation of ASN 1010. (W)

2010 (FC) Intermediate Japanese I. Cr. 4

Prereq: JPN 1020, placement or consent of instructor. Continuation of ASN 1020. Focus on language and Japanese culture. (F)

2020 Intermediate Japanese II. Cr. 4

Prereq: JPN 2010 or equivalent proficiency. Continuation of JPN 2010. Language and culture learned through situational activities with tasks to develop language proficiency. Enhancement of Kanji (ideograph writing system) learning to help students develop higher reading proficiency. (Y)

2110 Listening Japanese with Media and Animation. Cr. 3

Prereq: JPN 1010 and JPN 1020. Development of listening skills using Japanese media, animation, and movies. (S)

2710 Japanese Culture. (ASN 2710) Cr. 3

Survey of Japanese culture from its beginning to the present day. Japanese thought, religion, art, society, literature, films. (F)

3010 Advanced Japanese I. Cr. 3

Prereq: JPN 2020 or consent of instructor. Introduction to high intermediate grammar. Three thematic units: body and health; life and careers; communication and media. Emphasis on communication for business. (Y)

3020 Advanced Japanese II. Cr. 3

Prereq: JPN 3010 or consent of instructor. Introduction to language pertinent to media communication, using written, visual, and/or audio materials. (Y)

3030 Japanese Reading and Writing. Cr. 3

Prereq: JPN 1010, 1020, 2010, 2020, 3010. Various writing styles. Emphasis on expanding the vocabulary and Kanji characters. (W)

3540 Intensive Japanese. Cr. 4-6 (Max. 12)

Prereq: acceptance in Japanese Center for Michigan Universities Program. Open only to JCMU Program participants. Introduction to the linguistic patterns, sound system, and writing system of the Japanese language. (F,W)

3990 Directed Study. Cr. 1-6 (Max. 6)

Directed study tailored to student and faculty interests and specializations. (T)

4010 Business Japanese I. Cr. 3

Prereq: JPN 1010, 1020, 2010, 2020, 3010, 3020, or proficiency exam. Expansion of vocabulary and grammar knowledge especially used for business settings. Acquisition of business language and etiquette, role-playing of conversation patterns, reading business memos and documents. Classes are all task-oriented for business. (Basic.) (F)

4030 Modernity in Japanese Literature. Cr. 3

Japanese modernity explored through readings in Japanese literature in English translation. No knowledge of Japanese is required. (W)

4550 (FC) Japanese Culture and Society I. Cr. 4

Prereq: acceptance in Japanese Center for Michigan Universities Program. Open only to JCMU Program participants. Examination of significant social institutions and cultural aspects of modern Japanese society, including their historical development. (F)

4560 (FC) Japanese Culture and Society II. Cr. 4

Prereq: acceptance in Japanese Center for Michigan Universities Program. Open only to JCMU Program participants. Significant social institutions and cultural aspects of modern Japanese society, including their historical development. (W)

4850 Studies in Japanese Culture. Cr. 4 (Max. 8)

Prereq: acceptance in Japanese Center for Michigan Universities Program. Open only to JCMU Program participants. Selected topics, themes, subjects on modern Japanese society, to be announced in Schedule of Classes. (F,W)

5220 (CHI 5220) Languages of Asia. (LIN 5100) Cr. 3

Introduction to major language families in Asia; grammar, sounds, language contacts. (W)

LATIN COURSES (LAT)

1010 Elementary Latin I. Cr. 4

Introduction to the grammar, syntax and vocabulary of the language, and introduction to the culture of the ancient Romans. (F)

1020 Elementary Latin II. Cr. 4

Prereq: LAT 1010. Continuation of LAT 1010, with increasing emphasis on reading ability. (W)

2010 (FC) Intermediate Latin. Cr. 4

Prereq: LAT 1020. Review of Latin grammar, and readings from selected Roman prose authors such as Cicero and Caesar. (F)

2020 Intermediate Latin II. Cr. 4

Prereq: LAT 2010 or consent of instructor. Introduction to genre; poetic language, meters, sociological and historical context; Catullus, Horace, Ovid, Vergil. (W)

3150 Cicero. Cr. 4

Prereq: LAT 2020 or equiv. or consent of instructor. Selections from the basic philosophical and rhetorical writings of Cicero and from his letters. (I)

3210 Latin Poetry. Cr. 4 (Max. 12)

Prereq: LAT 2020 or equiv. or consent of instructor. May be repeated for credit only with consent of undergraduate adviser. Intermediate-level course for reading representative samples of poetry by prominent Latin authors. (F)

3220 Latin Prose. Cr. 4 (Max. 12)

Prereq: LAT 2020 or equiv. or consent of instructor. May be repeated for credit only with consent of undergraduate adviser. Intermediate-level course for reading representative samples of prose by Latin authors. (W)

5300 Readings in Roman History and Culture. Cr. 1-3 (Max. 6)

Prereq: one 3000-level Latin course, consent of instructor; coreq: enrollment in a CLA course numbered 5000 or above. Readings in Latin primary sources that are relevant to the associated CLA course (which is taught in English). (T)

5810 Roman Historians. Cr. 4

Prereq: LAT 2020 or equiv. or consent of instructor. Selected readings from Tacitus, Livy, Caesar or Sallust illustrating the Roman rhetorical and ethical analysis of republican and imperial history. (I)

5830 Roman Philosophy. Cr. 4

Prereq: LAT 2020 or equiv. or consent of instructor. Readings in Latin of the Roman philosophers, including philosophical works of authors such as Lucretius, Cicero, Manilius, and Seneca. (I)

5850 Epic. Cr. 4

Prereq: LAT 2020 or equiv. or consent of instructor. Readings in Latin of the works of epic poets such as Ennius, Vergil, Lucan, Statius and others. (I)

5860 Lyric and Elegy. Cr. 4

Prereq: LAT 2020 or equiv. or consent of instructor. Readings in Latin of lyric and elegiac poetry by authors such as Catullus, Tibullus, Horace, and Propertius. (I)

5990 Directed Study. Cr. 1-4 (Max. 8)

Prereq: undergrad., consent of instructor and Classics coordinator; grad., consent of instructor and Classics graduate adviser. (T)

6500 Roman Epistolography. Cr. 4

Prereq: LAT 2020 or equiv. or consent of instructor. Social, literary, and historical significance of the letters of such writers as Cicero, Pliny and Seneca. (I)

6820 Roman Rhetoric. Cr. 4

Prereq: LAT 2020 or equiv. or consent of instructor. Study of Roman rhetorical theory and practice. (I)

6840 Roman Drama. Cr. 4

Prereq: LAT 2020 or equiv. or consent of graduate adviser. Study of Roman comedy and tragedy through study of comedies of Plautus or Terence, or tragedies of Seneca. Studies in the early history of Roman drama may include readings in the literary remains of Accius, Pacuvius, and Naevius. (I)

6890 Roman Satire. Cr. 4

Prereq: LAT 2020 or equiv. or consent of instructor. Readings in the works of satirists such as of Horace, Persius and Juvenal. (I)

POLISH COURSES (POL)

1010 Elementary Polish I. Cr. 4

Development of practical skills in understanding, reading, speaking, and writing Polish, with the stress placed on fundamental communication skills. Material Fee indicated in the Schedule of Classes (T)

1020 Elementary Polish II. Cr. 4

Prereq: POL 1010 or equiv. Continuation of POL 1010. Development of practical skills in understanding, reading, speaking, and writing Polish, with the stress placed on fundamental communication skills. Material Fee As Indicated In The Schedule of Classes (T)

2010 (FC) Intermediate Polish. Cr. 4

Prereq: POL 1020 or equiv. Further development of Polish language and cultural proficiency through listening, reading, speaking, and writing activities, and examining of contemporary Polish culture. Completion of this course fulfills the General education requirement for foreign language and culture. Material Fee As Indicated In The Schedule of Classes (T)

2030 Polish Conversation. Cr. 1 (Max. 4)

Prereq: POL 2010 or equiv. Development of Polish oral language skills through intensive speaking and listening practice. (F,W)

2060 Composition and Conversation. Cr. 1-4 (Max. 8)

Prereq: POL 2010 or placement examination. For students with rudimentary knowledge of Polish. Vocabulary and aspects of grammar not discussed in the previous courses practiced through oral and written composition and translation exercises. (W)

3000 Polish Grammar and Usage. Cr. 4

Prereq: POL 2010 or equiv. Comprehensive review of Polish grammar; proper usage, vocabulary expansion. For intermediate or advanced-level students, including heritage speakers. (Y)

3030 Language Skills: Advanced Speaking and Writing. Cr. 2-4

Prereq: POL 2060 or equiv. Original texts and audio-visual materials used to further knowledge of Polish language. Special attention paid to vocabulary enrichment, colloquial usage and idioms needed for achieving of independent expression in the Polish language. (W)

3990 Directed Study. Cr. 1-3 (Max. 6)

Prereq: POL 2010 or equiv.; written consent of chairperson. For students desiring additional work in the language at the intermediate level; for programs of work not included in scheduled course, either in language or literature. (T)

5990 Directed Study. Cr. 1-3 (Max. 12)

Prereq: POL 3020 or equiv., written consent of chairperson. (T)

5993 (WI) Writing Intensive Course in Polish. Cr. 0

Prereq: junior standing, satisfactory completion of the IC requirement, consent of instructor; coreq: any 3000-, 4000-, or 5000-level Polish literature or culture course. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a course designated as a corequisite; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. (F,W)

RUSSIAN COURSES (RUS)

1010 Elementary Russian I. Cr. 4

Development of practical skills in speaking, understanding, reading, and writing contemporary Russian. Material Fee As Indicated In The Schedule of Classes (F)

1020 Elementary Russian II. Cr. 4

Prereq: RUS 1010 or equiv. Continuing development of the four skills in contemporary Russian. Material Fee As Indicated In The Schedule of Classes (W)

2010 (FC) Intermediate Russian I. Cr. 4

Prereq: RUS 1020 or equiv. Continuation of RUS 1020 with emphasis on developing speaking and reading skills. Material Fee As Indicated In The Schedule of Classes (F)

2020 Intermediate Russian II. Cr. 4

Prereq: RUS 2010 or equiv. Objectives begun in RUS 2010; at more advanced level. (W)

2030 Russian Conversation. Cr. 1

Prereq: RUS 2020. Development of Russian oral language skills through intensive speaking and listening practice. (F,W)

2070 Russian Listening Comprehension I. Cr. 2

Prereq: RUS 2020. Written consent of department. Online course. Students view episodes of the Russian series "Eralash," study vocabulary, and do exercises designed to help them develop listening comprehension and expand their Russian vocabulary. (F,W)

3010 Intermediate-Advanced Russian I. Cr. 4 (Max. 8)

Prereq: RUS 2020 or equiv. Further development of skills; taught in two tracks at fifth- and seventh-semester levels. (F)

3020 Intermediate-Advanced Russian II. Cr. 4 (Max. 8)

Prereq: RUS 2020 or equiv.. Further development of skills; taught in two tracks at sixth and eighth semester levels. (W)

3040 Russian for Heritage Learners. Cr. 3

Prereq: consent of instructor. For Russian heritage learners who have oral skills at or above those expected of students who have completed RUS 3020, but who need to improve their reading and writing skills. (F,W)

3050 Russian Practicum. Cr. 3 (Max. 9)

Prereq: RUS 3010 or consent of Russian major adviser. Internship with local russian businesses and non-profit organizations to enable students to use Russian in real-life settings. (F,W)

3070 Russian Listening Comprehension II. Cr. 2

Prereq: RUS 3010 or consent of instructor. Online course. Students view Russian movies and listen to audiotexts of fables and poetry, do exercises designed to develop their listening comprehension and expand their Russian vocabulary, and take quizzes and exams online. (F,W)

3250 Reading Russian. Cr. 3

Survey of Russian Grammar and basic vocabulary to develop reading skill. (Y)

3990 Directed Study. Cr. 1-3 (Max. 6)

Prereq: RUS 2010 or equiv.; written consent of chairperson. For students desiring additional work in the language at the intermediate level; for programs of work not included in scheduled courses, either in language or literature. (T)

5990 Directed Study. Cr. 1-3 (Max. 12)

Prereq: undergrad., written consent of chairperson; grad., written consent of chairperson and graduate officer. For students who wish credit for program of work not included in regularly scheduled courses, either in language or in literature. Knowledge of Russian required. (T)

5993 (WI) Writing Intensive Course in Russian. Cr. 0

Prereq: junior standing, satisfactory completion of the IC requirement, consent of instructor; coreq: any 3000-, 4000-, or 5000-level Russian literature or culture course. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a course designated as a corequisite; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. (F,W)

SPANISH COURSES (SPA)

1010 Elementary Spanish I. Cr. 4

Introduction to the Spanish language and Hispanic culture through interactive and communicative reading, writing, listening and speaking activities. No experience with Spanish is needed. Material Fee As Indicated In The Schedule of Classes (T)

1020 Elementary Spanish II. Cr. 4

Prereq: SPA 1010 or placement. Continuing study of Spanish and Hispanic culture through interactive and communicative reading, writing, listening and speaking activities to develop language and cultural proficiency. Material fee as indicated in the schedule of classes. (T)

1060 Elementary Spanish I and II. Cr. 6

Only four credits awarded after SPA 1010. Prereq: previous study in Spanish or another Romance language. Designed for students with previous experience with Spanish or another Romance language who would like an abbreviated review before continuing their studies. The first third of the semester is an accelerated review of SPA 1010; the remainder of the semester covers SPA 1020 coursework. (T)

2010 (FC) Intermediate Spanish I. Cr. 4

Prereq: SPA 1020 or placement. Continuing study of the Spanish language and Hispanic culture through interactive and communicative reading, writing, listening and speaking activities to develop language and cultural proficiency. Completion of this course fulfills the Gereral Education requirement for foreign language and culture. Material Fee As Indicated In The Schedule of Classes (T)

2025 Intermediate Spanish II. Cr. 3

Prereq: SPA 2010. Continuation of SPA 2010. More intensive review of Spanish grammar; linguistic preparation for reading of literature; oral practice in the language. (T)

3040 Commercial Spanish. Cr. 3

Prereq: SPA 2025. Commercial Spanish for basic business, legal and banking transactions and correspondence; terminology used in banking, commerce, accounting and marketing; emphasis on translation and format of commercial documents and letters. (I)

3050 Medical Spanish. Cr. 3

Prereq: SPA 2025. Basic medical vocabulary in Spanish; taught entirely in Spanish. Conversation, dialogue, writing medical reports, role playing, mock medical situations. Videotapes and lectures on specific medical topics. (B)

3100 Grammar Review and Composition. Cr. 3

Prereq: SPA 2025 or placement. Study and utilization of grammar in speech and writing; pronunciation and intonation. Conducted entirely in Spanish. (T)

3200 Conversation. Cr. 3

Prereq: SPA 2025. Informal class conversations, debates and oral reports to reinforce grammatical principles and to improve pronunciation through practice and imitation. (B)

3300 Readings in Hispanic Literature and Culture. Cr. 3

Prereq: SPA 3100 or placement. Discussion of literary and cultural readings from Spain and Spanish America; vocabulary building; speaking and reading emphasized. (Y)

3800 (SPA 3800) Spanish for Heritage Learners. (CBS 3800) Cr. 3

Prereq: SPA 2025 or consent of instructor. Review of grammar and composition for Spanish heritage learners. Conducted entirely in Spanish. (F)

4610 Survey of Spanish Literature I. Cr. 3

Prereq: SPA 3300. Spanish literature from the Middle Ages to 1700. (Y)

4620 Survey of Spanish Literature II. Cr. 3

Prereq: SPA 3300. Spanish literature from 1700 to the present. (Y)

4630 Survey of Spanish American Literature I. Cr. 3

Prereq: SPA 3300. Survey of Spanish American literature from the pre-Colombian period to the end of the nineteenth century. (Y)

4640 Survey of Spanish American Literature II. Cr. 3

Prereq: SPA 3300. Literature in the twentieth century. (B)

5100 (WI) Advanced Composition. Cr. 3

Prereq: SPA 3100 or placement. Study and utilization of Spanish in written form: colloquial usage, literary Spanish, commercial Spanish, idiomatic expressions. Brief compositions and translation exercises. Conducted entirely in Spanish. (Y)

5200 Spanish Phonetics. Cr. 3

Prereq: SPA 3100 or consent of instructor. A systematic study of Spanish sounds; conducted in Spanish. (B)

5300 Advanced Grammar and Stylistics. Cr. 3

Prereq: SPA 5100 or placement. Intensive study of grammar and syntax. Free composition and conversation. Conducted in Spanish. (B)

5400 Technical and Literary Translation. Cr. 3

Prereq; SPA 3100. English-Spanish and Spanish-English translations, literary and technical. Idioms in technical, business and legal contexts. Computerized translation technology. (B)

5550 Spanish Culture and Its Tradition. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Spain's cultural history: painting, sculpture, architecture and music, through films, records, newspapers, and other texts. (B)

5560 Spanish American Cultures and their Traditions. (CBS 5560) Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Spanish America before and after the discovery of the New World. Art, music, customs, contemporary institutions, through films, records, newspapers, gallery visit to Detroit Institute of Art, and the text. (B)

5570 Topics in Hispanic Culture or Language. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Specific themes , genres, movements or periods. Topics to be announced in Schedule of Classes. (Y)

5990 Directed Study. Cr. 1-4 (Max. 8)

Prereq: consent of adviser. (T)

6400 Introduction to Hispanic Linguistics. Cr. 3

Prereq: SPA 5200 or consent of instructor. Principles of linguistics and their application to Spanish. (B)

6410 Spanish Medieval Literature: Origins to 1500. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Main currents and masterworks of Spanish literature from its origins to 1500. (Formerly SPA 6500.) (B)

6420 Spanish Literature of the Renaissance. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640.. Literary genres of the sixteenth century (poetry and narrative: picaresque, pastoral, morisco, and chivalric). (Formerly SPA 6510.) (B)

6430 Spanish Literature of the Baroque Period. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Great poets of the Spanish seventeenth century: Lope de Vega, Gongora, Quevedo; as well as the prose of Quevedo and Gracian studied within the unique cultural climate of the Spanish Baroque. (Formerly SPA 6510.) (B)

6440 Spanish Literature of the Eighteenth Century. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Literature of the Spanish Enlightenment; major works and literary trends in the Spanish eighteenth century up to Romanticism. (Formerly SPA 6520.) (B)

6450 Spanish Romanticism. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Origins and development of Romanticism in Spain: theatre, poetry, costumbrismo, and other narrative. (Formerly SPA 6520.) (B)

6460 The Spanish Novel of the Nineteenth Century. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Representative works of the Realist and Naturalist movements. (Formerly SPA 6993.) (B)

6470 The Spanish Novel of the Twentieth Century. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Novelists of the twentieth century, including those of the Silver Age (1900-1936) and those associated with Tremendismo, Social Realism, and the contemporary experimental novel. (Formerly SPA 6993.) (B)

6490 Spanish Poetry of the Nineteenth and Twentieth Centuries. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Representative figures and trends in Modern and contemporary Spanish poetry. Post-Romanticism, Symbolism, the Silver Age (1900-1936), and contemporary poetry. (B)

6560 Cervantes. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. A detailed study of Don Quijote. Other short works of Cervantes. (B)

6570 The Comedia. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Analysis of plays by Lope de Vega, Tirso de Molina, Calderon, Maria de Zayas and other dramatists of Spain's Golden Age. (B)

6590 Genres and Topics in Peninsular Spanish Literature. Cr. 3 (Max. 9)

Prereq: SPA 4610, 4620, 4630, or 4640. Topics such as twentieth-century Spanish theatre, the Picaresque novel, and eighteenth-century Spanish theatre, to be announced in Schedule of Classes. (B)

6600 Spanish American Colonial Literature. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Major figures from the sixteenth to the nineteenth centuries. Poetry, prose, and theatre; the literature of the conquest; conflicts and tension between the dominant and the conquered societies. (B)

6620 The Spanish American Novel II. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Roots of the modern novel in Spanish America; its stages of evolution through the vanguard period into the contemporary stage, with emphasis on representative figures such as Carpentier, Cortazar, and Garcia Marquez. (Formerly SPA 6860.) (B)

6630 Spanish American Poetry. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Major figures of the twentieth century and their texts, from the Vanguard period to contemporary poetry. (B)

6670 Latin American Novel to 1900. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Late colonial period to 1900. (B)

6690 Genres and Topics in Spanish American Literature. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Topics in the literature of Spanish America, such as the short story or theatre, to be announced in Schedule of Classes. (B)

6700 Spanish Literature of the Silver Age: 1900-1936. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Writers of the first three decades of the twentieth century; current narratological theories applied to intertextual maneuvers and philosophical concepts. (I)

6710 Unamuno's Existential Fiction. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Important novels of Miguel de Unamuno; emphasis on characters and their agonization in a circumscribed area. (I)

SWAHILI COURSES (SWA)

1010 Elementary Swahili I. Cr. 4

Training in pronunciation, aural comprehension, oral and written expression. Supervised laboratory period for part of class preparation. Material Fee As Indicated In The Schedule of Classes (F)

1020 Elementary Swahili II. Cr. 4

Prereq: SWA 1010 or consent of instructor. Continuation of SWA 1010. Material Fee As Indicated In The Schedule of Classes (W)

2010 (FC) Intermediate Swahili. Cr. 4

Prereq: SWA 1020 or consent of instructor. Conversational Swahili and grammar review; reading of Swahili literature. Continuation of SWA 1020. Material Fee As Indicated In The Schedule of Classes (S)

UKRAINIAN COURSES (UKR)

1010 Elementary Ukrainian. Cr. 4

Sounds, spelling, vocabulary, forms, syntax as a basis for reading and conversation. Material Fee As Indicated In The Schedule of Classes (F)

1020 Elementary Ukrainian. Cr. 4

Prereq: UKR 1010 or equiv. Continuation of UKR 1010. Material Fee As Indicated In The Schedule of Classes (W)

2010 (FC) Intermediate Ukrainian. Cr. 4

Prereq: UKR 1020 or equiv. Study in-depth of structure and syntax based on reading. Oral and written practice. Material Fee As Indicated In The Schedule of Classes (F)

3990 Directed Study. Cr. 1-3 (Max. 6)

Prereq: UKR 2010 or equiv.; written consent of chairperson. For students desiring additional work in the language at the intermediate level; for programs of work not included in scheduled courses, either language or literature. (T)

5990 Directed Study. Cr. 1-3 (Max. 12)

Prereq: UKR 2010 or equiv; written consent of chairperson. No graduate credit. For students who wish credit for program of work not included in regularly scheduled courses, either in language or in literature. (T)

Communication Sciences and Disorders

Office: 207 Rackham Memorial Building; 313-577-3339
Chairperson: Jean Andruski
Graduate Officer: Margaret Greenwald
Undergraduate Advisors: Tausha Beardsley, Aaron Hardy-Smith
Coordinator of Clinical Programs: Karen S. O'Leary

Web: http://www.clas.wayne.edu/CSD

Professors

Anthony Cacace, John Panagos (Emeritus)

Associate Professors

Jean Andruski, Margaret Greenwald, Li Hsieh, Thomas H. Simpson, Jinsheng Zhang

Assistant Professors

Heather Balog, Derek Daniels, Shelly Jo Kraft

Instructors

Tausha Beardsley, Maryellen Liening, Karen S. O'Leary, Gilmour M. Peters, Kimberly Stewart

Lecturers

Aaron Hardy-Smith

Adjunct Faculty

Colleen Allen, Pat Backoff, Kenneth R. Bouchard, Michael W. Church, Bruce Edwards, Frances E. Eldis, Adrianne Fazel, Susan Fleming, Jaynee Handelsman, Paul Kileny, Katherine Marchelletta, John O'Leary, Virginia Ramachandran, Mark Simpson, Brad Stach, Teresa Zwolan

Degree Programs

BACHELOR OF ARTS with a major in communication sciences and disorders

MASTER OF ARTS with a major in speech-language pathology

DOCTOR OF AUDIOLOGY

DOCTOR OF PHILOSOPHY with a major in communication sciences and disorders

Bachelor of Arts with a Major in Communication Sciences and Disorders

This department offers courses related to the study of communication and communication disorders and sciences. Specialized coursework prepares students to work with speech-language and hearing disabled children and adults in a variety of settings, including the public schools, hospitals, clinics, rehabilitation centers and private practice. College teaching and research are also career possibilities.

Undergraduate students in this specialization should note that graduate study is required for clinical certification by the American Speech-Language-Hearing Association (ASHA). A master's degree is required for speech-language pathologists and a doctoral degree is required for audiologists. Effective in 2012, ASHA will require a doctoral degree for certification as an audiologist. Study in this major at the undergraduate level provides a scientific foundation for graduate

study in both audiology and speech-language pathology as well as other science and health professions.

Students interested in pursuing doctoral study should contact the graduate officer.

Admission Requirements are satisfied by the general requirements for undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates for the Bachelor's degree must complete 120 credits of course work including satisfaction of the College Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the major requirements listed below. All course work must be completed in accordance with the regulations of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

It is expected that a major will complete at least thirty but not more than forty-six credits in SLP and AUD course work. Any credits elected over the maximum forty-six must have prior approval of both adviser and Chairperson if the additional credits are to count toward the degree (120 credits). At least twelve credits are required in residence within the major for transfer students. A proper distribution of courses approved by the student's adviser is important. It is desirable that students intending to major in communication sciences and disorders begin their work in the Department in their sophomore year. Courses in the major should be selected in consultation with a Departmental undergraduate adviser. Students are encouraged to begin consulting with the undergraduate adviser during their freshman year. The declaration of major form should be completed as soon as possible in their undergraduate program, but after completing the foundation courses and grade requirements as explained below.. The Department allows one repeat of undergraduate courses with permission of the instructor and/or adviser.

Major Requirements for a Bachelor of Arts degree in this discipline consist of the following courses: SLP 5080, 5090, 5120, 5300, 5310, 5320, 5360, 6460, 6480; AUD 5400 and 5420. It is departmental policy that if a student earns a grade of "C" or less in two or more of the CSD foundation courses (SLP 5300, 5320, 5080, 5090, and AUD 5400) they will not be allowed to declare CSD as a major. In addition, all majors must complete the following courses: STA 1020; PHY 1020, BIO 1030; and PSY 1010 (with laboratory); or equivalents; for clinical certification.

Bachelor of Science Option: The Bachelor of Science degree with a major in Speech-Language Pathology is being phased out. No additional candidates in this major area will be admitted to the College of Education after Spring term 2007. Students currently enrolled in the program must complete their Bachelor of Science in Education degree and the Master of Arts degree in Speech-Language Pathology by December 31, 2011.

Advising: Initial questions about the major should be directed to the Undergraduate Officer, 207 Rackham Memorial Building (313-577-3339). For further details, consult the CSD Undergraduate Student Handbook, available from the Department. For questions concerning clinical certification, contact the Coordinator of Clinical Programs.

Financial Aid: See Office of Student Financial Aid, page 34. The following award is available to students in this department:

Richard W. and Kristine Vogt Sbaschnig Endowed Scholarship in Speech-Language Pathology: Awarded to graduate or undergraduate students majoring in speech-language pathology.

Clara B. Stoddard Endowment Scholarship Award: Awarded to majors in the Department specializing in school speech-language pathology.

Trabman Family Memorial Endowed Scholarship in Speech Pathology and Audiology: Awarded to undergraduate majors in the Department leading to careers in either speech-language pathology or audiology.

UNDERGRADUATE COURSES

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

AUDIOLOGY COURSES (AUD)

5400 Introduction to Audiology. Cr. 3

Introduction to physics of sound, anatomy of the hearing mechanism, audiometry, hearing aids, habilitation and rehabilitation of the hearing handicapped. (F,W)

5420 Introduction to Aural Rehabilitation. Cr. 3

Prereq: AUD 5400. Principles and practices of aural rehabilitation including hearing aids. Material Fee As Indicated In The Schedule of Classes (W,S)

SPEECH-LANGUAGE PATHOLOGY COURSES (SLP)

1010 Elementary Sign Language [ASL]. Cr. 4

Appreciation and use of American Sign Language (ASL). Review of basic grammar coupled with classroom practice to learn to communicate in signs. Supervised observations of interactions with individuals who are deaf. (I)

1020 Advanced Sign Language [ASL]. Cr. 4

Prereq: SLP 1010. Advanced use of American Sign Language (ASL); grammar and classroom practice for sign communication and teaching. Supervised participation with individuals that are deaf. (I)

1500 (VP) Freshman Seminar. Cr. 3

Open only to freshman students. (I)

1800 Improving Intelligibility for Internationals. Cr. 2

Offered for S and U grades only. Articulation, accent, and intonation patterns drilled on a group and individual basis for people learning English as a second language. Coursework in the English Language Institute should be completed or taken concurrently. (I)

2010 Using Sign Language [ASL]. Cr. 4

Prereq: SLP 1020. Practical uses of sign language with special emphasis on fieldwork projects in specific fields such as law, medicine, speech-language pathology, social work, special education. Supervised presentations to individuals who are deaf. (I)

2750 (SLP 2750) African American English. (LIN 2750) Cr. 3

Structure, content, use, and history of African American English (also known as Ebonics) from its origins to the present. (I)

3990 Directed Study. Cr. 1-3 (Max. 4)

Prereq: consent of chairperson required if replacing regular course work. Undergraduate study in areas not covered in scheduled curriculum, including library and field work. (F,W)

4998 Honors Seminar. Cr. 3

Prereq: admission to departmental honors program, senior standing, consent of undergraduate adviser. Bibliographic and research experiences; review of recent literature; research project. (Y)

5080 (SLP 5080) Phonetics. (LIN 5080) Cr. 3

Multisensory study of sounds in the English language, emphasizing acoustic, physiologic, kinesiologic approaches. Material Fee As Indicated In The Schedule of Classes (T)

5090 Anatomy and Physiology of the Speech Mechanism. Cr. 3

General science of normal speech; anatomy, physiology and mechanics of respiration, phonation, resonation, articulation. (F,S)

5120 Speech Science. Cr. 3

Coreq: SLP 5080, 5090. Speech production, acoustics of sound, perception of the speech signal. (F,W)

5300 Introduction to Speech-Language Pathology. Cr. 3

Speech-language pathology in clinical and educational settings; classification of communication disorders and related management strategies. (F,S)

5310 Clinical Methods in Communication Disorders. Cr. 3

Prereq: SLP 5300, SLP 5320; coreq: SLP 5080, SLP 5090. Procedures and materials for clinical diagnosis of articulatory, language, rhythm, and voice deficits of organic and non-organic causation. (T)

5320 (SLP 5320) Normal Language Acquisition and Usage. (LIN 5360) Cr. 3

Language development in children and the associated areas of emotional and motor development; language stimulation techniques and programs. Material Fee As Indicated In The Schedule of Classes (T)

5360 (WI) Clinical Practice in Speech-Language Pathology. Cr. 3 (Max. 9)

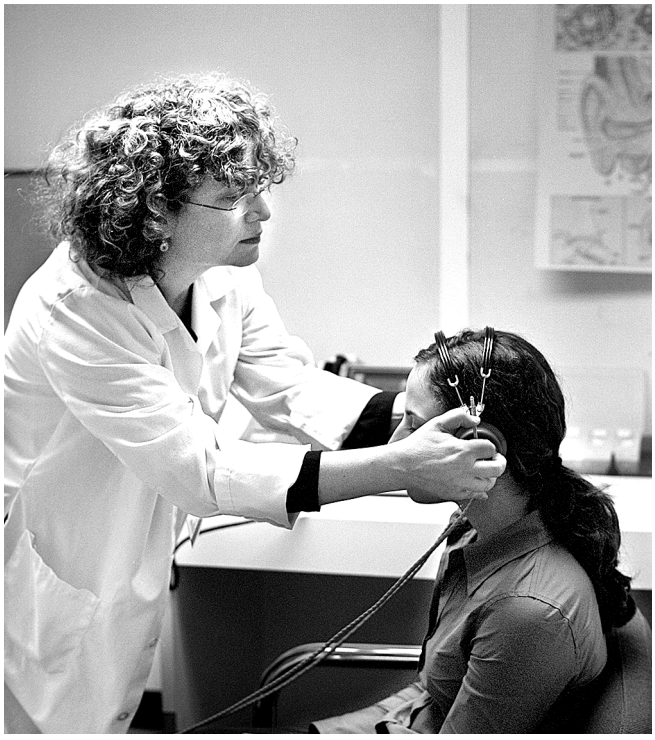
Prereq: SLP 6460, 6480, and 5310, each with grade of B or better. Supervised experience in application of methods of diagnosis and treatment of clinical cases. Material Fee As Indicated In The Schedule of Classes (T)

6460 Language and Phonological Disorders. Cr. 3

Prereq: SLP 5300, SLP 5320; coreq: SLP 5080. Introduction to the clinical management of articulation and language disorders. (W)

6480 Organic and Fluency Disorders. Cr. 3

Prereq: SLP 5300, SLP 5320; coreq: SLP 5080. Introduction to the clinical management of cleft palate, voice, and stuttering disorders. (W)



Computer Science

Office: 5057 Woodward, Suite 3008; 313-577-2477
Chairperson: Farshad Fotouhi; E-mail: fotouhi@wayne.edu
Associate Chairperson: Seymour Wolfson
Academic Services Officer: Derrick white
Web: http://www.cs.wayne.edu

Professors

Farshad Fotouhi, Narendra Goel, Vaclav Rajlich, Robert G. Reynolds

Associate Professors

Monica Brockmeyer, Ming Dong, Sorin Draghici, Daniel Grosu, Jing Hua, Hasan Jamil, Shiyong Lu, Andrian Marcus,Loren Schwiebert, Weisong Shi, Seymour J. Wolfson, Lihao Xu

Assistant Professors

Nathan Fischer, Zaki Malik, Chandan Reddy, Hongwei Zhang

Lecturers

Nadeem Ansari, Suzanne Jennings, Monika Witoslawski

Degree Programs

BACHELOR OF ARTS with a Major in Computer Science
BACHELOR OF ARTS with a Major in Information Systems Technology
BACHELOR OF SCIENCE in Computer Science
POST BACHELOR CERTIFICATE in Computer Science
GRADUATE CERTIFICATE in Scientific Computing
MASTER OF SCIENCE with a Major in Computer Science
DOCTOR OF PHILOSOPHY with a Major in Computer Science

Mission Statement

The mission of the Department of Computer Science at Wayne State University is to provide excellence in teaching, research, and public service with leadership in the computer science profession and the community. The department provides a high-quality, innovative, baccalaureate and graduate education that emphasizes the fundamentals of computer science but explores the ramifications of technology, preparing students for employment and advanced studies. Students are encouraged to become involved in research programs to enhance their education and their employment opportunities. Through the use of our state-of-the-art laboratory facilities, students can conduct basic and applied research of high quality, influence, visibility, and potential community impact. The Department continues to develop cooperative research relationships within and outside the computer science discipline, as well as with industry, government and alumni, and local community organizations. This interaction with professional organizations world wide will provide our students with the highest standards, goals, and professional practices.

Bachelor's Degree Programs

Admission requirements for the College are satisfied by the general requirements for undergraduate admission to the University; see page 24. Students planning to major in computer science should consult with a departmental adviser as soon as possible and no later than the beginning of their sophomore year. In general, the requirements in effect when a student declares a major in computer science will be those that the student must satisfy. Students should check

with the department for the latest information concerning the program and requirements. Sample recommended programs of study for each of the degree programs are provided below.

Major course sequence outlines are available in the Department for guidance in meeting degree requirements.

Admission following an interruption in enrollment: A student attempting to complete a computer science major after a prolonged interruption of his/her education may find that some of his/her course work in computer science is out of date. In this case, the student's record will be reviewed and the Department may require the student to fulfill additional computer science course requirements existing at the time of his/her return, and/or to retake some courses previously taken.

Transfer students should consult with the undergraduate Departmental adviser during the semester prior to their transfer. Determination of course equivalency will be made by the Transfer Credit Evaluation Unit in conjunction with the undergraduate faculty adviser. The Department reserves the right of final determination of course equivalency.

Introductory Course Work: The Department of Computer Science offers a number of courses introducing students to basic computer and computing concepts. Some of these courses also serve as prerequisites for more advanced study in computer science. Some introductory courses require mathematics preparation equivalent to MAT 1800. (See course descriptions regarding the required prerequisites, page 373.) CSC 1000, offered as computer-based instruction, is for non-majors who desire to learn basic computing concepts. This course also fulfills the General Education Computer Literacy requirement. Students who intend to major or minor in computer science will not normally take this course.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete at least 120 credits in course work, including satisfaction of the University General Education Requirements (see page 18) and the College Group Requirements (see page 274). All course work must be completed in accordance with the regulations of the University governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

Bachelor of Science in Computer Science

The Bachelor of Science curriculum provides a strong academic foundation in computer science. The program is designed for students whose primary interest is in the study of computers and computer systems, and is the recommended preparation for those interested in pursuing graduate studies in computer science.

Admission Requirements: See above.

DEGREE REQUIREMENTS: See above under general bachelor's degree requirements.

COURSE REQUIREMENTS:

(Please note that a high-level programming language (such as C or C++) is required prior to beginning the B.S. curriculum.)

1. Mathematics 2010, 2020, 2210, and 2250.

2. Computer Science course work as follows:

(Please note that the core courses have been updated and include mandatory instructional labs. These laboratories must be taken concurrently with their corequisite lecture.)

a) Computer Science 1500, 1501, 2110, 2111, 2200, 2201, 3100, 3101, 3110, 4110, 4111, 4420, 4421, 4500, 4996 and 4997.

b) Four additional Computer Science courses numbered 3000 or above, of at least three credits each, excluding CSC 4990 and 4995.

c) A minimum of twenty-eight credits in computer science must be earned at Wayne State University.

d) A minimum grade of 'C' is required in CSC 1500, 1501, 2110, 2111, 2200, and 2201.

Students declaring their major must consult an adviser for a written assessment of current requirements.

Recommended Program: A link to a recommended four-year program is available on our web site: http://www.cs.wayne.edu.

— With Honors in Computer Science

Students in the Departmental Honors Program are challenged by independent research work and by the close association and informal discussions with faculty and advanced graduate students. The Honors Program is open to students seeking the Bachelor of Science in Computer Science degree. A cumulative grade point average of at least 3.3 is required for consideration for admission to and continuance in the program. Students are admitted on the recommendation of the Departmental Honors Program Adviser. Interested students should contact the Adviser and complete the honors *Plan of Work* form when declaring their computer science major or at the beginning of the senior year. If a student has declared a major in computer science prior to entering the Honors Program, a new Declaration of Major must be completed for the Bachelor of Science with Honors.

Admission Requirements: See above.

DEGREE REQUIREMENTS: See above under general bachelor's degree requirements.

COURSE REQUIREMENTS:

(Please note that the core courses have been updated and include mandatory instructional labs. These laboratories should be taken concurrently with their corequisite lecture.)

1. See step 1 of 'Bachelor of Science in Computer Science,' above.

2. See step 2 of 'Bachelor of Science in Computer Science,' above.

3. One semester of an Honors Program 4000 level seminar.

4. Computer Science 4999, Honors Thesis; three or six credits.

The Honors Thesis is a paper presenting the results of the student's independent research. The length of the thesis may vary according to the nature of the topic and method of approach. Registration for the Honors Thesis must be made at least two semesters prior to the student's expected graduation date. A minimum of two semesters should be allowed for completion of all of the thesis requirements. It is expected that the Honors Thesis will conform to the University master's thesis format requirements (copies available from the Graduate School at: http://www.gradschool.wayne.edu/Current/Phd/dissertationtemplates.html).

The student will be assigned a faculty adviser to guide and direct the research, based upon the student's area of interest. A grade is awarded for CSC 4999 after approval of the thesis by two faculty advisers.

5. An overall Wayne State University cumulative grade point average of at least 3.3.

6. A minimum total of twelve credits in honors-designated course work, including Computer Science 4999, and the Honors Seminar listed above. For information about additional honors-designated course work available each semester, see the University Schedule of Classes under 'Honors Courses,' or contact the Director of the Honors Program (313-577-3030).

Bachelor of Arts with a Major in Computer Science

The Bachelor of Arts curriculum is designed to provide a strong academic foundation for those preparing for a career in computer applications. Students planning to earn a graduate degree in computer science are strongly advised to seek the Bachelor of Science degree in computer science.

Admission Requirements: See page 332.

DEGREE REQUIREMENTS: See page 332.

COURSE REQUIREMENTS:

(Please note that the core courses include mandatory instructional labs. These laboratories must be taken concurrently with their corequisite lecture.)

1. Mathematics 2010 and 2210.

2. Computer Science course work as follows:

(a) Computer Science 1100, 1101, 1500, 1501, 2110, 2111, 2200, 2201, 3100, 3101, 4110, 4111, 4420, 4421, 4996 and 4997.

(b) Four additional Computer Science courses of at least three credits each, numbered 3000 or above, excluding CSC 4990 and 4995.

(c) A minimum of twenty-six credits in computer science must be earned at Wayne State University.

(d) A minimum grade of 'C' is required in CSC 1100, 1101, 1500, 1501. 2110, 2111, 2200, and 2201, respectively.

Students declaring their major should consult an adviser for a written assessment of current requirements.

Recommended Program: A link to a recommended four-year program is available on our web site: http://www.cs.wayne.edu.

Bachelor of Arts with a Major in Information Systems Technology

This program prepares the student for a challenging workplace with an enhanced knowledge of business applications. The curriculum for the degree is designed to give students fundamental knowledge of computer science with a combined knowledge of system designs and business administration.

Admission Requirements: See page 332.

DEGREE REQUIREMENTS: See page 332.

COURSE REQUIREMENTS:

(Please note that the core courses include mandatory instructional labs. These laboratories must be taken concurrently with their corequisite lecture.)

1. Mathematics 2010 and 2210.

2. Computer Science 1100, 1101, 1500, 1501, 2110, 2111, 2200, 2201, 3100, 3101, 3750, 4110, 4111, 4420, 4421, 4710 (or ISM 5994), 4996, 4997, 5750.

3. Economics 2020.

4. Business Administration course work to include: Accounting 3010, Finance 3290, Management 2530, and Marketing 2300.

5. Suggested General Education - Group Requirement selections:

   Life Science: PSY 1010 is a prerequisite for MGT 2530

   Social Science: ECO 2010 is a prerequisite for MKT 2300 and FIN 3290

6. A minimum of twenty-six credits in computer science must be earned at Wayne State University.

A minimum grade of 'C' is required in CSC 1100, 1101, 1500, 1501, 2110, 2111, 2200, and 2201, respectively.

Prior to declaring their major, students should consult an adviser for a written assessment of the current requirements.

Recommended Program: A link to a recommended four-year program is available on our web site: http://www.cs.wayne.edu.

Cooperative Work-Study Program

Students who wish to enrich their education with practical computer science experience may enroll in the Cooperative Work-Study Program. In this program, full-time study terms alternate with full-time work assignments in cooperating industries. The Co-op experience provides two benefits: industrial work experience which can be included in a resume, and the possibility of being offered a full-time position with the co-op employer, upon graduation. The program takes place over a two-year period where students usually enter the program in their junior year, and most of the work assignments are in the metropolitan Detroit area. A student may enroll for no more than one course with the approval of the College Co-op Coordinator during those terms in which he/she is on a work assignment. Each term that a student is on a work assignment he/she must enroll the following term in Computer Science 4995, Professional Practice in Computer Science. An oral and written report covering each work assignment is required of the student and performance on the job is rated by the industrial supervisor. Salaries and other benefits are paid for by the employer based upon the time spent on each work assignment. The student must be a computer science major. For details and enrollment procedures, contact the College Co-op Coordinator at the Career Planning and Placement office.

Oakland Community College Transfer Students

This department has engaged in a special agreement with the Department of Computer Information Systems at Oakland Community College (OCC) in order to provide a seamless transition for Oakland students that transfer to Wayne State to earn a baccalaureate degree in computer science. The agreement is designed for students who follow a prescribed plan of study at OCC leading to a Associate's Degree. The credits transferred from the Associate Degree program, as outlined in the agreement, will be included in the total credits required for the WSU baccalaureate degree. All other standard admission, curriculum, and graduation requirements of OCC and WSU must also be met.

For more information, please contact the Computer Science Department, or see an advisor at OCC.

Minor in Computer Science

The Minor Program provides a background in computer science for students who are majoring in other fields of study in the College.

COURSE REQUIREMENTS:

1. Mathematics 2010 and 2210.

2. Computer Science course work as follows:

(Please note that the core courses include mandatory instructional labs. These laboratories must be taken concurrently with their corequisite lecture.)

a) Computer Science 1100, 1101, 1500, 1501, 2110, 2111, 2200 and 2201.

b) Two additional Computer Science courses numbered 3000 or above, excluding CSC 4990 and 4995, to complete the required eighteen CSC credits.

c) A minimum of twelve credits in computer science must be earned at Wayne State University.

d) A minimum grade of 'C' is required in CSC 1100, 1101, 1500, 1501, 2110, 2111, 2200, and 2201, respectively.

Students may wish to modify the minor program to fit their special needs. For any changes or adjustments to the above course requirements, students should contact one of the Departmental undergraduate advisers for approval. Students declaring their minor should consult an adviser for a written assessment of current requirements.

'AGRADE' Program

Accelerated Graduate Enrollment: This program enables qualified seniors to enroll simultaneously in the undergraduate and graduate programs and apply a maximum of fifteen credits towards both the bachelor's and master's degrees. Students electing the 'AGRADE' Program may expect to complete the bachelor's and master's degrees in five years of full-time study.

Admission Requirements: An 'AGRADE' applicant may petition the Graduate Committee of the Computer Science Department for acceptance into the program no earlier than the first semester in which ninety credits will be completed. Following Departmental Graduate Committee approval, students must seek the approval of the Graduate Officer of the College. Applicants must have an overall grade point average (g.p.a.) at the *Cum Laude* level and a 3.6 g.p.a. or better in the major courses already completed. If the student's petition is accepted, the student's faculty adviser shall develop a graduate Plan of Work, specifying 'AGRADE' courses to be included in subsequent semesters.

Post-Bachelor Certificate in Computer Science

The Certificate Program in Computer Science is designed for students who have obtained an undergraduate or graduate degree in another discipline from an accredited university, and who now desire undergraduate-level competence in computer science skills. Students whose background includes the courses which satisfy College Group Requirements (see page 274) will generally apply for a second bachelor's degree rather than the Certificate in Computer Science.

The Post Bachelor Certificate Program provides a certificate which verifies the completion of the technical courses required for the Bachelor of Arts with a Major in Computer Science.

Admission: Students who have received their undergraduate degree from Wayne State University should apply directly to the University Advising Center. Two copies of the student's transcript must be submitted to the university adviser as part of the admission process. Students who have received their undergraduate degrees from another institution must complete the Application for Undergraduate Admission form and request that official transcripts from the college or university granting the degree be sent directly to the Office of Admissions.

CERTIFICATE REQUIREMENTS: Candidates for this certificate must achieve a level of competence in mathematics and computer science equivalent to completion of fifty-one credits in university course work as set forth in the following program. Prior preparation at the undergraduate level as evidenced in the transcript notation or by demonstrable proficiency may be used to satisfy any of these requirements, except that twenty-three credits in computer science, either as transfer credit to this program or as Post Bachelor Certificate credit, must be earned at Wayne State University. The content requirements for this program are as follows:

1. A bachelor's degree or its equivalent in some discipline other than computer science with a grade point average of at least 2.0 from an accredited institution.

2. Mathematics 2010, 2020, and 2210.

3. Computer Science course work as follows:

(Please note that the core courses include mandatory instructional labs. These laboratories must be taken concurrently with their corequisite lecture.)

a) Computer Science 1100, 1101, 1500, 1501, 2110, 2111, 2200, 2201, 3100, 3101, 4110, 4111, 4420, 4421, 4996 and 4997.

b) Four additional Computer Science courses of at least three credits each, numbered 3000 or above, excluding CSC 4990 and 4995.

c) A minimum of twenty-six credits in computer science course work must be completed at Wayne State University with a g.p.a. of at least 2.5.

d) A minimum grade of 'C' is required in CSC 1100, 1101, 1500, 1501, 2110, 2111, 2200, and 2201, respectively.

Students should consult an adviser for a written assessment of current certificate requirements. Although not required for a certificate, please note that CSC 4500 is required for admission to the graduate program.

Research and Instructional Laboratories

The Department of Computer Science operates a number of teaching and research laboratories. Research laboratories are organized around individual fields of research interest. For additional information, visit our website: http://www.cs.wayne.edu, and click on the "research" link. The teaching laboratories are supported by the Department and are available to all students for class work and research. The Department also maintains a Learning and Resource Center. Current lab descriptions and further information on our Learning and Resource Center may be found at: http://www.cs.wayne.edu, and clicking on "Resources."

Financial Aid

Also see Office of Student Financial Aid, page 34.

SCHOLASTIC AWARDS

The Department of Computer Science has been the recipient of funding from several sources that provide scholarship awards to students majoring in computer science. Funds have been provided for the following scholastic awards: Stephen P. Helpler, John P. Stieber, and Herbert N.Weingarten. Additional scholarships are made possible by these corporate sponsors: DaimlerChrysler Corporation Fund, Ford Motor Company, and General Motors Corporation. Awards range from $500 to $2,000 and provide support for approximately twenty students each year.

Part-time and full-time computer science majors of junior or senior standing can apply for these scholarships at the start of the calendar year. Criteria for applicants include scholastic achievement (minimum 3.0 g.p.a.), demonstrated qualities of leadership and involvement in extracurricular activities. The awards are announced at a recognition ceremony held in late March. Complete information can be found on the department web site: http://www.cs.wayne.edu, under the "Scholastic Awards" section.

Additional sources for scholarships available can be accessed through: http://scholarships.wayne.edu.

COMPUTER SCIENCE COURSES (CSC)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

0900 Office Applications. Cr. 0

Offered for Pass/No-Pass grades only. Self-paced course provides instruction in the Microsoft Office Application software at both introductory and advanced levels; software covered includes Word, Excel, and Power Point. Material Fee As Indicated In The Schedule of Classes (T)

0995 Coop Work Experience. Cr. 0

Offered for S and U grades only. Open only to computer science students. No degree credit. May not be used to satisfy undergraduate computer science elective requirements. Review of computer science practical experiences resulting from participation in coop/internship program. (T)

1000 (CL) Introduction to Computer Science. Cr. 3

Students must attend orientation as listed in the Schedule of Classes. Offered only as computer-based instruction on main campus. If main campus section is elected, student must complete minimum of five hours per week in CSC lab (for lab hours, see Schedule of Classes). Provides an overview of current computing technology, organization, and use. Topics surveyed include data representation and storage, hardware and software organization, communications technologies, ethical and security issues. Provides hands-on training in common application software, such as word processing, spreadsheets, presentation, as well as in electronic telecommunications, such as e-mail, Internet and database searches. The University database and Internet pages are emphasized. Material Fee As Indicated In The Schedule of Classes (T)

1050 (CL) Introduction to C and Unix. Cr. 2

Prereq: MAT 1800. No credit for computer science students after CSC 1100. Introduction to Unix, Unix editor, and C Programming Language. Unix development tools and fundamentals of C language discussed. Material Fee As Indicated In The Schedule of Classes (T)

1100 (CL) Problem Solving and Programming. Cr. 3

Prereq: CSC 1000 or successful passing of Computer Literacy Exam; coreq: CSC 1101. No credit after any other programming language; no credit for students in CSC B.S. program. Problem solving with algorithms, and their realization as computer programs using a structured, general purpose programming language; data types, operators, expressions, assignment, input and output, selection and repetition control structures; modularity and procedural abstraction using functions with parameters; structured data types, arrays, pointers and strings. (T)

1101 Problem Solving and Programming Laboratory. Cr. 1

Prereq: CSC 1000 or successful passing of Computer Literacy exam; coreq: CSC 1100. No credit after any other programming language; no credit for students in CSC B.S. program. Mandatory two-hour closed laboratory; discussion of lecture materials and completion of hands-on exercises. Implementing programs using a general purpose programming language; software resulting from this can be used in more advanced computer science courses. Material Fee As Indicated In The Schedule of Classes (T)

1140 (CL) Introduction to COBOL. Cr. 3

Prereq: CSC 1000. Problems in business applications: editing, transaction analysis, file update, report generation, tape and disk files, COBOL specification and implementation of sequential, indexed, direct and relative file organizations and their related access methods. (I)

1500 (CL) Fundamental Structures in Computer Science. Cr. 3

Prereq: CSC 1100 and CSC 1101, both with grade of C or better; and MAT 1800; coreq: CSC 1501. Introduction to fundamental control and data structures in computer science such as algorithms and complexity; recursive algorithms; program correctness using the predicate calculus; reasoning about algorithms using mathematical induction; divide and conquer algorithms; recurrence relations; set properties and their computation; and computing with relations. Graph properties and their computation, and tree properties and their computation, will be covered if time permits. (T)

1501 Fundamental Structures in Computer Science Lab. Cr. 1

Prereq: CSC 1100 and CSC 1101, both with grade of C or better; and MAT 1800; coreq: CSC 1500. Discussion and supervised hands-on exercises to complement CSC 1500. Material Fee As Indicated In The Schedule of Classes (T)

2000 Introduction to C++ Programming Language. Cr. 3

Prereq: placement out of MAT 1800 and CSC 1000. No credit for Computer Science majors. Elements of C++; carrays, pointers and references; operators; classes and objects. Material Fee As Indicated In The Schedule of Classes (T)

2110 (CL) Computer Science I. Cr. 3

Prereq: one of the following: successfully pass Computer Science Placement Exam, or CSC 1100 and CSC 1101, each with grade of C or better; MAT 2010; coreq: CSC 2111. Rigorous introduction to fundamental object-oriented concepts and techniques of computer programming using an object-oriented language. Introduction to data abstraction; design of abstract data types. Introduction to recursion; programming with generic data types; inheritance; polymorphism; and exception handlers. Concepts applied to console programs and event-driven programming using a simple graphics API. (T)

2111 Computer Science I Lab. Cr. 1

Prereq: one of the following: successfully pass Computer Science Placement Exam; or CSC 1100 and CSC 1101, both with grade of C or better; MAT 1800; coreq: CSC 2110. Mandatory two-hour supervised lab; hands-on exercises to complement CSC 2110. Object-oriented techniques in a general-purpose object-oriented programming language. Resulting software may be used in more advanced computer science courses. Material Fee As Indicated In The Schedule of Classes (T)

2200 Computer Science II. Cr. 3

Prereq: CSC 1500 and CSC 1501, CSC 2110 and CSC 2111, all with grade of C or better; coreq: CSC 2201. Design and implementation of fundamental abstract data types of computer science (such as stacks, queues, trees, lists, hashing, and graphs), using an object-oriented language. Programming requirements include the implementation of abstract data types using arrays and dynamic links; recursion; sorting and searching; hashing; and string processing. Introduction to algorithm analysis. (T)

2201 Computer Science II: Lab. Cr. 1

Prereq: CSC 1500 and CSC 1501, CSC 2110 and CSC 2111, all with grade of C or better; coreq: CSC 2200. Hands-on lab which complements lecture material in CSC 2200. Lab attendance is mandatory. Implementing data structures and algorithms using object-oriented techniques; techniques of analysis of algorithms; resulting implementations are working pieces of software that can be used in more advanced computer science courses. Material Fee As Indicated In The Schedule of Classes (T)

3100 Computer Architecture and Organization. Cr. 3

Prereq: CSC 2200 and 2201, both with grade of C or better; MAT 2010; coreq: CSC 3101. Organization and architecture of computer

systems. Topics include: digital logic and digital systems; machine-lever representation of data and programs; assembly level machine organization and programming; register-level description of computer execution and the functional organization of a computer; role and function of programming languages, libraries and operating systems; performance evaluation; systems programming. (F,W)

3101 Computer Architecture and Organization: Lab. Cr. 1

Prereq: CSC 2200 and CSC 2201, both with grade of C or better; MAT 2010; coreq: CSC 3100. Two-hour closed lab; students explore and experiment with assembly language programming, data representation, and simple circuit design. Lab attendance is mandatory. Material Fee As Indicated In The Schedule of Classes (F,W)

3110 Algorithm Design and Analysis. Cr. 3

Prereq: CSC 2200 and CSC 2201, both with grade of C or better; MAT 2020 and MAT 2210. Formal techniques to support design and analysis of algorithms: underlying mathematical theory and practical considerations of efficiency. Topics include asymptotic complexity bounds, techniques of analysis, algorithmic strategies, advanced data and file structures, and introduction to automata theory and its application to language translation. (F,W)

3200 Programming Languages. Cr. 3

Prereq: CSC 2200 and CSC 2201, and MAT 2010. History and overview of programming languages, virtual machines, representation of data types; sequence control; data control, sharing and type checking; run-time storage management; language translation systems; programming language semantics; programming paradigms. (Y)

3400 Human-Computer Communication. Cr. 3

Prereq: CSC 2200 and CSC 2201, and MAT 2010. Devices, user interfaces, menu systems, command languages, features of common interface toolkits, window programming, hypertext systems, fundamentals of computer graphics. Material Fee As Indicated In The Schedule of Classes (I)

3750 Introduction to Web Technology. Cr. 3

No credit after CSC 5750. Prereq: CSC 1000 or equiv. Understanding the Internet using several access methods; required software and tools. Topics include: e-mail, FTP, Telnet, Gopher, Archie, Newsgroups, WWW, HTML, CGI and PHP scripting and how to create an active web site. Laboratory exercises required. (F,W)

4110 Software Engineering. Cr. 3

Prereq: CSC 2200 and CSC 2201, both with grade of C or better; MAT 2010; coreq: CSC 4111. Software life cycle; software requirement analysis; software system design; software implementation and testing; software maintenance; team programming; ethics and programmers. Material Fee As Indicated In The Schedule of Classes (F,W)

4111 Software Engineering: Lab. Cr. 1

Prereq: CSC 2200 and CSC 2201, both with grade of C or better; MAT 2010; coreq: CSC 4110. Mandatory two-hour closed lab; lecture materials and hands-on exercises which complement CSC 4110. Material Fee As Indicated In The Schedule of Classes (F,W)

4420 Computer Operating Systems. Cr. 3

Prereq: CSC 2200 and CSC 2201, both with grade of C or better; CSC 3100 and CSC 3101; coreq: CSC 4421. Offered for undergraduate major credit only. Operating system services; file systems; CPU scheduling; memory management; virtual memory; disk scheduling; deadlocks; concurrent processes. (T)

4421 Computer Operating Systems: Lab. Cr. 1

Prereq: CSC 2200 and CSC 2201, both with grade of C or better; CSC 3100; coreq: CSC 4420. Mandatory two-hour closed lab; lecture materials and hands-on exercises which complement CSC 4110. System call interface; introduction to operating systems programming; use of simulation to better understand operating systems behavior. Material Fee As Indicated In The Schedule of Classes (F,W)

4500 Introduction to Theoretical Computer Science. Cr. 3

Prereq: CSC 2200 or CSC 5050; MAT 2010. Finite automata and regular expressions; context-free grammars; pushdown automata; Turing machines; hierarchy of formal languages and automata; computability and decidability. (F,W)

4710 Information Systems Design. Cr. 3

Prereq: CSC 2200, CSC 4110 and CSC 4111. Structure of information systems; system analysis; database life cycle; conceptual modeling and implementation; relational model; design and implementation of an information system utilizing a commercial database. (Y)

4990 Directed Study. Cr. 1-4 (Max. 8)

Prereq: written consent of instructor. Not for graduate credit. Individual study as agreed on by student and supervising faculty. Primarily for material not covered in regular courses. (T)

4992 Special Topics in Computer Science. Cr. 1-3 (Max. 12)

Prereq: CSC 2110 and CSC 2111 or consent of instructor. Maximum of six credits may be applied to satisfying the computer science elective, in any computer science degree program. Topics to be announced in the Schedule of Classes. Material Fee As Indicated In The Schedule of Classes (Y)

4995 Professional Practice in Computer Science. Cr. 1 (Max. 4)

Prereq: junior or senior standing. Offered for S and U grades only. Open only to computer science co-op students. Must be taken after each full-time co-op work assignment. May not be used to satisfy undergraduate computer science elective requirements. Review of computer science practical experiences resulting from participation in the cooperative work-study program. (T)

4996 (WI) Senior Project and Computer Ethics. Cr. 3

Prereq: CSC 4110 and CSC 4111, senior standing in computer science; coreq: CSC 4997. Development of skills for planning, managing, implementing, and documenting complex software projects; legal, social and ethical issues in software development and computer use. Project management techniques; professional conduct, social responsibility, liability, ownership of information, privacy, security and crime. (F,W)

4997 Senior Project Lab. Cr. 1

Prereq: CSC 4110 and CSC 4111, senior standing in computer science; coreq: CSC 4996. Development of project management skills while managing, implementing and documenting a real-world project from initial idea to final implementation. Theory, software engineering techniques, group activities, and computer tools such as Microsoft Project. Mandatory lab. Material Fee As Indicated In The Schedule of Classes (F,W)

4999 Honors Thesis. Cr. 3-6 (3 req.)

Prereq: senior standing, written consent of instructor. Offered for 6 credits with consent of thesis adviser and undergraduate committee. Independent study under supervision. (T)

5000 (SCP 7100) Scientific Systems Programming. (ECE 7225) Cr. 3

Not for CSC or ECE major credit. Prereq: working knowledge of Fortran or C or C++. Introduction to basic programming tools required for scientific computing, including advanced programming concepts, code optimizations, mathematical prototyping language, and basic system administration. (F)

5250 Network, Distributed, and Concurrent Programming. Cr. 3

Prereq: CSC 4420 and CSC 4421. Fundamental concepts and skills of developing networked, distributed, and concurrent applications. Topics include: inter-process communication, TCP/IP sockets programming, remote method invocation, multithreading, concurrency and synchronization. (Y)

5270 Computer Systems Security. Cr. 3

Prereq: CSC 4420, CSC 4421, and CSC 5250 or consent of instructor. Fundamental technologies for enabling an e-society which is more predictable, more accountable, and less vulnerable to attacks. Covers three components: security requirements and protocols, cryptography algorithms, and case studies. (F)

5430 Game Programming and Design I. Cr. 3

Prereq: CSC 2200 and CSC 2201; or CSC 5050; or consent of instructor. Fundamentals of game programming and game design using C++, DirectX, Windows, and C#. (F)

5431 Game Programming and Design I: Lab. Cr. 1

Prereq: MAT 2010, C++ programming experience, or consent of instructor; coreq: CSC 5430. Laboratory for CSC 5430. Focus on modding, or making changes to existing programs to achieve specific results. (F)

5710 Design of Intelligent Information Systems. Cr. 3

Prereq: CSC 4710 and CSC 5800. Object-oriented data modeling; intelligent office information systems; decision support systems; deductive databases; hypertext; specific applications in interfacing commercial databases and expert systems. (Y)

5750 Principles of Web Technology. Cr. 3

Prereq: MAT 2010, CSC 3750; or senior or graduate standing. History and development of the world-wide web. Techniques for authoring static and dynamic content for the world-wide web. Web security techniques. Electronic commerce on the web. Lab exercises required. (F,W)

5800 Intelligent Systems: Algorithms and Tools. Cr. 3

Prereq: CSC 2200 and CSC 2201 or CSC 5050; MAT 2010. Introduction to basic algorithms and software tools for intelligent data representation and analysis, including: data pre-processing, data exploration and visualization, model evaluation, predictive modeling, classification methods, association analysis, clustering, anomaly detection, representing extracted patterns as expertise, tools for data mining and intelligent systems such as WEKA, CLIPS, and MATLAB. (I)

5830 Computational Modeling of Complex Systems. Cr. 3

Prereq: CSC 2200 and CSC 2201; or CSC 5050. Introduction to computer methods useful for modeling complex systems which are refractory to traditional methods of analysis. Emphasis on problem formulation and concrete examples drawn from computer science, engineering, chemistry, and biology. (Y)

5860 Introduction to Pattern Recognition and Document Analysis. Cr. 3

Prereq: senior standing. Model of a pattern recognition system; representation techniques of classifiers; parametric and nonparametric classification methods; clustering; feature selection and extraction document processing, analysis, and classification. (Y)

5870 Computer Graphics I. Cr. 3

Prereq: CSC 2200 and CSC 2201, or CSC 5050; MAT 2250. Graphics devices, graphics primitives, 2-D transformations, windowing and clipping, modeling 3-D objects, 3-D viewing transformations, hidden surface removal, shading and color. (Y)

5880 Principles of Natural Computing. Cr. 3

Prereq: senior or graduate standing. Introduction to basic principles of information processing in biological systems; similarities and differences between biological systems and computing machines; implication of biological information processing principles and mechanisms for artificial intelligence. (I)

5991 Special Topics in Computer Science. Cr. 1-4 (Max. 9)

Prereq: senior or graduate standing. Topics to be announced in the Schedule of Classes. (I)

6110 Software Engineering. Cr. 3

Prereq: CSC 2200 and CSC 2201, or CSC 5050; MAT 2010. Software process models; advanced software system design; software project management; software analysis; testing and performance analysis; software maintenance; reverse engineering; software reuse; software metrics; object-oriented development. (Y)

6140 Knowledge-Based Software Engineering. Cr. 3

Prereq: CSC 4110 and CSC 4111; or CSC 6110. Domain modeling and object-oriented analysis; formal requirements specification languages; construction of programs from formal specifications and correctness proofs; rapid prototyping; transformational approaches to program development; acquisition of software engineering knowledge; program comprehension; knowledge-based approaches to software maintenance and reuse; computer-supported cooperative work. (I)

6170 Structure of Compilers I. Cr. 3

Prereq: CSC 4500 and CSC 3200. Lexical analysis; syntactic analysis; error detection; translation into intermediate code; storage allocation; optimization techniques. (I)

6220 Parallel Computing I: Programming. Cr. 4

Parallel computing concepts, examples of parallel computers, parallelism in algorithms / data / programs, experiences with state of the art parallel computers. (Y)

6280 (CSC 6280) Real-Time and Embedded Operating Systems. (ECE 5640) Cr. 3

Prereq: CSC 4420 and CSC 4421. Operating system design for real-time and embedded systems. Focus on scheduling, synchronization, communication, and process and memory management for time-critical and resource-constrained applications. (I)

6290 Data Communication and Computer Networks. Cr. 3

Prereq: CSC 5250. Data communication fundamentals and principles governing computer communication networks. Components of networks, how they are connected; basics of design and implementation of network protocols. (Y)

6430 Game Programming and Design II. Cr. 3

Prereq: CSC 5430 and CSC 5431, or consent of instructor; coreq: CSC 6431. Game design methods, team development, languages for game design, debugging and testing, game platforms, memory management and I/O, game physics, character animation, AI agents, AI path programming, networking, online and multiplayer gaming. (Y)

6431 Game Programming and Design II: Lab. Cr. 1

Prereq: CSC 5430 and CSC 5431 or consent of instructor; coreq: CSC 6430. Architecture and tools for modern game platforms. Game development environment; basic aspects of game engine design, graphics engine design, use of shaders. Material Fee as given in Schedule of Classes. (Y)

6500 Theory of Languages and Automata. Cr. 3

Prereq: CSC 4500. Recursive and recursively enumerable languages; decidability and computability; Rice's theorem; time complexity; space complexity. (F,W)

6550 Introduction to Formal Software Verification. Cr. 3

Prereq: CSC 4500 or 5050 or consent of instructor. Propositional logic, predicate logic, proof systems, proofs, soundness, completeness. Verification of sequential programs, Floyd's verification method, Hoare logic. Unity. Program specification. Deterministic programs, nondeterministic programs. Compositional vs. non-compositional verification techniques. (I)

6580 Design and Analysis of Algorithms. Cr. 3

Prereq: CSC 3110. Best case, worst case, and expected case complexity analysis; asymptotic approximations; solutions of recurrence equations; probabilistic techniques; divide-and-conquer; the greedy approach; dynamic programming; branch and bound; NP-completeness; parallel algorithms. (F,W)

6620 Matrix Computation I. (ECE 5020) Cr. 4

Prereq: CSC 2110 and CSC 2111 or equiv.; and MAT 2250 for computer science students, or B E 2550 or former B E 3040 for engineering students. Background matrix algebra; linear system sensitivity; basic transformations; Gaussian elimination; symmetric systems; positive definite systems; Householder method for least squares problems; unsymmetric eigenvalue problems; the QR algorithm. (Y)

6710 Database Management Systems I. Cr. 3

Prereq: CSC 4710. Data models, normal forms, relational systems and SQL, query optimization, object-oriented systems, object-relational systems, student Oracle project. (Y)

6800 Artificial Intelligence I. Cr. 3

Prereq: CSC 5800 or CSC 3200. Basic concepts; topics include: recursive problem solving, knowledge representation using semantic networks and frames, state space search methods, planning and problem solving, game playing and adversarial search methods, rules and production systems (RETE networks), constraint satisfaction techniques and applications, optimization algorithms including genetic algorithms, logic programming. Implementation in Lisp and Prolog. (Y)

6830 Computational Modeling Laboratory. Cr. 3

Prereq: CSC 5830 or consent of instructor. Practical experience in the implementation and documentation of computer models. (I)

6870 Computer Graphics II. Cr. 3

Prereq: CSC 5870. Representing curves and surfaces; solid modeling; fractal geometry; camera models; illumination models; ray tracing; radiosity methods; transparency; texture; graphics packages. Material Fee As Indicated In The Schedule of Classes (Y)

6991 Topics in Computer Science. Cr. 1-4 (Max. 9)

Prereq: senior or graduate standing. Current topics to be announced in the Schedule of Classes . (I)

6995 Internship in Computer Science. Cr. 1-3 (Max. 4)

Prereq: consent of adviser; 3.0 g.p.a. or above; completion of nine credits in computer science graduate course work. Open only to computer science majors. Offered for S and U grades only. Experience in industry using tools from the computer science curriculum. Students provide a written report based on the internship experience. (T)

Criminal Justice

Office: 3291 Faculty/Administration Building; 313-577-2705
Chairperson: Eric Lambert
Academic Services Officer: Marianka Holloway

Website: http://www.clas.wayne.edu/CRJ

Professors

Eric Lambert, Joseph Rankin, Steven Stack, Marvin Zalman

Associate Professors

Thomas Kelley, Brad Smith

Assistant Professors

Irshad Altheimer, Jennifer Wareham, Yuning Wu

Degree Programs

BACHELOR OF SCIENCE in Criminal Justice
MASTER OF SCIENCE in Criminal Justice

Criminal Justice is society's primary formal means of social control. Generally, it is the practice of public and private agencies and groups that deter crime and delinquency, and that prosecute, defend, adjudicate, punish, and correct suspects and convicted offenders. The core of the criminal justice system is comprised of law enforcement agencies, prosecutors, defense attorneys, courts, and correctional agencies. This system enforces federal and state laws and is part of a larger administration of justice complex, involving court administration, juvenile justice, and private security.

The study of criminal justice begins with analysis of the entire justice system as a force for social order. Advanced study inquires into the political, organizational, social and behavioral aspects of its components. Students develop analytical and research skills that enable them to identify and assess the often conflicting objectives of criminal justice and investigate basic issues and practical problems in criminology and criminal justice. Legal courses foster an awareness of the values of due process and the limits of governmental power in a democratic society.

The Department advances a multidisciplinary understanding of the sources of criminal behaviors, including perspectives from criminology, psychology, and sociology. The curriculum exposes students to knowledge of the major types of crime, including crimes of violence, property crimes, public order crimes, sexual crimes, organized crimes, delinquent offenses, and other types of crimes. Innovative and theoretically based programs in the criminal justice system to reduce the incidence of crime are also examined.

Career opportunities in criminal justice professions include roles as police officers, supervisors, and executives; criminal justice investigators, working for public defenders, prosecutors, fire departments, and insurance companies, correctional officers, probation officers, parole officers, and community corrections specialists, for whom a college degree is often mandatory. Other specialized roles in criminal justice include juvenile intake officers, juvenile probation officers, volunteer administrators, criminologists, forensic scientists, forensic psychologists, medical examiners, and policy analysts.

Bachelor of Science in Criminal Justice

The Bachelor of Science program is structured to provide students with a multidisciplinary understanding of crime and justice within the framework of broader social processes. Required courses expose a criminal justice major to all aspects of the justice system and foster a systemic view rather than a specialization in a single component of this field. Within this broad framework, courses deal with specific substantive topics. Practical field experience can be arranged under the guidance of the internship coordinator.

The curriculum is designed to offer students a comprehensive education by providing a fundamental understanding of crime causation and the criminal justice system, together with the skills and knowledge useful in pursuing professional careers. Analytical and writing skills are developed so as to prepare students for roles in today's criminal justice agencies. Police departments, correctional facilities, and court administrators' offices require an increasing number of personnel with quantitative analytical abilities, computer skills, personal interaction skills, excellent command of English, knowledge of foreign languages, and the ability to understand legal materials.

Core Criminal Justice Courses (minimum of twenty-eight credits) include classes on theories of criminal behavior, criminal procedure, criminal justice institutions, criminal justice research methods, and the criminal justice process. These core courses are designed to acquaint students with problems of crime and deviance in American society, the major public institutions which deal with these problems, the legal foundation of criminal justice, and analytic research methods used to better understand the social and behavioral realities of criminal justice. Criminal justice majors must complete all core courses in the major with a final grade of 'C-minus' or better and maintain a minimum 2.0 grade point average in the major.

Criminal Justice Electives: A minimum of twelve credits must be selected for concentrated elective course work in the criminal justice field. The approved criminal justice electives provide a structured set of rigorous upper-division courses which are relevant to: 1) a deeper understanding of the justice process and 2) knowledge and skills in specific career areas in the field.

Admission requirements for this program are satisfied by the general requirements for undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits in course work including satisfaction of the University General Education Requirements (see page 18) and the College of Liberal Arts and Sciences Group Requirements (see page 274), as well as the major requirements listed below. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274. It is recommended that students complete much of the General Education Requirements *before* they initiate Criminal Justice major course work.

Residency Requirements: A minimum of sixteen of the twenty-eight credits in Criminal Justice Core courses and four of the twelve credits in Criminal Justice Elective courses must be earned at Wayne State University.

Major Requirements: It is the student's responsibility to meet with the Criminal Justice Academic Services Officer to officially file a Declaration of Major form with the Department and to identify all major requirements.

I. REQUIRED CORE COURSES
- CRJ 1010 -- Intro. to Criminal Justice: Cr. 4
- CRJ 4000 -- Criminological Theories: Cr. 4
- CRJ 4300 -- Corrections: Cr. 4
- CRJ 4600 -- Police and Society: Cr. 4
- CRJ 4860 -- Research Methods in Criminal Justice: Cr. 4
- CRJ 5710 -- Constitutional Criminal Procedure: Cr. 4

One of the following process courses:
- CRJ 4400 -- The Judicial Process: Cr. 4
- CRJ 4410 -- Juvenile Justice: Cr. 4

II. APPROVED ELECTIVES (Minimum twelve credits required)
- CRJ 3120 -- Politics of the Criminal Justice Process (P S 3120): Cr. 4
- CRJ 3260 -- Investigation: Cr. 3
- CRJ 3710 -- Legal Writing for Criminal Justice: Cr. 4
- CRJ 3750 -- Diversity in Criminal Justice (W S 3750): Cr. 4
- CRJ 4400 -- The Judicial Process: Cr. 4
- CRJ 4410 -- Juvenile Justice: Cr. 4
- CRJ 4750 -- Domestic Violence and Criminal Justice: Cr. 4
- CRJ 4800 -- (SOC 4800) Outsiders and Deviants: Cr. 4
- CRJ 4970 -- Internship in Criminal Justice: Cr. 3
- CRJ 4990 -- Directed Study: Cr. 1-3
- CRJ 4998 -- Honors Thesis: Cr. 3
- CRJ 5150 -- Criminalistics: Cr.4
- CRJ 5430 -- Correctional Counseling Methods: Cr. 3
- CRJ 5500 -- Child Abuse and Neglect: Cr. 3
- CRJ 5720 -- Criminal Law: Cr. 4
- CRJ 5790 -- Topics in Justice and Law: Cr. 4
- CRJ 5810 -- (SOC 5810) Law in Human Society: Cr. 3
- CRJ 5910 -- Seminar in Crime, Victimization, and Society: Cr. 4
- CRJ 5994 -- (PCS 5000) Dispute Resolution (PSY 5710) (P S 5890): Cr. 3
- CRJ 5995 -- Special Topics: Cr. 3

Writing Intensive (WI) Course in Criminal Justice (CRJ 5993): Students majoring in criminal justice must register for CRJ 5993 and coregister in the same term for one of the following courses (with the instructor's consent): CRJ 3120, 3260, 3710, 3750, 4000, 4300, 4400, 4410, 4600, 4750, 4860, 4970, 4990, 4998, 5150, 5430, 5500, 5720, 5790, or 5995.

Minor and Other Study

Minor in Criminal Justice: The Department offers a minor in Criminal Justice for which the notation of a minor appears on the student's transcript. The required Criminal Justice courses are:
- CRJ 1010 -- Introduction to Criminal Justice: Cr. 4
- CRJ 4300 -- Corrections: Cr. 4
- CRJ 4400 -- The Judicial Process: Cr. 4
- CRJ 4600 -- Police and Society: Cr. 4
- CRJ 5710 -- Constitutional Criminal Procedure: Cr. 4
- Criminal Justice Elective: Cr. 3-4

TOTAL CREDITS: 23-24

Students wishing to minor in criminal justice are encouraged to visit the Departmental Offices for information and advising. A minor must be declared prior to filing for graduation.

Pre-Law Advising and Curriculum: Students considering legal careers and wishing to major or minor in criminal justice should notify the Department's adviser at the beginning of their junior year and arrange a conference with a pre-law adviser. For non-majors wishing to take a pre-law sequence of courses in criminal justice, the following are recommended:
- CRJ 1010 -- Intro. to Criminal Justice: Cr. 4
- CRJ 3260 -- Investigation: Cr. 3
- CRJ 3710 -- Legal Writing for Criminal Justice: Cr. 4
- CRJ 4400 -- The Judicial Process: Cr. 4
- CRJ 5710 -- Constitutional Criminal Procedure: Cr. 4
- CRJ 5720 -- Criminal Law: Cr. 4
- CRJ 5790 -- Topics in Justice and Law: Cr. 4

Graduate Study: Graduating seniors who are planning graduate study in criminal justice may qualify to complete approved course work toward the Master of Science in Criminal Justice degree under the AGRADE or the Senior Rule provision.

Senior Rule Study: Minimum requirements for Senior Rule study include: a 3.0 grade point average for the junior and senior years of study, and at least one (but not more than ten) credits remaining to be completed for the undergraduate degree. Additional limitations and requirements apply for this status and for continuing graduate study in criminal justice. Interested seniors should consult with the undergraduate criminal justice adviser for further information.

Transfer Credit: Students should consult with the Criminal Justice adviser to determine the applicability of transfer credits toward the major.

'AGRADE' Program: The College of Liberal Arts and Sciences Accelerated Graduate Enrollment (AGRADE) Program allows qualified seniors to apply a maximum of fifteen credits toward both the Bachelor of Science and Master of Science in Criminal Justice degrees. Qualifications for AGRADE include Senior status and a minimum major g.p.a. of 3.6. For additional eligibility information, interested students should contact the Criminal Justice Academic Services Officer (313-577-0772).

Honors in Criminal Justice

The Honors Program in Criminal Justice is open to students of superior academic ability who are majoring in criminal justice. To be recommended for an honors degree from this department, a student must maintain a cumulative grade point average of at least 3.3. He/she must accumulate at least twelve credits in honors-designated course work from various departments in the College of Liberal Arts and Sciences, including honors requirements within Criminal Justice and at least one 4000-level Honors College seminar. (For information about honors-designated coursework available each semester, including the required 4000-level Honors Program seminar, visit the Honors College website link at: http://www.honors.wayne.edu/classes.php.). The Honors student must complete an original Honors Thesis during the senior year. For information about the requirements of the department's honors curriculum, contact the Criminal Justice Honors Director (313-577-2705).

CRIMINAL JUSTICE COURSES (CRJ)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

1010 Introduction to Criminal Justice. Cr. 4

No credit after former CRJ 2000. Scientific method and multidisciplinary approach to administration, procedures, and policies of agencies of government charged with enforcing the law, adjudicating crime, and correcting criminal and deviant conduct. Response of justice system to social norms and trends; reciprocal relationship to social behaviors and values. (T)

3120 (CRJ 3120) Politics of the Criminal Justice Process. (P S 3120) Cr. 4

Prereq: sophomore standing. Political aspects of criminal justice; politics of crime legislation, police function, prosecution, adjudication, and corrections; Federal role in criminal justice. (T)

3260 Investigation. Cr. 3

Prereq: CRJ 1010 or 2000. Overview of the history of criminal investigation, the functions of police investigators, crime scene search and evidence processing, an introduction to criminalistics, locating and interviewing witnesses, examining the elements of proof required in specific criminal offenses and interrogation techniques (pre- and post-Miranda). (T)

3510 Introduction to Security: Persons and Property. Cr. 4

No credit after former CRJ 2310. Historical, philosophical and legal framework for security operations; detailed presentations of specific security processes and programs currently and historically utilized in providing security; operational view of specialized areas of security in loss prevention management. (I)

3710 Legal Writing for Criminal Justice. Cr. 4

Basic elements of legal research; the law library and finding the law; case analysis; statutory analysis; constitutional analysis; writing legal memorandums; writing legal briefs; persuasive writing. (F,W)

3750 (CRJ 3750) Diversity in Criminal Justice. (W S 3750) Cr. 4

Critical examination of gender, race, class, and ethnicity issues in criminal justice; impact on defendants, inmates, victims, and criminal justice personnel; relation to policy issues. (F,W)

4000 Criminological Theories. Cr. 4

Delineation, review, and critical analysis of major explanations of criminality including biological, psychological, deterrence, rational choice, learning and integrated theories. (F,W)

4300 (CRJ 4300) Corrections. (SOC 3840) Cr. 4

Prereq: CRJ 1010 or 2000. No credit after former CRJ 2300 or CRJ 2700. Description and analysis of legal, social and political issues affecting contemporary correctional theory and practice. Topics include: history of corrections; function and social structure of correctional institutions; institutional alternatives including diversion, probation and parole. Field trips to institutions and community correctional settings may be offered. (T)

4400 The Judicial Process. Cr. 4

Prereq: CRJ 1010 or 2000. No credit after former CRJ 2400. Structure, powers, doctrines and judicial processes including origin, nature and functions of judicial review in the criminal justice system. (T)

4410 Juvenile Justice. Cr. 4

Prereq: CRJ 1010 or 2000. No credit after former CRJ 2410 or CRJ 2991. Overview of the theoretical background, structure, and processes of contemporary juvenile justice, as well as the correlates and characteristics of delinquency. (T)

4600 Police and Society. Cr. 4

Prereq: CRJ 1010 or 2000. No credit after former CRJ 2600. Overview of policing. Topics include: social and historical origins of policing, police culture, organizational structure of policing, future of policing. (T)

4750 Domestic Violence and Criminal Justice. Cr. 4

Emotional, physical, and sexual abuse in domestic relationships. Topics include: theories of violence, law, and the response of the justice system. (F)

4800 (SOC 4800) Outsiders and Deviants. Cr. 4

Definition and characteristics of behaviors which have, at times, been considered deviant, such as: criminality, mental illness, alcoholism, drug addiction, abortion, prostitution, and pornography. Interdisciplinary theories introduced to facilitate understanding of those behaviors, their diagnosis, management, control, and prevention. (T)

4860 Research Methods in Criminal Justice. Cr. 4

Offered for undergraduate credit only. Criminal justice data sources; designs for research; analysis and application of descriptive and inferential statistics in criminal justice planning and evaluation. (T)

4970 Internship in Criminal Justice. Cr. 3

Open only to Criminal Justice majors. Prereq: CRJ 1010 or 2000; and junior or senior standing; minimum 2.5 g.p.a.; consent of instructor. A program of participation and study designed to give students the opportunity to interact with criminal justice professionals in the workplace. Placements are made in courts, corrections, law enforcement, and other agencies. (T)

4990 Directed Study. Cr. 1-3 (Max. 3)

Prereq: criminal justice major; written consent of instructor. Open only to Criminal Justice majors. Independent reading or research in a particular facet of criminal justice, culminating in an extended paper or research report prepared under direct supervision of faculty. (T)

4998 Honors Thesis in Criminal Justice. Cr. 3-6

Prereq: CRJ 4990, written consent of instructor and honors program director. Open only to criminal justice majors. Research problem to be completed under the direction of a faculty member. (T)

5060 Comparative Criminal Justice Systems. Cr. 3

No credit after former CRJ 6500. Selected criminal justice systems in other nations. (I)

5150 Criminalistics. Cr. 4

Application of the physical and biological sciences to criminal investigation; ballistics, fingerprints, DNA, trace evidence, drugs, arson and explosives, questioned documents, introduction to forensic anthropology, courtroom testimony, ethics. (T)

5430 Correctional Counseling Methods. Cr. 3

Prereq: CRJ 4410 or former 2410. No credit after former CRJ 6991. Application of causal theories to counseling strategies. Models for offender classification and treatment. Counselor attitudes and styles. Special issues in the treatment of delinquents. Individual and group models for counseling. Evaluation models to assess counseling effectiveness. (W)

5500 Child Abuse and Neglect. Cr. 3

Prereq: CRJ 4410 or former 2410. Dynamics and psychopathology of child abuse: its incidence and impact on the family, society, and the numerous social and legal agencies involved in the detection, processing, and treatment of both child abusers and the abused. (F)

5710 Constitutional Criminal Procedure. Cr. 4

Prereq: minimum of twelve credits in criminal justice; CRJ 1010 or 2000. Not for graduate credit without consent of graduate program adviser. Topics include: constitutional safeguards, role of the Supreme Court, due process, search and seizure of persons and property, self-incrimination and confessions, right to counsel, and pre-trial and trial processes. (T)

5720 Criminal Law. Cr. 4

Not for graduate credit without consent of graduate program adviser. Examination of common law and statutory rules, doctrines, and principles of substantive criminal law; development of criminal law, general elements of crime, general defenses, principles of accountability, and particular elements of specific crimes. (T)

5790 Topics in Justice and Law. Cr. 3-4

Prereq: junior status; 3.0 g.p.a. or above, or honors student. Legal analysis of selected topics in justice and law; rotating topics including political trials and wrongful convictions. (I)

5810 (SOC 5810) Law in Human Society. Cr. 3

Law and the legal structure in its social context. Development, enforcement, and interpretation of law; emphasis on the American governmental system. Reciprocal effects of law and the society in which it develops; comparative analysis. For pre-law, criminal justice, and political science students, as well as for sociology majors. (Y)

5910 Seminar on Crime, Victimization, and Society. Cr. 4

Prereq: CRJ 1010 or former CRJ 2000, and CRJ 4860; or consent of instructor. Review of advanced research on crime, victimization, and society. (I)

5993 (WI) Writing Intensive Course in Criminal Justice. Cr. 0

Prereq: consent of instructor for corequisite course and notification to major adviser; coreq: CRJ 3120, 3260, 3710, 3750, 4000, 4300, 4400, 4410, 4600, 4750, 4860, 4970, 4990, 4998, 5150, 5430, 5500, 5720, 5790, 5995, or 6750. Offered for S and U grades only. No degree credit. Required for CRJ majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a course designated as a corequisite; see Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. (T)

5994 (PCS 5000) Dispute Resolution. (P S 5890) (PSY 5710) Cr. 3

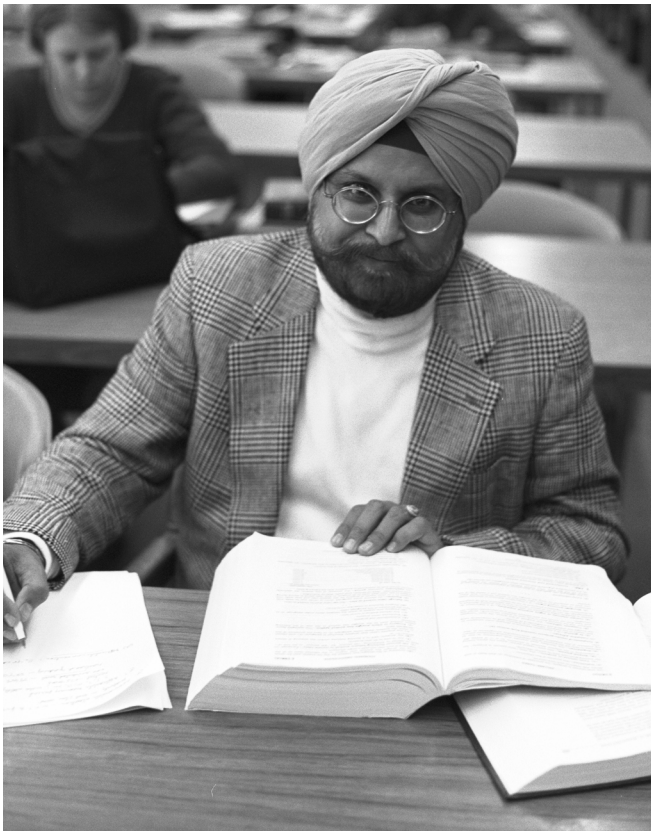
Overview of the processes and actors in the field of dispute resolution including negotiation, mediation, arbitration, and conciliation. (T)

5995 Special Topics in Criminal Justice. Cr. 3 (Max. 9)

Prereq: CRJ 1010 or 2000. No credit for repeated section. (I)

6750 Administrative Law in Criminal Justice. Cr. 3

Prereq: junior, senior or graduate level standing. Functions, powers, procedures, and constitutional limitations germane to administrative agencies and officers, with particular emphasis on those operating in the criminal justice field. (I)



Economics

Office: 2074 Faculty/Administration Building; 313-577-3345
Chairperson: Li Way Lee
Administrative Assistant: Delores G. Tennille

Website: http://www.clas.wayne.edu/Economics/

Professors

Nancy S. Barrett, Ralph M. Braid, Clifford Clark (Visiting), Allen C. Goodman, Li Way Lee, Robert J. Rossana, Stephen J. Spurr, Gail Jensen Summers

Associate Professors

Kevin D. Cotter, Michael H. Belzer, Ana Maria Herrera

Assistant Professors

Liang Hu, Yong-Gook Jung, Xu Lin, Tatsuma Wada, Jennifer Ward-Batts, Young-Ro Yoon

Degree Programs

BACHELOR OF ARTS with a major in economics
MASTER OF ARTS with a major in economics
DOCTOR OF PHILOSOPHY with a major in economics

Economics is the study of how individuals and societies allocate limited resources to try to satisfy unlimited wants; it is therefore a study of choices. Households and business firms must decide what and how much to consume or produce and how much labor, land and capital to supply. Governments make decisions affecting inflation and unemployment, taxation and expenditures, the monetary system and international trade. Together these public and private choices determine the nation's prosperity and shape the distribution of its wealth. Since every social relationship has economic aspects, an understanding of economic principles and systems is an integral part of a liberal education.

Economics majors have a wide choice of careers. Many supplement their major with cognate courses to prepare for careers in business, journalism, health care administration or public service. Others find it excellent preparation for law school. Ph.D. graduates in economics are in demand at universities, corporations, financial institutions and government agencies. M.A. graduates may teach at junior colleges but more typically go into business or public service.

Bachelor of Arts with a Major in Economics

Admission requirements for the College are satisfied by the general requirements for undergraduate admission to the University; see page 24, as well as the instructions for declaring a major (page 275). The Economics Department assumes that students taking economics courses have had at least two years of high school-level algebra and one year of geometry.

DEGREE REQUIREMENTS: Candidates for the Bachelor's degree must complete 120 credits in course work including satisfaction of the College of Liberal Arts and Sciences Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the major requirements listed below. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

Major Requirements: Students considering an economics major should take ECO 2010 and 2020 (Principles of Microeconomics and Macroeconomics) as soon as possible. They should also pass MAT 1500 or 1800 prior to the junior year or demonstrate eligibility for MAT 2010 in the Mathematics Placement Examination.

A major consists of at least thirty-two credits in economics courses including ECO 2010 and 2020, plus twenty-four credits in economics at the 5000 level or above. These must include ECO 5000 and 5050 (Intermediate Microeconomics and Macroeconomics) and ECO 5100 (Introductory Statistics and Econometrics). The Department recommends that majors complete all of these courses by the end of their junior year. At least sixteen credits in economics must be earned at Wayne State University.

Majors must elect at least three courses in two or more of economics fields C to H (see below). Each student should choose the economics electives best suited to his/her intellectual and professional aims.

To satisfy the General Education Major Competency Requirement, Economics majors must have a cumulative grade point average of 2.0 in their economics courses.

Minimal Grade Requirements: The following courses must be passed with a grade of 'C' or better in order to be applicable as economics major credit: MAT 1500, 1800; ECO 2010, 2020, 5000, 5050, and 5100. A grade of 'C-minus' or better must be achieved for the three field course electives.

Writing Proficiency/Writing Intensive Requirement: To enable the Department to evaluate their writing proficiency, economics majors must register for ECO 5993, the zero-credit WI course. All economics majors must satisfy this requirement, even if they are not subject to the University General Education Requirements.

Combined Curriculum for Teaching Certificate: Economics majors wishing to enter secondary teaching should see page 280 for a description of the requirements and procedures for combining a degree in Liberal Arts with a teaching certificate. Students must complete the Economics major requirements as part of their program of study.

Honors in Economics

Economics majors with strong academic records and an interest in research are urged to apply to the Departmental undergraduate adviser for admission to the Honors Program. Applicants should have overall grade point averages of 3.3 or above.

In addition to the Bachelor of Arts requirements cited above, honors majors must take Economics 4997 (Senior Honors Research) during each of their last two semesters before graduation and therefore completing forty credits in economics courses. In this seminar they will conduct research under the close supervision of an Economics faculty member. The results of this research are written as an honors thesis, the length of which depends on the nature of the research project.

Honors majors also must elect at least one 4000-level seminar offered by the Honors College. (For information about honors-designated coursework available each semester, including the required 4000-level Honors Program seminar, visit the Honors College website link at: http://www.honors.wayne.edu/classes.php.) Finally, the student must accumulate at least fifteen credits in honors-designated course work, including Economics 4997 and the Honors College Seminar. These honors credits need not all be in the Economics Department. Those who successfully complete these requirements and finish their undergraduate course work with an overall grade point average of 3.3 or above will graduate with the degree designation 'With Honors in Economics'.

Minor in Economics

A minor in economics requires completion of MAT 1500 and 1800 plus twenty credits of economics courses including ECO 2010 and ECO 2020. The additional twelve credits must be earned in ECO courses at the 5000-level or above. MAT 1500, 1800; ECO 2010, 2020 and (if included in the minor) ECO 5000, 5050, and 5100 must be passed with a grade of "C" or better. The twenty credits must have a cumulative grade point average of 2.0 or better.

'AGRADE' Program

Accelerated Graduate Enrollment: The Economics Department actively participates in the 'AGRADE' Program, which enables qualified seniors in the College of Liberal Arts and Sciences to enroll simultaneously in the undergraduate and graduate programs of the College, and to apply a maximum of fifteen credits toward both an undergraduate and graduate degree in economics. Students interested in 'AGRADE' should contact the Director of Undergraduate Studies: 313-577-3345.

ECONOMICS COURSES (ECO)

The following courses, numbered 0900-5999, are offered for undergraduate credit. Courses numbered 6000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. The Director of Graduate Studies may approve courses numbered 5000-5999 for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

Introductory Economics

1000 (SS) Survey of Economics. Cr. 4

Not for major credit. Scope of economics and the task of the economist in modern society; the market economy - its evolution and development; non-market economies; economic problems and prospects in the contemporary world. (T)

2010 (SS) Principles of Microeconomics. Cr. 3-4

(Note: ECO 2010 is not a prerequisite for ECO 2020.) Supply, demand, price at the level of the firm and industry; business institutions and their operation; determinants of wage and salary levels, interest rates, rent, profits, income distribution; public policy in relation to business and labor. (T)

2020 (SS) Principles of Macroeconomics. Cr. 3-4

(Note: ECO 2010 is not a prerequisite for ECO 2020.) Determination of national income, consumption and saving, and investment; money, banking and the Federal Reserve; inflation and unemployment; monetary and fiscal policy; economic growth and productivity; the international sector. (T)

Field A: Economic Theory

5000 Intermediate Microeconomics. Cr. 4

Prereq: ECO 2010, MAT 1500 or MAT 1800, or equiv. based on satisfactory score on mathematics placement exam. Theory of the firm and consumer. Analysis of a price system as a means to efficient allocation of productive resources. (T)

5020 (ECO 5020) Fundamentals of Economic Analysis. (ECO 7020) Cr. 4

Prereq: ECO 5000 and MAT 2010 or equiv. ECO 5020 offered for undergraduate credit only; ECO 7020 offered for graduate credit only. This course assumes good knowledge of first semester calculus, and teaches additional mathematics necessary for Ph.D. study in economics, and (to a lesser extent) teaches some economic implications; course content includes: matrices, vectors and linear algebra; partial and total derivatives; scalar and vector functions; Jacobian derivative matrices and determinants; implicit function theorem; derivatives of implicit functions with one or more endogenous variables; unconstrained maximization with two or more variables; Lagrangians and constrained maximization; envelope theorem; differential and difference equations, and systems of differential and difference equations. (F)

5050 Intermediate Macroeconomics. Cr. 4

Prereq: ECO 2020, MAT 1500 or MAT 1800 or equiv. based on satisfactory score on mathematics placement exam. Theory of national income determination. National output and income, saving and capital formation. (T)

Field B: Quantitative Methods

5100 Introductory Statistics and Econometrics. Cr. 4

Prereq: ECO 2010, 2020; MAT 1500 or MAT 1800 or equiv. based on satisfactory score on mathematics placement exam. Offered for undergraduate credit only. Elementary probability theory, discrete and continuous probability distribution, sampling distribution, interval estimation, hypothesis testing, and estimation and inference in simple and multiple regression models. (T)

5730 (ECO 5730) Economic Growth. (ECO 6730) Cr. 4

Prereq: ECO 5050. Offered for undergraduate credit only. Analytical methods used in classical and modern theories of economic growth. Topics include technological change, determinants of growth, convergence and income distribution. Introduction to the empirical analysis of economic growth and to important facts relative to policies and performances of countries. (Y)

Field C: Industrial Organization

5200 (ECO 5200) Regulation and Regulated Industries. (ECO 6200) Cr. 4

Prereq: ECO 2010. Open only to undergraduate students. Public regulation of prices, profits, service, and entry in industries such as electrical power, natural gas, telephones, broadcasting, and transportation; the rationale for having public regulation, and the analysis of its economic effects; reform of the scope and practice of regulation; public ownership; regulation of occupational and product safety standards and environmental standards. (Y)

5210 (ECO 5210) Market Power and Economic Welfare. (ECO 6210) Cr. 4

Prereq: ECO 2010 and 5000. Open only to undergraduate students. Monopoly, oligopoly, and competition in U.S. industry; sources of market power and their effect on prices, profits, and technological progress, as illustrated by such industries as steel, automobiles, petroleum, retailing, or prescription drugs. Selected topics in antitrust policy. (Y)

5250 (ECO 5250) Economic Analysis of Law. (ECO 6250) Cr. 4

Prereq: ECO 2010. Open only to undergraduates. Economic analysis of property rights, torts, contracts, criminal law, the law of business organizations and financial markets, and the law of taxation. Economic analysis of litigation; the use of economics and statistics in litigation. (Y)

5270 Games of Strategy. Cr. 4

Open only to undergraduates. Prereq: ECO 5000; MAT 1500 or MAT 1800 or equiv. based on satisfactory score on mathematics placement exam. Game theory studies how individuals, groups and firms make their decisions strategically when their actions affect each other. Introductory course with emphasis on applications to firms and markets. Standard concepts such as games with sequential moves, simultaneous moves, pure and mixed strategies, uncertainty,

and repetition. Special topics include bargaining, strategic innovation, cooperative pricing, contract designs, incentive mechanisms, bidding, and auctions. (Students do not need to know calculus to follow the lectures.) (Y)

Field D: International Economics

5300 (ECO 5300) International Trade. (ECO 6300) Cr. 4

Prereq: ECO 2010. Open only to undergraduates. Factors in international relations; patterns of international specialization; balance of international payments; foreign exchange; commercial policy of United States and other countries; foreign investment and economic development; international economic cooperation. (F)

5310 (ECO 5310) International Finance. (ECO 6310) Cr. 4

Prereq: ECO 2020 and 5050. Open only to undergraduates. Major policy issues in the field of international finance with emphasis on open economy macroeconomics. Topics include the balance of payments and the foreign exchange market; monetary and fiscal policies in open economies; the floating exchange rate system; international financial markets; and European monetary integration. (W)

Field E: Labor and Human Resources

5400 (ECO 5400) Labor Economics. (ECO 6400) Cr. 4

Prereq: ECO 2010. Open only to undergraduates. Economics of labor markets. Determinants of earnings and methods of compensation, labor supply and demand, effects of taxes and subsidies on labor supply, choices of occupation and level of schooling, promotion and turnover, employment discrimination, economics of crime and punishment, regulation of professions, unions. (F,W)

5410 (ECO 5410) Economics of Race and Gender. (ECO 6415) Cr. 4

Prereq: ECO 2010. Open only to undergraduates. Theory and empirical evidence of race and gender differentials in the labor market. Topics include the difference in occupations and earnings, discrimination, poverty, and public policies. (W)

5460 (ECO 5460) Economic Demography. (ECO 6460) Cr. 4

Prereq: ECO 5000 and ECO 5100 or consent of instructor. Economic analysis of fertility, fertility control, mortality and aging, marriage, divorce, family structure, household-decision-making, human capital investments, and migration. Welfare and policy implications. (Y)

5470 (ECO 5470) Economics of an Aging Society. (ECO 6470) Cr. 4

Prereq: ECO 5000 or consent of instructor. Economic implications of aging and retirement; public policy issues related to aging, including health care, long term care, public pensions (Social Security), private pensions, savings behavior, income maintenance, Medicare, other welfare problems. (Y)

5480 (ECO 5480) Economics of Work. (ECO 6480) Cr. 3

Prereq: ECO 2010. No economics major degree credit. Primarily for students majoring in Labor Studies. Theoretical and empirical treatment of: labor market characteristics; labor demand and supply; issues of race, gender, and age; compensation and pay; issues of health and productivity; bargaining processes and the effects of unions; unemployment and job search; globalization. (Y)

5490 (ECO 5490) American Labor History. (HIS 5290) (HIS 7290) Cr. 4

Prereq: ECO 2010 or consent of instructor. Development of the American labor movement; its behavior in the contemporary scene. Labor's experiments with social, political, legal, and economic institutions. Comparisons with foreign labor movements. (B)

Field F: Public Economics

5500 (ECO 5500) Public Finance. (ECO 6510) Cr. 4

Prereq: ECO 2010. Open only to undergraduates. Role of government in a market economy: sources of market failure--public goods and externalities; principles of taxation and expenditures; tax incidence; federal tax structure; selected government expenditure programs. (F,S)

5520 (ECO 5520) State and Local Public Finance. (ECO 6520) (U P 6750) Cr. 4

Prereq: ECO 2010 or consent of instructor. Open only to undergraduates. Theory and practice of state and local government taxation and expenditure. Attention devoted to State of Michigan and municipalities in Detroit metropolitan area. Topics include: government organization, voting and mobility models, property and sales taxes, user charges, grants, education expenditure, and economic development. (Y)

5550 (ECO 5550) Economics of Health Care. (ECO 6550) Cr. 4

Prereq: ECO 2010. Open only to undergraduates. Allocation of health care resources, with respect to demand and supply of health care. Role of hospitals, physicians, and health insurance; market imperfections and their role in the economics of health care. (Y)

5600 (ECO 5600) Introduction to Development Economics. (ECO 6600) Cr. 4

Prereq: ECO 2010 or consent of instructor. National poverty and economic growth viewed from a historical and theoretical perspective; particular emphasis on national and international policies. (Y)

Field G: Monetary and Financial Economics

5700 (ECO 5700) Money and Banking. (ECO 6700) Cr. 4

Prereq: ECO 2020 and ECO 5050. Role of the Federal Reserve System, the commercial banks, and the non-bank public (including financial intermediaries) in determining the money supply; central banking and techniques of monetary control; indicators and targets of monetary policy; and how money affects economic activity. (F,W)

5720 (ECO 5720) Financial Economics. (ECO 6720) Cr. 4

Prereq: ECO 2010, ECO 2020, ECO 5050, andMAT 1500 or equiv. Open only to undergraduates. Fundamentals of investments: investment and financial markets, theoretical models of investment theory including efficient market hypothesis (EMH) and capital asset pricing model (CAPM); characteristics and analysis of stocks, bonds, and portfolios; equity evaluation through financial statements, industry analysis, and macroeconomic analysis; and advanced topics in either derivative assets (futures and options) or international investments. (W)

5730 Economic Growth. (ECO 6730) Cr. 4

Prereq: ECO 2020 and ECO 5050. Offered for undergraduate credit only. Analytical methods used in classical and modern theories of economic growth. Topics include technological change, determinants of growth, convergence and income distribution. Introduction to the empirical analysis of economic growth and to important facts relative to policies and performances of countries. (Y)

Field H: Urban and Regional Economics

5800 (ECO 5800) Urban and Regional Economics. (ECO 6800) (U P 5820) Cr. 4

Prereq: ECO 2010. Open only to undergraduates. Introduction to the economic foundations of urban problems; land use, housing, poverty, transportation, local public finance; regional industry mix, income, growth and development; the national system of cities and location of firms. (Y)

6455 (U P 6455) Discrimination and Fair Housing. (AFS 6455) (P S 6455) (SOC 6455) (U S 6455) Cr. 3

Prereq: senior or graduate standing. Multidisciplinary investigation into the nature, motivations, consequences, and legal/public policy implications of racial/ethnic discrimination in housing and related markets in U.S. metropolitan areas. (B)

6810 (ECO 6810) Political Economy of the Urban Ghetto. (SOC 6850) (U P 6670) Cr. 3

Prereq: graduate standing; upper division undergraduates by consent of instructor. Examination of the economic, social and political transformation of U.S. cities; particular attention to the formation, dynamics, economics and social sub-systems of urban ghettos and their relationship to broader contexts. (B)

Directed Readings and Special Courses

3990 Directed Study. Cr. 1 (Max. 2)

Prereq: senior standing with 12 or more credits in economics with grade A or B. For the student who shows evidence of ability and interest in economic study and who desires opportunity for advanced reading in a special field. Arrange with adviser. (T)

4991 Research in Economics. Cr. 3-12

Prereq: consent of Director of Undergraduate Studies prior to registration;senior standing with sixteen or more credits in economics with grades of A or B. Does not count toward thirty-two credit requirement for the major. Economics research on an appropriate topic of the student's choice; conducted under faculty supervision. (Y)

4997 Senior Honors Research. Cr. 4 (8 req.)

Prereq: consent of Director of Undergraduate Studies prior to registration; senior standing, major in economics. For students in economics honors program for which this seminar must be elected in two successive semesters. Individually arranged meetings with a faculty member to discuss research methodology and readings in areas of research selected by the instructor. A senior honors essay of length proportionate to the selected topic will be required. (T)

5993 (WI) Writing Intensive Course in Economics. Cr. 0

Prereq: junior standing; satisfactory completion of the IC requirement; consent of instructor; coreq: any ECO course at 5000-level or above. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Satisfies the University General Education Writing Intensive Course in the Major requirement. (T)

English

Office: Room 9408, 5057 Woodward; 313-577-2450
Chairperson: Ellen Barton
Associate Chairperson: Robert Aguirre
Academic Services Officer: Margaret M. Maday
Undergraduate Adviser: Royanne R. Smith

Website: http://www.clas.wayne.edu/english

Professors

Ellen Barton, Lesley Brill, Walter F. Edwards, William A. Harris, Jerry Herron, Julie Klein, Christopher Leland, Richard C. Marback,, Geoffrey Nathan, Ljiljana Progovac, Richard Raspa, Martha Ratliff, Ruth E. Ray, John R. Reed, Michael H. Scrivener, Steven Shaviro, Anca Vlasopolos, Renata M. Wasserman, Barrett Watten

Associate Professors

Robert Aguirre, Jonathan Flatley, Gwendolen Gorzelsky, renee hoogland, Kenneth Jackson, Bernard Levine, Lisa Maruca, Frances Ranney, Kirsten Thompson

Assistant Professors

Sarika Chandra, Simone Chess,Lara Cohen, Robert Diaz, Jaime Goodrich, John Pat Leary, Caroline Maun, Bruce S. Morgan, Jeffrey Pruchnic, Scott Richmond, Lisa Ze Winters

Senior Lecturers

Todd Duncan, Margaret Jordan, Michael L. Liebler, Chris Tysh

Lecturer and Director, Writing Center

Jule Wallis

Lecturers, English Language Institute

Marta O. Dmytrenko-Ahrabian, Christopher Bierman, Dean-Michael Lynn, Sara Tipton

Director, English Language Institute

Bruce S. Morgan

Emeritus / Emerita Professors

Samuel Astrachan, Alvin B. Aubert, Esther M. Broner, Arnold L. Goldsmith, Henry L. Golemba, Yates Hafner, Arthur F. Marotti, Alfred Schwarz, Elizabeth S. Sklar, Robert M. Strozier II, Beongcheon Yu

Emeritus / Emerita Associate Professors

Bradford S. Field, Jeanne A. Flood, Isabel Graham, David S. Herreshoff, Ross J. Pudaloff, Amy K. Richards, Edward Sharples

Degree Programs

BACHELOR OF ARTS with a major in English
BACHELOR OF ARTS with a major in Film Studies
MASTER OF ARTS with a major in English
MASTER OF ARTS in Comparative Literature
DOCTOR OF PHILOSOPHY with a major in English and concentrations in American literature, English literature, literary criticism, and composition research

Bachelor of Arts with a Major in English

English studies today includes many fields of inquiry and areas of textual theory and analysis. The English major curriculum is designed to introduce students to these fields and to provide a challenging and flexible liberal arts education as well as a preprofessional program for students interested in careers in education, law, business, and other professions.

Admission requirements for this program are satisfied by the general requirements for undergraduate admission to the University; see page 24.

Advising: The Associate Chairperson of the Department and the Undergraduate Adviser provide advising to English majors. As soon as possible, and no later than the completion of sixty credits, the prospective major should consult one of the advisers in the Department to discuss a course of study. Adviser contact information is available on the Department's website www.clas.wayne.edu/english.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits in course work including satisfaction of the College of Liberal Arts and Sciences Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the major requirements listed below. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

Credit Limitations: No more than forty-six credits in the major field may count toward degree requirements. With the adviser's approval, appropriate English 5990 (Directed Study) credit may count toward a major.

Major Requirements consist of twelve English courses beyond the University General Education Competency Requirement (see page 18), and Liberal Arts and Sciences Group Requirements (see page 274). Ten of these courses must be beyond the 2000 level. Specific requirements are as follows:

1. English 3100, Introduction to Literary Studies, Cr. 3.

2. Three courses in English and American literature:
   ENG 3110 -- (PL) English Literature to 1700: Cr. 3.
   ENG 3120 -- (PL) English Literature after 1700: Cr. 3.
   ENG 3140 -- (PL) Survey of American Literature: Cr. 3.

3. One upper-division course with an emphasis on theory in one of the following areas: composition theory, literary or cultural theory, film theory, folklore theory, linguistic theory, rhetorical theory (ENG 5040, 5080, 5090, 5600, 5700, 5740, 5750, or 5790).

4. One upper-division course in cross-disciplinary or comparative studies in one of the following areas: comparative literature, gender studies, African-American literature, film, cultural studies, folklore, or creative writing (ENG 5030, 5050, 5060, 5070, 5470, 5480, 5580, 5590, 5650, 5670, 5870, 5880, or 5890).

5. English 5992, Senior Seminar, Cr. 4. This course with co-registration in English 5993 fulfills the General Education Writing Intensive requirement. With the consent of the Associate Chairperson and the appropriate instructor, students are occasionally permitted to substitute a 5000-level course, with English 5993 co-registration, for the Senior Seminar and to fulfill the Writing Intensive requirement.

6. In addition to the above requirements, majors must take at least five other English courses for a minimum of thirty-six credits (forty-six credits maximum). Three of these five courses must be at the 4000 or 5000 level. No English course below the 2000-level may count toward the English B.A. program. The Department recommends that students preparing themselves for graduate work in literature choose course work that will expose them to a broad historical range of English and American texts. Students who wish to teach English on the secondary school level are advised to take a course in Shakespeare (ENG 2200 or 5150), courses in American literature beyond the basic major requirements, and an advanced course in linguistics.

Honors in English

Honors requirements: To graduate with honors in English an undergraduate student must have a minimum 3.5 g.p.a. in English courses. Additional requirements include a minimum of thirty-six credits in English courses beyond the Liberal Arts and Sciences Group requirements and General Education requirements, nine credits of which must be in honors courses. Students must also complete at least one 4200-level interdepartmental Honors Seminar, Honors 4200-4280, to total twelve credits in Honors courses.

Required English Courses:

1. English 3100, Introduction to Literary Studies, Cr. 3

2. Three courses in English and American literature:
   ENG 3110 -- (PL) English Literature to 1700: Cr. 3
   ENG 3120 -- (PL) English Literature after 1700: Cr. 3
   ENG 3140 -- (PL) Survey of American Literature: Cr. 3

3. One upper-division course with an emphasis on theory in one of the following areas: composition theory, literary or cultural theory, film theory, folklore theory, linguistic theory, rhetorical theory (ENG 5040, 5080, 5090, 5600, 5700, 5740, 5750, or 5790)

4. One upper-division course in cross-disciplinary or comparative studies in one of the following areas: comparative literature, gender studies, African-American literature, film, cultural studies, folklore, or creative writing (ENG 5030, 5050, 5060, 5070, 5470, 5480, 5580, 5590, 5650, 5670, 5870, 5880, or 5890)

5. English 4991, Honors Seminar, Cr. 3-6. This course with co-registration in English 5993 fulfills the General Education Writing Intensive requirement.

6. In addition to the above requirements, majors must take at least five other English courses for a minimum of thirty-six credits (forty-six credits maximum). Three of these five courses must be at the 4000 or 5000 level and include English 4992 (Honors Project, Cr. 3). The Honors Project should be twenty to thirty pages long. It may be in any area comprised by the broad field of English.

7. Honors-Option: one course in the English Honors curriculum must be taken with an Honors-option. Candidates for Honors in English will arrange for an Honors-option by contracting with any professor teaching a 5000-level course to do honors-level work in that course. Supplementary work required for the Honors-option might consist of an extra paper, a longer term paper, evidence of additional readings (for example, through journal entries), an oral or written report on an aspect of criticism, a special examination, or the like.

Students who wish to become candidates for degrees with honors in English are encouraged to consult early with the Undergraduate Adviser of the English Department (313-577-7701).

'AGRADE' Program

Accelerated Graduate Enrollment: The English Department invites academically superior majors to petition for admission to the 'AGRADE' Program. 'AGRADE' procedures enable qualified seniors to enroll simultaneously in the undergraduate and graduate programs of the Department and to apply a maximum of fifteen credits toward both a bachelor's and a master's degree. Students admitted to the 'AGRADE' Program may be able to complete both degrees in five years of full-time study. An 'AGRADE' applicant should petition the Director of Graduate Studies of the English Department for admission. Applications will be accepted no earlier than the semester in which ninety credits are completed. Applicants must have an overall grade point average at the 'cum laude' level (approximately 3.4) and not less than a 3.6 g.p.a in the major courses already completed. If a

student's petition is accepted, a designated faculty adviser will develop a graduate Plan of Work, specifying the 'AGRADE' courses to be included in subsequent semesters.

For more details about the 'AGRADE' Program, contact the Director of Graduate Studies in English: 313-577-2450.

Combined Curriculum Requirements

Combined Curriculum for Secondary Teaching: An English major who wishes to prepare for a career in secondary school teaching must complete either the regular program for majors or the Honors Program. Information regarding this curriculum is on page 280.

Cognate Study in English

College and University Requirements: All students in the University must pass English 1020 (Introductory College Writing), and an intermediate composition course. Those students whose scores on the English Qualifying Examination, taken prior to matriculation, indicate need for instruction and practice in composition will be placed in English 1010 (Basic Writing) before they take English 1020. (To take the English Qualifying Examination, students must apply upon admission to: Testing and Evaluation Services.)

In addition, designated English courses may be used toward fulfillment of the College and University Philosophy and Letters requirement (see page 21).

Courses at the 2000 and 3000 level (except English 3100) are open to all undergraduates who have completed 1020. Courses at the 5000 level are open to both undergraduates and M.A. students. Senior standing is prerequisite to undergraduate admission to all 6000-level courses. Only graduate students may register for 7000- and 8000-level courses.

The Minor in English: The minor in English requires six courses beyond freshman composition for a minimum of at least eighteen credits:

1. One course from the following: English 3110, 3120, and 3140

2. One 5000-level literature course from English 5080 through 5590

3. Two courses selected from the following: English 2200, 3110, 3120, 3140, or approved 5000-level courses

4. Two English electives.

No 1000-level course and not more than two 2000-level courses will count toward the minor.

The minor in English permits study in literature, film and literature, folklore, creative writing, linguistics, and expository writing.

Folklore: *The English minor in folklore* is for students interested in the analysis of the oral and material aspects of a traditional culture. It requires a minimum of six courses: English 2600, 3600, 5600, 5650, and 5670, and a cognate course selected from appropriate offerings in English or other departments. Folklore minors should consult with the undergraduate folklore adviser (313-577-7708) to set up an appropriate program. Not more than two courses at the 2000 level will count toward the minor, and no 1000-level course will count.

Bachelor of Arts with a Major in Film Studies

The University offers two undergraduate degree programs related to film: the Bachelor of Arts with a Major in Film offered by the College of Fine, Performing, and Communications Arts (for requirements see page 211), and the Bachelor of Arts with a Major in Film Studies described below.

The English Department offers a program in film and media studies for students interested in the history and criticism of film and media. Courses are designed to give students knowledge and critical skills in film analysis, key concepts in film theory, the major directors, emerging trends in new media scholarship, and an understanding of cultural and historical factors in film and media production and reception. A wide range of up-to-date courses give students an interesting and valuable set of critical skills in media and film scholarship.

Please contact Dr. Kirsten Thompson in the Department of English for further information.

Admission Requirements for this degree program are satisfied by the general requirements for undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits in course work including satisfaction of the College of Liberal Arts and Sciences Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the major requirements listed below. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

Major Requirements: Students majoring in film studies must complete a minimum of thirty-four credits, distributed as follows:

CORE COURSES (Fourteen Credits)

ENG 2450 -- (VP) Introduction to Film (COM 2010): Cr. 4
ENG 3150 -- History of Film I: Beginnings to 1940: Cr. 3
ENG 3160 or ENG 3170
-- History of Film II: 1940-1960: Cr. 3
-- History of Film III: 1960 to Present: Cr. 3
ENG 5040 -- Film Criticism and Theory: Cr. 4
ENG 5993 -- (WI) Writing Intensive Course in English. Cr. 0

ELECTIVE COURSES (Twenty Credits)

Electives should be selected in conjunction with.the departmental undergraduate adviser or the Coordinator of the Film Studies Program. Three elective classes must be taken at the 5000-level or above, and two out of these three must come from ENG 5020, 5050, 5060 or 5070.

AFS 3200 -- The African American Film Experience: Cr. 4
AFS 4240 -- African Americans in Television (COM 4240): Cr. 4
AIN 2220 -- Time-Based Media I: Video Art: Cr. 3
AIN 4220 -- Time-Based Media II:Experimental Animation: Cr. 3
COM 1600 -- Introduction to Audio-TV-Film Production: Cr. 3
COM 5020 -- Studies in Film History: Cr. 4 (Max. 12)
COM 5060 -- Documentary and Non-Fiction Film and T V: Cr. 4
COM 5270 -- (WI) Screenwriting: Cr. 4 (Max. 8)
COM 5400 -- Techniques of Film and Video Production: Cr. 4
COM 5440 -- Film Production: Cr. 4
ENG 5020 -- Topics in Media and Modern Culture: Cr. 4 (Max. 12)
ENG 5050 -- Historical Topics in Film and Media: Cr. 4 (Max. 12)
ENG 5060 -- Styles and Genres in Film: Cr. 4 (Max. 12)
ENG 5070 -- Topics in Film and Media: Cr. 4 (Max. 12)
ENG 5990 -- Directed Study in English: Cr. 1-3 (Max.6) (with film studies focus)
GER 5350 -- Early German Film: Cr. 3
ITA 5150 -- Italian Cinema Since 1942: Cr. 3 (Max. 9)
N E 2060 -- (VP) Hebrew/Israeli Film: Trends and Themes in Israeli Cinema: Cr. 3
POL 3750 -- Polish and Yugoslavian Auteur Cinema (SLA 3750): Cr. 3
SLA 3710 -- (VP) Russian & East European Film: Cr. 3

MINOR IN FILM STUDIES: Completion of a minor in film studies requires a minimum of eighteen credits including ENG 2450 / COM 2010 and any other selections from either the core or elective courses cited above under the Bachelor of Arts major program.

Scholarships

Also see page 278, above, and the section on the Office of Student Financial Aid, page 34. For further information, contact the Department Office.

Gilbert R. and Patricia K. Davis Endowed Scholarship for English Majors: Award open to part-time students majoring in English in the College of Liberal Arts and Sciences, with a g.p.a. of 3.0 or above and a minimum of fifteen credits in residence at Wayne State University. Recipients must be Michigan residents. Contact the English Department for details.

Loughead-Eldredge Endowed Scholarships in Creative Writing: Award open to advanced undergraduates and M.A. students in good academic standing who are pursuing a B.A. or M.A. in English with a concentration in creative writing. Contact the English Department for details.

Albert Feigenson Endowed Memorial Scholarship: Award open to full-time undergraduate and graduate students majoring in music or English, with high scholastic standing and demonstrated financial need. Contact the English Department and the Office of Student Financial Aid.

Doretta Burke Sheill Endowed Memorial Scholarship: Award open to undergraduate and graduate students majoring in English literature who demonstrate high scholastic achievement, character, leadership, and financial need. Contact the English Department and the Office of Student Financial Aid.

Stephen H. Tudor Memorial Scholarship in Creative Writing: Award open to full-time degree-seeking students majoring in English who have completed at least fifteen credits in residence and demonstrate high achievement in creative writing. Contact the English Department for details.

Dennis Turner Memorial Scholarship in Film Studies: Award open to full-time undergraduate and graduate students majoring in Film Studies through the College of Liberal Arts and Sciences. Minimum 3.0 g.p.a. Contact the English Department for details.

Pearl A. Warn Endowed Scholarship in English: Award open to returning full- or part-time students majoring in English with high scholastic achievement and demonstrated financial need. Contact the English Department for details.

Joseph J. and Mary E. Yelda Endowed Scholarship for English: Award open to full-time students who graduated from a metropolitan Detroit area high school, are majoring in English in the College of Liberal Arts and Sciences, and have a g.p.a. of 3.0 or above. Awarded on the basis of academic merit and financial need. Contact the English Department for details.

ENGLISH COURSES (ENG)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

NOTE: English 1020 or its equivalent is prerequisite to all English courses numbered above 1999.

0500 English Language Institute. Cr. 1-12
Offered for S and U grades only. No degree credit. Open only to English Language Institute students. Intensive course in English for speakers of other languages. Includes reading, writing, grammar, listening comprehension, and speaking. (T)

0520 English for Teaching Assistants. Cr. 2
Prereq: teaching assistant who has failed SPEAK test; written consent of director of ELI. Not offered for degree credit. Offered for S and U grades only. American English language skills to improve teaching effectiveness of non-native speakers of English. Pronunciation, stress, intonation, speaking rate; oral presentation practice; cultural factors in U.S. university classroom. (T)

1010 Basic Writing. Cr. 2-4
Only two credits count toward graduation. No credit toward English group requirement. Prereq: placement through ACT score or English Qualifying Examination. Offered for S and U grades only. One hour arranged. Extensive practice in fundamentals of college writing and reading in preparation for ENG 1020. Required of students qualifying on the basis of ACT score or English Qualifying Examination. (T)

1020 (BC) Introductory College Writing. Cr. 4
Prereq: placement through ACT score or English Qualifying Examination, or passing grade in ENG 1010. A course in reading, research, and writing for college classes. (T)

1030 English as a Second Language (ESL). Cr. 1-12
Offered for S and U grades only. Integrated skill course designed to teach communication skills to non-native speakers of English at various levels of proficiency. (S)

1050 (BC) Freshman Honors: English I. Cr. 4
Open only to Honors Program students. Freshman seminar in reading and writing about fiction, poetry, and drama. (F)

2050 (IC) Freshman Honors: English II. Cr. 4
Open only to Honors Program students. Continuation of ENG 1050. Continuation of ENG 1050. (W)

2100 (IC) Introduction to Poetry: Literature and Writing. Cr. 3
Prereq: grade of C or better in ENG 1020 or equiv. Introduction to techniques and forms of poetry through critical reading of, and writing about, poems of various types and from many periods. (Y)

2110 (IC) Introduction to Drama: Literature and Writing. Cr. 3
Prereq: grade of C or better in ENG 1020 or equiv. Introduction to techniques and forms of drama through critical reading of, and writing about, representative plays from various traditions and periods. (Y)

2120 (IC) Introduction to Fiction: Literature and Writing. Cr. 4
Prereq: grade of C or better in ENG 1020 or equiv. Introduction to techniques and forms of fiction through critical reading of, and writing about, short stories and novels. (T)

2200 (PL) Shakespeare. Cr. 3
Prereq: ENG 1020 or equiv. Emphasis on the dramatic and literary qualities of the plays: representative comedies, tragedies and histories. (T)

2210 (IC) Great English Novels: Literature and Writing. Cr. 3
Prereq: grade of C or better in ENG 1020 or equiv. Critical reading of, and writing about, a representative sample of important and pleasurable English novels from the eighteenth century through the modern period. (B)

2310 (IC) Major American Books: Literature and Writing. Cr. 3
Prereq: grade of C or better in ENG 1020 or equiv. Critical reading of, and writing about, representative texts in prose, poetry, and drama by such writers as Emerson, Twain, Dickinson, O'Neill, Ellison. (Y)

2390 (IC) Introduction to African-American Literature: Literature and Writing. (AFS 2390) Cr. 4
Prereq: grade of C or better in ENG 1020 or equiv. Introduction to major themes and some major writers of African-American literature,

emphasizing modern works. Reading and writing about representative poetry, fiction, essays, and plays. (T)

2450 (VP) Introduction to Film. (COM 2010) Cr. 4

Examination of film techniques and basic methods of film analysis. Material fee as indicated in the Schedule of Classes (T)

2500 (PL) The English Bible as Literature. Cr. 4

Prereq: ENG 1020 or equiv. The King James text as a literary masterpiece. (B)

2530 Literature and Identity. Cr. 3

Prereq: ENG 1020 or equiv. Study of literary texts with emphasis on how identity is shaped by ethnicity, religion, gender, sexual orientation, and other factors. (Y)

2540 Literatures of the World. Cr. 3

Prereq: ENG 1020 or equiv. Comparative approach to national or regional literatures throughout the world: Asian, Pacific, African, North and South American, and European. (Y)

2570 (IC) Literature By and About Women: Literature and Writing. Cr. 3

Prereq: grade of C or better in ENG 1020 or equiv. Introduction to the major themes and issues of writing by and about women. Reading and writing about representative fictional and non-fictional works. (Y)

2600 Introduction to Folklore. Cr. 3

Prereq: ENG 1020 or equiv. Introduction to the study of the oral literatures, customs, traditional beliefs and practices of selected folk communities. (Y)

2670 (P S 2700) (FC) Introduction to Canadian Studies. (GPH 2700) (HIS 2700) Cr. 3

Survey of Canada in its cultural, literary, historical, geographical and political aspects; key concepts and social patterns that define the Canadian experience. (Y)

2720 (PL) Basic Concepts in Linguistics. (LIN 2720) Cr. 3

Prereq: ENG 1020 or equiv. Analysis of the structure and use of language, from the standpoint of current linguistic practice. Topics include: phonetics and sound structure, word structure, syntax, semantics, language origin and history, dialects, language learning, animal communication, and language in social interaction. (Y)

2730 (FC) Languages of the World. (LIN 2730) Cr. 3

Prereq: ENG 1020. Survey of structure of major language families of the world, western and non-western; interrelationships of language and culture; universals and variations of universals in language and culture. (Y)

2800 Techniques of Imaginative Writing. Cr. 4

Prereq: ENG 1020 or equiv. Writing in various creative forms. Frequent individual conferences and student readings for class criticism. (T)

3010 (IC) Intermediate Writing. Cr. 3

Prereq: grade of C or above in ENG 1020 or equiv. Course in reading, research and writing for upper-level students. Emphasis on conducting research by drawing from the sciences, social sciences, humanities, and professions in preparation for Writing Intensive courses in the majors. (T)

3020 (IC) Writing and Community. Cr. 3

Prereq: grade of C or better in ENG 1020 or equiv. Students develop and write about community-based service-learning projects. (F,W)

3050 (IC) Technical Communication I: Reports. Cr. 3

Prereq: grade of C or above in ENG 1020 or equiv. Instruction in basic technical writing skills. Requirements include writing summaries, letters, memos, instructions, and technical reports. Topics include audience and purpose analysis, textual and visual aspects of document design, and formatting. (T)

3060 (OC) Technical Communication II: Presentations. Cr. 3

Prereq: grade of C or above in ENG 3050 or equiv. Instruction in basic technical presentation skills. Requirements include informative presentations, oral briefings, needs assessments, progress reports, and formal proposals. Topics include collaborative teamwork, audience and purpose analysis, textual and visual aspects of presentation design, and formatting. (T)

3100 Introduction to Literary Studies. Cr. 3

Prereq: ENG 1020 or equiv. Open only to Liberal Arts and Sciences and College of Education English majors. Methods of reading, responding to, analyzing, and writing about texts, for students majoring in English Studies. (F,W)

3110 (PL) English Literature to 1700. Cr. 3

Prereq: ENG 1020 or equiv. Selected works from such writers as Chaucer, Spenser, Shakespeare, Donne, Milton. Required of English majors. (T)

3120 (PL) English Literature after 1700. Cr. 3

Prereq: ENG 1020 or equiv. Selected works from such writers as Swift, Pope, Wordsworth, Dickens, Tennyson, Eliot, Hardy. Required of English majors. (T)

3140 (PL) Survey of American Literature. Cr. 3

Prereq: ENG 1020 or equiv. Historical survey of American literature from the colonial period through the twentieth century with emphasis on nineteenth and early twentieth centuries. Required of English majors. (T)

3150 History of Film I: Beginnings to 1940. Cr. 3

Prereq: ENG 2450/COM 2010 or consent of instructor. International film from its origins in the late 19th century to 1940; may include silent cinema, Soviet montage, German expressionism, the coming of sound, American film genres. Material fee as indicated in the Schedule of Classes. (Y)

3160 History of Film II: 1940-1960. Cr. 3

Prereq: ENG 2450/COM 2010 or consent of instructor. International film from 1940 to 1960; may include Italian neo-realism, postwar Japanese cinema, American melodrama. Material fee as indicated in the Schedule of Classes. (Y)

3170 History of Film III: 1960 to Present. Cr. 3

Prereq: ENG 2450/COM 2010 or consent of instructor. International film from 1960 to present day; may include study of key auteurs, continuation of French New Wave, New German cinema, New American cinema, film in China, decline of the Hollywood studio system. Material fee as indicated in the Schedule of Classes. (Y)

3400 Literary Themes and Genres. Cr. 3 (Max. 12)

Prereq: ENG 1020 or equiv. Literature in a topical or thematic context. Topics such as initiation, metamorphosis, politics and the novel, the epic, satire, recent experimental fiction. Topics to be announced in Schedule of Classes. (I)

3600 Survey of American Folklore. Cr. 3

Prereq: ENG 1020 or equiv. Survey of the oral literatures, the tall tale, customs, traditional beliefs and practices of selected folk communities of the United States, Canada, Mexico and the Caribbean in relation to American culture and society. (I)

3700 Structure of English. (LIN 3700) Cr. 3

Prereq: ENG 1020 or equiv. Survey of the major structural features of Standard English at the levels of sounds, words, and sentences, using concepts and methods from the field of linguistics. Special attention to relation of spoken to written English. (Y)

3810 Poetry Writing. Cr. 3

Prereq: ENG 2800. Instruction and practice in the art of English and American poetic forms: patterns of sound, quantitative values, diction, metaphors and images. (Y)

3820 Fiction Writing. Cr. 3

Prereq: ENG 2800. Fundamentals of fiction, mainly the short story. Analysis of stories by established writers and by students. Frequent individual conferences. (Y)

3830 Play Writing. Cr. 3

Prereq: ENG 2800. Basic instruction in the development of plays for stage and television, or of movie scenarios. Attention to the writing of dialogue. (B)

3991 Directed Study: Salford - W.S.U. Exchange. Cr. 3-9

Prereq: written consent of departmental adviser. Open only to students admitted to Salford - W.S.U. Exchange Program. Directed study at the University of Salford. (F,W)

3993 (HIS 3993) Topics in Canadian History, Society, Politics, and Culture. (GPH 3993) (P S 3993) (SOC 3993) Cr. 3-4 (Max. 15)

Significant topics and issues in the development of Canadian history, society, politics, and culture. (F,W)

4990 Directed Study: Honors Program. Cr. 3-6 (Max. 24)

Prereq: written consent of English Honors Committee. (T)

4991 Honors Seminar. Cr. 3-6 (Max. 24)

Prereq: senior standing and written consent of English Honors adviser. Fulfills senior seminar requirement for Honors students. (T)

4992 Honors Project. Cr. 3

Prereq: senior standing; written consent of departmental honors adviser. Substantial essay in literature, linguistics, folklore or film, or body of creative writing accompanied by an essay; directed by two members of the English faculty. (T)

5010 Advanced Expository Writing. Cr. 3 (Max. 6)

Prereq: grade of B or better in an intermediate writing course or consent of instructor. Advanced study and practice in various forms of expository prose, especially the essay. Topics to be announced in Schedule of Classes. (Y)

5020 Topics in Media and Modern Culture. Cr. 4 (Max. 12)

Prereq: ENG 2450/COM 2010 or consent of instructor. Topics may include: history of television, the internet, video games, other visual media; topics announced in Schedule of Classes. Material fee as stated in Schedule of Classes. (B)

5030 Topics in Women's Studies. (W S 5030) Cr. 3 (Max. 9)

Prereq: 12 credits in ENG above the 1000 level. Thematic, critical or generic study of women and literature. Topics to be announced in Schedule of Classes. (Y)

5040 Film Criticism and Theory. Cr. 4

Prereq: ENG 2450/COM 2010 or another film course or consent of instructor. Survey of the major film theories from Munsterberg to contemporary film semiotics; examination of various attempts made at a systematic understanding of the cinema. Material fee as indicated in the Schedule of Classes (Y)

5050 Historical Topics in Film and Media. Cr. 4 (Max. 12)

Prereq: ENG 2450/COM 2010 or consent of instructor. Specialized, in-depth topics in film cycles and movements of a historical nature, such as French new wave, film noir, etc. Topics to be announced in the Schedule of Classes. Material fee as indicated in the Schedule of Classes (B)

5060 Styles and Genres in Film. Cr. 4 (Max. 12)

Prereq: ENG 2450 or COM 2010 or consent of instructor. Study of significant works within selected genres, such as the western, horror, comedy, animation. Topics to be announced in the Schedule of Classes. Material Fee as indicated in the Schedule of Classes. Material fee as indicated in the Schedule of Classes (Y)

5070 Topics in Film and Media. Cr. 4 (Max. 12)

Prereq: ENG 2450 or COM 2010 or consent of instructor. Critical and theoretical topics including style and work of specific filmmakers and philosophical approaches to film and other media. Topics to be announced in the Schedule of Classes. Material fee as indicated in the Schedule of Classes (Y)

5080 Topics in Cross-Disciplinary and Cultural Studies. Cr. 3 (Max. 9)

Prereq: 12 credits in ENG above the 1000 level. Study of cultural formations and practices from comparative and interdisciplinary perspectives furnished by history, semiotics, anthropology, linguistics, sociology, feminism, psychoanalysis, rhetoric, etc. Topics to be announced in the Schedule of Classes. (Y)

5090 Topics in Literary and Cultural Theory. Cr. 3 (Max. 9)

Prereq: 12 credits in ENG above the 1000 level. Study of literary and cultural theory in various contexts -- urban, metropolitan, ethnic, global -- with reference to primary texts. Topics to be announced in the Schedule of Classes. (Y)

5100 Literature of the Middle Ages. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. Readings in Old and Middle English literature (900-1500), mostly in translation. Topics to be announced in the Schedule of Classes. (I)

5110 Chaucer. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. Readings from The Canterbury Tales and from Chaucer's other works in cultural context. (I)

5120 Topics in Medieval Literature. Cr. 3 (Max. 9)

Prereq: 12 credits in ENG above the 1000 level. Themes, genres, writers in English and continental Medieval literature. Topics to be announced in the Schedule of Classes. (I)

5140 Introduction to Old English. Cr. 3

The fundamentals of language and grammar and the literary analysis of Old English texts. (I)

5150 Shakespeare. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. For English majors and others interested in more intensive study than is offered in ENG 2200. Some attention to Shakespearean scholarship. (B)

5170 Literature of the English Renaissance: 1500-1660. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. Survey of literature in all genres from Skelton through Milton, with an emphasis on non-dramatic poetry and prose. (I)

5180 Milton. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. Emphasis on Milton's major poetry through attention to his prose and to historical background. (I)

5190 Topics in Renaissance Literature. Cr. 3 (Max. 9)

Prereq: 12 credits in ENG above the 1000 level. Studies of particular authors or groups of authors from 1500-1660 or of literary works from period, generic, thematic or methodological focuses. Topics to be announced in the Schedule of Classes . (B)

5200 Restoration and Eighteenth Century Literature. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. A survey of English literature from 1660 to 1784. Readings from authors such as John

Dryden, Aphra Behn, Mary Astell, Alexander Pope, Lady Mary Montagu, Jonathan Swift. (B)

5240 Topics in Restoration and Eighteenth Century Literature. Cr. 3 (Max. 9)

Prereq: 12 credits in ENG above the 1000 level. For students familiar with literary history of the period. Special topics for detailed study of a genre, movement or author to be announced in the Schedule of Classes. (B)

5250 Nineteenth Century Literature. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. A survey of nineteenth century British literature, with works selected from such authors as Wordsworth, Keats, Dickens, Carlyle, Tennyson, Swinburne and Hardy. (B)

5260 Literature of the Romantic Period. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. A survey of English literature from 1789-1832. Emphasis on the major poets (Blake, Wordsworth, Coleridge, Keats, Shelley and Byron), with some attention to the major essayists (De Quincey, Hazlitt and Lamb) and novelists (Austen and Scott). (B)

5270 Literature of the Victorian Period. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. A survey of English literature from 1832-1901. Emphasis on major poets (Tennyson, Arnold, Swinburne), novelists (Dickens, Eliot, Hardy), and prose writers (Carlyle and Ruskin). (B)

5290 Topics in Nineteenth Century Literature. Cr. 3 (Max. 9)

Prereq: 12 credits in ENG above the 1000 level. Readings emphasize thematic, generic, historic or aesthetic concerns in literature of the period. Topics to be announced in the Schedule of Classes. (B)

5300 Twentieth Century British Literature. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. Selected works in all genres from 1900 to the present. (B)

5320 Topics in Twentieth Century British Literature. Cr. 3 (Max. 9)

Prereq: 12 credits in ENG above the 1000 level. Selected writers, themes, or genres, movements: Eliot, Auden, Shaw, Lawrence; the modern novel, Bloomsbury, The Great War, the Thirties. Topics to be announced in the Schedule of Classes. (B)

5400 American Literature to 1800. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. A survey of American literature from the beginnings through the early national period, emphasizing the constructions of crucial cultural phenomena like nation-building, colonialism, liberty and union, assimilation. (I)

5410 American Literature: 1800-1865. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. Survey of writers, themes and movements which have had dramatic influence in defining American culture. Writers such as Dickinson, Douglass and Emerson, and literary movements like Transcendentalism and Romanticism are studied as well as the forces that produced them, especially race, class and gender. (B)

5420 American Literature: 1865-1914. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. Survey of important literary texts that arose from cultural phenomena like post-reconstruction, urbanization, immigration, the suffrage movement, and native rights. Literary movements like Realism and Naturalism will be studied as well as influential writers like Cahan, Chopin, Dreiser and Dunbar. (Y)

5450 Modern American Literature. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. Survey of culturally-significant writers, themes and movements since 1914, such as: the Harlem Renaissance, Modernism, Postmodernism; authors like Ellison, Hemingway, Morrison, Stein. (Y)

5460 Topics in American Literature of the Twentieth Century. Cr. 3 (Max. 9)

Prereq: 12 credits in ENG above the 1000 level. Twentieth century literature from specific perspectives, such as generic, historical, thematic. Topics to be announced in the Schedule of Classes. (I)

5470 Survey of African-American Literature. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. Historical survey of African-American literature from Colonial times through the twentieth century. (B)

5480 Topics in African American Literature. Cr. 3 (Max. 9)

Prereq: 12 credits in ENG above the 1000 level. Thematic, generic or historical perspectives: topics such as early black writers, Harlem Renaissance, African-American poetry, contemporary black writers. Topics to be announced in the Schedule of Classes. (Y)

5490 Topics in American Literature. Cr. 3 (Max. 9)

Prereq: 12 credits in ENG above the 1000 level. Thematic, generic, or historical perspectives; may cover writers of different periods. Topics such as American humor, the theme of work, Southern literature, the city in literature. Topics to be announced in the Schedule of Classes. (I)

5500 Topics in English and American Literature. Cr. 3 (Max. 9)

Prereq: 12 credits in ENG above the 1000 level. Generic, historical or thematic perspectives. Topics such as the romantic hero, the divided self in modern literature; to be announced in the Schedule of Classes. (I)

5520 Irish Literature. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. Major twentieth century Irish writers in the context of Irish history and politics: W.B. Yeats, James Joyce, major dramatists. (I)

5580 The Art of Translation. Cr. 3

Methods and theories of translation, analysis of distinguished literary translations and student practice. (I)

5590 Topics in Comparative Literature. Cr. 3 (Max. 9)

Prereq: 12 credits in ENG above the 1000 level. The study of literary texts from an international point of view. Topics to be announced in the Schedule of Classes. (B)

5600 Studies in Folklore. Cr. 3

Basic concepts, methods, and issues of folklore study. Comparative and interdisciplinary approach to problems of definition, form, creation, performance, transmission, and cultural, historical, psychological and literary significance. (B)

5650 Folklore and Literature. Cr. 3

Identification and analysis of the interrelations of folklore and literature. (B)

5670 Topics in Folklore and Folklife. Cr. 3 (Max. 9)

Topics such as fieldwork; analysis of collected oral literature; study of separate genres of oral literature, social folk custom, and folk arts. Topics to be announced in the Schedule of Classes. (B)

5700 Introduction to Linguistic Theory. (LIN 5700) Cr. 3

Introduction to the scientific study of language and methodologies of linguistic analysis: phonetics and phonology, morphology, syntax, semantics, sociolinguistics, and pragmatics. Introduction to selected disciplinary and interdisciplinary topics: typology and universals, communication systems, psycholinguistics, sociolinguistics, historical linguistics, anthropological linguistics. (Y)

5710 Phonology. (LIN 5290) Cr. 3

Prereq: ENG 5700 or LIN 5700. Basic introduction to articulatory phonetics; natural language sound systems and phonological processes studied through data analysis of phonological problems from a wide range of languages. (Y)

5720 Linguistics and Education. (LIN 5720) Cr. 3

Introduction to linguistics with emphasis on applications to education. (Y)

5730 English Grammar. (LIN 5730) Cr. 3

Comprehensive analysis of English sentence structure and parts of speech using the terminology and descriptive approach of traditional grammar. (Y)

5740 Syntax. (LIN 5300) Cr. 3

Prereq: ENG 5700 or LIN 5700. The theory of grammatical systems examined through analysis of sentence and word formation in a variety of human languages. Diversity and universals in grammar discussed and various theories of syntax reviewed. (Y)

5750 Theories of Second Language Acquisition. (LGL 5750) (LIN 5750) Cr. 3

The complex processes involved in learning a foreign/second language, including the nature of inter language and the individual and collective factors influencing learner success and the effectiveness of instruction. (Y)

5760 American Dialects. (LIN 5760) Cr. 3

Survey of chief social and geographic dialects of American English and introduction to theory of language variation. (I)

5770 Sociolinguistics. (LIN 5770) Cr. 3

Identification of sociolinguistic principles used by English speakers and writers in choosing among the different English codes, styles, registers and social dialects in American and other communities. (B)

5790 Writing Theory. Cr. 3

Review of linguistic, rhetorical, and/or literary theories of written language. Analysis of the principles, purposes, types, and modes of written discourse. Course includes extensive reading and writing. (B)

5820 Internship Practicum. Cr. 3 (Max. 6)

Undergrad. prereq: junior or senior standing, written consent of internship director; grad. prereq: written consent of graduate director. Students work 8-20 hours per week as writers, editors or researchers in publishing firms and in public information and research divisions of other businesses and community organizations; students meet once per week in classroom sessions on analytical, literary and other scholarly texts related to their workplace experience. (T)

5830 Introduction to Technical and Professional Writing Practices. Cr. 3

Prereq: grade of B or better in intermediate writing course or consent of instructor. Intensive writing course that develops communication skills used in the workplace. Designed for students preparing to become technical writers/editors and students who will write as part of their professional work. (B)

5840 Theoretical Approaches to Technical and Professional Writing. Cr. 3

Prereq: ENG 5830 or consent of adviser. Survey of the theory and practice of technical and professional communication. Topics include the rhetoric and teaching of technical communication, analysis of on-the-job writing and rhetorical situations, and use of new communications technology. Some technical report writing, a research paper, and extensive reading and writing. (B)

5860 Topics in Creative Writing. Cr. 3

Prereq: ENG 3810, 3820, or 3830; or consent of instructor after submission of manuscript. Topics include new genres, new media, and writing for public audiences. (Y)

5870 Poetry Writing Workshop. Cr. 3 (Max. 6)

Prereq: ENG 3810, 3820, or 3830; or consent of instructor after submission of manuscript. The writing of poetry, conducted on a seminar basis; discussion and criticism of the work of students in the course. Frequent individual conferences. (Y)

5880 Fiction Writing Workshop. Cr. 3 (Max. 6)

Prereq: ENG 3810, 3820, or 3830; or consent of instructor after submission of manuscript. The writing of fiction, conducted on a seminar basis; discussion and criticism of the work of students in the course. Frequent individual conferences. (Y)

5890 Writing for Theatre. (THR 5130) Cr. 3 (Max. 6)

Prereq: ENG 3830 or consent of instructor. Advanced study, in a workshop setting, of dramatic structure and writing for the theatre, terminating in the writing of an original stage play. (Y)

5990 Directed Study in English. Cr. 1-3 (Max. 6)

Undergrad. prereq: 3.0 g.p.a., proposal submitted in preceding term, written consent of instructor and chairperson; grad. prereq: written consent of adviser and graduate officer. Advanced work for superior students whose program cannot be adequately met by scheduled classes. Course requires substantial written work. (T)

5991 Directed Study: Salford-W.S.U. Exchange. Cr. 3-9

Prereq: written consent of departmental adviser. Open only to students admitted to Salford-W.S.U. Exchange Program. (F,W)

5992 Senior Seminar. Cr. 4

Open only to undergraduate English majors; should be taken in last year of course work. Prereq: 12 credits in ENG above the 1000 level. Study and discussion of topics to be announced in the Schedule of Classes. Each student produces a substantial research paper. (F,W)

5993 (WI) Writing Intensive Course in English. Cr. 0

Prereq: junior standing, satisfactory completion of the IC requirement, written consent of instructor; coreq: ENG 5992 or an approved 5000-level ENG course. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a designated corequisite; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. (T)

6010 Tutoring Practicum. Cr. 3

Prereq: junior or senior standing; completion of Intermediate Composition requirement. Integration of theories of language, learning and composition into a teaching practicum for prospective teachers at the secondary level and beyond. (Y)

6100 Introduction to Old English. Cr. 3

The fundamentals of language and grammar and the literary analysis of Old English texts. (I)

6720 Topics in Language. (LIN 6720) Cr. 3 (Max. 12)

Topics such as: morphology, semantics, pragmatics, historical linguistics, history of English, language and gender, language and variation; to be announced in the Schedule of Classes. (Y)

6800 Advanced Creative Writing. Cr. 3 (Max. 6)

Prereq: grade of B or better in any 5000-level creative writing course or consent of instructor after submission of manuscript. Writing in any of the creative forms. Work by students presented in seminar meetings; individual conferences. Topics to be announced in the Schedule of Classes. (Y)

Environmental Science

Office: 0224 Old Main
Director: Lawrence D. Lemke
Academic Adviser: Kim Walkowiak

Participating Faculty

Mark Baskaran, *Professor, Geology*
D. Carl Freeman, *Professor, Biological Sciences*
R. Anton Hough, *Professor Emeritus, Biological Sciences*
Jeffrey Howard, *Associate Professor, Geology*
Daniel M. Kashian, *Assistant Professor, Biological Sciences*
Donna R. Kashian, *Assistant Professor, Biological Science*s
Lawrence D. Lemke, *Associate Professor, Geology*
William S. Moore, *Professor, Biological Sciences*
Christopher S. Steiner, *Assistant Professor, Biological Sciences*
Edmond van Hees, *Assistant Professor (research), Geology*

Bachelor of Science in Environmental Science

Environmental Science investigates the many interconnected systems and processes that formed our world, continuously change it, and, ultimately, sustain life on it. The Environmental Science Program at Wayne State offers an interdisciplinary approach combining a strong foundation from both geological and biological perspectives, and a broad choice of electives. This program focuses on the urban environment and urban impacts on the natural environment. It will prepare students for graduate study, or for careers in various areas of environmental science including environmental impact assessment, air and water quality monitoring, regulatory compliance, and environmental remediation.

Admission Requirements for this program are satisfied by the requirements for general undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates for the B.S. in Environmental Science must complete at least 120 credits in course work including satisfaction of the College Group Requirements and the University General Education Requirements, as well as the major requirements listed below. All course work must be completed in accordance with the academic procedures of the University and the College of Liberal Arts and Sciences governing undergraduate scholarship and degrees. All students are required to maintain an overall grade point average of 'C' (2.0) for all degree work elected.

Major Requirements: B.S. candidates in Environmental Science must take a minimum of thirty-nine credits including **GEL** 1010, 2130, 3100, 5150, 5510; **BIO** 1500, 1510, 4120, 5100 or 5440, and three science or engineering electives. At least one elective must be from the approved GEL or BIO elective course list (consult Program Director or Program Advisor for approvals).

Cognate Requirements: B.S. candidates in Environmental Science must take **MAT** 1800, 2010; **PHY** 2130 (or 2170), 2131 (or 2171), 2140 (or 2180), 2141 (or 2181); **CHM** 1220, 1230, 1240 and 1250. Majors should take the Placement Examination of the Department of Mathematics as soon as possible upon entry into the freshman year.

Sample Program

The following curricula illustrates one way in which major and cognate requirements may be met. Individual programs may vary based on the frequency of course offerings.

FIRST YEAR

Fall Semester
(OC) Oral Communication course: Cr. 3
(CL) Computer Literacy course: Cr. 3
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
GEL 1010 -- (PS) Geology: The Science of the Earth: Cr. 4
Total: Cr. 14

Winter Semester
BIO 1500 --- Basic Life Diversity: Cr. 4 (L)
CHM 1220 -- (PS) General Chemistry I: Cr. 4
CHM 1230 -- General Chemistry I Laboratory: Cr. 1
MAT 1800 -- Elementary Functions: Cr. 4
Total: Cr. 13

SECOND YEAR

Fall Semester
GEL 2130 -- Mineralogy: Cr. 4
ENG 3010 or ENG 3050
-- (IC) Intermediate Writing: Cr. 3
-- (IC) Technical Communication I: Reports: Cr. 3
MAT 2010 -- Calculus I: Cr. 4
(SS) Social Sciences course: Cr.3-4
Total: Cr. 14-15

Winter Semester
BIO 4130 -- (WI) General Ecology: Cr. 4
PHI 1050 -- (CT) Critical Thinking: Cr. 3
PHY 2130/2131 -- (PS) General Physics/General Physics Lab: Cr. 4
(VP) Visual and Performing Arts course: Cr. 3-4
Total: Cr. 14-15

Spring/Summer Semester
GEL 5150 -- Soils and Soil Pollution: Cr. 4
Total: Cr. 4

THIRD YEAR

Fall Semester
BIO 5100 or BIO 5440
-- Aquatic Ecology : Cr.4
-- Terrestrial Ecology: Cr. 4
PHY 2140/2141 -- General Physics/General Physics Lab: Cr. 4
Science or Engineering elective: Cr. 3-4
Language I: Cr. 4
Total: Cr. 15-16

Winter Semester
CHM 1240 -- Organic Chemistry I: Cr. 4
CHM 1250 -- Organic Chemistry I Laboratory: Cr. 1
GEL 3100 -- Environmental Systems Analysis: Cr. 4
(HS) Historical Studies course: Cr. 3
Language II: Cr. 4
Total: Cr. 16

FOURTH YEAR

Fall Semester
GEL 5510 -- Environmental Fate & Transport of Pollutants: Cr. 4
Science or Engineering Field Course elective: Cr. 3-4
(AI) American Society and Institutions course: Cr.3-4
Language III: Cr. 4
Total: Cr. 14-16

Winter Semester
BIO 1510 --- (LS) Basic Life Mechanisms: Cr. 4 (L)
Science or Engineering Electives (2): Cr. 6-8
(PL) Philosophy and Letters course: Cr. 3
Total: Cr.13-15

Geology

Office: 0224 Old Main; 313-577-2506
Chairperson: David Njus
e-mail: ad5348@.wayne.edu
Academic Services Officer: David Lowrie
Web: http://www.clas.wayne.edu/Geology/

Professor

Mark Baskaran

Associate Professor

Jeffrey L. Howard

Assistant Professor

Lawrence Lemke

Senior Lecturer

Edmond van Hees

Degree Programs

BACHELOR OF ARTS with a major in geology
BACHELOR OF SCIENCE with a major in geology
MASTER OF SCIENCE with a major in geology

Geology is the scientific study of planet Earth and involves the observation and interpretation of processes that form and change our world. Some of these processes, such as earthquakes, tsunamis, and volcanic eruptions, proceed rapidly, often with catastrophic consequences. Others, such as erosion or mountain building can progress so slowly that their results are scarcely noticeable over a human lifetime. Each of these processes, however, can exert a profound influence on human activities and can, in turn, be influenced intentionally or unintentionally by human activities.

The courses offered by this department are designed to serve the needs of five groups of students: 1) those who desire a general knowledge of geology as part of a liberal education; 2) those who need geological information as a cognate subject in other professions; 3) those who wish to major in geology as part of a broad liberal education; 4) those who wish to major in environmental science; and 5) those who plan to become professional geologists. Introductory courses are primarily general, but they also provide a foundation in geology for the student who desires to continue an intensive program of study. Students with an interest in environmental problems will find a number of relevant courses among those offered by the Department of Geology.

Bachelor's Degrees: The Department of Geology offers undergraduate programs leading to a degree of Bachelor of Arts in Geology and Bachelor of Science in Geology. The Bachelor of Arts degree differs from the Bachelor of Science degree principally in the number and level of non-geology courses which the student is required to take. The Bachelor of Science degree is suited to the student who intends to become a professional geologist and is required for those students intending to do graduate work in geology.

Bachelor of Science with a Major in Geology

Admission requirements for this program are satisfied by the general requirements for undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits in course work including satisfaction of the College Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the major and cognate credits listed below. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

Major Requirements: Students must complete at least thirty-four credits in geology exclusive of the introductory courses (1000-level) and must include the following:

1. Twenty of the thirty-four credits from advanced courses (numbered 3000 and above).

2. Geology 2130, 3160, 3300, 3400, and 5993.

3. Six credits in field mapping and field techniques, to be fulfilled by completing six credits in a summer field course. If the Geology Department at Wayne State University does not offer a summer field course in any given year, students should complete the field course requirement by attending an approved field course at another university. In certain unusual circumstances the required six credits in field mapping and field techniques may be earned through an extended field-oriented research project when this project involves extensive field mapping and is under the direct supervision of a faculty member or qualified field geologist throughout the duration of the field work.

Cognate Requirements: The program must include a year of mathematics (MAT 1800 and 2010 or equivalent), a year of physics (PHY 2130 and 2140, or 2170 and 2180, or equivalent), and a semester of chemistry (CHM 1220 and 1230 or equivalent). A semester of biology (BIO 1500 or equivalent) is strongly recommended.

Although there are no required cognate courses beyond those listed above, geology majors should consult their adviser regarding cognate courses which might be of value to their program. Depending on interest and future goals, additional courses in mathematics, physics, and chemistry, as well as courses in biology, computer science, civil engineering, and urban studies might be of particular value.

Bachelor of Arts with a Major in Geology

Admission requirements for this program are satisfied by the general requirements for undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits in course work including satisfaction of the College Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the major and cognate requirements listed below. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

Major Requirements: Students must complete twenty-six credits in geology beyond Geology 1020. These must include Geology 2130, 3160, 3300, 3400, 5993, and at least two credits in a geology field course.

Cognate Requirements: At least one college course in each of two of the following fields is required: biology, chemistry, or physics. Mathematics 1800 and satisfaction of the Foreign Language Group Requirement are also required.

Geology majors should consult their adviser regarding additional recommended cognate courses. Depending on interest and future goals, supplementary courses in mathematics, physics and chemistry, as well as courses in biology, computer science, engineering, and urban studies might be of particular value.

Honors in Geology

The Honors Program in Geology is open to students of superior academic ability who are majoring in geology. To be recommended for an honors degree from this department, a student must maintain a cumulative grade point average of at least 3.3. He/she must accumulate at least fifteen credits in honors-designated course work and must demonstrate the ability to do independent study and an original Honors Thesis during the senior year. For information about the requirements of the department's honors curriculum, contact the Chairperson of the Department, or the Director of the Honors Program (313-577-3030).

Minor in Geology

The Department offers a minor in geology for undergraduate students. The minor consists of twenty credits in geology (usually consisting of five courses). Although desirable courses for a student's minor program should be determined in consultation with Geology Department staff members, the following restrictions and recommendations should be noted: The minor must include Geology 1010 and 1020. Geology 1000 and 1050 may only be applied for credit to a minor with the permission of the student's adviser in consultation with the Chairperson of the Department. At least four credits in the minor must be completed in courses at the 3000-level or higher. All minor programs must be approved by the Department Chairperson.

Anyone wishing to complete a minor in geology should contact one of the Department faculty members, or the Chairperson, as soon as possible, so that an appropriate program can be formulated.

Assistantships and Awards

Student Assistantships: A limited number of undergraduate student assistantships are available for academically superior students after they have completed sufficient coursework to qualify (usually senior standing).

Awards: The Geology Undergraduate Student Merit Award is presented to those undergraduate students who have excelled academically and who have made significant non-academic contributions to the Geology Department and/or the University. The award is commemorated with the recipient's name permanently inscribed and displayed on a special display board in the office of the Department of Geology.

GEOLOGY COURSES (GEL)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

1000 Geology and the Environment. Cr. 4

Fee indicated in Schedule of Classes if elected for 4 credits. Geological aspects of man's use of his environment including geological hazards; water; waste disposal; occurrence, use and depletion of natural resources. Material Fee As Indicated In The Schedule of Classes (I)

1010 (PS) Geology: The Science of the Earth. Cr. 4

Meets General Education Laboratory Requirement. Introduction to continental drift and plate tectonic theory, geophysics and structure of earth's crust and interior; rocks and minerals; igneous and volcanic geology; work of running water, glaciers and ground water; geologic time; oceanography. One day field trip. Lecture and required laboratory. Material Fee As Indicated In The Schedule of Classes (T)

1020 Interpreting the Earth. Cr. 4

Prereq: GEL 1010 with grade of C or better recommended. Sedimentary rocks, sedimentary structures and fossils as tools for interpreting the history of the earth. Paleoecology of the geologic past and the structure of the earth are emphasized. (F,W)

1050 Oceanography. Cr. 4

Introductory course in oceanography; includes origin of the ocean basins; ocean currents, waves and tides; life in the oceans and marine ecology; food, mineral and energy resources of the sea. (I)

1370 Meteorology: The Study of Weather. Cr. 3

Weather theory including cloud types, cloud formation; types and formation of winds; rain, snow, other precipitation. Storm theory: formation of and dangers in thunderstorms, hurricanes and tornadoes. Atmospheric phenomena: aurora, rainbows, the mirage, twinkling of stars, twilight crepuscular rays; weather forecasting, instruments, maps. (W)

2130 Mineralogy. Cr. 0-4

Prereq: one course in high school or college chemistry recommended. May require passport card. Mineral identification using physical and optical properties. Introduction to petrographic microscope and electron microscope/microprobe. Properties and occurrences of major mineral groups and their environmental significance. Check with instructor for field trip destination; field trip to Canada frequently part of course. Material Fee As Indicated In The Schedule of Classes (F)

3100 Environmental Systems Analysis. Cr. 4

Prereq: GEL 1010, MAT 1800; CHM 1240 and PHY 2140 recommended. Students may not receive credit for both GEL 1000 and GEL 3100. Application of a common framework to quantitative analysis of fluxes, storage, and transformation of matter and energy within environmental systems. Applications include carbon cycling, nutrient cycling, air and water pollution, and population dynamics. Material fee as indicated in Schedule of Classes. (F)

3160 Petrology. Cr. 0-4

Prereq: GEL 1020, 2130, consent of instructor. Classification of igneous and metamorphic rocks using macroscopic and microscopic material and textural characteristics. Occurence and alteration of each major rock type related to tectonic settings. Mandatory four-day field trip. Material Fee As Indicated In The Schedule of Classes (B)

3300 Structural Geology. Cr. 0-4

Prereq: GEL 1020 and high school trigonometry or equiv. recommended. Description and interpretation of features which result from the origin or deformation of rock masses. Material Fee As Indicated In The Schedule of Classes (B)

3400 Principles of Sedimentology and Stratigraphy. Cr. 4

Prereq: GEL 1020 and 2130. Processes which produce sediments, environments of deposition, changes after deposition. Relationship between tectonics and sedimentation. Origin of sedimentary strata. Facies and correlations. Material Fee As Indicated In The Schedule of Classes (F)

3600 Special Topics in Geology. Cr. 3

Prereq: GEL 1010. Subjects of general interest to geology majors. Topics may include: soil and groundwater pollution; petroleum geology; engineering geology; geochronology; gems and minerals. (I)

3990 Directed Study. Cr. 1-6 (Max. 10)

Prereq: consent of instructor, adviser, and chairperson. (T)

4200 Geomorphology. Cr. 4

Prereq: GEL 1020. Principles underlying development of landforms by geologic agents. Material Fee As Indicated In The Schedule of Classes (B)

4860 Research. Cr. 3-4 (Max. 8)

Prereq: consent of instructor, adviser, and chairperson. Primarily for honors students. Independent laboratory and field work. (T)

5000 Geological Site Assessment. Cr. 4

Prereq: GEL 1010 or GEL 1000. Geologic methods for Phase I Environmental Site Assessments. Application of geostatistics to site characterization. (B)

5030 Earth Science for Educators. Cr. 4

Open only to middle or high school teachers. Review of all major earth science concepts including: physical geology, oceanography, meteorology and astronomy. Material Fee As Indicated In The Schedule of Classes (I)

5120 Environmental Geochemistry. Cr. 4

Prereq: GEL 1010 and two semesters of college chemistry or equivalent. Survey of some of the geochemical interactions which take place in Earth environments (water, soils, atmosphere, etc.) brought about by natural and human-induced chemical processes. Material Fee As Indicated In The Schedule of Classes (B)

5150 Soils and Soil Pollution. Cr. 4

Prereq: GEL 1010, CHM 1220 and 1230, CHM 2280 and 2290, or consent of instructor. Physical, chemical and mineralogical properties and classification of soils. Behavior of pollutants in soils and methods for reclamation. (S)

5450 Hydrogeology. Cr. 4

Prereq: GEL 1010 or consent of instructor; MAT 2010 or equiv. Characteristics and behavior of groundwater in earth materials. Groundwater geology of southeastern Michigan. Water well technology and methods for exploration. (B)

5510 Environmental Fate and Transport of Pollutants. Cr. 4

Prereq: CHM 1220, 1230, 1240, 1250, or equiv.; MAT 2010 or equiv. Basic principles of chemical behavior in the environment; sources, fate, and transport of contaminants. (F)

5993 (WI) Writing Intensive Course in Geology. Cr. 0

Prereq: junior standing; satisfactory completion of the IC requirement; consent of instructor; coreq: GEL 3160 or 3300 or 3400 or 3450. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of faculty member. Must be selected in conjunction with course designated as corequisite. See section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. (F,W)

6210 (GEL 6210) Current Topics in Environmental Sciences. (C E 6210) Cr. 3

Prereq: PHY 2130/2140 or 2170/2180; CHM 1220 and 1230; GEL 1010 or C E 4210; and BIO 1500; or consent of instructor. Introductory course for senior undergraduate and graduate students in environmental science/engineering and geology. Emphasis on effects of environmental changes on human society. (B:W)

6400 Nuclear Geology. Cr. 4

Prereq: PHY 2130/2140 or PHY 2170/2180; CHM 1220 and CHM 1230 and GEL 1010; or equivs. Introduction to various physical and chemical age-dating methods applied to geological and cosmological objects. (B)

6500 Economic Geology. Cr. 4

Prereq: GEL 2130, 3160, 3300, 3400. May require passport card. Geology, tectonic setting and genesis of metallic and nonmetallic mineral and hydrocarbon deposits. Resource economics and environmental issues related to resource extraction. Check with instructor for field trip destination; field trip to Canada frequently part of course. (B)

History

Office: 3094 Faculty/Administration Building; 313-577-2525; Fax: 313-577-6987; e-mail: ab3697@wayne.edu

Chairperson: Marc W. Kruman

Website: http://www.clas.wayne.edu/history

Professors

A. Ronald Aronson, John J. Bukowczyk, Elizabeth V. Faue, Marc W. Kruman, Fran Shor, David Weinberg

Associate Professors

Eric H. Ash, Jorge Chinea, José Cuello, Liette Gidlow, Hans Hummer, Janine Lanza, Osumaka Likaka, Elizabeth Dorn Lublin, William Lynch, Andrew Port, Aaron Retish, Marsha Richmond, Sandra F. VanBurkleo

Assistant Professors

Denver Brunsman, Alexander Day, Danielle McGuire, Kidada Williams

Emeritus / Emerita Professors

William J. Brazill, Jr., Marc Cogan, Tilden G. Edelstein, Edwin C. Hall, Charles K. Hyde, Christopher H. Johnson, Harry J. Magoulias, Philip P. Mason, Alan Raucher, Monica Schuler, Samuel F. Scott, Melvin Small, Richard Studing

Emeritus / Emerita Associate Professors

Effie Ambler, Stanley Shapiro, Stanley D. Solvick

Degree Programs

BACHELOR OF ARTS with a major in history
MASTER OF ARTS with a major in history
MASTER OF ARTS/MASTER OF LIBRARY AND INFORMATION SCIENCE combined degree
MASTER OF ARTS/MASTER OF EDUCATION combined degree
DOCTOR OF PHILOSOPHY with concentrations in America and Europe
GRADUATE CERTIFICATE in Archival Administration
GRADUATE CERTIFICATE in World History

History is central to our understanding of the human experience. The study of the past allows us to place our world in context, whether we want to understand international crises, the significance of a national election, or social relations within our own community. The skills of the historian - the ability to do research in original sources, to think critically, and to write clearly and persuasively - are highly valued in our changing world. The Wayne State Department of History maintains an international reputation for excellence in history, most notably in labor and urban history and in the history of governance and citizenship. Our faculty has received numerous awards for cutting-edge research and excellence in teaching. We teach undergraduate students fundamental research, analytical, and writing skills and train graduate students as professional historians, equipped with the skills to produce original, publishable research in their field of specialization.

Bachelor of Arts with a Major in History

Admission requirements for this program are satisfied by the requirements for undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits in course work including satisfaction of the College of Liberal Arts and Sciences Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the major requirements listed below. All course work must be completed in accordance with the academic procedures of the University and the College; see sections beginning on page 18, 36, and 274. The minimum requirement for a major in history is thirty-three credits, distributed according to the following five requirements:

Major Requirements in History:

1) A survey sequence consisting of three courses chosen from one of the following groups:

HIS 1000 - 1300- 1600 - 1610 - 2040

HIS 1000 - 1300 - 1910 - 2040 - 2050

HIS 1000 - 1300 - 1400 - 1710 - 2050

2) A minimum of eighteen credits in upper division coursework consisting of at least five HIS courses numbered 3000 or above (excluding HIS 4990, 4997, 5993 and 5996).

3) Diversity of regional content reflected by selection of two courses in European history, two courses in American history, and two courses in any of the following areas: Africa, Asia, Latin America, the Near or Middle East. In each area, one course must be numbered 3000 or above.

4) Distribution of chronological content reflected by selection of two courses in the pre-1800 period and two courses in the post-1800 period. Any course with both pre- and post 1800 content may only be counted as satisfying requirements for one period.

5) HIS 5993 (Writing Intensive Course in History) is required of all students responsible for completing the University General Education Requirements. HIS 5993 should be taken in conjunction with the capstone course, HIS 5996.

6) HIS 5996 (Capstone Course) is required of all students who declare history as a major. This course should be taken in the senior year.

Department advisers will help each student plan a program to fit his or her particular needs and background. A maximum of sixteen credits satisfying the major requirements may be transferred from other institutions.

Recommended Cognate Courses: Among recommended cognates for history majors are courses in anthropology, economics, English, political science, and sociology. The history of philosophy, the history of art, and the history of music are also appropriate electives, as are foreign language and culture courses.

Cognate in Business: Many history majors pursue careers in business and industry. It is possible to arrange a coherent cognate of several courses in the School of Business Administration that enhances the preparation of history majors for potential employment in business and industry, and also may serve as background for an M.B.A. program. Interested students should consult advisers in the School of Business Administration for assistance in constructing the cognate.

Pre-Law Program: The following courses are strongly recommended for pre-law students: History 5090, 5160, 5170, and 5280 (see also suggested pre-law curriculum in the Liberal Arts Undergraduate Curricula, page 279).

Honors Program in History

The History Department offers a Bachelor of Arts degree 'With Honors in History.' Qualified students planning post-baccalaureate work in history or in a professional school are especially encouraged to obtain an honors degree. Honors majors must have a 3.5 grade point average (g.p.a.) in history courses and a 3.3 cumulative g.p.a. in all courses. Honors majors must complete at least fifteen credits in honors-designated coursework, including at least one 4000-level seminar offered through the Honors College; six additional credits in History honors courses, of which at least three credits must be in an upper-division honors-option course; and HIS 5995 (Honors Seminar) after the completion of HIS 5996 (Capstone Course). To be admitted to the Honors Seminar, the student must have completed twenty-four credits in history, nine of which must be at or above the 3000 level. Students in the Honors Seminar will ordinarily complete a senior thesis begun in HIS 5996. This thesis will be directed by two regular faculty members; the student will also defend the thesis before them. For information about honors-designated coursework available each semester, visit the Honors College website link at: http://www.honors.wayne.edu/classes.php.

Minor in History

The minimum requirement for a minor in history is eighteen credits, of which at least fourteen must be from classes at the 3000 level or 5000 level.

'AGRADE' Program

The History Department permits academically superior majors in their senior year to participate in the 'AGRADE' Program (Accelerated Graduate Enrollment). Those admitted by the Department may enroll in courses that count toward both a B.A. and a M.A. For further information, consult with the Departmental Chairperson or Undergraduate Adviser.

Scholarships, Honors, and Awards

Phi Alpha Theta: Undergraduates and graduate students who demonstrate excellence in their history courses are eligible for election to the chapter of Phi Alpha Theta sponsored by the Department. The international honor society in history, Phi Alpha Theta, offers annual cash prizes to student members, sponsors conferences, and publishes a scholarly journal, The Historian. History majors and other history students interested in joining should inquire at the Department.

Mark and Linee Diem Scholarship. Awards full tuition for the senior year to the outstanding history major finishing the junior year.

F. Richard Place Memorial Award: Given to the outstanding senior paper produced by an undergraduate history major in the Capstone Course. The annual award is worth up to $500.

Rolf and Jennie Johannesen Memorial Scholarship: Annual award worth up to $500 to undergraduate and graduate students in history, whose research is in either classical civilization or, more broadly, the effects of the classical period on later eras.

HISTORY COURSES (HIS)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

1000 (HS) World Civilization to 1500. Cr. 3-4

No credit after HIS 1100 or HIS 1200. Survey of ancient and medieval history from the Neolithic Revolution to 1500. (T)

1050 (AI) American Civilization Since World War II. Cr. 3-4

Recent American ideas, institutions, and social movements within the broad context of global change and conflicts. (B)

1300 (HS) Europe and the World: 1500-1945. Cr. 3-4

No credit after former HIS 1300 or former HIS 2870. The rise of the modern West and the response of the non-West from the age of Exploration to the end of World War II, the foundations of the contemporary world. (T)

1400 (HS) The World Since 1945. Cr. 3-4

No credit after former HIS 1040. Selected topics in world history since 1945, including: impact of World War II on Europe and European empires; bipolar division of the world between the United States and the Soviet Union; the international order and relations between the industrial nations (First World) and the developing nations (Third World). (T)

1600 (HS) African Civilizations to 1800. Cr. 3-4

No credit after former HIS 2400. Africa from ancient Egypt to the Atlantic slave trade. Emphasis on state-building; regional and international commercial network and their role in economic, political, and socio-cultural change. (T)

1610 (HS) African Civilizations Since 1800. Cr. 3-4

No credit after former HIS 2410. The origins of contemporary Africa, nineteenth century state-building, spread of Islamic religion, establishment of European empires, independence struggles, problems of independence. (T)

1700 East Asian Civilizations to 1840. Cr. 3

Traditional East Asian culture and civilization; introduction to origins, growth, and development of the traditional societies of China, Korea, and Japan from remote antiquity until about 1840. (I)

1710 (HIS 1710) (HS) History of Modern East Asia. (ASN 1710) Cr. 3

From beginning of nineteenth century to the present; emphasis on political, social, economic developments in China, Japan and Korea. (I)

1800 (N E 2030) (HS) The Age of Islamic Empires: 600-1600. Cr. 3

Historical evolution of the Islamic world from birth of Islam to height of Ottoman Empire. Islamic history and civilization in a world-historical context; developments indigenous to specific regions, such as Islamic Spain. (Y)

1810 (N E 2040) (HS) The Modern Middle East. Cr. 3

Survey of Middle East history in modern era, focusing on the nineteenth and twentieth centuries. Ottoman history from 1600: impact of European imperialism and nationalist movements, resulting in development of modern state systems, regional/national conflicts, Islamic response to modernization. (Y)

1910 (HIS 1910) Latin America from Independence to the Present. (CBS 2450) Cr. 3

Latin America from early nineteenth century to the 1980s. Major themes include: 1) colonial pasts and political independence; 2) state formation, and the construction of identities at local and national levels; 3) elite and popular relations, including cases of rebellion, revolution, and state repression; 4) forms of capitalist development and transformations in class relations, ideologies of economic development, and linkages to the United States. (Y)

1995 (HS) Society and the Economic Transition. Cr. 3

Historical survey of the interaction between technological change, socio-economic systems, and culture. Multi-disciplinary studies of hunting, agrarian, and industrial societies. (F)

2000 (U S 2000) (SS) Introduction to Urban Studies. (GPH 2000) (P S 2000) (SOC 2500) Cr. 4

Urban phenomena, past and present, quality and nature of urban life, major concerns of urban areas; perspectives and techniques of various urban-related disciplines. (T)

2040 United States to 1877. Cr. 3-4

American experience with colonialism, revolution and nation building. (T)

2050 United States Since 1877. Cr. 3-4

Industrialization, urbanization, and emergence of the United States as a world power. (T)

2240 History of Michigan. Cr. 3-4

Social, economic development of the state, from French explorations to the present. (B)

2430 (CBS 2430) History of Latinos in the United States. Cr. 3

Historical development of people of Hispanic descent in the United States from the early nineteenth century to the present. Cultural conflict, interaction of political, social, and economic forces. (F)

2440 (CBS 2410) (FC) History of Mexico. Cr. 3

Historical development of Mexico and the Mexican people from the Spanish conquest to the present. Interaction of political, social, economic and cultural influences. (F)

2500 (PCS 2000) Introduction to Peace and Conflict Studies. (P S 2820) Cr. 3

Required for the peace and conflict studies co-major. Open to all undergraduate students. Introduction to the peace and conflict studies co-major. Survey, ranging from biology and conflict among animals to disputes involving the individual, the family, the neighborhood and region, the nation and global or international community. (Y)

2510 (PHY 2020) Science, Technology, and War. (P S 2440) (PCS 2020) Cr. 4

May not be used to fulfill natural science group requirement. Not open to students who took this topic in HIS 3995. Modern weapons, nuclear and otherwise are becoming increasingly available and dangerous; people with grievances seem eager to use them. Science and technology, as well as constraints of bureaucracy and society underpin weapons development and use, as technologies affect prospects and results of war and peace. History of humanity and its tools of war. (Y)

2520 (PCS 2010) Topics in Peace and Conflict Studies. (P S 2830) Cr. 1-4

Special topics relating to peace and conflict studies. (T)

2530 (PCS 2050) The Study of Non-Violence. (P S 2550) (SOC 2050) Cr. 3

Intellectual and social roots of non-violence and the practice of non-violence in different people's life styles. (T)

2700 (P S 2700) (FC) Introduction to Canadian Studies. (ENG 2670) (GPH 2700) Cr. 3

Survey of Canada in its cultural, literary, historical, geographical and political aspects; key concepts and social patterns that define the Canadian experience. (Y)

3010 (N E 3010) Survey of Jewish Civilization and History. (HIS 6005) (N E 6005) Cr. 4

History of the Jewish people from their biblical origins to the contemporary period. Study of primary documents as a means of under-

standing how Jews have responded to the challenges of living in both the Diaspora and a Jewish State. (I)

3015 (HIS 3015) History of Judaism and Jewish Thought. (N E 3015) Cr. 4

Development of Judaism and Jewish thought from early beginnings in the Hebrew Bible to contemporary American Jewish religious developments. (F)

3050 United States and the Vietnam Experience. Cr. 4

The United States' involvement in Vietnam; military, domestic and diplomatic impact. (Y)

3140 (HIS 3140) African American History I: 1400-1865. (AFS 3140) Cr. 3-4

African origins of the African Americans; transition from freedom to slavery; status of the African Americans under slavery. (F)

3150 (HIS 3150) African American History II: 1865 to the Present. (AFS 3150) Cr. 3-4

The African Americans in national life since emancipation. (W)

3160 (AFS 3160) Black Urban History. Cr. 4

Historical experience of African Americans in urban areas; impact of their communities on urban development from 1860 to contemporary times. (F,W)

3170 (HIS 3170) Ethnicity and Race in American Life. (AFS 3170) (AFS 6170) (HIS 6170) Cr. 3-4

Exploration of complicated relationship between ethnic and racial diversity and the making of America. Using historical, literary, and cultural readings and sources to examine key themes: Who was the "Other"? What is an "American"? (B)

3180 (AFS 3180) Black Social Movements. Cr. 4

Prereq: AFS 2210 recommended. Survey of mass or popular Black movements with emphasis on their political and cultural impact, historical continuity and organization. (Y)

3190 History of American Business. Cr. 3

Major innovators and leaders as entrepreneurs, as corporate managers, and as business statesmen from colonial era to present. Special attention to relationship, American values, and government policies. (B)

3230 (HIS 3230) The Civil Rights Movement. (HIS 5235) (AFS 3230) (AFS 5230) Cr. 3

Historically-driven survey of the Civil Rights Movement; focus on African Americans' efforts to enjoy the full benefits of American citizenship. (Y)

3240 (P S 3250) Detroit Politics: Continuity and Change in City and Suburbs. Cr. 4

Detroit area political systems and processes, historical, economic, and social influences on local politics. Traditions, changes, and future challenges in Detroit and metropolitan area. (B)

3250 The Family in History. Cr. 3-4

Only Honors Program students may elect for four credits. Comparative survey emphasizing the transformation from traditional patterns of family life to family and kin in modern industrial society; students research their own family histories. (B)

3300 Technology in America. Cr. 3-4

Technological change in the United States from European settlements to the present; impact of technology in American society; meaning of technology in American culture; history of technologies used in agriculture, manufacturing, transportation, communication, and warfare. (B)

3320 (N E 3040) Twentieth Century Middle East. Cr. 3

The contemporary Middle East; emphasis on social and economic development. Investigation of issues that identify the region, such as oil, gender issues, fundamentalism, and regional conflicts. (Y)

3330 Civilizations of the Nile Valley: Egypt and Nubia. Cr. 4

From Neolithic era to the seventh century of our era. (B)

3360 (AFS 3360) Black Workers in American History. Cr. 4

Survey course. Slave and free workers during antebellum period; skill trades, sharecropping, menial labor, coal mining during Reconstruction; labor struggles and job discrimination in the twentieth century. (F,W)

3400 The Automobile and Society: Europe, America, and Japan. Cr. 4

History of the design, production, and use of the automobile in Europe, the United States, and Japan, from 1885 to the present; impact of automobile on society and culture. (B)

3410 History of Energy. Cr. 3

Issues include impact that access to energy sources have had on development of society; emphasis on role of coal and oil in spurring industrial development. (W)

3425 (HIS 3425) American Environmental History. (HIS 6025) Cr. 4

From the pre-Columbian period to the present day; emphasis on twentieth century urban history, using Detroit as a model for the changing human/environment relationship over the past three centuries. (F)

3435 (HIS 3435) Evolution and Its Critics. (HIS 6435) Cr. 3

Key issues in the debates over evolution in the United States from the nineteenth century up to the present. (F)

3440 (HIS 3440) American Medicine in the Twentieth Century. (SOC 3440) (HIS 6440) Cr. 3

Major historical benchmarks in the making of the medical system in the U.S., including developments in medicine and medical knowledge, as well as social and political factors that influenced their reception and implementation. (W)

3585 (HIS 3585) Science, Technology, and Society. (HIS 5585) Cr. 3

Introduction to the field of Science and Technology Studies; how conflicts about science and technology are generated and resolved; how broader societal institutions help shape, and are shaped by, science and technology. (W)

3825 (HIS 3825) History of Modern China. (ASN 3825) (ASN 5825) (HIS 5825) Cr. 4

From early 1600s to the present; political, economic, and social changes. (B)

3840 (HIS 3840) China and the World. (HIS 6840) (ASN 3840) (ASN 6840) (CHI 3840) (CHI 6840) Cr. 4

History of China as it has interacted with the world over the last two thousand years. Focus on global flow of trade goods, ideas and ideologies, religions and people. (Y)

3865 (HIS 3865) History of Modern Japan. (ASN 3865) (ASN 5865) (HIS 5865) Cr. 4

Japanese history from the early nineteenth century to the present; emphasis on political, economic, and social developments. (Y)

3875 (HIS 3875) Women in Japanese History. (ASN 3875) (ASN 5875) (HIS 5875) Cr. 4

From ancient times to the present. Reading-intensive course. (B)

3991 Directed Study: Salford - W.S.U. Exchange. Cr. 3-9

Prereq: consent of departmental adviser. Open only to students admitted to Salford-WSU Exchange Program. Directed study at University of Salford, England. (F,W)

3993 (HIS 3993) Topics in Canadian History, Society, Politics, and Culture. (ENG 3993) (GPH 3993) (P S 3993) (SOC 3993) Cr. 3-4 (Max. 15)

Significant topics and issues in the development of Canadian history, society, politics, and culture. (F,W)

3995 Special Topics in History. Cr. 1-4 (Max. 8)

Specialized and topical studies in historical events, personalities and themes. Topics to be announced in Schedule of Classes . (T)

3996 Topics in African History. Cr. 1-4 (Max. 8)

Topics to be announced in Schedule of Classes . (I)

3998 Topics in American History. Cr. 1-4 (Max. 8)

Topics to be announced in Schedule of Classes . (I)

4990 Directed Study. Cr. 1-6

Prereq: consent of chairperson. (T)

4997 Internship in Historical Museums. Cr. 3

Prereq: consent of chairperson. Open only to majors. Offered for S and U grades only. Training in local historical museums and agencies in all aspects of museum administration and service. (T)

5010 (HIS 5010) Colonial North America. (HIS 7010) Cr. 4

European expansion to North America, interaction among European, Native American, and African peoples, and imperial competition over the New World through the Seven Years' War. (I)

5020 (HIS 5020) Revolutionary America. (HIS 7020) Cr. 4

Social, political, and cultural background to America's independence movement; development of American national identity, social relations, and early politics through the election of 1800. (I)

5030 (HIS 5030) Early American Republic: 1789-1850. (HIS 7030) Cr. 4

Emphasis on the political culture with special attention to the founding of the American Republic, the emergence of a modern economy, slavery, social reform, and the sectional crisis. (B)

5040 (HIS 5040) Civil War and Reconstruction: 1850-1877. (HIS 7040) Cr. 4

Emphasis on the coming of the Civil War, the war's impact on American society, and the reconstruction of the United States after the war. (B)

5050 (HIS 5050) The Emergence of Modern America: 1877-1917. (HIS 7050) Cr. 4

Emphasis on the rise of big business, social and intellectual change, protest movements and government policies. (B)

5060 (HIS 5060) Modern America: 1917-1945. (HIS 7060) Cr. 4

Analysis of economic and social problems, politics, and government policies. (B)

5070 (HIS 5070) Contemporary American History: 1945 to the Present. (HIS 7070) Cr. 4

Social, political, intellectual, economic, diplomatic, and cultural trends in the United States since World War II. (Y)

5090 (HIS 5090) Constitutional History of the United States from 1937 to the Present. (HIS 7090) Cr. 3

U.S. constitutional development since the Judicial Revolution of 1937, emphasizing New Deal constitutionalism, dramatic shifts in the role of courts and the executive branch, civil rights movements, and modern rights consciousness. (B)

5110 (P S 6050) Class, Race, and Politics in America. (AFS 6100) (SOC 7330) (U P 7030) Cr. 3

Prereq: senior standing or consent of instructor. Historical and analytic investigation into the role of class and race in American politics. (I)

5120 (HIS 5120) American Foreign Relations to 1933. (HIS 7120) Cr. 4

United States involvement in the international system from the Revolution through World War I and Versailles. Emphasis on the War of 1812 and the Mexican and Spanish-American Wars. (B)

5130 (HIS 5130) American Foreign Relations Since 1933. (HIS 7130) Cr. 4

United States involvement in the international system from the twenties to the present. Emphasis on World War II to Vietnam and the role of the United States in the Cold War and the Third World. (B)

5160 (HIS 5160) Constitutional History of the United States to 1860. (HIS 7160) (LEX 7123) Cr. 4

Anglo-American constitutional development from European expansion and New World Settlement through the onset of the Civil War. Changing relationship between colonies and imperial center, emergence of revolutionary republic in North America, framing of new constitutional orders, nineteenth-century developments through 1860. (B)

5170 (HIS 5170) Constitutional History of the United States from 1860 to 1940. (HIS 7170) (LEX 7124) Cr. 4

United States constitutional development from the beginning of Civil War through the Judicial Revolution of 1937. Emergence of new constitutional agenda between 1860 and the 1890s. Progressive constitutionalism, changes in relations between branches of government and in the federation, New Deal constitutionalism, and struggles for enfranchisement of blacks and women. (B)

5190 (HIS 5190) History of American Social Thought. (HIS 7190) Cr. 4

Social thought and ideologies from the colonial era to the recent past, including Puritanism, the Enlightenment, Transcendentalism, Darwinism, Pragmatism, and the social sciences; emphasis on major figures and social context. (B)

5200 (HIS 5200) Women in American Life and Thought. (HIS 7200) Cr. 3

Role of women in the development of American society and in women's movements. (B)

5210 (HIS 5210) The Peopling of Modern America, 1790-1914: A History of Immigration. (HIS 7210) Cr. 3-4

Causes and consequences of immigration; immigrants and labor; immigrant culture and institutions; relationship between immigration, industrialization, and urbanization; racism, nativism, and immigration restriction. (B)

5220 (HIS 5220) The Changing Shape of Ethnic America: World War I to the Present. (HIS 7220) Cr. 3-4

Assimilation, cultural pluralism and the "melting pot"; persistence of ethnic cultures; class and ethnicity; internal migrations; America's recent immigrants; race and ethnic relations in the city; the "new ethnicity." (B)

5231 (HIS 5231) The Conquest in Latin America. (CBS 5231) (HIS 7231) Cr. 3

Varying perspectives on European conquests in Latin America. (I)

5234 (HIS 5234) Race in Colonial Latin America. (CBS 5234) (HIS 7234) Cr. 3

Use of race to organize colonial society in Latin America. (I)

5237 The Mexican Revolution. (CBS 5237) (HIS 7237) Cr. 3

Causes, dynamics, and effects of the Mexican Revolution of 1910-1940. (I)

5239 Latin American Migration to the United States. (CBS 5239) (HIS 7239) Cr. 3

Causes, dynamics, and impact of Latin American migration to the United States. (I)

5241 American Slavery. (HIS 7241) (AFS 5241) (AFS 7241) Cr. 4

Rise, expansion, and demise of slavery in the United States. Study of the five generations of Americans who lived with this institution; the unique imprint of slavery on American history and collective memory. (Y)

5251 (HIS 5251) History of Feminism. (HIS 7251) (W S 7020) Cr. 4

An upper division - graduate level course on the main ideological, intellectual, and political sources and developments in the history of feminism in the United States. (B)

5280 (HIS 5280) American Legal History. (HIS 7280) (LEX 7020) Cr. 4

Non-technical survey of relationships between private law and a developing American society from earliest settlement to the present. Emphasis on evolving conceptions of civil authority and private right, the legal profession, legal education, the law of slavery, and doctrinal developments touching property, labor, women, children, and others. (I)

5290 (ECO 5490) American Labor History. (HIS 7290) Cr. 4

Analysis of American workers and unions in the nineteenth and twentieth centuries. (B)

5320 (AFS 5320) Black Labor History. Cr. 3

Prereq: upper division standing. Offered for undergraduate credit only. History of black labor from the colonial period to the present . Topics include the development of a dual racial labor system in America; black workers in the development and evolution of the American labor movement; and black responses to white working class behavior. (B)

5330 (HIS 5330) History of Ancient Greece. (HIS 7330) Cr. 3

Ancient Greek culture, emphasizing political events, social and economic institutions, cultural achievements. (B)

5340 (HIS 5340) History of Ancient Rome. (HIS 7340) Cr. 3

Institutional and cultural development. (B)

5360 (HIS 5360) The Early Middle Ages: 300-1000. (HIS 7360) Cr. 3

Interaction of Roman, Christian and barbarian elements in the emergence of Europe as a cultural entity between the fourth and tenth centuries. (B)

5370 (HIS 5370) The High Middle Ages: 1000-1300. (HIS 7370) Cr. 3

Economic, social and cultural developments that transformed Western European civilization during the eleventh, twelfth and thirteenth centuries. (B)

5380 (HIS 5380) The Renaissance. (HIS 7380) Cr. 3

Europe in an age of transition between the fourteenth century and about 1530; Italian cultural and intellectual developments within a social and political context. (B)

5385 (HIS 5385) History of Christianity to the Reformation. (HIS 7385) Cr. 3

Survey of Christianity from Jesus to the Reformation. Balanced coverage of Christianity in Europe, Asia, and Africa. (Y)

5390 (HIS 5390) Europe in the Age of Reformation. (HIS 7390) Cr. 3

Protestant and Catholic reformation seen in the context of social, economic, and political conditions of the sixteenth and seventeenth centuries. (B)

5395 (HIS 5395) Social History of the Roman Empire. (HIS 7395) Cr. 3-4

Prereq: HIS 1000. Social institutions of the Roman empire, including the family, patronage, slavery, economy, and religion. (Y)

5400 (HIS 5400) Early Modern Europe. (HIS 7400) Cr. 4

Development of modern centralized state; social and cultural changes, including the Enlightenment. (B)

5407 (HIS 5407) The Scientific Revolution. (HIS 7407) Cr. 3

Rise of modern science; major changes in study of astronomy, medicine, physics, mathematics, and other sciences from 1500 to 1700. (B)

5410 (HIS 5410) The French Revolution and Napoleon. (HIS 7410) Cr. 4

The dramatic changes of the late eighteenth and early nineteenth century that altered the course of French and European development and laid the basis for political modernization. (Y)

5440 (HIS 5440) Twentieth Century Europe. (HIS 7440) Cr. 4

Total war and disillusionment, attempts to restore stability and security, totalitarianism as an answer, more war and reconstruction, a divided Europe, the search for Europe's place in the world. (B)

5450 (HIS 5450) The Age of Ideology: Europe in the Interwar Period. (HIS 7450) Cr. 4

Social and cultural trends in modern European society; ideological struggles of interwar period. Topics include: impact of World War I; development of communism, fascism, nazism; Freud and the liberal defense; existentialism; postwar disillusionment. (Y)

5460 (HIS 5460) History of the Holocaust. (HIS 7465) Cr. 4

Holocaust as a tragic conjuncture of general European and Jewish history. Topics include: development of anti-semitism in Europe and the rise of Nazism; European Jewry in the interwar period; the Third Reich's treatment of the "Jewish Question" in the 1930s; Jewish resistance; fate of the survivors; implications of the Holocaust for contemporary society. (Y)

5470 (HIS 5470) Modern Germany. (HIS 7470) Cr. 3-4

The history of modern Germany against the background of its tradition and culture. Concentration on the Prussian-Austrian conflict, the emergence of German intellectual life, unification and modernization, and the crises and wars of the twentieth century. (I)

5480 (HIS 5480) Nazi Germany. (HIS 7480) Cr. 3-4

Hitler and Nazi Germany. Topics include: impact of World War I, the Weimar Republic, the growth of the Nazi party, the seizure of power, internal and foreign policies, and the war experience. (B)

5490 (HIS 5490) Russian History through the Revolution. (HIS 7490) Cr. 4

Development and transformation of state power, with particular attention to those economic and social elements peculiar to Russia. (Y)

5495 (HIS 5495) History of the Russian Revolution. (HIS 7495) Cr. 3-4

The Russian Revolution, including fall of tsarist Russia, reign of the Provisional Government, and establishment of power by the Communist Party. (Y)

5500 (HIS 5500) The Soviet Union. (HIS 7500) Cr. 4

Bolshevik seizure of power, collectivization of agriculture and forced-draft industrialization, Nazi German invasion, Khrushchev and

deStalinization, predominance of the new middle class, nationality problems, problems of detente. (Y)

5530 (HIS 5530) History of World War I and II. (HIS 7530) Cr. 4

A military history of the two world wars of the twentieth century. (B)

5550 (HIS 5550) Britain 1485-1714. (HIS 7550) Cr. 4

Impact of religious, political and social change on British people during sixteenth, seventeenth, and early eighteenth centuries. (I)

5560 (HIS 5560) History of Modern Britain: 1689-2000. (HIS 7560) Cr. 4

From the "Glorious Revolution" to the present day; political, economic, intellectual, and social developments, in Britain itself and across the Empire. (B)

5620 (HIS 5620) The Rise of the European Working Class: 1750-1850. (HIS 7620) Cr. 3

The impact of capitalism on peasant society; the transformation of handicraft industry; the emergence of the factory proletariat; class conflict and the working class movement in Europe's revolutionary age. (B)

5660 (HIS 5660) France Since 1815. (HIS 7660) Cr. 4

Struggle between old and new political forces, impact of industrialization, search for freedom with order, effect of total war, problems of decolonialization and European integration, cultural transformations. (Y)

5730 (HIS 5730) The History of West Africa. (HIS 7730) Cr. 4

West African states; Islam and socio-political change; the termination of the Atlantic slave trade; European conquest; West African resistance and the Colonial experience; nationalism and independence. (B)

5740 (HIS 5740) History of South Africa. (HIS 7740) Cr. 4

Historical origins of Apartheid with emphasis on nineteenth and twentieth century, including Dutch and British settlement, African state building, the mineral revolution, European racism, African resistance and nationalism. (B)

5825 (HIS 3825) Readings in History of Modern China. (ASN 3285) (ASN 5825) Cr. 4

From early 1600s to the present; political, economic, and social changes. (B)

5865 (HIS 3865) Readings in the History of Modern Japan. (ASN 3865) (ASN 5865) Cr. 4

Japanese history from the early nineteenth century to the present; emphasis on political, economic, and social developments. (Y)

5875 (HIS 3875) Readings in Women in Japanese History. (ASN 3875) (ASN 5875) Cr. 4

From ancient times to the present. Reading-intensive course. (B)

5960 (N E 5000) Globalization, Social History and Gender in the Arabian Gulf. (HIS 7960) Cr. 3

Social history of the Arabian Gulf (especially Bahrain, Qatar, and the UAE) in the age of globalization. Contemporary history with special emphasis on gender relations as an index of current social developments in the region. (Y)

5991 Directed Study: Salford - W.S.U. Exchange. Cr. 3-9

Prereq: consent of departmental adviser. Open only to students admitted to Salford-WSU Exchange Program. Directed study at University of Salford, England. (F,W)

5993 (WI) Writing Intensive Course in History. Cr. 0

Prereq: junior standing, consent of chairperson and instructor, satisfactory completion of the IC requirement; coreq: HIS 5996. Offered for S and U grades only. Open only to majors. Required for all majors. Students write term paper of approximately twenty typed pages, including footnotes and annotated bibliography. Must be selected in conjunction with the Capstone Course for Majors. Satisfies the University General Education Writing Intensive Course in the Major requirement. (F,W)

5995 Honors Seminar. Cr. 3

Prereq: consent of chairperson; honors standing in history. (T)

5996 Capstone Course for Majors. Cr. 3

Prereq: consent of chairperson. Open only to majors. (I)

6000 Studies in Comparative History. Cr. 2-4

Topics to be announced in Schedule of Classes . (B)

6010 Studies in American History. Cr. 2-4 (Max. 9)

Topics to be announced in Schedule of Classes . (Y)

6170 (HIS 3170) Studies in Ethnicity and Race in American Life. (AFS 3170) (AFS 6170) Cr. 3-4

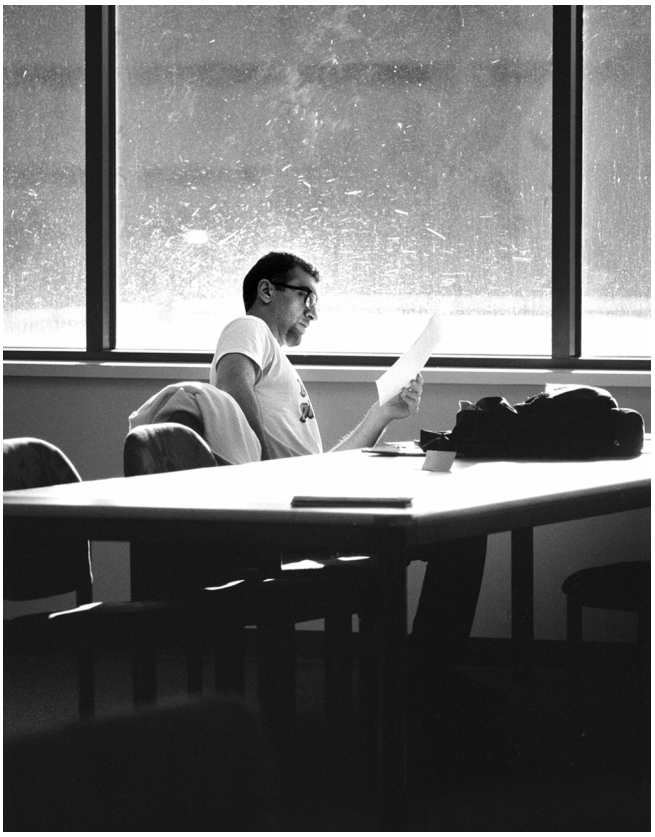
Exploration of complicated relationship between ethnic and racial diversity and the making of America. Using historical, literary, and cultural readings and sources to examine key themes: Who was the "Other"? What is an "American"? (B)

6190 History of American Business. Cr. 3

Major innovators and leaders as entrepreneurs, as corporate managers, and as business statesmen from colonial era to present. Special attention to relationship, American values, and government policies. (W)

6780 (LIS 6780) Introduction to Records and Information Management. Cr. 3

Management of information, including records creation, records inventory and appraisal, retention/disposition scheduling, filing systems, maintenance of inactive records, micrographics, vital records protection, and electronic impact on records management. (F)



Interdisciplinary Studies

Office: Room 1263, First Floor, Faculty/Administration Building
656 West Kirby, Detroit, MI 48202
Director: Howard Finley
e-mail:ad4589@wayne.edu

Web: http://www.clas.wayne.edu/is/

Academic Advisers

Roberta DeMeyer (email: ac3777@wayne.edu), Howard Finley

Degree Programs

BACHELOR OF INTERDISCIPLINARY STUDIES

BACHELOR OF TECHNICAL AND INTERDISCIPLINARY STUDIES

POST-BACCALAUREATE CERTIFICATE in Nonprofit Sector Studies

MASTER OF INTERDISCIPLINARY STUDIES

For the last several years the University has addressed the issue of interdisciplinary studies by way of offering integrated studies degrees, first through an individual department and then through a program within the College of Liberal Arts and Sciences. However, recognition of the interdisciplinary nature of many specific subjects has become widespread, and an orientation to "other" subjects, methods of research, and points of view has become a part of many traditional disciplines and modes of instruction. Thus, the interdisciplinary mission of the University is now be taken on by its several subject-specific departments, and the ISP faculty have joined those units.

Since January 2008, no new students are being admitted to the Interdisciplinary Studies program, and all ISP faculty have been reassigned to other departments. Faculty email addresses remain the same. Those students currently pursuing ISP degrees will be served by the ISP advisers and are encouraged to complete their degrees. Advisers (Howard Finley, Director; and Roberta DeMeyer;) are available to students already in the program for advising and questions related to their plans of work and progress toward degrees.

With the exception of ISP 4860, Senior Seminar II, Interdisciplinary Studies Program undergraduate courses were discontinued beginning in the Fall 2009 semester. ISP students must contact an ISP adviser to discuss course substitutions for degree completion requirements. ISP students have until the end of Winter 2011 to complete their degree requirements with ISP courses for an ISP undergraduate degree. Thereafter, students can still complete their degrees but will need to take course substitutions from other departments to fulfill their degree requirements. It is important for students to contact their ISP adviser.

Degree Programs: The curricula leading to the bachelor's degrees offered by the Interdisciplinary Studies Program (ISP), College of Liberal Arts and Sciences, enables students either to concentrate on a single broad theme around which they assemble courses providing relevant areas of knowledge or to explore a diversity of interests through a more eclectic selection of courses which they synthesize and apply to a specific problem or thematic issue.

Bachelor of Interdisciplinary Studies

This is a four-year interdisciplinary general studies degree program. The curriculum, organized to maximize related course sequences, focuses on historical, contemporary, and cross-cultural issues in the humanities, social sciences, natural sciences, and technology. Courses place special emphasis on critical thinking and analysis, writing ability, and research skills. In its concern with the development of humanistic and social consciousness, as well as science and technology literacy, this program draws upon the maturity and experience of the adult student.

Bachelor of Technical and Interdisciplinary Studies

This is a culminating degree program designed for graduates of two-year technical, vocational, and professional associate of applied science (or equivalent) degree programs. The curriculum provides the opportunity to enhance prior technical or professional training with advanced course work from other schools and colleges of Wayne State University.

Interdisciplinary Studies Courses Satisfying General Education Requirements

The following courses have been approved to fulfill the University General Education Requirements. Though no longer active on account of discontinuance of the program, they are cited here for transcript verification purposes:

COMPETENCY REQUIREMENTS

- Intermediate Composition: ISP 3510, ISP 4991, I H 2010
- Writing-Intensive Course: ISP 4860, ISP 4992, ISP 4996
- Oral Communication: ISP 1560
- Computer Literacy: IST 2710
- Critical and Analytic Thinking: ISP 3260

GROUP REQUIREMENTS

- Life Science: IST 2310
- Physical Science: IST 2420
- Historical Studies: ISP 3160, I H 3810
- Social Science: ISP 3480, ISS 2710
- American Society/Institutions: ISP 3420, ISS 1510
- Foreign Culture: ISP 3600, ISP 3610, ISP 3620
- Visual and Performing Arts: I H 2730, I H 3730
- Philosophy and Letters: I H 2710, I H 3710

Nonprofit Sector Studies Programs

MINOR in Nonprofit Sector Studies

POST-BACCALAUREATE CERTIFICATE in Nonprofit Sector Studies

The Nonprofit Sector Studies (NPS) Program offers courses for persons who plan to work as professionals in youth, health, human services, and other nonprofit organization settings. The Program offers the Minor in Nonprofit Sector Studies for the undergraduate student, and the Post-Baccalaureate Certificate for persons who may already work in nonprofit organizations and have earned a bachelor's degree.

Minor in Nonprofit Sector Studies: The minor is designed to complement a student's matriculation in a major field of study. A minimum of nineteen credits, completed with a minimum grade point average of 2.0, is required for completion of the Minor. Required courses for the Minor include: NPS 3000, 3500, 4000, and 4500, plus one elective selected from an approved list of courses drawn from allied fields.

Post-baccalaureate Certificate in Nonprofit Sector Studies: This certificate is designed for persons who wish to receive certification from faculty and experts in nonprofit management. The Certificate candidate must complete twenty-four credits in the program with a minimum grade point average of 2.5. Required courses for the Post-Baccalaureate Certificate include: NPS 3000, 3500, 4000, 4300, and 4500, plus one elective selected from an approved list of courses drawn from allied fields.

International Studies

Office: 355 Manoogian Hall; 313-577-8072; Fax: 313-577-2738

Program Director: Bruce S. Morgan

Advisory Committee

Classical and Modern Languages and Literatures: Donald Haase
Economics: Allen C. Goodman
English: Renata M. Wasserman
Linguistics: Martha Ratliff
Political Science: Charles D. Elder

Co-Major or Minor in International Studies

The interdisciplinary program in international studies serves to broaden the educational horizons of undergraduates; it offers co-major and minor concentrations of study. This program draws upon a combination of subjects which provide students with a distinctive body of knowledge and perspectives essential to ensure their competence in an emerging global market. Students in all majors who add International Studies to their curriculum can expect to gain knowledge of world cultures, politics, economics, geography, and languages. With this enhanced competitive edge, students will be better able to master national and international job markets and to advance their future careers.

The core requirements of the International Studies Program offer foundational knowledge from five different disciplines, while the wide range of elective courses enables students to acquire a variety of intercultural skills or to develop specialized knowledge of a particular area or region of the world.

MINOR REQUIREMENTS: Students must fulfill the core requirements and take one elective course, for a minimum of eighteen credits; additional electives are allowed.

CO-MAJOR REQUIREMENTS: Students must fulfill the core requirements and elect a minimum of fifteen additional credits in elective courses, for a total of thirty-two credits. For information on elective courses for this program, contact Dr. Bruce Morgan (313-577-8072).

Core Requirements

ANT 3100 -- Cultures of the World: Cr. 3-4
GPH 1100 -- (SS) World Regional Patterns: Cr. 4
HIS 1400 -- (HS) The World Since 1945: Cr. 3-4
LIN 2730 -- (ENG 2730) (FC) Languages of the World: Cr. 3
P S 2710 or P S 2810
-- Introduction to Comparative Politics: Cr. 4
-- World Politics: Cr. 4

Courses included in the International Studies Program may also count toward satisfaction of the University General Education Requirements and College of Liberal Arts and Sciences group requirements.

For more information about the Program, consult the Program Director, Dr. Bruce Morgan, 355 Manoogian Hall.

Labor Studies

Office: 3178 Faculty/Administration Building; 313-577-2191
Director: Marick Masteres, email: Marickm@wayne.edu
Web: http://www.laborstudies.wayne.edu

Bachelor of Arts with a Major in Labor Studies

The Labor Studies major prepares students for work with unions, private employers, and government in the areas of labor relations, personnel, and human resource management. Graduates work with unions as field representatives, organizers and research analysts; in government as labor relations specialists, mediators and policy makers; and with employers as labor relations, personnel and human resource administrators. Many graduates continue their studies in law school or graduate school. Students considering graduate study are encouraged to consult with the adviser regarding graduate school requirements.

Admission Requirements for this program are satisfied by the general requirements for undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits in course work including satisfaction of the College of Liberal Arts and Sciences Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the core courses and specialized and applied curricula listed below. All course work must be completed in accordance with the academic procedures of the University and the College of Liberal Arts and Sciences governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

Required Core Courses (Twenty Credits)

ECO 5480 -- Economics of Work: Cr. 3
HIS 5290 -- American Labor History: Cr. 4
LBS 2500 -- Introduction to Labor Studies : Cr. 4
LBS 4700 -- (WI) Senior Seminar: Cr. 3
PSY 2100 -- Psychology of the Workplace: Cr. 3
P S 6070 -- Labor and American Politics: Cr. 3

Applied and Specialized Curriculum

Four courses (twelve credits) must be selected from the following list:

ANT 3150 -- (FC) Anthropology of Business: Cr. 3
ECO 5400 -- Labor Economics: Cr. 4
ECO 5410 -- Economics of Race and Gender: Cr. 4
HIS 3360 -- Black Workers in American History: Cr. 4
HIS 5320 -- Black Labor History: Cr. 3
HIS 5620 -- Rise of European Working Class: Cr. 3
LBS 4500 -- Applied Labor Studies: Cr. 3 (twelve credits may be elected as:
-- Labor Relations
-- Collective Bargaining
-- Labor Law
-- Labor, Politics and Public Policy: Cr. 3
MGT 5700 -- Human Resource Management: Cr. 3
MGT 5740 -- Collective Bargaining: Cr. 3
PSY 5540 -- Motivation in the World of Work: Cr. 3
PSY 5710 -- Dispute Resolution: Cr. 3
PSY 6540 -- Organizational Staffing: Cr. 3
PSY 6550 -- Training and Employee Development: Cr. 3
P S 3020 -- Political Parties and Elections: Cr. 4
P S 3030 -- Political Interest Groups: Cr. 4
P S 3040 -- The Legislative Process: Cr. 4
SOC 3300 -- (SS) Social Inequality: Cr. 4
SOC 4100 -- (SS) Social Psychology: Cr. 4
SOC 5700 -- Seminar in social Inequality: Cr. 3

Students are referred to the program director for information concerning courses, directed study, internships, career information, and graduate study.

Non-Credit Offerings

In addition to the undergraduate degree program described above, the Labor Studies Center also offers a variety of non-credit courses, conferences and specially designed programs for unions and their members throughout southeast Michigan.

Non-Credit Courses: The Labor Studies Center offers a full range of short, non-credit courses on skills and issues important to unions and their members. These include courses on labor law, collective bargaining, parliamentary procedure, steward training, grievance analysis, arbitration, union administration, public speaking, new technology, occupational health and safety, and new forms of work organization. These courses typically meet for six two-hour sessions and are held both on campus and at local union halls. The courses are open to all workers regardless of previous educational background. They are not regular credit courses, and should not be confused with University credit courses identified by three-letter subject area codes and numbers.

Labor School Program: In addition to the short non-credit courses, the Labor Studies Center also offers a two-year, non-credit certificate program designed to strengthen workers' leadership skills and increase their understanding of the complex issues confronting workers and their unions in contemporary society. Open to all workers regardless of previous educational background, the Labor School meets once a week for two and one-half hours thirty weeks each year. Students who successfully complete the Labor School program are eligible for undergraduate admission to the University regardless of previous educational background.

FIRST YEAR

Labor Perspectives — Union history and current issues.
History of Social Movements — A grass-roots history of how working people have shaped our society
Power and Politics — The power structure in America and how it shapes our lives
Labor and the Media — Analysis of news reporting and the media

SECOND YEAR

Economics for Workers — Functioning of the American economy.
Leading a Diverse Union — Using workplace diversity as a source of union strength.
Union Skills — Labor law, collective bargaining, etc.
Labor Strategies — Strategies for increasing union power and effectiveness

LABOR STUDIES COURSES (LBS)

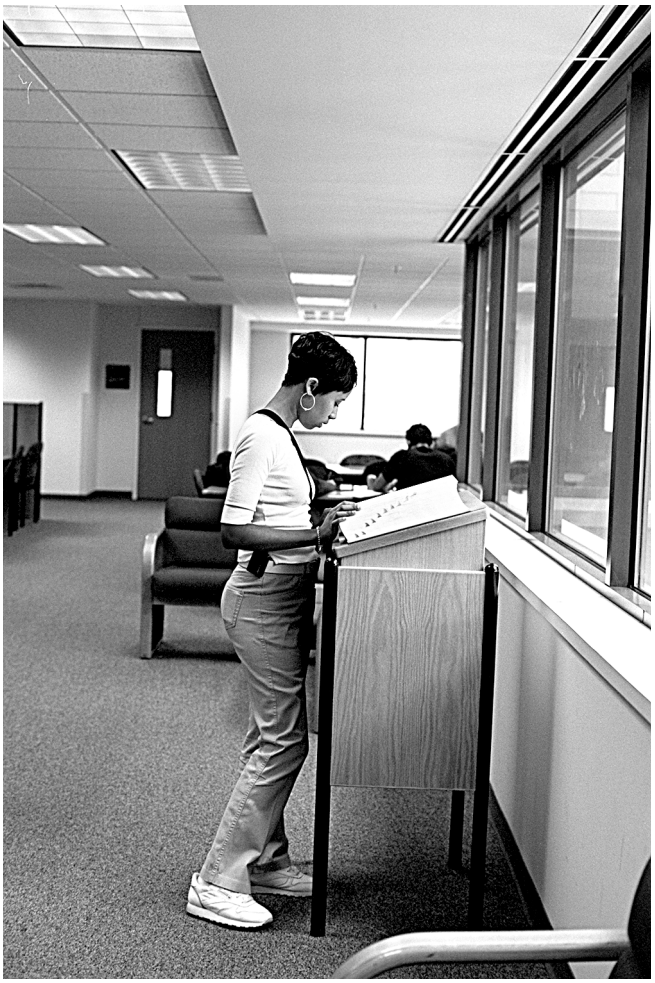
For interpretation of numbering system, signs and abbreviations, see page 504.

2500 Introduction to Labor Studies. Cr. 4
An Introduction to the world of labor and employment relations that explores the essential nature, evolution and purpose of the 21st. Century workplace. (T)

4500 Applied Labor Studies. Cr. 3 (Max. 12)
Prereq: consent of instructor. Practical training in various labor relations specialties, such as collective bargaining or labor law. Consult coordinator on specific topic. (T)

4700 (WI) Senior Seminar. Cr. 3 (Max. 6)
Prereq: consent of instructor. Research, reflection, discussion and analysis of labor relations practice. (Y)

4990 Directed Study. Cr. 3-6 (Max. 6)
Prereq: consent of coordinator. Supervised reading and research in labor studies. (T)



Linguistics

Office: Room 10303, 5057 Woodward; 313-577-8642
e-mail: linguistics@wayne.edu
Director: Ljiljana Progovac

http://www.clas.wayne.edu/linguistics

Participating Faculty

Jean Andruski, *Associate Professor, Communication Sciences and Disorders*
Catherine Barrette, *Associate Professor, Classical and Modern Languages, Literatures, and Cultures*
Ellen Barton, *Professor, English*
Eugenia Casielles-Suarez**,** *Associate Professor, Classical and Modern Languages, Literatures, and Cultures*
Stephen Chrisomalis, *Assistant Professor, Anthropology*
Walter Edwards, *Professor, English*
Nicholas Fleisher, *Assistant Professor, English*
Lara Jones, *Assistant Professor, Psychology*
Haiyong Liu, *Assistant Professor, Classical and Modern Languages, Literatures, and Cultures*
Felecia Lucht, *Assistant Professor, Classical and Modern Languages, Literatures, and Cultures*
T. Michael McKinsey, *Professor, Philosophy*
Geoffrey S. Nathan, *Professor, English*
Kate Paesani*, Associate Professor, Classical and Modern Languages, Literatures, and Cultures*
Ljiljana Progovac, *Professor, English*
Martha Ratliff, *Professor, English*
Aleya Rouchdy, *Professor, Classical and Modern Languages, Literatures, and Cultures*
Patricia Siple, *Associate Professor, Psychology*
Margaret E. Winters, *Professor, Classical and Modern Languages, Literatures, and Cultures*
Lee Wurm, *Associate Professor, Psychology*
Abderrahmane Zouhir, *Assistant Professor, Classical and Modern Languages, Literatures, and Cultures*

Degree Programs

BACHELOR OF ARTS with a major in Linguistics
MASTER OF ARTS in Linguistics

Linguistics is devoted to the scientific study of language structure and use. The Linguistics Program at Wayne State offers an interdisciplinary approach to this field, permitting students to explore a wide range of topics and issues in language research. The core courses are offered on a regular basis. The program offers electives in the following areas: (a) linguistics and a language, (b) language structure, (c) language variation and change, (d) language acquisition and processing, and (e) sociolinguistics and discourse/pragmatics.

Training in linguistics prepares students for advanced work in linguistic research, as well as for employment in teaching English and foreign languages; computer systems (especially natural language processing); broadcasting, mass media and journalism; publishing and editing; translation; international business; intercultural communication and negotiation; law; and generally any profession requiring the precise use or analysis of speech or writing.

The Linguistics Program is administered by a director and an advisory committee of participating faculty who regularly teach courses for the program.

Bachelor of Arts with a Major in Linguistics

Admission Requirements for this program are satisfied by the requirements for general undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits in course work including satisfaction of the University General Education Requirements (see page 18), the College Group Requirements (see page 274), and the following major requirements. All course work must be completed in accordance with the regulations of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274. Course selections are to be planned in consultation with the linguistics program adviser. Students must complete a minimum of thirty credits in course work to satisfy the major requirements as outlined below.

REQUIRED COURSES

The linguistics major requirements consist of: 1) three required general courses; 2) one required language usage course involving either the analysis of speech data acquired in fieldwork or theories that address language practice; and 3) a set of electives. Also, in the senior year, majors must register for and complete LIN 5993, Writing Intensive Requirement (0 credits). This course is to be taken in conjunction with another course, as explained under Linguistics Courses. In the final semester, assessment of knowledge in the major is determined through an exit interview conducted by members of the faculty.

Three Required General Linguistics Courses:

LIN 5290 -- Phonology: Cr. 3
LIN 5300 -- Syntax: Cr. 3
LIN 5700 -- Introduction to Linguistic Theory: Cr. 3

Required Language Usage Course (one of the following):

LIN 3310 -- Language and Culture: Cr. 3
LIN 5210 -- Arabic Sociolinguistics: Cr. 3
LIN 5320 -- Language and Societies: Cr. 3
LIN 5760 -- American Dialects: Cr. 3
LIN 5770 -- Sociolinguistics: Cr. 3
LIN 6710 -- Psycholinguistics: Cr. 3
LIN 6720 -- Topics in Language: Field Methods: Cr. 3
LIN 6720 -- Topics in Language: Pidgins and Creoles: Cr. 3
LIN 6720 -- Topics in Language: Pragmatics: Cr. 3
LIN 6720 -- Topics in Language: Language Variation: Cr. 3

ELECTIVE COURSES (18 credits)

The remaining courses to complete the required thirty credits are electives chosen from the following categories and in consultation with the adviser.

a) Linguistics and a Language

The student may complete up to nine credits in advanced language skills or in the linguistics of a chosen language, as part of their electives. Courses must be selected in consultation with the adviser.

b) Language Structure

LIN 1850 or LIN 1860
-- Introductory Symbolic Logic: Cr. 3
-- Honors Symbolic Logic: Cr. 3
LIN 2730 -- (FC) Languages of the World: Cr. 3
LIN 3080 -- Cognitive Psychology: Cr. 3
LIN 5050 -- Advanced Symbolic Logic: Cr. 4
LIN 5200 -- Modal Logic: Cr. 4
LIN 5220 -- Introduction to Chinese Linguistics: Cr. 3
LIN 5230 -- Structure of Arabic: Cr. 3
LIN 5240 -- Grammar of Chinese: Cr. 3

LIN 5570 -- Philosophy of Language: Cr. 4
LIN 5730 -- English Grammar: Cr. 3
LIN 6710 -- Psycholinguistics: Cr. 3
LIN 6720 -- Topics in Language: Morphology: Cr. 3
LIN 6720 -- Topics in Language: Semantics: Cr. 3
LIN 6720 -- Topics in Language: Field Methods: Cr. 3
LIN 6720 -- Topics in Language: Typology: Cr. 3
FRE 6400 -- Introduction to French Linguistics: Cr. 3
SPA 6400 - Introduction to Hispanic Linguistics: Cr. 3

c) Language Variation and Change

CLA 1230 -- Word Origins: English Words from Greek and Latin. Cr: 3-4
LIN 2730 -- (FC) Languages of the World: Cr. 3
LIN 3310 -- Language and Culture: Cr. 3
LIN 5100 -- Languages of Asia: Cr. 3
LIN 5220 -- Introduction to Chinese Linguistics: Cr. 3
LIN 5320 -- Language and Societies: Cr. 3
LIN 5760 -- American Dialects: Cr. 3
LIN 5770 -- Sociolinguistics: Cr. 3
LIN 6720 -- Topics in Language: Historical Linguistics: Cr. 3
LIN 6720 -- Topics in Language: History of English: Cr. 3
LIN 6720 -- Topics in Language: Typology: Cr. 3
LIN 6720 -- Topics in Language: Language Variation: Cr. 3
LIN 6720 -- Topics in Language: Morphology: Cr. 3
LIN 6720 -- Topics in Language: Field Methods: Cr. 3
LIN 6720 -- Topics in Language: Pidgins and Creoles: Cr. 3
LIN 6720 -- Topics in Language: Language and Evolution: Cr. 3
ITA 6400 -- History of the Italian Language: Cr. 3
FRE 5500/7500 History of the French Language: Cr. 3

d) Language Acquisition and Processing

LIN 3080 -- Cognitive Psychology: Cr. 3
LIN 3310 -- Language and Culture: Cr. 3
LIN 5080 -- Phonetics: Cr. 3
LIN 5360 -- Normal Language Acquisition and Usage: Cr. 3
LIN 5750 -- Theories of Second Language Acquisition: Cr. 3
LIN 5760 -- American Dialects: Cr. 3
LIN 6710 -- Psycholinguistics: Cr. 3
LIN 6720 -- Topics in Language: Language and Evolution: Cr. 3
FRE 5200 -- French Phonetics and Pronunciation: Cr. 3
PSY 3010 -- Statistical Methods in Psychology: Cr. 4
PSY 3090 -- Cognitive Psychology Laboratory: Cr. 2
PSY 3120 -- Brain and Behavior: Cr. 3
SLP 5300 -- Intro. to Speech-Language Pathology: Cr. 3-4

e) Sociolinguistics and Discourse/Pragmatics

LIN 2730 -- (FC) Languages of the World: Cr. 3
LIN 3310 -- Language and Culture: Cr. 3
LIN 5210 -- Arabic Sociolinguistics: Cr. 3
LIN 5320 -- Language and Societies: Cr. 3
LIN 5730 -- English Grammar: Cr. 3
LIN 5760 -- American Dialects: Cr. 3
LIN 5770 -- Sociolinguistics: Cr. 3
LIN 6720 -- Topics in Language: Pragmatics: Cr. 3
LIN 6720 -- Topics in Language: Language Variation: Cr. 3
LIN 6720 -- Topics in Language: Language and Gender: Cr. 3
LIN 6720 -- Topics in Language: Historical Linguistics: Cr. 3
LIN 6720 -- Topics in Language: Pidgins and Creoles: Cr. 3
LIN 6720 -- Topics in Language: Language and Evolution: Cr. 3
ANT 5210 -- Anthropological Methods: Cr. 4
PSY 3010 -- Statistical Methods in Psychology: Cr. 4

Minor in Linguistics

A minor consists of four required courses and six additional credits in the Linguistics program. The required courses are LIN 5290, LIN 5300, LIN 5700, and one language usage course, as specified under required courses for the Bachelor of Arts, above. Programs should be planned in consultation with an adviser.

'AGRADE' Program

Accelerated Graduate Enrollment: The Linguistics Program invites academically superior majors to petition for admission to the 'AGRADE' Program. 'AGRADE' procedures enable qualified seniors to enroll simultaneously in the undergraduate and graduate programs in Linguistics and to apply a maximum of fifteen credits toward both a bachelor's and a master's degree. Students admitted to the 'AGRADE' Program may be able to complete both degrees in five years of full-time study.

An 'AGRADE' applicant should petition for admission to the Student Adviser for the Linguistics Program. Applications will be accepted no earlier than the semester in which ninety credits are completed. Applicants must have an overall grade point average at the *cum laude* level (approximately 3.4) and not less than a 3.6 g.p.a. in the major courses already completed. If a student's petition is accepted, a designated faculty adviser will develop a graduate *Plan of Work*, specifying the 'AGRADE' courses to be included in subsequent semesters.

For more details about the 'AGRADE' Program, contact the Linguistics Program office: 313-577-8642; or by e-mail at: linguistics@wayne.edu

LINGUISTICS COURSES (LIN)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

1850 (PHI 1850) Introductory Symbolic Logic. Cr. 3
The logic of propositions; the general logic of predicates and relations. (T)

1860 (PHI 1860) Honors Symbolic Logic. Cr. 3
Open only to Honors students. See LIN 1850. (T)

2720 (ENG 2720) (PL) Basic Concepts in Linguistics. Cr. 3
Prereq: ENG 1020 or equiv. Analysis of the structure and use of language, focusing on English, from the standpoint of current linguistic practice. Topics include: phonetics and sound structure, word structure, syntax, semantics, language origin and history, dialects, language learning and animal communication, and language in social interaction. (Y)

2730 (ENG 2730) (FC) Languages of the World. Cr. 3
Prereq: ENG 1020. Survey of structure of major language families of the world, western and non-western; interrelationships of language and culture; universals and variations of universals in language and culture. (Y)

2750 (SLP 2750) African American English. Cr. 3
Structure, content, use, and history of African American English (also known as Ebonics) from its origins to the present. (I)

3080 (PSY 3080) Cognitive Psychology: Fundamental Processes. Cr. 3
Prereq: PSY 1010 or equiv. Fundamental theories, concepts, and empirical findings in study of human cognition. Topics include: thinking, problem solving, language comprehension and production, memory and attention. (Y)

3310 (ANT 3310) Language and Culture. Cr. 3

Prereq: ANT 2100 or LIN 2720 or consent of instructor. Interconnections of language and culture in distant and local communities, in contexts where languages are declining or developing anew, and in life cycle and ordinary contexts of daily life. Students explore their own language and cultural backgrounds and those to which they are drawn. (F)

3700 (ENG 3700) Structure of English. Cr. 3

Prereq: ENG 1020 or equiv. Survey of the major structural features of Standard English at the levels of sounds, words, and sentences, using concepts and methods from the field of linguistics. Special attention to relation of spoken to written English. (Y)

5050 (PHI 5050) Advanced Symbolic Logic. Cr. 4

Prereq: junior, senior, or graduate standing. Formal, extensive treatment of first-order predicate logic with emphasis on the notions of a formal logical language and truth in a model; the logic of identity; definite descriptions; brief introductions to set theory and the metatheory of propositional and first-order logic; some additional advanced topics to be selected by the instructor. (Y)

5080 (SLP 5080) Phonetics. Cr. 3

Multisensory study of sounds in the English language, emphasizing acoustic, physiologic, kinesiologic approaches. Material Fee As Indicated In The Schedule of Classes (F,W)

5100 (CHI 5220) Languages of Asia. (JPN 5220) Cr. 3

Introduction to major language families in Asia; grammar, sounds, language contacts. (B)

5200 (PHI 5200) Modal Logic. Cr. 4

Prereq: PHI 1850 or PHI 1860 or consent of instructor. The logic of necessity, possibility, and other modal notions as they occur in epistemic and deontic contexts. (B)

5210 (ARB 5210) Arabic Sociolinguistics. (N E 5210) Cr. 3

No knowledge of Arabic required. Arabic dialectology; Arabic as a minority language in contact. Theories and techniques developed outside Arabic, and their applicability to Arabic situations. (B)

5220 (CHI 5210) Introduction to Chinese Linguistics. Cr. 3

No knowledge of Chinese required. Basic elements of Chinese linguistics: sounds, grammar, dialects, language changes. (B)

5230 (ARB 5230) Structure of Arabic. (N E 5230) Cr. 3

No knowledge of Arabic required. Survey of historical constitution and theoretical structure of Arabic. (Y)

5240 (CHI 5230) Grammar of Chinese. Cr. 3

No knowledge of Chinese required. Basic elements of Chinese grammar; includes question formation, negation, time references, and the like (B)

5290 (ENG 5710) Phonology. Cr. 3

Prereq: LIN 5700. The sound systems of a variety of human languages compared and contrasted in an introduction to the diversity and similarities in human sound systems. Theories of the nature of sound systems and methods of analysis in phonology and morphophonology will be presented. (Y)

5300 (ENG 5740) Syntax. Cr. 3

Prereq: LIN 5700. The theory of grammatical systems examined through analysis of sentence and word formation in a variety of human languages. Diversity and universals in grammar and theories of syntax. (Y)

5320 (ANT 5320) Language and Societies. Cr. 3

Contemporary linguistic anthropologists see language as a form of social action. How this understanding of language in society has evolved: classic works in linguistic anthropology and contemporary studies. Research in language in society. (W)

5360 (SLP 5320) Normal Language Acquisition and Usage. Cr. 3

Language development in children and the associated areas of emotional and motor development; language stimulation techniques and programs. (F,S)

5570 (PHI 5570) Philosophy of Language. Cr. 4

Prereq: PHI 1850 or PHI 1860 or any philosophy course from the Philosophical Problems group or graduate student in linguistics or consent of instructor. Intensive investigation and discussion of philosophical problems concerning meaning, truth, and the nature of language. (B)

5700 (ENG 5700) Introduction to Linguistic Theory. Cr. 3

Introduction to the scientific study of language and methodologies of linguistic analysis: phonetics and phonology, morphology, syntax, and semantics. Introduction to selected disciplinary and interdisciplinary topics: sociolinguistics, pragmatics, typology and universals, communication systems, psycholinguistics, historical linguistics, anthropological linguistics. . (Y)

5720 (ENG 5720) Linguistics and Education. Cr. 3

Introduction to linguistics with emphasis on applications to education. (Y)

5730 (ENG 5730) English Grammar. Cr. 3

Comprehensive analysis of English sentence structure and parts of speech using the terminology and descriptive approach of traditional grammar. (Y)

5750 (ENG 5750) Theories of Second Language Acquisition. (LGL 5750) Cr. 3

The complex processes involved in learning a foreign/second language, including the nature of inter language and the individual and collective factors influencing learner success and the effectiveness of instruction. (Y)

5760 (ENG 5760) American Dialects. Cr. 3

Survey of chief social and geographic dialects of American English and introduction to theory of language variation. (I)

5770 (ENG 5770) Sociolinguistics. Cr. 3

Identification of sociolinguistic principles used by English speakers and writers in choosing among the different English codes, styles, registers and social dialects in American and other communities. (B)

5993 (WI) Writing Intensive Course in Linguistics. Cr. 0

Prereq: junior standing, satisfactory completion of the IC requirement, consent of instructor; coreq: LIN 5210, 5750, 5760, 5770, or 6720, or any linguistics course at the 5000-level or above that requires a term paper; PSY 3090 may also be taken as a corequisite class. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a corequisite course; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. Intensive training in literature search, linguistic analysis, and the preparation of scholarly written work. (T)

6710 (PSY 6710) Psycholinguistics. Cr. 3

Prereq: graduate standing or undergraduates with a strong psychology or linguistics background. Theory and research in various topics in psycholinguistics, including language development, speech perception and production, and language comprehension. (Y)

6720 (ENG 6720) Topics in Language. Cr. 3 (Max. 12)

Topics such as: morphology, semantics, pragmatics, historical linguistics, history of English, language and gender, language and variation; language and evolution; to be announced in Schedule of Classes. (Y)

Mathematics

Office: 1150 Faculty/Administration Building; 313-577-2479
Chairperson: Daniel Frohardt
Associate Chairperson: Robert Bruner
Academic Services Officer: Mary Klamo

Web: http://www.math.wayne.edu

Professors

Gregory F. Bachelis (Emeritus), Robert D. Berman, Lawrence J. Brenton, Robert R. Bruner, Pao-Liu Chow, William S. Cohn, Daniel S. Drucker, Daniel E. Frohardt, David H. Gluck, David Handel (Emeritus), Lowell J. Hansen, Chorng-Shi Houh (Emeritus), John M. Irwin (Emeritus), Steven M. Kahn, Rafail Z. Khasminskii, John Klein, Alexander Korostelev, Tachen Liang, Guozhen Lu, Leonid Makar-Limanov, Peter Malcolmson, Jose-Luis Menaldi, Boris Mordukhovich, D. Clarence Morrow (Emeritus), Togo Nishiura (Emeritus), Frank Okoh, Jingyal Pak (Emeritus), Choon-Jai Rhee, Claude L. Schochet, Bertram M. Schreiber, Tze-Chien Sun, Ualbai Umirbaev, Gang George Yin, Zhimin Zhang

Associate Professors

John C. Breckenridge, Po Hu, Daniel Isaksen, Catherine Lebiedzik, Pei-Yong Wang, Sheng Zhang

Assistant Professors

Fatih Celiker, Andre Furtado, Tao Mei, Jing Shi, Kazuhiko Shinki

Lecturers

Leonard Boehm, Patricia Bonesteel, Christopher Nazelli, Sandra Robinson, Shereen Schultz, Donald Sherry

Adjunct Associate Professor

Lance K. Heilbrun

Research Adjunct Professor

Vladimir Chernyak

Degree Programs

BACHELOR OF ARTS with a major in mathematics
BACHELOR OF SCIENCE with a major in mathematics
MASTER OF ARTS with a major in mathematics
MASTER OF ARTS with a major in mathematical statistics
MASTER OF ARTS in Applied Mathematics
MASTER OF ARTS in Teaching College Mathematics
DOCTOR OF PHILOSOPHY with a major in mathematics and concentrations in pure mathematics, applied mathematics and mathematical statistics

The courses offered by the Department of Mathematics serve several purposes; they supply the mathematical preparation necessary for students specializing in the physical, life or social sciences, in business administration, in engineering, and in education; they provide a route by which students may achieve a level of competence to do research in any of several special mathematical areas; they allow students to prepare themselves for work as mathematicians and statisticians in industry and government; and they give an opportunity to all inquisitive students to learn something about modern mathematical ideas. Consult the department website for current information: http://www.math.wayne.edu

Mathematics Placement Exam

All students, including transfer and guest students, who plan to take MAT 0995, 1000, 1050, 1110, 1120, 1500, 1800, or 2010 as their first mathematics course at Wayne State, must take the Mathematics Placement Exam. Results of the examination are used in conjunction with other measures, such as ACT scores, to determine into which course the student is placed.

All students take the same exam, although there is one part that is required only of those students seeking placement into MAT 2010. Passing at the first level allows entry into MAT 0995, 1000, or 1050. Passing at the second level allows entry into MAT 1110, 1120, 1500, or 1800. Passing at the third level allows entry into MAT 2010.

Mathematics 0995 and 1050: Students qualify by having achieved one of the following within the previous year: a) satisfactory score on the Mathematics Placement Exam, b) successful completion of MAT 0993 taken at WSU, or c) a validated ACT Math score of 21 or higher. . For placement at this level, students should have a command of numerical and beginning algebra concepts and techniques corresponding approximately to one year of high school algebra.

Mathematics 1000: Students qualify by having achieved one of the following within the previous year: a) satisfactory score on the Mathematics Placement Exam, b) successful completion of MAT 0993 taken at WSU, or c) a validated ACT Math score of 21 or higher. For placement at this level, students should have a command of numerical and beginning algebra concepts and techniques corresponding approximately to one year of high school algebra.

Mathematics 1110 and 1500: Students qualify by having achieved one of the following within the previous year: a) satisfactory score on the Mathematics Placement Exam, b) a grade of at least 'C-minus' in MAT 1050 taken at WSU, c) successful completion of MAT 0995 taken at WSU, or d) a validated ACT Math score of 26 or higher. For placement at this level, students should have a command of algebra and basic geometry, corresponding approximately to three years of college-preparatory mathematics.

Mathematics 1120: Students qualify by having achieved one of the following within the previous year: a) a satisfactory score on the Mathematics Placement Examination, b) a grade of at least 'C-minus' in MAT 1110 taken at W.S.U., or c) a validated ACT Math score of 26 or higher.

Mathematics 1800: Students qualify by having achieved one of the following within the previous year: a) satisfactory score on the Mathematics Placement Examination, b) a grade of at least 'C-minus' in MAT 1050 taken at W.S.U., or c) a validated ACT Math score of 26 or higher. For placement at this level, students should have a command of algebra and basic geometry, corresponding approximately to three years of college-preparatory mathematics.

Mathematics 2010: Students qualify by having achieved one of the following within the previous year: a) a satisfactory score on the Mathematics Placement Exam; b) a grade of at least 'C-minus' in MAT 1800, or c) a validated ACT Math score of 29 or higher. For placement at this level, students should have a command of algebra, geometry, trigonometry, and elementary functions corresponding approximately to four years of college-preparatory mathematics.

Examination Periods: The Mathematics Placement Exam is administered prior to the beginning of each semester. No placement exams will be given for the current semester after the start of classes. A student may take the Examination only once during an examination period. Consult the Testing and Evaluation Office, 698 Student Center (313-577-3400), for details.

Time Limitation: Scores on the Mathematics Placement Exam will be honored for only three semesters: the semester immediately following the testing period and the subsequent two semesters. For the purpose of counting, there are three semesters: Fall, Winter, and Spring/Summer.

Studying for the Exam: Students should review thoroughly before taking the exam. Review materials are available at: http://www.math.wayne.edu/courses.html

BACHELOR'S DEGREES

Admission Requirements for the College are satisfied by the general requirements for undergraduate admission to the University; see page 24. Undergraduates will be accepted as mathematics majors only after an interview with a Departmental adviser. After a student's acceptance as a major, a student should consult a Departmental adviser at least once a year to verify progress.

Degree Requirements

Candidates for the bachelor's degree must complete 120 credits in course work including satisfaction of the College Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the major requirements of one of the following programs. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

Transfer students majoring in mathematics should note two special requirements of the Department of Mathematics. A minimum of 15 credits above the 5000 level must be taken at Wayne State University, and transfer credits for courses that count toward the department's requirements must carry a grade of 'C' or better.

Bachelor of Arts: The candidate must complete one of options A, B, C, D, or E as described below.

Bachelor of Science: The candidate must complete:

1. Option A (see below) or one of Options B, C, D, or E plus MAT 5600. (A candidate for the B. S. degree in another Department who wishes to include mathematics as a second major may complete Option B, C, D, or E without the addition of MAT 5600.) All majors must take MAT 5420 and MAT 5993 (or, if appropriate, MAT 6170 and MAT 5993) concurrently.

2. PHY 2170/2171 and 2180/2181.

3. CSC 1100.

4. One course elected from the following: BIO 1510, CHM 1220/1230, GEL 1010, NFS 3230, and PSY 1010.

The Department recommends that the Group Requirement in Foreign Language be satisfied by the election of French, German, or Russian.

Grade Point Average: For majors, the cumulative grade point average in mathematics (MAT) courses required for completion of a major option must be at least 2.0 ('A' = 4.0).

Curricular Alternatives

Combined Curriculum for Secondary Teaching (CCST) (Option C, below): Under the Combined Curriculum (see Teacher Preparation Curricula, page 280), it is possible to earn a bachelor's degree in mathematics concurrent with a secondary teaching certificate. Students in CCST may satisfy the mathematics part of their degree requirements by any of the degree options specified below, though Option C is specifically designed and recommended for future teachers. It is recommended but not required that CCST students who do not choose Option C take MAT 2860, 5000, and 6140.

Computer Science Concentration (Option D, below): Mathematics and computer science are so closely related that a great many students who major in mathematics pursue careers or graduate study in computer science. A mathematics degree, being more than just welcome in the field, is highly regarded. For students who would like to complete a double major in mathematics and computer science or a major in mathematics with a minor in computer science, the Department offers a specially designed program described under Option D. Under this option, students can take certain courses that satisfy both mathematics and computer science requirements simultaneously. Specifically, MAT 5100 can be used as a computer science elective and one of CSC 5860, 5870, 6500, 6620, or 6991 (depending on the topic) can be used as a mathematics elective.

Actuarial Science Concentration (Option E, below): Students embarking on a career as an actuary will be expected to pass certain exams administered by that profession. Option E provides the course work covered by the first few of these exams: Calculus, Linear Algebra, Probability and Statistics, Numerical Analysis and Operations Research. The Department also offers MAT 3310, a problem-solving review course in probability and statistics that is designed to help prepare students for the actuarial science examinations.

Option A — Prospective Graduate Study

This option is recommended for students who plan to pursue graduate study in mathematics.

1. The Basic Sequence (MAT 2010, 2020, 2030, 2250, and 2350).

2. Elementary Analysis (MAT 5070).

3. Algebra I/Writing Intensive Course in Mathematics, (MAT 5420/MAT 5993).

4. Analysis I (MAT 5600).

5. Probability (MAT 5700).

6. Algebra II or Analysis II (MAT 5430 or 5610).

7. One course elected from the following: MAT 5230, 5430, 5520, 5530, 5610, and 5800.

8. One additional course elected from a) mathematics courses numbered above 5000, excluding MAT 5005, 5120, 5130, 5180, 5190, 6130, 6150, 6170, 6180, and 6200; or from b) CSC 6500, 6620, or 6991 (depending on the topic).

Option B — General Mathematics

This option is for students interested in a broad range of topics.

1. The Basic Sequence (MAT 2010, 2020, 2030, 2250, and 2350).

2. MAT 5070.

3. MAT 5420/5993.

4. MAT 5700.

5. (MAT 5600 is required for the B. S. degree. It is not required for the B. A. degree.)

6. Three additional mathematics courses numbered above 5000, excluding MAT 5005, 5120, 5130, 5180, 5190, 6130, 6150, 6170, 6180, and 6200; or two such courses and one elected from the following: CSC 6500, 6580, 6620, and 6991 (depending on the topic). Only one (at most) of the courses may be selected from MAT 5890 or MAT 5990.

Option C — Secondary Teaching

This option is recommended for students in the Combined Curriculum for Secondary Teaching.

1. MAT 2010, 2020, 2030, and 2250.

2. MAT 2210 and 2860.

3. MAT 5000.

4. MAT 5070.

5. MAT 6140.

6. MAT 6170/5993 or MAT 5420/5993.

7. MAT 6200.

8. (MAT 5600 is required for the B. S. degree. It is not required for the B. A. degree.)

9. One additional mathematics course from among MAT 5400, 5520, 5600, and 6180.

Option D — Computer Science

This option is available only to students who complete a second major or a minor in computer science. Students should consult the Computer Science Department for their major and minor requirements.

1. MAT 2010, 2020, 2030, and 2250.

2. MAT 2210 and 2860.

3. MAT 5070.

4. MAT 5100.

5. MAT 5420/5993.

6. (MAT 5600 is required for the B. S. degree for students completing a minor in computer science. It is not required for students completing a double major in mathematics and computer science, nor is it required for the B. A. degree.)

7. Two additional mathematics courses numbered above 5000, excluding MAT 5005, 5120, 5130, 5180, 5190, 6130, 6150, 6170, 6180, and 6200; or one such course and one course elected from: CSC 5860, 5870, 6500, 6620, and 6991 (depending on the topic). At most, one of these courses may be selected from MAT 5890 or MAT 5990.

NOTE: The Computer Science Department accepts MAT 5100 as a computer science elective.

Option E — Actuarial Science

This Option is for students interested in a career as an actuary.

1. MAT 2010, 2020, 2030, and 2250.

2. MAT 5070.

3. MAT 5100.

4. MAT 5420/5993.

5. MAT 5700.

6. MAT 5770.

7. MAT 5800.

8. (MAT 5600 is required for the B. S. degree. It is not required for the B. A. degree.)

9. MAT 2350 or one additional mathematics course numbered above 5000, excluding MAT 5005, 5120, 5130, 5180, 5190, 6130, 6150, 6170, 6180, and 6200; or one computer science (CSC) course numbered above 5100.

Honors Program

In order to graduate with honors in mathematics, students must satisfy the following criteria:

1. Completion of the requirements for a Bachelor of Science degree.

2. An overall grade point average of 3.3 or above at graduation.

3. Completion of at least fifteen credits in honors-designated course work at the level of MAT 2020 or above, including at least one 4000-level Honors College seminar. For information about honors-designated coursework available each semester, including the required 4000-level Honors seminar, visit the Honors College website link at: http://www.honors.wayne.edu/classes.php .

4. Completion of a Senior Task, for which a student registers under MAT 4990, Directed Study: Honors Program. These MAT 4990 honors credits count toward the fifteen-credit requirement.

Honors Sections in the Basic Sequence: Honors sections in MAT 2010 and 2030 are taught in the fall semester and in MAT 2020 are taught in the winter semester. A 3.0 or higher grade point average in Basic Sequence courses already taken is required for admittance. (See also 'Emerging Scholars Program,' below.)

Emerging Scholars Program

The Emerging Scholars Program is a special honors program at the levels of MAT 1800, 2010, and 2020, that features collaborative learning through a challenging problem-solving workshop attached to the regular class. Each ESP calculus course (MAT 2010 and 2020) carries four honors credits, though MAT 1800 does not offer honors credits. The program seeks dedicated, hard-working students who want to excel in mathematics. Students who place into the level below MAT 1800 are encouraged to enroll in MAT 1050 PREP as preparation for the Program. Contact the Department for further information.

'AGRADE' Program

The Department of Mathematics participates in the College 'AGRADE' (Accelerated Graduate Enrollment) Program, in which qualified students can obtain a master's degree within one year of receiving the bachelor's degree. For more details about the 'AGRADE' Program, contact the Director of the College's Honors Program (313-577-3030), one of the graduate mathematics advisers, or the Graduate Office of the College (313-577-2960).

Minor in Mathematics

The requirements for a Minor in Mathematics consist of MAT 2010, 2020, 2030, 2250, and either a) three mathematics courses numbered above 5000, or b) MAT 2150 or 2350 or 2210 or 2860 or 5000; and two mathematics courses numbered above 5000. If MAT 2210 is elected, MAT 5700 may not be used to meet the requirement. In both (a) and (b), the courses MAT 5005, 5120, 5130, 5180, and 5190 do not satisfy mathematics minor requirements. A cumulative grade point average of 2.0 or higher must be maintained in these courses. A student who is considering a minor should consult a Departmental adviser. Transfer courses counted toward a minor must carry a grade of 'C' or better.

Scholarships and Awards

Department of Mathematics Outstanding Undergraduate Award: A monetary award open to graduating seniors majoring in mathematics.

Department of Mathematics Undergraduate Scholarship: Scholarships are available to entering freshmen and current undergraduates who are either majoring in mathematics or planning to major in mathematics, or who have successfully participated in the Department's Honors Program or Emerging Scholars Program.

Wayne State University Math Corps Scholarship: Scholarships are available to entering freshman and current undergraduates who were members of the WSU Math Corps in middle school or high school.

Advanced Courses for Non-Majors

Because of the fundamental role that mathematics plays in all types of scientific and technical endeavor, the advanced course offerings of the Mathematics Department must serve a group considerably larger than those preparing for a career in mathematics exclusively.

Economics, Business Administration and Computer Science: The following basic subjects are recommended to master's degree candidates as preparation for work in their profession; they also provide a solid background for students who intend to pursue doctoral studies after completion of the master's program:

Numerical Methods: MAT 5100 and 5110
Algebra: MAT 5420
Operations Research: MAT 5770
Probability Theory: MAT 5700
Statistical Methods, Applied Time Series & Design of Experiments: MAT 5800, 5830

Engineering and Physical Applications: The Mathematics Department has several sequences in applied mathematics that provide experienced engineers and scientists from industry and government the means to acquire and maintain the technical competence needed to work at the frontiers of their fields (for additional courses to those listed below, see the Graduate Bulletin):

Numerical Methods: MAT 5100 and 5110
Applied Analysis: MAT 5220, 5230
Probability Theory and Random Processes: MAT 5700
Graph Theory and Combinatorial Mathematics: MAT 6400, 6410
Differential Geometry: MAT 5530

Students who feel that they eventually would like to pursue mathematical studies beyond the level of the above sequences should make every effort to take the mathematics sequences that begin with MAT 5600, and 5420, respectively, and MAT 6600. These courses will help them to understand and work with abstract concepts in advanced courses.

Statistics

Students requiring only an introduction to basic statistics are referred to Statistics (STA) 1020 or MAT 2210. Those whose work demands a good foundation in mathematical statistics are referred to MAT 5700 and 5800. MAT 5830 is useful for students interested in applied statistics.

In addition to the interdepartmental course listed in the Courses of Instruction section below, specialized courses in statistics are offered by individual departments:

ECO 5100 -- Introductory Statistics and Econometrics: Cr. 4
ECO 6100 -- Introduction to Econometrics: Cr. 4
MAT 2210 -- Probability and Statistics for Teachers: Cr. 4
MAT 5700 -- Introduction to Probability Theory: Cr. 4
MAT 6830 -- Design of Experiments: Cr. 3
PSY 3010 -- Statistical Methods in Psychology: Cr. 4

For descriptions of these courses and others, see the respective departmental sections of this bulletin.

UNDERGRADUATE COURSES

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

NOTE: A minimum grade of 'C-minus' is required in every prerequisite course.

MATHEMATICS COURSES (MAT)

Courses Open Only to Undergraduates

0993 Beginning Algebra. Cr. 3

No degree credit. Option 1: Offered only as computer-based instruction. If Main Campus section is elected, student must complete minimum of three hours per week in Math Computer Lab in addition to the two-hour regular class meeting (hours: M - Th 8:30a -9:00p; Fri 8:30a - 4:00p; Sat 10:00a - 4:00p; Sun 12:00p - 4:00p). Option 2: Rising Scholars Program: For more information, go to www.math.wayne.edu and select For Undergraduates. Review of arithmetic, integers, fractions, decimals, percents, ratios. Algebra: solving equations and inequalities, algebraic expressions, graphing, problem solving. Material Fee As Indicated In The Schedule of Classes (T)

1000 (MC) Mathematics in Today's World. Cr. 0-3

Prereq: one of the following within previous year: grade of C or above in MAT 0993 taken at WSU; or satisfactory score on mathematics placement exam; or validated ACT Math score of 21 or above. Applications of mathematics to issues of current interest including patterns, paradoxes, limitations, and possibilities in voting, apportionment and division processes, using sampling methods, and developing information to support decisions. (T)

1050 (MC) Algebra With Trigonometry. Cr. 0-7

Prereq: one of the following within previous year: satisfactory score on mathematics placement exam; or grade of C or above in MAT 0993 taken at WSU; or validated ACT Math score of 21 or above. Mathematics, mathematics education, science, and engineering majors should elect the 7-credit version of this course. If elected for 5 credits, only 2 credits apply toward degree; if elected for 7 credits, only 3 credits apply toward degree. Algebra: properties of the real number system, equations and inequalities, lines, graphs, introduction to functions, exponents, logarithms. Geometry and trigonometry: basic concepts, introduction to trigonometric functions, solving right triangles. (T)

1800 Elementary Functions. Cr. 4

Prereq: within previous year: a grade of C-minus or better in MAT 1050, taken at WSU; or satisfactory score on WSU mathematics placement exam; or validated ACT Math score of 26 or above. Only two degree credits after MAT 1500. Basic definition and concept of function. Definitions, properties and graphs of polynomial, rational, exponential, logarithmic, trigonometric, and inverse trigonometric functions. (T)

1990 Precalculus Workshop. Cr. 2

Coreq: designated section of MAT 1800. Offered for S and U grades only. Open only to students in Emerging Scholars Program. Students work cooperatively in groups to solve challenging problems related to precalculus. Learning is through discovery rather than by lecture. (T)

2010 Calculus I. Cr. 4

Prereq: within previous year: a grade of C-minus or better in MAT 1800 taken at WSU; or satisfactory score on WSU mathematics placement exam; or validated ACT Math score of 29 or above. No credit after former MAT 1510. Calculus as the study of change. Definitions, concepts, and interpretations of the derivative and the definite and indefinite integrals; differentiation, integration, applications. (T)

2020 Calculus II. Cr. 4

Prereq: MAT 2010. Review definition of definite integral and fundamental theorem of calculus. Techniques of integration; approximate integration; improper integrals; applications of integration. Sequences and series. Approximating functions by polynomials and Taylor series. (T)

2030 Calculus III. Cr. 4

Prereq: MAT 2020. Multivariable calculus with applications. Vectors and vector functions in two and three dimensions; functions of several variables; differentiation; integration; vector calculus. (T)

2110 Calculus Workshop I. Cr. 2

Coreq: designated sections of MAT 2010. Offered for S and U grades only. Open only to students in Emerging Scholars Program. Students work cooperatively in groups to solve challenging problems related to calculus. Learning is through discovery rather than by lecture. (T)

2120 Calculus Workshop II. Cr. 2

Coreq: designated sections of MAT 2020. Offered for S and U grades only. Open only to students in Emerging Scholars Program. Students work cooperatively in groups to solve challenging problems related to calculus. Learning is through discovery rather than by lecture. (W)

2150 Differential Equations and Matrix Algebra. Cr. 4

Prereq: MAT 2030 or equiv. Only one degree credit after MAT 2350. Differential equations and applications; basic operations of matrices from linear algebra. (T)

2210 (MAT 6150) Probability and Statistics for Teachers. Cr. 4

Prereq: grade of C or better in MAT 1800; 2010 recommended. No credit after MAT 5700. Counting techniques, discrete sample spaces and probability, random variables, mean and variance, joint distributions, the binomial and normal distributions, the central limit theorem, estimation and hypothesis testing. (T)

2250 Elementary Linear Algebra. Cr. 3

Prereq: MAT 2020. Topics include: systems of linear equations, matrices, vector spaces, basis, dimension, inner products, linear transformations and eigenvalues. Applications presented. (T)

2350 Elementary Differential Equations. Cr. 3

Prereq: MAT 2030 or equiv. No degree credit after MAT 2150. Topics include: first order equations, higher order linear equations, Laplace transforms, linear systems. Applications presented throughout the course. (T)

2860 (MAT 6130) Discrete Mathematics. Cr. 3

Prereq: MAT 2010. No credit after former MAT 1860 or 1870. Foundations of mathematics: logic and mathematical reasoning; sets, functions, sequences; the integers and the Euclidean algorithm; induction, recursive definitions and recurrence relations; graphs. Combinatorics. Graph theory. Boolean algebra. (Y)

3310 Actuarial Mathematics. Cr. 1

Prereq: MAT 2030 and 2250. Problem solving course based on material covered on first Actuarial Exam. Subjects include: differential and integral calculus, multivariate calculus, elementary linear algebra. (Y)

3600 Honors Topics in Mathematics. Cr. 3

Prereq: admission to University Honors Program and consent of instructor. Special topics in a branch of pure or applied mathematics, explored in depth. (Y)

4990 Directed Study: Honors Program. Cr. 1-4 (Max. 8)

Prereq: admission to Honors Program by Undergraduate Committee. (I)

Courses Open to Undergraduates and Graduate Students

5000 Fundamental Concepts of Mathematics and Proof Writing. Cr. 3

Prereq: MAT 2250 or 2860 or consent of instructor. Not considered a 5000+ level course for undergrad. degree requirements in mathematics; no credit towards graduate degree in mathematics. Fundamental concepts: basic logic, basic set theory, functions, equivalence relations. Proof: methods of proof, structures of proofs, proof-writing in a variety of mathematical subjects. (F,W)

5005 Proof-Writing Workshop. Cr. 1

Coreq: MAT 5000 or consent of instructor. Not considered a 5000+ level course for undergrad. degree requirements in mathematics; no credit towards graduate degree in mathematics. Students work in groups, writing proofs in a variety of mathematical subjects. (S)

5030 Statistical Computing and Data Analysis. Cr. 3

Prereq: MAT 2210 or equiv., 2250 or equiv. Computational aspect of statistics for advanced undergraduate and beginning graduate students. Computation of various statistical quantities by use of known statistical packages such as SAS, SPSS or BMD and the interpretation of their output. (B)

5070 Elementary Analysis. Cr. 4

Prereq: MAT 2030, and 2250 or 2350. The real numbers; limits; continuity; sequences and series of functions; uniform convergence; power series; differentiation; integration. (T)

5100 (MAT 5100) Numerical Methods I. (SCP 7200) Cr. 3

Prereq: MAT 2030, 2250 and CSC 1100 or familiarity with a programming language. Numerical errors; solutions of nonlinear equations; polynomial interpolation; numerical approximation; numerical integration and differentiation; numerical solutions of systems of linear equations; numerical solutions of ordinary differential equations. (Y)

5110 Numerical Methods II. Cr. 3

Prereq: MAT 2250, MAT 2350, or equiv.; and CSC 1000 or familiarity with a programming language. Numerical linear algebra topics, including eigenvalue problems, conjugate-gradient method, GMRES method; numerical solution of ordinary differential equations, Runge-Kutta methods; numerical solutions of partial differential equations, finite difference methods. (W)

5220 Partial Differential Equations. Cr. 4

Prereq: MAT 5070. Partial differential equations of mathematical physics; method of separation of variables; Fourier series; Sturm-Liouville eigenvalue problems; boundary-value problems; method of eigenfunction expansion; Green functions; solutions by Fourier transform; method of characteristics. (B)

5230 Complex Variables and Applications. Cr. 4

Prereq: MAT 5070. No credit after MAT 6600. Cauchy-Riemann equations; elementary functions; mappings by elementary functions; the Cauchy integral formula; Morera's theorem; Taylor series; Laurent series; residues and poles; conformal mappings; the Schwarz-Christoffel transformations; potential theory; Fourier and Laplace transforms and applications in differential and integral equations. (B)

5280 Methods of Differential Equations. Cr. 3

Prereq: MAT 2350. Linear nth order differential equations; linear systems of differential equations (constant and periodic coefficients); oscillation and comparison theorems for second order differential equations; boundary value problems; stability theory (Liapunov's direct method and frequency domain stability criteria); asymptotic solutions; autonomous non-linear systems; classification of singularities. (B)

5350 (PHI 5350) Logical Systems I. (MAT 5350) Cr. 4

Prereq: PHI 1850 or 1860 or 5050 or MAT 5600 or MAT 5420 or consent of instructor; for philosophy graduate students: satisfaction of elementary logic requirement. Metaresults concerning formal systems of sentential and first-order logics; soundness, completeness; independence of axioms; introduction to recursive functions; formalization of elementary arithmetic; discussion of Godel's incompleteness theorem and Church's Theorem. (B)

5390 (PHI 5390) Logical Systems II. (MAT 5390) Cr. 4

Prereq: PHI 5350 or MAT 5350 or consent of instructor. Detailed proofs of Godel's incompleteness results, Tarski's Theorem, and Church's Theorem; formal axiomatic treatment of set theory and selected applications. (B)

5400 Elementary Theory of Numbers. Cr. 3

Prereq: MAT 2030 and 2250. Primes and the Fundamental Theorem of Arithmetic; greatest common divisor, least common multiple, Euclidean Algorithm; congruences, theorems of Fermat, Wilson and Euler; arithmetic functions; linear Diophantine equations; quadratic congruences and the Law of Quadratic Reciprocity. Optional topics include: applications to cryptography, perfect numbers, primitive roots and indices, Fibonacci numbers, Pythagorean triples, sums of squares, continued fractions. (Y)

5410 Applied Linear Algebra. Cr. 4

Prereq: MAT 2030 and 2250, or consent of instructor. Gaussian elimination, vector spaces, the four fundamental subspaces, orthogonality, least squares approximation, determinants, eigenvalues and eigenvectors, positive definite matrices, singular value decomposition, linear transformations, complex matrices. Applications such as differential and difference equations, Markov processes, graphs and networks, Fourier series, computer graphics, numerical linear algebra. (B)

5420 Algebra I. Cr. 4

Prereq: MAT 2030 and 2250. Only two credits apply after either MAT 6170 or 6180; no credit after both MAT 6170 and 6180. Abstract concepts: sets, mappings, equivalence relations, induction, general methods of proof. Group theory: groups, subgroups, cyclic groups, direct products, cosets, Lagrange's Theorem, quotient groups, homomorphisms, permutation groups. Rings and fields (basic definitions) . (T)

5430 Algebra II. Cr. 4

Prereq: MAT 5420. Group theory continued: Sylow Theorems, finite abelian groups. Ring theory: rings, integral domains, fields of quotients, homomorphisms, ideals, quotient rings, P.I.D.s, U.F.D.s, polynomial rings. Advanced topics in linear algebra: canonical forms. Field theory: extensions, splitting fields, finite fields, geometric constructions. (T)

5520 Introduction to Topology. Cr. 3

Prereq: MAT 2030 and MAT 5000 (or former 4010) or consent of instructor. No credit toward graduate degree in mathematics or statistics. An introduction to topology, mostly through an intuitive approach. Topics chosen from among: topological equivalence and topological properties, complexes, Euler characteristic, connectedness, compactness, continuity, Brouwer's Fixed Point Theorem, vector fields, Hairy Ball Theorem, n-dimensional spaces, classification of surfaces, cut and paste techniques, the Moebius band, orientability, the fundamental group. (Y)

5530 Elementary Differential Geometry and its Applications. Cr. 3

Prereq: MAT 2030 and 2250. Introduction to the differential geometry of curves and surfaces in three-dimensional space. Curvature, torsion, Frenet formulas, fundamental theorem of space curves. Gauss and mean curvature, asymptotic and principal curves, geodesics, Gauss-Bonet theorem. Applications such as pursuit curves, roulettes, brachistochrones, precession of Foucoult's pendulum, design of packaging machines, shapes and soap films. (I)

5600 Introduction to Analysis I. Cr. 4

Prereq: MAT 5070 or consent of instructor. Completeness, convergence, compactness, connectedness and continuity in the context of metric spaces; applications to differential calculus. (T)

5610 Introduction to Analysis II. Cr. 3

Prereq: MAT 5600. Integration, point-wise and uniform convergence of sequences and series of functions; power series; introduction to analytic functions; Fourier series; possible additional topics. (T)

5700 Introduction to Probability Theory. Cr. 4

Prereq: MAT 2030, 2250 or 2350. Only two credits after MAT 2210 or MAT 6150. Probability spaces; combinatorial analysis; independence and conditional probability; discrete and continuous random variables including binomial, Poisson, exponential and normal distributions; expectations; joint, marginal and conditional distribution functions; law of large numbers; central limit theorems. (T)

5710 Introduction to Stochastic Processes. Cr. 3

Prereq: MAT 5700 or consent of instructor. Non-measure-theoretic introduction to the theory of stochastic processes and its applications, with emphasis on Markov processes in both discrete and continuous time, the Poisson process, and Brownian motion. (B)

5740 The Theory of Interest. Cr. 3

Prereq: MAT 2020 and 2250. Concrete problems used to explore concepts in the theory of interest, including measurement of interest, annuities, yield rates, amortization, bonds, and stochastic approaches. Students prepare for certain professional actuarial examinations. (Y)

5770 Mathematical Models in Operations Research. Cr. 3

Prereq: MAT 2030, 2250, and 5700 or consent of instructor. Deterministic and probabilistic mathematical modeling of real-world problems. Linear and nonlinear programming; Markov chains; queuing theory; inventory models; Markov decision processes. (B)

5800 Introduction to Mathematical Statistics. Cr. 4

Prereq: MAT 5700. A one-semester course for senior undergraduate and master's degree students. Introduction to basic mathematical theory of statistics. Topics include sample distributions, estimation theory, data analysis and sample statistics, testing hypothesis, two sample cases, analysis of variance, regression analysis, Bayesian inference. (Y)

5830 Applied Time Series. Cr. 3

Prereq: probability and statistics equivalent to MAT 5700 and MAT 5800, or consent of instructor. Time series models, moving average models, autoregressive models, non-stationary models, and more general models; point estimators, confidence intervals, and forecast in the time domain. Statistical analysis in the frequency domain; spectral density and periodogram. (B)

5870 Methods of Optimization. Cr. 3

Prereq: MAT 2350 or consent of instructor. Introduction to basic mathematical theory and computational methods of optimization; unconstrained and constrained optimization problems; optimality conditions in various optimization problems; numerical methods of optimization. (Y)

5890 Special Topics in Mathematics. Cr. 3-4 (Max. 12)

Prereq: MAT 2030, and 2250 or 2350. Material currently of interest to students and faculty. Topics to be announced in Schedule of Classes. (I)

5990 Directed Study. Cr. 1-4 (Max. 8)

Prereq: written consent of adviser and chairperson (and of graduate officer for graduate students). Undergraduates who elect this course must be mathematics majors of honors caliber. Content will vary to satisfy needs of individual student. (T)

5992 Teaching Mathematics in College. Cr. 1

Required of all graduate teaching assistants in Mathematics Department. Prereq: mathematics graduate student or major with senior standing. Offered for S and U grades only. Preparation for first semester of teaching in developmental-level mathematics course. Content presentation, test-writing, grading, classroom management, use of technology. Students are videotaped and critiqued. (F)

5993 (WI) Writing Intensive Course in Mathematics. Cr. 0

Prereq: junior standing, satisfactory completion of the IC requirement, consent of instructor, MAT 2030 and 2250; coreq: MAT 5420 or 6170. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a course designated as a corequisite. See section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing-Intensive Course in the Major requirement. (T)

6130 (MAT 6130) Discrete Mathematics. (MAT 2860) Cr. 3

Prereq: MAT 2010. No credit after former MAT 1860 or 1870. Foundations of mathematics: logic, sets, functions, sequences. The integers. Matrices. Mathematical reasoning: induction, recursive definitions and recurrence relations. Combinatorics. Graph theory. Boolean algebra. (Y)

6140 Geometry: An Axiomatic Approach. Cr. 3

Prereq: MAT 5000 or consent of instructor. Foundations: logic, axiom systems, models; Hilbert's axioms; the parallel postulate; Euclidean geometry; non-Euclidean geometries; hyperbolic geometry; philosophical questions. (Y)

6150 (MAT 6150) Probability and Statistics for Teachers. (MAT 2210) Cr. 4

Prereq: grade of C or better in MAT 1800; 2010 recommended. No credit after MAT 5700. Counting techniques, discrete sample spaces and probability, random variables, mean and variance, joint distributions, the binomial and normal distributions, central limit theorem, estimation and hypothesis testing. (T)

6170 Algebra: Ring Theory Through Exploration, Conjecture, and Proof. Cr. 4

Only two credits after MAT 5420; no credit after MAT 5430. Prereq: MAT 5000 (or former 4010) or consent of instructor. Rings: basic definitions; properties; examples including the integers, rationals, reals, and complex numbers; ideals; homomorphisms; and divisibility. Connections to high school algebra. Students will be involved in the mathematical processes of exploration, conjecture, and proof. (I)

6180 Algebra: Group Theory Through Exploration, Conjecture, and Proof. Cr. 3

Only one credit after MAT 5420. Prereq: MAT 5000 (or former 4010) or consent of instructor. Groups: basic definitions, properties, examples, subgroups, cyclic groups, permutation groups, homomorphisms, quotient groups. Connections to high school algebra. Students will be involved in the mathematical processes of exploration, conjecture, and proof. (Y)

6200 (MAT 6200) Teaching Arithmetic, Algebra and Functions from an Advanced Perspective. (MAE 6200) Cr. 3

Prereq: MAT 5120, 6170, or 6180 or consent of instructor. Students gain profound understanding of K-12 mathematics. Concepts underlying K-12 topics and procedures; connections to higher mathematics. Teaching with Simplicity; applying mathematical understanding to teaching practices. (Y)

6210 (MAT 6210) Teaching Geometry, Probability and Statistics, and Discrete Mathematics from an Advanced Perspective. (MAE 6210) Cr. 3

Prereq: completion of a major in mathematics or secondary mathematics education. Historical perspectives, common conceptions and misconceptions, applications, technology, and mathematical connections relative to teaching geometry (including trigonometry), probability and statistics, and discrete mathematics in secondary school. (Y)

6400 Graph Theory. Cr. 4

Prereq: MAT 5420 or consent of instructor. Basic concepts of graphs and directed graphs; trees; cycles and circuits; connectivity; traversibility; planarity; colorability. Further topics from among factorization, line-graph, coverings and independence, graphs and matrices, automorphism groups, enumeration, Ramsey theory, hypergraphs, packing theory, network flows. (B)

6410 Combinatorics. Cr. 4

Prereq: MAT 5420 or consent of instructor. Enumeration: the classical theory, principle of inclusion and exclusion, generating functions, the Mobius function; combinatorial designs including Latin squares, difference sets, projective geometries, Hadamard matrices, construction problems; transversal theory; Ramsey's theorem; coding theory; partial orders; lattices. (B)

6420 Advanced Linear Algebra. Cr. 3

Prereq: MAT 5430 or consent of instructor. Vector spaces and linear maps from a basis free perspective. Vector spaces, linear transformations, dual spaces, quotient spaces, inner product spaces, quadratic forms, adjoint operators, normal operators, spectral theorem, Jordan canonical form, trace and determinant. (Y)

6500 Topology I. Cr. 3

Prereq: MAT 5610 or consent of instructor. Topological spaces and continuous functions; connectedness; compactness; product and quotient spaces; metric spaces; Urysohn's lemma; Tietze extension theorem; homotopy; covering spaces and path lifting; the fundamental group and examples; Brouwer fixed point theorem and applications. (Y)

6600 Complex Analysis. Cr. 2-4

Prereq: MAT 5610 or consent of instructor. Offered for two credits only, if student has taken MAT 5230. Complex differentiation; elementary functions; Cauchy's integral theorem; power series; Laurent expansions; singularities; residue theorem; entire and meromorphic functions; Riemann mapping theorem. (Y)

6830 Design of Experiments. Cr. 3

Prereq: MAT 5800. Randomized blocks; Latin and Graeco-Latin squares; factorial designs; confounding; split plot; fractional replication; balanced incomplete blocks. (I)

6840 Linear Statistical Models. Cr. 3

Prereq: college courses in probability and statistics equivalent to MAT 5700 and MAT 5800, or consent of instructor. Multivariate linear regression models, examples; least square estimates and system of normal equations; the Gauss-Markov theorem; hypothesis testing about regression coefficients; confidence intervals and regions; prediction; model selection, stepwise regression. Analysis of variances (ANOVA). (B)

Service Courses

1110 Mathematics for Elementary School Teachers I. Cr. 3

Undergrad. prereq: one of following within previous year: satisfactory score on WSU mathematics placement exam; or at least C-minus in MAT 1050 taken at WSU; or successful completion of MAT 0995 taken at WSU; or validated ACT Math score of 26 or above. Post-baccalaureate prereq: satisfy the undergraduate placement; or satisfactory completion of college math course at level of pre-Calculus or above. No degree credit in College of Liberal Arts and Sciences. Open only to students in teacher preparation curricula. Problem solving, sets, functions, reasoning, number theory, whole numbers, integers, fractions, decimals. (T)

1120 Mathematics for Elementary School Teachers II. Cr. 3

Undergrad. prereq: one of the following within previous year: at least a C-minus in MAT 1110 taken at WSU; or a satisfactory score on WSU mathematics placement exam.; or validated ACT Math score of 26 or above. Post-baccalaureate prereq: satisfy the undergrad. placement or satisfactory completion of college math course at level of pre-Calculus or above. No degree credit in College of Liberal Arts and Sciences. Open only to students in teacher preparation curricula. Statistics, probability, geometry, and measurement, (T)

1500 College Algebra for the Social and Management Sciences. Cr. 3

Prereq: one of following within previous year: satisfactory score on WSU mathematics placement exam; or at least C-minus in MAT 1050 taken at WSU; or successful completion of MAT 0995 taken at WSU; or validated ACT Math score of 26 or above. Offered only as computer-based instruction. If Main Campus section is elected, student must complete minimum of three hours per week in Math Computer Lab in addition to the two-hour regular class meeting (hours: M - Th 8:30a -9:00p; Fri 8:30a - 4:00p; Sat 10:00a - 4:00p; Sun 12:00p - 4:00p). Equations and inequalities, graphs and functions, polynomial and rational functions, exponential and logarithmic functions. Material Fee As Indicated In The Schedule of Classes (T)

3430 (MAT 3430) Applied Differential and Integral Calculus. (E T 3430) Cr. 4

Prereq: MAT 1800. No degree credit in College of Liberal Arts and Sciences. Limits, derivatives, applications of derivatives, definite integrals and their applications, and trigonometric functions. (T)

3450 (MAT 3450) Applied Calculus and Differential Equations. (E T 3450) Cr. 4

Prereq: MAT 3430. No degree credit in College of Liberal Arts and Sciences. Continuation of MAT 3430, including logarithmic and exponential functions, first and second order ordinary differential equations, vectors, polar coordinates, Laplace transforms, Taylor series, and Fourier series. (T)

5120 (MAT 5120) Abstract Algebra for Middle School Teachers. (MAE 5120) Cr. 3

Prereq: MAT 1120 or fortmer MAE 5060, and MAT 1800. No credit towards major in mathematics or secondary mathematics. MAE 5120 may be taken for graduate or undergraduate credit; MAT 5120 may be taken for undergraduate credit only. Topics from elementary abstract algebra underpinning middle school mathematics curriculum; historical connections; role of abstraction and proof in mathematics. (F,W)

5130 (MAT 5130) Problem Solving for Middle School Teachers. (MAE 5130) Cr. 3

Prereq: MAT 1120 or former MAE 5060, and MAT 1800. No credit towards a mathematics major or secondary mathematics education major; MAE 5130 may be taken for graduate or undergraduate credit; MAT 5130 may be taken for undergraduate credit only. Development of mathematical problem solving in middle grades mathematics education; study of non-routine problems; problem solving strategies; historical connections; connections to selected mathematics content and to topics in other disciplines. (F,W)

5180 (MAT 5180) Geometry for Middle School Teachers. (MAE 5100) Cr. 3

Prereq: MAT 1110 and 1120 or consent of instructor. No credit toward a major or minor for secondary mathematics teaching. MAE 5100 may be taken for graduate or undergraduate credit; MAT 5180 may be taken for undergraduate credit only. Development of Euclidean geometry as a mathematical system; related historical topics; introduction to other geometries; selected topics such as transformations and tesselations. (F,W)

5190 (MAT 5190) Number Theory for Middle School Teachers. (MAE 5110) Cr. 3

No credit toward a major or minor for secondary mathematics teaching. MAE 5110 may be taken for graduate or undergraduate credit; MAT 5190 may be taken for undergraduate credit only. Prereq: MAT 1800, MAE 5060, or MAT 1120. Topics from elementary theory of numbers which underlie middle school mathematics; historical connections; role of abstraction and proof in mathematics. (F,W)

STATISTICS COURSE (STA)

1020 Elementary Statistics. Cr. 3

Prereq: one and one-half years high school algebra. Not to be counted as a mathematics course for mathematics majors. Descriptive statistics, correlation and regression, notions in probability, binomial and normal distributions, testing hypothesis. (T)

Nutrition and Food Science

Office: 3009 Science Hall; 313-577-2500
Web: http://www.clas.wayne.edu/NFS/
Chairperson: K-L Catherine Jen
Academic Services Officer: Debra L. Zebari

Professors

Mary Jane Bostick (Emerita), Ahmad R. Heydari, K.-L. Catherine Jen, Leora A. Shelef (Emerita)

Associate Professor

Pramod Khosla

Assistant Professors

Diane Cabelof, Smiti Gupta, Yifan Zhang, Kequan Zhou

Senior Lecturers

Tonia Reinhard, Mary E. Width

Lecturer

Lisa Lucente

Degree Programs

BACHELOR OF ARTS with a major in Nutrition and Food Science
BACHELOR OF SCIENCE with a major in Nutrition and Food Science
BACHELOR OF SCIENCE in Dietetics
POST BACHELOR CERTIFICATE in Dietetics
MASTER OF ARTS with a major in Nutrition and Food Science
MASTER OF SCIENCE with a major in Nutrition and Food Science
DOCTOR OF PHILOSOPHY with a major in Nutrition or Food Science

The courses offered by this department are designed for students in three distinct groups: a) those majoring in nutrition and food science who are interested in entering either the nutrition, the food science and health care professions; b) those interested in entering the dietetics field; and c) those majoring in nutrition and food science with the intention of entering non-technical positions in a variety of food businesses.

BACHELOR'S DEGREES

Admission Requirements: See the general requirements for undergraduate admission to the University, page 24. Students contemplating a major program in Nutrition and Food Science should consult with the undergraduate Departmental adviser as soon as possible, and no later than the beginning of the sophomore year. Transfer students should consult with the undergraduate departmental adviser during the semester prior to their transfer.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits of course work including satisfaction of the College Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the major requirements of one of the following programs. Any NFS course taken with a grade of 'C-' or less must be repeated. All course work must be completed in accordance with the academic regulations of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

Bachelor of Arts with a Major in Nutrition and Food Science

This curriculum allows students to major in nutrition and food science while following a broader program in liberal arts, science, and business. The degree requires a less rigorous background in chemistry and other natural science courses than is required for the B.S. degree in this discipline. Employment opportunities include sales, customer relations, university or school food services, industrial and commercial food service systems, hospitals, nursing homes or extended care food service operations.

Admission Requirements: See above under 'Bachelor's Degrees.'

DEGREE REQUIREMENTS: See above under 'Bachelor's Degrees.'

Major Requirements: Course requirements for this bachelor's degree consist of courses offered by Wayne State University and courses available from local community colleges on a dual enrollment basis with the University. Requirements are as follows:

UNIVERSITY CORE COURSES

Nutrition and Food Science 2030, 2130, 2140, 2220, 3230, 4160, 5130, 5230, 5250, 5350, 6850 and an additional three credits in upper division NFS courses
Biological Sciences 1510, 2200
Chemistry 1220, 1230, 1240, 1250, 2220
Economics 2010
Psychology 1020
Management 2530
Statistics 1020

COMMUNITY COLLEGE COURSES: Candidates for the degree may complete one course in each of the following areas: sanitation, food management, quantity food purchasing, and quantity food production. As many as twelve credits from these courses can be applied to the degree either by transfer from previous community college work or by concurrent enrollment with a local community college. For an approved list of courses from area institutions, consult the Department.

Bachelor of Science with a Major in Nutrition and Food Science

This program is designed for science-oriented students who are interested in the various food and nutrition professions. Students are prepared for these professions by the integration of chemistry and the biological sciences with courses in food science and nutrition. Employment opportunities may be found in various phases of food processing, research and development, public health, and community education, as well as in positions in state and federal regulatory agencies dealing with food products. The program provides good preparation for medical school application. Students should consult an adviser for program planning.

Admission Requirements: See above under Bachelor's Degrees.

DEGREE REQUIREMENTS: See above under Bachelor's Degrees.

Major Requirements: Students must complete seventy-six credits in science courses of which at least thirty-one must be in nutrition and food science. Core Courses are as follows:

Nutrition and Food Science 2030, 2130, 2140, 2220, 3230, 4160, 5130, 5140, 5230, 5250, 6850 and an additional six credits of upper division NFS courses.
Biological Sciences 1510, 2200, 2870
Chemistry 1220, 1230, 1240, 1250, 2220, 2230, 2280, 2290
Mathematics 1800

Physics 2130, 2131, 2140, 2141
Statistics 1020

Bachelor of Science in Dietetics

The coordinated program in dietetics is designed to prepare registration-eligible generalist practitioners. The special body of knowledge for the profession is the science of nutrition; skills for delivery of nutritional care encompass a number of closely-allied fields, such as food science, business, management, psychology, social sciences, economics, and communication. The strong base in science and other areas is developed through selection of relevant prerequisite and supporting cognate courses, and in the professional courses. Graduates of the program receive a Bachelor of Science in Dietetics degree and are eligible to write the national registration examination for professional certification without the need for a separate internship. The dietetics program is currently granted accreditation status by the American Dietetic Association Commission on Accreditation for Dietetics Education (CADE), a specialized accrediting body recognized by The Council on Post-secondary Accreditation and the United States Department of Education. Students may contact CADE via their webpage or by calling (312) 899-0040 to find out the accreditation status of any dietetic program.

Admission Requirements: Admission to this program is competitive and open only to students with at least junior standing in the College after completion of the core courses indicated below by an asterisk (*). Program application should be made by February 15 of the winter semester preceding the fall semester of anticipated entry into the program. Transfer and post-baccalaureate students must meet the preprofessional science requirements (see core courses, below) before acceptance into the program. Transferability of credit must be verified by the College advisers and dietetics faculty. Additional costs relating to the professional component of the program (uniform, liability insurance, physical examination, transportation) are the responsibility of the student.

CORE COURSES

Nutrition and Food Science: 2030, 2130*, 2140*, 2220*, 3230*, 4150, 5220, 5230, 5250, 5350
Anthropology 2100* or Sociology 2000*
Biological Sciences 1510,* 2200,* 2870 *
Chemistry 1220*, 1230*, 1240*, 1250*, 2220*
Economics 2010*
Management 2530 *
Psychology 1020*
Statistics 1020*

DEGREE REQUIREMENTS: Candidates for this degree must complete at least 120 credits including the above core courses, the following sequence in dietetics, and remaining courses necessary to satisfy the College Group Requirements and the University General Education Requirements (see page 274 and page 18).

DIETETICS SEQUENCE

Nutrition and Food Science 4100, 4120,4200, 4210, 4220, 5200, 5360, 6860

Honors Program

Admission: A minimum grade point average (g.p.a.) of 3.3 is required for enrollment in the Department of Nutrition and Food Science Honors program. Prospective Honors students should consult with an adviser in the Department during the freshman year. Transfer students or others with a Nutrition and Food Science g.p.a. of 3.5 may be accepted into the program without having taken the NFS 3230 Honors section.

Honors Requirements:

1. Enroll in the Honors section of Nutrition and Food Science 3230.

2. Complete at least one 4000-level Honors Program seminar.

3. Complete at least three credits in an independent research project (NFS 5990).

4. Complete at least fifteen credits in honors-designated course work, including the above. The additional course work may be obtained in this department by taking an Honors option of upper-level NFS courses, or in any other department of the College.

Students must have an overall grade point average of 3.3 and maintain an overall grade point average of at least 3.0 in the major to be awarded the Honors Degree.

Minor in Nutrition and Food Science

Completion of the minor in Nutrition and Food Science requires a minimum of eighteen credits in Nutrition and Food Science courses as follows: Nutrition and Food Science 2030, 2130, 2140, 2220, 3230, and an additional seven credits in upper division NFS courses

'AGRADE' Program

Accelerated Graduate Enrollment: Qualified seniors in Nutrition and Food Science having not less than a 3.5 g.p.a. may enroll simultaneously in the undergraduate and graduate program and apply a maximum of fifteen credits towards both the bachelor's and master's degrees in nutrition and food science. Students may apply for the Program as soon as they complete ninety credits towards the undergraduate degree. Graduate courses taken as part of the 'AGRADE' Program are assessed undergraduate rate tuition. Contact the Department for further information.

Post Bachelor Certificate in Dietetics

This program is available to students admitted to the Coordinated Program in Dietetics (CPD) who already have an undergraduate degree. Completion of the CPD makes graduates of the program eligible to take the National Registration Examination for Dietitians, which, when successfully completed, confers the legal designation of Registered Dietitian.

Admission Requirements: Students who have received an undergraduate degree from Wayne State University should contact the department for application procedures. Students who have received an undergraduate degree from another institution must complete the Application for Undergraduate Admission and have transcripts of previous work sent directly to the Office of Admissions. Application to the CPD is separate from that to the University (CPD applications should be obtained from the department office), and applications are accepted only once yearly; deadline is April 1 for program entry the following fall semester.

CERTIFICATE REQUIREMENTS: Students with a dietetics degree generally will have fulfilled all prerequisite course requirements; see Core Courses for the Bachelor of Science in Dietetics degree, above. Any courses in which the student had received a grade of 'D' or below must be repeated; any dietetics courses in which the student has received a grade of 'C-plus' or below must be repeated. Dietetics courses include Food service Management, Medical Nutrition Ther-

apy (also called Clinical Nutrition or Diet Therapy), and Community Nutrition. Following successful completion of all Core Courses in the undergraduate degree program, the student will elect the Core Courses for the Post Bachelor Certificate in Dietetics.

Students who possess an undergraduate degree that is not in dietetics do not need to obtain a second undergraduate degree in dietetics, but they must complete all Core Courses for the Bachelor of Science in Dietetics, or their equivalents at other universities. Students in this category should consult with a dietetics adviser at their earliest opportunity. Following successful completion of all Core Courses in the undergraduate degree program, the student will elect the Core Courses for the Post Bachelor Certificate in Dietetics.

CORE COURSES

NFS 4100, 4120, 4210, 4220, 5200, 5360, 6860

NUTRITION and FOOD SCIENCE COURSES (NFS)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

2030 (LS) Nutrition and Health. Cr. 3

Meets General Education Laboratory Requirement only when taken concurrently with coreq: NFS 2220. Food as a carrier of nutrients; food availability; nutrient utilization including digestion, metabolism and excretion. Patterns of food consumption based on biological, psychological and social needs; and anthropological findings. (T)

2130 Introductory Food Science. Cr. 3

Prereq: one college-level chemistry course. Chemical, physical and biological properties of foods which affect their keeping quality, nutritional and organoleptic values. For students interested in the scientific study of foods. (F,W)

2140 Introductory Food Science Laboratory. Cr. 1

Prereq. or coreq: NFS 2130. Experimental study of principles discussed in NFS 2130. For students interested in the scientific study of food. Material Fee As Indicated In The Schedule of Classes (F,W)

2220 Nutrition Laboratory. Cr. 1

Coreq: NFS 2030 or NFS 3230. Laboratory course for introductory nutrition. Material Fee As Indicated In The Schedule of Classes (F,W)

3230 Human Nutrition. Cr. 3-4

Prereq: NFS 2030, CHM 1030, BIO 2870. Students in honors section elect for four credits. Principles of the science of nutrition. Emphasis on physiological requirements as well as biochemical and metabolic processes of nutrients for human growth, development and maintenance within the life cycle. Honors students participate in additional reading, discussion and presentations. (S)

3270 (PSY 3270) Eating Disorders. Cr. 3

Prereq: PSY 1010 or 1020 or consent of instructor. Causes and treatments of anorexia nervosa, bulimia nervosa, binge eating, and overeating, from biological, psychological, and social perspectives. (W)

4100 Nutrition Care Process I. Cr. 2

Prereq: NFS 3230; coreq: NFS 5220, NFS 5350. Open only to students in coordinated dietetics program. Interpretation of lab values in assessing patients, review of medical records, medical terminology. (F)

4120 Nutrition Care Process II. Cr. 2

Prereq: NFS 4100; coreq: NFS 5250. Open only to students in coordinated dietetics program. Nutritional assessment, documentation in the medical record, planning therapeutic diets. (W)

4150 Advanced Food Science. Cr. 3

Prereq: NFS 2130, BIO 2200, CHM 2220, or equiv. Principles of food science such as: chemical ingredients of food, issues in food product development, sensory evaluation, and microbiological safety of food. Lab provides hands-on experience and enhances understanding of major issues in the overall quality and safety of food. (F)

4160 Food Laws and Regulations. Cr. 3

Prereq: NFS 2130 and NFS 3230. Open to undergraduate students only. State, federal and international food law; interpretations of regulatory food standards and determination of conformity of food products to them. Methods of food inspection. Role of the food law in assuring food safety, wholesomeness and nutritional quality. (F,W)

4200 Dietetic Practic I. Cr. 4

Prereq: NFS 4100, NFS 5350. Supervised practice in various dietetic services venues. (W)

4210 Dietetic Practice II. Cr. 10

Prereq: NFS 5230, NFS 5250; coreq: NFS 5200, NFS 5220. Open only to students in coordinated dietetics program. Supervised practice in specialty and critical care areas and in community settings; experiences in developing, implementing, evaluating and documenting care plans for individuals needing specialized nutrition support and nutrition education programs for health promotion and for high risk groups. Material Fee As Indicated In The Schedule of Classes (F)

4215 Nutrition Care Process Clinical Modules. Cr. 2

Open only to students in coordinated dietetics program. Prereq: NFS 5250. The nutrition care process, nutritional assessment and diagnosis, intervention, and evaluation. Preparation of students with B.S. in nutrition or dietetics for clinical supervised practice. (S)

4220 Dietetic Practice III. Cr. 10

Prereq: NFS 4210. Open only to students in coordinated dietetics program. Near entry-level practice experience in management of nutritional care and nutrition services in the three areas of dietetic practice: food service and clinical and community dietetics. Material Fee As Indicated In The Schedule of Classes (W)

4990 Directed Study. Cr. 1-4

Prereq: consent of instructor. (T)

5130 Food Chemistry. Cr. 3

Prereq: NFS 2130 or equiv., CHM 2220. Study of the chemical constituents of foods, their relationship to the biological and physical properties, and overall food quality. (W)

5140 Laboratory Techniques in Nutrition and Food Science. Cr. 3

Prereq: NFS 2130 and NFS 3230 or equiv.; CHM 2220 or equiv. Basic modern and classical analytical techniques and instruments in nutrition and food science. Background theory to principles of instrumental assays. Procedures for evaluation of macro and micro food components analysis. Physiological functions relevant to nutrition. Material Fee As Indicated In The Schedule of Classes (F, S)

5160 Functional Foods for Health. Cr. 3

Prereq: NFS 2030, NFS 2130, NFS 3230. Prereq: NFS 2030, NFS 2130, NFS 3230. Introduction to functional foods (those with specific health benefits) and nutraceuticals, as well a a variety of functional food ingredients and extracts, their chemical and potential health promoting properties, processing, production, safety and regulation. (W)

5200 Advanced Dietetics. Cr. 3

Prereq: NFS 5230, 5250. Open only to students in coordinated dietetics program. Development and refinement of dietetic practitioner skills through applications in critical care and specialty practice areas and in community agencies; theoretical basis for individual counseling and group process. (F)

5220 Community Nutrition. Cr. 2

Prereq: NFS 2130, 2140, and 3230, with grades of C-minus or above. Introduction to management of nutritional care in healthy and at-risk persons throughout the lifespan. Identifying problems and planning interventions to meet population nutritional problems and to reduce nutrition-related health risks in community settings. Community assessment; organization and function of community agencies; interventions appropriate to small and large groups, including nutrition education. (F,W)

5230 Nutrition and Metabolism. Cr. 3

Prereq: NFS 2130, NFS 3230 (or former NFS 2210). The physio-biochemical properties of nutrients and their bionutritional interrelationships at the cellular and sub-cellular level. Carbohydrate, protein, and lipid metabolism and the role of vitamins and minerals in these metabolic processes. (F,W)

5250 Nutrition and Disease. Cr. 4

Prereq: NFS 5230. Application of the principles of biochemistry and physiology in the study of nutrient metabolism as altered by disease. The physio-biochemical basis for diet in the treatment of disease. May include some field experiences or clinical assignments. Units on team approach to patient care also included. (W)

5350 Organization and Management of Food Service Systems. Cr. 4

Prereq: NFS 2130, 2140, 3230. Survey of food service systems; factors affecting their successful operation. Components of quality assurance supporting well-being of target markets. Identification of operative management skills. (F)

5360 Management of Nutritional Care and Services. Cr. 3

Prereq: NFS 5200; coreq: NFS 4220. Recommended for students in coordinated dietetics program. Application of management theory and principles in the three areas of dietetic practice; career planning and professional role development. (W)

5990 Honors Directed Study. Cr. 1-4 (Max. 6)

Prereq: undergraduate College honors standing; 3.3 g.p.a. (T)

5992 Supervised Field Experience. Cr. 2-4

Prereq: consent of instructor. Supervised field experience designed to correlate classroom theory with practical work. (T)

5996 Research in Food Science and Nutrition. Cr. 1-4 (Max. 6)

Prereq: consent of instructor. Minimum of 3 hours of lab research for each credit. Research projects under direction of faculty active in research. (T)

6030 Microbiological Safety of Foods. Cr. 3

Prereq: NFS 5130. Foodborne microorganisms as causes of human illnesses, including bacteria, mold, viruses and parasites. Microbial toxins and their mode of action. Antimicrobial agents in food. Means of prevention and protection. (I)

6130 Food Preservation. (CHE 6130) Cr. 4

Prereq: BIO 2200 and NFS 5130 or equiv. Fundamentals of food preservation: refrigeration, freezing, thermal processing, dehydration and concentration, salting and smoking, chemical preservation, radiation preservation, fermentation. Material Fee As Indicated In The Schedule of Classes (I)

6230 (NFS 6230) Nutrition and Physical Performance. (NFS 7230) Cr. 3

Prereq: NFS 3230 or equiv. How nutrients affect physical fitness and physical performance; how physical performance can be improved by adopting optimal dietary practice and how exercise and optimal nutrition can prevent human diseases. (I)

6270 (NFS 6270) Eating Behavior and Body Weight Regulation. (PSY 6270) Cr. 3

Prereq: BIO 2870. Central and peripheral regulation of food intake, normal and abnormal eating behavior, physiological and psychological regulation of body weight, different models of obesity, etiology of treatment of obesity. (W)

6850 (WI) Controversial Issues. Cr. 2

Prereq: NFS 5230; consent of instructor; senior standing. Open only to Nutrition and Food Science majors. Topics to be announced in Schedule of Classes. (F)

6860 (WI) Controversial Issues in Clinical Nutrition: Dietetics. Cr. 2

Prereq: NFS 5230. Open only to dietetics post bachelor certificate and dietetics B.S. students. Current controversial topics; differing points of view will be debated; discussion of modes of communication of nutrition information. (W)

Peace and Conflict Studies

Office: 2320 Faculty/Administration Building; 313-577-3453; Fax: 313-577-8269

Director: Frederic S. Pearson

Web: http://www.pcs.wayne.edu

Executive Committee

Lisa Alexander, *Africana Studies*
Irshad Altheimer, *Criminal Justice*
Ronald Aronson, *History*
Elizabeth Barton, *Honors Program*
Ronald Brown, *Political Science*
Timothy Carter, *Political Science*
Richard Chakrin, *Peace and Conflict Studies*
Richard Chasdi, Peace and Conflict Studies
Randall Commissaris, *Pharmacy and Health Sciences*
Norah Duncan IV, *Music*
Joella Gipson, *Education*
Nahla Hamdan, *Peace and Conflict Studies*
Sapir Handelman, Peace and Conflict Studies
Royce Hutson, *Social Work*
Loraleigh Keashly, *Communications*
Kevin Deegan Krause, *Political Science*
Sharon Lean, *Political Science*
Larry Lemke, *Environmental Science*
William Lynch, *History*
Barry Lyons, *Anthropology*
Periedeau Mars, *Africana Studies*
Marek Masters, *Labor Studies*
Mbodja Mougoue, *Business*
Jodi Nachtway, *Political Science*
Daphne Ntiri, *Africana Studies*
Eugene Perrin, *Medicine (Emeritus)*
David Pitts, *Pharmacy and Health Sciences*
Jeffrey Ram, *Medicine*
Brad Roth, *Political Science*
Alvin Saperstein, *Physics*
May Seikaly, *Near East Studies*
Yumin Sheng, *Political Science*
Francis Shor, *History*
Guy Stern, *German and Slavic Studies*
Monica White, *Sociology*
Marvin Zalman, *Criminal Justice*
Yang Zhao, *Engineering*
Marilyn Zimmerman, *Fine Arts*

Peace and Conflict Studies (Co-Major Program)

The Peace and Conflict Studies (PACS) Co-Major Program integrates a variety of practical courses and interdisciplinary research to allow students to combine their own majors with training, study, and experience in peace studies and the emerging field of conflict resolution, at the inter-personal, national and international levels. The curriculum deals with the most fundamental of human concerns: how to manage or resolve conflict constructively. Students are introduced to the causes of human conflict and violence, as well as approaches to conflict management ranging from diplomacy, law and negotiation, to mediation and arbitration. Questions are raised concerning the issues of globalization, social justice, ethnicity, race, and culture.

The PACS curriculum provides a framework useful for careers in legal, educational, governmental, business, labor, social service, scientific and health professions, as well as in graduate and professional education. Students are offered opportunity for hands-on experience, and are encouraged to build adaptive skills useful for the future. Courses in this curriculum may also count toward satisfaction of University General Education Requirements (see page 18), as well as College Group and Major Requirements.

The program is designed around a set of core courses, which introduce the student to the field, including various approaches to peace studies and the application of conflict management methods, and finally which assess the student's overall progress in a senior research seminar project. Seventeen elective credits are required, of which at least six must be upper-divisional (courses numbered 3000 or above). These may be chosen generally from the list below, or may be focused in one of seven specialty areas.

Students are encouraged to participate in the development of their curriculum; in addition to selecting from a wide variety of suggested PACS electives, co-majors are able to choose other elective courses with prior consent of the Director. Students are also encouraged to participate in the Peace and Conflict Studies Student Forum, which organizes speakers and other special educational programs and events on various subjects, and to explore credit for internships and study abroad.

CORE REQUIREMENTS

PCS 2000 -- Introduction to Peace and Conflict Studies: Cr. 3
PCS 6000 -- Senior Seminar in Peace and Conflict Studies: Cr. 3

-- plus two courses from the following (additional courses can count as electives):

AFS 2210 -- (SS) Black Social and Political Thought: Cr. 4
ANT 5200 -- The Ethnography: Cr. 3
ECO 5300 -- International Trade: Cr. 4
HIS 5130 -- American Foreign Relations Since 1933 (HIS 7130): Cr. 4
PCS 2010 -- Topics in Peace & Conflict Studies (P S 2830) (HIS 2520): Cr. 1-4
(may be taken only once for Core Requirement, and repeated for electives)
PCS 2020 -- (ST) Science, Technology and War (HIS 2510) (P S 2440): Cr. 4
PCS 2050 -- The Study of Non-Violence: Cr. 3
PCS 5500 -- Ethnicity: Politics of Conflict & Cooperation (AFS or P S 5740): Cr. 4
PCS 5999 -- Special Readings/Research: Cr. 3
PHI 2330 -- (EI) Introduction to Social & Political Philosophy: Cr. 3
P S 2510 -- Introduction to Political Ideologies: Cr. 4
P S 2810 -- World Politics: Cr. 4
PSY 2600 -- Psychology of Social Behavior: Cr. 4
SOC 3300 -- (SS) Social Inequality: Cr. 4

Plus one course from the following:

PCS 5000 -- Dispute Resolution: Cr. 3
PCS 5010 -- Community or International Internship : Cr. 3
PCS 5100 -- Advanced Special Topics: Cr. 3-4
(may be taken for core requirement and repeated for electives)

ELECTIVES (Seventeen Credits)

The University offers a large number of conflict- and peace-related courses in its other Schools and Colleges that are suitable electives for this program. The student is encouraged to select courses that introduce them to a variety of cultural practices regarding the management of conflict. The following are appropriate for the co-major or minor; a number of others might qualify for inclusion upon petition of the student to the Center Director.

RACE, GENDER AND RELIGION

AFS 2600 -- Race and Racism in America (SOC 2600): Cr. 3
AFS 3420 -- Pan-Africanism: Politics of the Black Diaspora (P S 3820): Cr. 4
AFS 3860 -- Race, Class & the Criminal Justice System (SOC 3860): Cr. 3

AFS 5570 -- Race Relations in Urban Society: Cr. 3
ANT 3110 -- Detroit Area Minorities: Arabs, Hispanics, and African Americans: Cr. 3-4
ANT 3530 -- Native Americans: Cr. 3
ANT 5240 -- Cross-Cultural Study of Gender: Cr. 3
ANT 5260 -- The African Religious Experience: A Triple Heritage (AFS 5260): Cr. 3
COM 4030 -- Gender and Communication (W S 4030): Cr. 3
COM 4040 -- Diversity in Interpersonal Communication: Cr. 3
HIS 3150 -- African American History II: 1865 to the Present (AFS 3150): Cr. 3-4
HIS 5200 -- Women in American Life & Thought (HIS 7200): Cr. 3
HIS 5480 -- Nazi Germany (HIS 7480): Cr. 3-4
N E 3010 -- Survey of Jewish Civilization & History (HIS 3010): Cr. 4
P S 5030 -- African American Politics (AFS 5030): Cr. 4
PSY 3250 -- Psychology of Women: Cr. 3
SOC 4460 -- Women in Society: Cr. 3
SOC 5570 -- Race Relations in Urban Society (AFS 5570): Cr. 3

PEACE AND CONFLICT THEORY

ANT 5140 -- Biology and Culture: Cr. 3
GER 2700 -- (PL) Anguish & Commitment: European Existentialist Literature (SPA/FRE/ITA/RUS 2700): Cr. 3-4
PCS 2050 -- Study of Non-Violence (P S 2550) (SOC 2050)(HIS 2530): Cr. 3
PHI 3270 -- Foundations of Law: Cr. 3
P S 2460 -- Policy and Rationality: Dilemmas of Choice: Cr. 4
P S 3510 -- (PL) Law, Authority & Rebellion: Cr. 4
P S 3520 -- (PL) Justice: Cr. 4
P S 3530 -- Great Political Thinkers I: Cr. 3
P S 5560 -- Biopolitics: Cr. 4
P S 5830 -- International Conflict and Management: Cr. 4
PSY 3040 -- Psychology of Perception: Fundamental Processes: Cr. 3
PSY 3080 -- Cognitive Psychology: Fundamental Processes (LIN 3080): Cr. 3
PSY 3200 -- Motivation, Feeling & Emotion: Cr. 3
PSY 3310 -- Abnormal Psychology: Cr. 4
SOC 3820 -- Criminology: Cr. 3
SOC 5870 -- Violence in the Family: Cr. 3-4

HUMAN RIGHTS

AFS 2600 -- Race & Racism in America (SOC 2600): Cr. 3
AFS 3860 -- Race, Class, & the Criminal Justice System (SOC 3860): Cr. 3
AFS 5320 -- Black Labor History (HIS 5320): Cr. 3
AFS 5580 -- Law & the African American Experience (SOC 5580): Cr. 4
CBS 2430 -- History of Latinos in the U.S. (HIS 2430): Cr. 3
CLA 3100 -- Law and Ancient Society: Cr. 3-4
CRJ 4600 -- Police and Society: Cr. 4
CRJ 5720 -- Criminal Law: Cr. 4
ECO 5490 -- American Labor History (HIS 5290) (HIS 7290): Cr. 4
PHI 3270 -- Foundations of Law: Cr. 3
PCS 2010 -- Topics in PCS: Humanitarian Intervention (P S 2830) (HIS 2520): Cr. 3
P S 5120 -- Constitutional Rights & Liberties: Cr. 4
P S 5820 -- International Law: Cr. 4
SOC 2600 -- Race and Racism in America: Cr. 3
SOC 3860 -- Race, Class, and the Criminal Justice System: Cr. 3
SOC 5700 -- Seminar in Social Inequality: Cr. 3

INTERNATIONAL ISSUES IN PEACE & CONFLICT STUDIES

ANT 3100 -- Cultures of the World: Cr. 3-4
ANT 3540 -- (FC) Cultures and Societies of Latin America: Cr. 3
ANT 3550 -- (FC) Arab Society in Transition (N E 3550): Cr. 3
ECO 5300 -- International Trade: Cr. 4
ECO 5310 -- International Finance: Cr. 4
GPH 2700 -- (FC) Introduction to Canadian Studies: Cr. 3
HIS 1400 -- (HS) The World Since 1945: Cr. 3-4
HIS 3050 -- United States & the Vietnam Experience: Cr. 4
JPN 4550 -- (FC) Japanese Culture & Society I: Cr. 4
JPN 4560 -- (FC) Japanese Culture & Society II: Cr. 4
N E 2040 -- (HS) The Modern Middle East (HIS 1810): Cr. 3
P S 2700 -- (FC) Introduction to Canadian Studies (HIS 2700) (GPH 2700) (ENG 2670): Cr. 3
P S 2710 -- Introduction to Comparative Politics: Cr. 4
P S 3735 -- Politics of Latin America: Cr. 4
P S 3840 -- American Foreign Policy and Administration: Cr. 4
P S 3991 -- Directed Study: WSU-Salford Exchange: Cr. 3-9
P S 4810 -- Foreign Policies of Major Powers: Cr. 4
SLA 3410 -- (FC) New Soil, Old Roots: The Immigrant Experience (ARM/GER/POL/RUS/UKR 3410): Cr. 3
SLA 3710 -- (VP) Russian & East European Film (RUS/UKR/POL/ARM 3710): Cr. 3

PEACE & CONFLICT STUDIES IN THE UNITED STATES

AFS 5110 -- Black Women in America (W S 5110): Cr. 3
ECO 6810 -- Political Economy of the Urban Ghetto (U P 6670) (SOC 6850): Cr. 3
HIS 5200 -- Women in American Life and Thought (HIS 7200): Cr. 3
HIS 5220 -- The Changing Shape of Ethnic America: WW I to Present (HIS 7220): Cr. 3-4
HIS 5290 -- American Labor History: Cr. 4
P S 5030 -- African American Politics (AFS 5030): Cr. 4
SOC 5570 -- Race Relations in Urban Society (AFS 5570): Cr. 3
SOC 6750 -- Sociology of Urban Health: Cr. 3
U S 2000 -- (SS) Introduction to Urban Studies (SOC 2500) (GPH 2000) (HIS 2000) (P S 2000): Cr. 4

PEACE STUDIES IN HUMAN DEVELOPMENT

AFS 5130 -- The Black Family: Cr. 4
ANT 5140 -- Biology and Culture: Cr. 3
ANT 5310 -- Language and Culture (LIN 5310): Cr. 3
ANT 5320 -- Language and Societies (LIN 5320): Cr. 3
COM 3270 -- Group Communication & Human Interaction: Cr. 3
COM 3400 -- (WI) Theories of Communication: Cr. 4
PSY 2400 -- Developmental Psychology: Cr. 4
PSY 3310 -- Abnormal Psychology: Cr. 4
PSY 3350 -- Psychology of Personality: Cr. 3
SOC 4100 -- (SS) Social Psychology: Cr. 4
SOC 5400 -- The Family: Cr. 3
SOC 5870 -- Violence in the Family: Cr. 3-4

DISPUTE RESOLUTION (assumes completion of PCS 5000)

COM 2200 -- Interpersonal Communication: Cr. 3
COM 3250 -- Introduction to Organizational Communication: Cr. 3
COM 6171 -- Human Communication and Aging: Cr. 3
ECO 6420 -- Labor Relations and Public Policy: Cr. 3
HIS 5320 -- Black Labor History: Cr. 3
LBS 4500 -- Applied Labor Studies: Cr. 3
P S 3030 -- Political Interest Groups: Cr. 4
P S 3040 -- The Legislative Process: Cr. 4
P S 6070 -- Labor and American Politics: Cr. 3
PSY 3500 -- Psychology and the Workplace: Cr. 3
PSY 5540 -- Motivation in the World of Work: Cr. 3
S W 1010 -- Introduction to Social Work & Social Welfare: Cr. 3

Minor Program

To receive a Minor in Peace and Conflict Studies, a student must complete four core courses (PCS 2000, 6000, and one course from each of the other core groups noted above), in addition to six credits in conflict-related elective courses, all of which must be upper-divisional and may not be from the student's major. Electives may be selected from the courses listed above, or from other curricula, with approval of the Peace and Conflict Studies Director.

PEACE and CONFLICT STUDIES COURSES (PCS)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

2000 Introduction to Peace and Conflict Studies. (HIS 2500) (P S 2820) Cr. 3

Open to all undergraduate students. Introduction to the peace and conflict studies field and co-major. Survey, ranging from biology and conflict among animals to disputes involving the individual, the family, region, nation and global or international community. Definitions and approaches to peace. (T)

2010 Topics in Peace and Conflict Studies. (HIS 2520) (P S 2830) Cr. 1-4

Special topics on issues relating to peace and conflict studies. May be repeated on varied topics. (T)

2020 Science, Technology, and War. (HIS 2510) (P S 2440) Cr. 4

May not be used to fulfill natural science group requirement. Modern weapons, nuclear and conventional are becoming increasingly available and dangerous. Science and technology, as well as factors of government and society, underpin arms development and use. History of humanity and its tools of war and violence. (Y)

2050 The Study of Non-Violence. (HIS 2530) (P S 2550) (SOC 2050) Cr. 3

Intellectual and social roots of non-violence and the practice of non-violence in various societies and people's life styles. Historical and political forces and movements related to non-violence. (T)

5000 Dispute Resolution. (CRJ 5994) (P S 5890) (PSY 5710) Cr. 3

Overview of the processes and actors in the field of dispute resolution including negotiation, mediation, arbitration, and conciliation practices and theory. (T)

5010 Community or International Internship. Cr. 3

Prereq: PCS 2000 and consent of instructor. Offered for S and U grades only. Internship in dispute resolution, research, social service or international agencies in Detroit area, nationally, or abroad. (T)

5100 Advanced Special Topics. Cr. 3-4

Prereq: junior or senior standing or consent of instructor. Topics may include: study of negotiating organizations and processes, advanced theory to practice applications, in-depth specialization. (I)

5500 (P S 5740) Ethnicity: The Politics of Conflict and Cooperation. (AFS 5740) Cr. 4

Current ethnic (racial, linguistic, religious, and cultural) conflicts regionally, nationally and internationally. Introduction to concepts and analytic perspectives for understanding ethnicity as a factor in nation building and maintenance. (Y)

5999 Special Readings/Research. Cr. 1-4

Prereq: consent of instructor. Intensive study with faculty member on peace-related topic; may include study abroad projects. For co-majors and non-majors. (T)

6000 Senior Seminar in Peace and Conflict Studies. Cr. 3

Prereq: senior standing; PCS co-major or minor. Offered for undergraduate credit only. Students work with faculty on a semester research or creative project relevant to concepts studied in the program; serves as capstone program evaluative course. (T)

Philosophy

Office: 5057 Woodward, 12th floor; 313-577-2474
Chairperson: Robert Yanal; (email: R.Yanal@wayne.edu)

Web: http://www.clas.wayne.edu/Philosophy/

Professors

Herbert Granger, Lawrence B. Lombard,
T. Michael McKinsey, Bruce Russell, Robert J. Yanal

Associate Professors

John Corvino, Susan Vineberg

Assistant Professors

Eric Hiddleston, Katherine Kim, Gregory Novack

Senior Lecturer

Sean Stidd

Degree Programs

BACHELOR OF ARTS with a major in philosophy
MASTER OF ARTS with a major in philosophy
DOCTOR OF PHILOSOPHY with a major in philosophy

Courses in this department are designed for four types of service:

1. They contribute to the liberal education of any student, whatever his/her predominant interest, by their emphasis on clear and cogent thought, by consideration of the interrelations of fact and value, by training in logic and the methodology of inquiry, and by a study and analysis of major philosophical outlooks.

2. They supply a minor and cognate courses to students majoring in other Departments who wish to study their major subject in its wider philosophical implications.

3. They give Departmental majors a wide and intensive training in philosophy. The major appeals to those who wish to take graduate work in philosophy and to those who wish a broad background from which to study and understand the emergence and conflict of ideas in relation to contemporary problems.

4. They supply a relevant major and minor for students who plan a career in such fields as the law or the ministry.

Bachelor of Arts
With a Major in Philosophy

Admission Requirements for the College of Liberal Arts and Sciences are satisfied by the general requirements for undergraduate admission to the University; see page 24. Students who are planning to major in philosophy or who simply wish advice or consultation concerning course offerings and programs should see the Director of Undergraduate Studies in Philosophy. The Department offers a regular major and an honors major.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits in course work including satisfaction of the College of Liberal Arts and Sciences Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the major requirements listed below. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

Major Requirements: Students planning to major in Philosophy should consult the department's undergraduate advisor as early as possible. A candidate for the regular major must complete a minimum of nine courses in philosophy, including the following courses or selections from course groups (found in the Philosophy Courses of Instruction section below).

1. PHI 2100 (or 5400 or 5410 or 5420) and PHI 2110 (or 5440 or 5450 or 5460) from the History of Philosophy group;
2. one course from the Theory of Value group;
3. one course from the Philosophical Problems group
4. Symbolic Logic (PHI 1850 or 1860 or 5050);
5. three courses at the 5000-level (other than PHI 5993); and
6. PHI 5993 (Writing Intensive Course in Philosophy).

NOTE: Rather than taking a 2000- or 3000-level course in satisfying any of requirements (2) or (3), one may take a 5000-level course from the same group instead; however, the student should consult the instructor before doing so. Courses taken at the 5000-level which are used to satisfy any of requirements (1) through (4) may also be used to satisfy requirement (5), though the nine-course minimum must be met.

Honors Program

Admission to the honors program in philosophy is determined on the basis of the student's overall record. The student will normally be required to have a) a minimum grade point average of 3.3, b) credit in at least three philosophy courses, and c) a 'B' or better average in philosophy courses. To remain in the philosophy honors program, the student must maintain a 'B' or better average in philosophy courses.

Honors Requirements: To receive an Honors Degree, the candidate must

a) complete the course requirements for the regular major, plus PHI 4870 and 4890 (to be taken during the candidate's senior year),

b) pass comprehensive examinations in philosophy,

c) write an Honors Essay of sufficiently high quality on a topic to be chosen by the candidate in consultation with his/her instructor in PHI 4870,

d) complete a 4000-level seminar offered through the Honors College, and

e) complete at least fifteen credits in honors-designated course work, including PHI 4870 and 4890 and the 4000-level Honors Seminar.

At graduation, the overall grade point average must be at least 3.3. If at any point the student fails to maintain Honors standards, his or her credits will automatically be counted towards the regular degree major. Students interested in becoming candidates for the Honors Degree in philosophy should consult the Department's undergraduate advisor as soon as possible.

Minor in Philosophy

Students planning to minor in Philosophy should consult the department's undergraduate advisor as early as possible. A candidate for a minor in philosophy must complete a minimum of five courses (generally eighteen credits) selected from the philosophy course listings below, including the following courses or selections from course groups (found in the Philosophy Courses of Instruction section below).

1. History of Philosophy group: PHI 2100 (or 5400 or 5410 or 5420) or PHI 2110 (or 5440 or 5450 or 5460).
2. Symbolic Logic group: PHI 1850 or 1860 or 5050.
3. Value Theory group or Philosophical Problems group: one course from either group.
4. One course at the 5000 level from any group.
5. One additional course at the 2000 level or above from any group.

Courses taken in compliance with requirement (4) may be used to satisfy any of requirements (1), (2), (3), or (5); however, students wishing to do so must consult with the instructor; the five course minimum must still be met.

PHILOSOPHY COURSES (PHI)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

Introductory Courses

1010 (PL) Introduction to Philosophical Systems. Cr. 0-4 (LCT: 3; OR LCT: 3;DSC: 1)

No credit after PHI 1030. Introduction to philosophy and the main schools of philosophical thought, through examination of some of the great philosophers of the past. Selected texts of writers such as Plato, Aristotle, Augustine, Aquinas, Descartes, Hume, Kant, Hegel, Nietzsche, Mill, James, and Russell will be discussed. (T)

1020 (PL) Honors Introduction to Philosophical Systems. Cr. 3-4

Open only to Honors students. See PHI 1010. (I)

1030 (PL) Introduction to Philosophical Problems. (FYS 1400) Cr. 3-4

No credit after PHI 1010 or FYS 1400. Survey and discussion of some of the enduring and most pressing issues that have occupied philosophers: Does God exist? What is a good person? Do we have free will? Is the mind the same as the brain? What is the universe really like? What do we really know? Course will acquaint students with techniques for discussing such questions and for evaluating proposed answers to them. (T)

1040 (PL) Honors Introduction to Philosophical Problems. Cr. 3-4

Open only to Honors students. See PHI 1030. (I)

1050 (CT) Critical Thinking. Cr. 0-3

Knowledge and skills relevant to the critical evaluation of claims and arguments. Topics will include: the formulation and identification of deductively and inductively warranted conclusions from available evidence; the assessment of the strengths of arguments; the assessment of consistency, inconsistency, implications, and equivalence among statements; the identification of fallacious patterns of inference; and the recognition of explanatory relations among statements. (T)

1100 (PL) Contemporary Moral Issues. Cr. 0-3 (Max. 9)

Critical discussion of contemporary moral issues including pornography, adultery, incest, and homosexuality; abortion; preferential treatment; obligations to the poor; capital punishment; terrorism; ethics in the professions. (Y)

1110 Ethical Issues in Health Care. Cr. 3

Survey of moral issues that arise in the practice of medicine and in pursuit of medical knowledge: abortion, euthanasia, experimentation on human subjects, informed consent, rights to health care, genetic engineering, the concepts of death, health and disease. (Y)

1120 (PL) Professional Ethics. Cr. 0-3

No credit after PHI 1110. Critical examination of moral issues in the workplace, including: discrimination and preferential treatment, sex-

ual harassment, whistle-blowing, privacy and disclosure, corporate social responsibility. (Y)

1850 (PHI 1850) Introductory Symbolic Logic. (LIN 1850) Cr. 3

The logic of propositions; the general logic of predicates and relations. (Y)

1860 (PHI 1860) Honors Introductory Symbolic Logic. (LIN 1860) Cr. 3

Open only to Honors students. See PHI 1850. (Y)

History of Philosophy

2100 (PL) Ancient Philosophy. Cr. 3

Introduction to the Western philosophical tradition from its origins in Ancient Greece. Readings from the pre-Socratics, Plato, and Aristotle. (B)

2110 (PL) Seventeenth and Eighteenth Century Philosophy. Cr. 3

A survey of the views concerning knowledge and reality of the major European philosophers of the seventeenth and eighteenth centuries. Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, Kant. (B)

2150 (FC) Chinese Philosophy. (ASN 2150) Cr. 3

Main philosophical traditions from ancient to pre-Communist China. Readings from Confucianism. Taoism, Mohism, Legalism, Buddhism, Neo-Confucianism, and the Chinese Enlightenment. Main philosophical traditions from ancient to pre-Communist China. Readings from Confucianism. Taoism, Mohism, Legalism, Buddhism, Neo-Confucianism, and the Chinese Enlightenment. (W)

5400 Presocratic Philosophy. Cr. 3

Prereq: any philosophy course at the 2000-level or above; or Classics major; or consent of instructor. Selected readings on topics in philosophers who preceded or were contemporaneous with Socrates (7th - 5th centuries B.C.E), such as Heraclitus, Parmenides, Zeno, Democritus. (I)

5410 Plato. Cr. 4

Prereq: any philosophy course at the 2000 level or above, or classics major, or consent of instructor. Selected readings on topics in Plato. (B)

5420 Aristotle. Cr. 4

Prereq: any philosophy course at the 2000 level or above, or classics major, or consent of instructor. Selected readings on topics in Aristotle. (B)

5440 Continental Rationalism. Cr. 4

Prereq: any philosophy course at the 2000 level or above, or consent of instructor. Topics concerning Descartes, Spinoza or Leibniz. (I)

5450 British Empiricism. Cr. 4

Prereq: any philosophy course at the 2000 level or above, or consent of instructor. Topics concerning Locke, Berkeley or Hume. (I)

5460 Kant. Cr. 4

Prereq: any philosophy course at the 2000 level or above, or consent of instructor. Selected topics or readings in Kant's philosophy. (B)

Theory of Value

2320 (PL) Introduction to Ethics. Cr. 3

An introduction to some classical and modern views concerning such questions as: What determines the rightness and wrongness of actions? What is the nature of moral reasoning? What constitutes a moral life? (T)

2330 Introduction to Social and Political Philosophy. Cr. 3

Introduction to the basic issues of political philosophy, such as the nature of the state, the ways of justifying its power and authority over its citizens; a philosophical analysis of central concepts like those of freedom, justice, and equality. Selected readings from some of the following: Plato, Aristotle, Hobbes, Locke, Rousseau, Mill, Marx, and Rawls. (I)

3270 Foundations of Law. Cr. 3

Prereq: one philosophy course at the 2000 -level or above, or pre-law or law student standing, or consent of instructor. The legal system we live under commands, forbids, punishes, and defines responsibilities and harm. Common-sense morality: what is it, and what is its relation to law? Statutory interpretation: do judges create new law? Punishment: why do we have it, and what rights do the accused have? What is the legal concept of harm and responsibility? (B)

3700 (PL) Philosophy of Art. Cr. 3

What are art works? Why are they so moving? What is the nature of the experience they offer? This course introduces the student to some of the schools of thought on these issues. It also attempts to deal with the specific natures of the various artistic media, such as: drama, literature, film, painting, photography, music and opera. (T)

5240 Special Topics in Social and Political Philosophy. Cr. 4 (Max. 8)

Prereq: any philosophy course at the 2000 level or above or major in political science or consent of instructor. Selected topics and readings from major social and political philosophers. (I)

5270 Philosophy of Law. Cr. 4

Prereq: upper division standing. Intensive investigation and discussion of special topics or particular authors in the philosophy of law. (B)

5280 History of Ethics. Cr. 4

Prereq: one philosophy course at the 2000 level or above or consent of instructor. A survey and discussion of historically important moral philosophers from Plato to Mill. (B)

5300 Twentieth Century Analytic Ethics. Cr. 4

Prereq: any philosophy course at the 2000 level or above or consent of instructor. Twentieth century moral philosophers in the analytic tradition, with focus on debates in moral realism, moral epistemology, and the "Why be moral?" question; includes such philosophers as Moore, Stevenson, Foot, Mackie, Blackburn, Korsgaard, and Railton. (B)

Philosophical Problems

2400 Introduction to the Philosophy of Religion. Cr. 3

Religious beliefs provide subject matter for philosophical study; for example, Are the traditional arguments for the existence of God credible? Does the existence of evil conflict with a belief in God's omnipotence and omnibenevolence? What is the value of religious experience? (I)

2550 Introduction to Philosophy of Science. Cr. 3

Distinguishing science from non-science; how scientific knowledge is established; what constitutes scientific progress; whether science is cumulative; the place of science in the enterprise of knowledge and rational belief. (B)

3500 (PL) Theory of Knowledge. Cr. 3

The distinction between knowledge and belief is germane to every field of inquiry. What is the difference between knowledge and belief? Do we know anything at all? If so, how? Are we ever in a position of being certain about beliefs pertaining to an objective world? Is our belief in an objective world based on our subjective experiences? (T)

3550 (PL) Metaphysics. Cr. 3

Survey and examination of some of the enduring questions of metaphysics concerning the nature of reality. Topics include: the nature of physical objects, abstract entities, the concepts of time and change, the relation between mind and body, causation, the nature of metaphysics. (Y)

3600 Space, Time, and the Philosophy of Physics. Cr. 3

Prereq: one course in philosophy or in a physical science or consent of instructor. Survey of some principal problems concerning the concepts of space and time and their relation to physical theories. Topics include: our knowledge of the geometric features of the world, the existence of space and time, time without change, the passage of time, the philosophical foundations and implications of Einstein's Special Theory of Relativity, and the explanation of motion and the General Theory of Relativity. No prior knowledge of modern physics will be presupposed. (B)

5230 (PHI 5230) Philosophy of Science. (SOC 6080) Cr. 4

Prereq: PHI 1850 or 1860 or any course from the Philosophical Problems group or consent of instructor. Intensive investigation and discussion of special topics or particular authors in the philosophy of science. (Y)

5500 Topics in Metaphysics. Cr. 4

Prereq: any course from the Philosophical Problems group or consent of instructor. Intensive investigation and discussion of special topics or particular authors in metaphysics. (Y)

5530 Topics in Epistemology. Cr. 4

Prereq: any course from the Philosophical Problems group or consent of instructor. Intensive investigation and discussion of special topics or particular authors in the theory of knowledge. (I)

5550 Philosophy of Mind. Cr. 4

Prereq: any course from the Philosophical Problems group or consent of instructor. Intensive investigation and discussion of special topics or particular authors concerned with the nature and status of the mental and theories about the mental. (B)

5570 (PHI 5570) Philosophy of Language. (LIN 5570) Cr. 4

Prereq: PHI 1850 or 1860 or any philosophy course from the Philosophical Problems Group or graduate student in linguistics or consent of instructor. Intensive investigation and discussion of philosophical problems concerning meaning, truth, and the nature of language. (B)

5630 Twentieth Century Analytic Philosophy I. Cr. 4

Prereq: PHI 1850 or 1860 and any philosophy course from the Philosophical Problems Group or consent of instructor. Major works, movements, and writers in the analytic tradition in the twentieth century up to the 1940s, such as Frege, Russell, Moore, the early Wittgenstein, Carnap, Ayer. (I)

5640 Twentieth Century Analytic Philosophy II. Cr. 4

Prereq: PHI 1850 or 1860 and any philosophy course from the Philosophical Problems Group or consent of instructor. Major works, movements, and writers in the analytic tradition from the 1940s to the present, such as Quine, Austin, Ryle, the later Wittgenstein, Grice, Kripke, Putnam. (I)

Logic

5050 (PHI 5050) Advanced Symbolic Logic. (LIN 5050) Cr. 4

Prereq: junior, senior, or graduate standing. Formal, extensive treatment of first-order predicate logic with emphasis on the notions of a formal logical language and truth in a model; the logic of identity; definite descriptions; brief introductions to set theory and the metatheory of propositional and first-order logic; some additional advanced topics to be selected by the instructor. (Y)

5200 (PHI 5200) Modal Logic. (LIN 5200) Cr. 4

Prereq: PHI 1850 or 1860 or consent of instructor. The logic of necessity, possibility, and other modal notions as they occur in epistemic and deontic contexts. Propositional and quantified modal logic. (B)

5350 (PHI 5350) Logical Systems I. (MAT 5350) Cr. 4

Prereq: PHI 1850 or 1860 or 5050 or MAT 5600 or MAT 5420 or consent of instructor; for philosophy graduate students: satisfaction of elementary logic requirement. Metaresults concerning formal systems of first-order logics; soundness, completeness, and compactness; introduction to model theory; introduction to recursive functions and Church's theorem; formalization of elementary arithmetic; discussion of Godel's first and second incompleteness theorems; and Tarski's theorem. (I)

5390 (PHI 5390) Logical Systems II. (MAT 5390) Cr. 4

Prereq: PHI 5350 or MAT 5350 or consent of instructor. Advanced topics in logic. (I)

5750 Philosophy of Logic. Cr. 4

Prereq: PHI 1850 or 1860 and one other philosophy course at the 2000 level or above, or consent of instructor. Topics concerning such issues as the nature of logic, the relation between logic and ontology, and the relation between logic and mathematics. (I)

Special Courses

3800 Topics in Philosophy. Cr. 3 (Max. 6)

Topics to be announced in Schedule of Classes . (I)

4870 Honors Directed Reading. Cr. 4

Prereq: philosophy honors candidate. Research on topic of honors essay and research for comprehensive examinations. (F)

4890 Honors Proseminar. Cr. 4

Prereq: PHI 4870. Continuation of PHI 4870. (W)

5800 Special Topics in Philosophy. Cr. 3-4 (Max. 9)

Topics and prerequisites to be announced in Schedule of Classes . (I)

5990 Directed Reading. Cr. 1-6 (Max. 12)

Prereq: undergrad., consent of chairperson and instructor; grad., consent of chairperson, graduate officer and instructor. Intensive investigation by student on topic chosen by student in consultation with instructor. (T)

5993 (WI) Writing Intensive Course in Philosophy. Cr. 0

Prereq: junior standing; satisfactory completion of the IC requirement; consent of instructor and departmental undergraduate adviser; coreq: any 3000- or 5000-level philosophy course except PHI 5050, 5200, 5350, and 5390. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under direction of faculty member. Must be selected in conjunction with a course designated as a corequisite; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. Directed practice in rewriting assignments for the concurrently-elected course, for the purpose of perfecting skills in philosophical writing. (T)

Physics and Astronomy

Office: 135 Physics Research Building; 313-577-2721
Chairperson: Ratna Naik (rnaik@wayne.edu)
Associate Chairperson: Jogindra M. Wadehra
Academic Services Officer: J. Scott Payson

Web: http://www.clas.wayne.edu/physics/

Professors

Henry V. Bohm (Emeritus), Jhy-Jiun Chang, Juei-Teng Chen (Emeritus), David Cinabro, Thomas M. Cormier, Harry H. Denman (Emeritus), Gerald L. Dunifer (Emeritus), Lawrence D. Favro (Emeritus), David M. Fradkin (Emeritus), Sean Gavin, Suraj N. Gupta (Distinguished Emeritus), Robert F. Harr, Paul E. Karchin, Walter E. Kauppila (Emeritus), Paul H. Keyes, Yeong Wook Kim (Emeritus), Pao-Kuang Kuo, Caroline G. Morgan, Ratna Naik, Claude Pruneau, William B. Rolnick (Emeritus), Alvin M. Saperstein, Talbert S. Stein (Emeritus), Melbourne G. Stewart (Emeritus), Robert L. Thomas, Sergei Voloshin, Jogindra M. Wadehra

Associate Professors

Giovanni Bonvicini, David Bowen, Peter M. Hoffmann, Gavin Lawes, Ashis Mukhopadhyay, Boris Nadgorny, Karur R. Padmanabhan, Alexey A. Petrov

Assistant Professors

Jian Huang, Zhi-Feng Huang, Mark Mattson (Research), Steven J. Rehse, Takeshi Sakamoto, Zhixian Zhou

Adjunct Professors

Gregory W. Auner, Ivan Avrutsky, Elizabeth Buc, Neb Duric, Xiaoyan Han, Caroline Milstene, Vaman Naik, Abbas Nazri, Jagdish Thakur, Prem Vaishnava

Degree Programs

BACHELOR OF ARTS with a major in physics
BACHELOR OF ARTS with a major in astronomy
BACHELOR OF SCIENCE in Biomedical Physics
BACHELOR OF SCIENCE in Physics with concentrations in general physics, applied physics and pre-medical physics
MASTER OF ARTS with a major in physics
MASTER OF SCIENCE with a major in physics
DOCTOR OF PHILOSOPHY with a major in physics

Physics is the science that describes the behavior of the physical world. It is the most basic of all sciences and as such is responsible for the interpretation of fundamental physical processes which support many other scientific disciplines. The study of physics involves many of the significant ideas that have shaped Western civilization, and the excitement of ongoing scientific challenges. Currently, physicists conduct research into the basic laws of nature and also make use of these ideas to design and develop new technologies. Thus, training in physics offers a variety of opportunities. Careers are possible in research laboratories, in academic teaching capacities, in hospitals, the military, power plants, museums, patent law firms, computer companies, and in a host of other areas.

Faculty members in this Department are devoted to teaching and research and hold national and international reputations in their areas of specialization, which include: high energy physics, nuclear physics, atomic physics, the physics of condensed matter, material science, mathematical physics, applied physics, and quantum field theory. They organize and participate in conferences, publish extensively, and receive numerous outside grants, contracts and fellowships. In addition, they engage in many collaborations with scientists in both foreign and American universities and national laboratories.

Physics Colloquium: The department colloquium is normally held Thursday afternoons. Advanced undergraduates are invited to attend.

BACHELOR'S DEGREES

Admission Requirements: Admission to bachelors degree programs is contingent upon admission to the College, requirements for which are satisfied by the general undergraduate admission requirements for the University; see page 24.

DEGREE REQUIREMENTS: A candidate for the bachelor's degree must complete at least 120 credits in course work, including satisfaction of the College Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the additional requirements pertaining to the bachelor's program selected. *Note: In some cases the requirements of a specific program will increase the number of credits above 120.* All course work must be completed in accordance with the regulations of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

The University requirement for a writing intensive (WI) course in the major field is satisfied by: 1) PHY 6850 for the general physics and applied physics options of the Bachelor of Science in Physics degree; and 2) PHY 5200 for the Bachelor of Arts degree and the pre-medical physics option of the Bachelor of Science in Physics degree. It should be noted in each case that the requirement is satisfied by an additional writing project beyond the normal course requirements.

Students should consult with the undergraduate physics adviser in the Physics Research Building for more detailed information concerning the various degrees and options outlined below.

Bachelor of Science in Physics

The Bachelor of Science program offers several options. Each option is designed to meet the needs of a particular group of students although each is flexible enough to avoid limiting the student to a particular future program. Students take a logically-developed sequence of physics courses on a broad range of topics. The introductory sequence uses calculus, and later courses investigate single areas in greater depth, using more advanced mathematics. In advanced laboratory courses the physics student uses sophisticated equipment and sometimes has an opportunity to join a research team.

— Basic Requirements for All Options

1. Physics 2170, 2171, 2180, 2181, 3300, 3310, 5100, 5200 (total 20 credits).

2. Elementary mathematics sequence: MAT 2010, 2020, 2030, 2150 (total 15 credits).

3. Chemistry 1220 and 1230 (five credits).

4. Satisfaction of all University and College group and competency requirements.

— General Physics Option

This option is primarily for students who intend to go on to graduate study in physics. It also satisfies the requirements of industrial and governmental employers who demand a traditional education in physics.

Additional requirements beyond the basic ones listed above:

1. PHY 5210, 5500, 6400, 6410, 6600, 6610, and the Modern Physics laboratory course PHY 6850 (total twenty-one credits).

2. Either PHY 5340/5341 or PHY 5620 (total five credits). For a typical General Physics Sequence, including University and College Group Requirements, see the academics section on the departmental website.

— Applied Physics Option

The B.S. degree in the Applied Physics option is intended to provide the interdisciplinary training that is required for a variety of applied fields, while still providing an understanding of the physical foundations of those fields. Programs are designed to combine fundamental physics courses with engineering and other science courses, in order to prepare students for careers in industry (particularly engineering fields) as well as graduate programs in these areas. There is sufficient flexibility in this program that a set of courses can be designed to match a student's interest in such areas as semiconductor physics, material physics, computational physics, biophysics, optics and laser physics, and other areas. Students interested in enriching their education with on-the-job experience may apply for internships with cooperating research laboratories by contacting the departmental undergraduate adviser.

Additional requirements beyond the basic ones listed above:

1. PHY 5500, 6400, 6600, and the laboratory courses PHY 5340/5341, 5620 and 6850 (total twenty-two credits).

2. A total of *at least twenty additional credits* in physics, mathematics, or other science/technical courses.

For a typical Applied Physics Sequence, including University and College Group Requirements, see the academics section of the departmental website.

— Pre-Medical Physics Option

This option is specifically designed for students who wish to go on to medical school. It provides a background enabling the physician to use the full potential of modern medical instrumentation. In addition to required courses in the fundamentals of physics, the student may elect to take courses which will directly benefit his/her intended medical specialty. For example, a prospective ophthalmologist can study optics; an orthopedic surgeon, mechanics; a radiologist, atomic physics and radiation.

Additional requirements beyond the basic ones listed above:

BIO 1500, 1510, and two additional courses in biology; CHM 1240, 1250, 2220, 2230, 2280, and 2290 (which fulfill current medical school requirements); PHY 5620, 5340/5341, and one of the following three PHY courses: 5500 or 6400 or 6600. Students should consult the University Advising Center for possible changes in premedical requirements.

For a typical Pre-Medical Physics Sequence of Science and Mathematics Courses, including University and College Group Requirements, see the academics section of the departmental website.

Bachelor of Arts With a Major in Physics

This program is intended to meet the needs of several kinds of students:

a) students wishing to major in physics who have transferred to Wayne State University after one or two years at a community college, but whose background in physics and mathematics does not complement the content, level, or scheduling of remaining course requirements well enough to permit completion of the Bachelor of Science degree curriculum in a reasonable time;

b) students who wish to pursue a general course of education in the sciences with physics as an area of concentration. Those who undertake such a program are sometimes interested in the study of physics as an integrated part of a broad educational background;

c) students who decide relatively late in their college careers (for example, during the sophomore year) that they wish to major in physics.

It should be emphasized that completion of the Bachelor of Arts program instead of the Bachelor of Science program does not preclude later graduate work in physics. In most cases, it will mean that the student will spend part or all of his/her first year in graduate school making up deficiencies in his or her physics and mathematics background. Generally speaking, such deficiencies may be determined by consulting the Suggested Course Sequence of the Bachelor of Science degree in physics, presented earlier.

DEGREE REQUIREMENTS:

1. Physics 2170, 2171, 2180, 2181, 3300, 3310. A student may present credits in Physics 2130, 2140 or equivalent, in lieu of Physics 2170 and 2180, with the consent of the Departmental Undergraduate Adviser.

2. Additional nineteen credits in physics including 5100, 5200, 5340/5341, 5620 and one of the following three PHY courses: 5500 or 6400 or 6600.

3. Elementary Mathematics Sequence: MAT 2010, 2020, 2030, 2150.

4. Chemistry 1220 and 1230 (five credits).

5. Satisfy all University and College Group and Competency Requirements as well as the University General Education Requirements (see page 18)

Bachelor of Arts With a Major in Astronomy

This program is intended to provide students with foundational knowledge in astronomy and space science. Students will graduate with strong scientific preparation and communication skills and will have a wide range of career options including entry-level jobs as well as graduate education in law, business, education, social and physical sciences. In short, these students will have all the traditional options of liberal arts majors with the added advantage of a unique science background.

DEGREE REQUIREMENTS:

1. Astronomy 2010 and its laboratory component, Astronomy 2011.

2. Physics 2170, 2171, 2180, 2181, 3300, 3310. A student may present credits in Physics 2130, 2140 or equivalent, in lieu of Physics 2170 and 2180, with the consent of the Departmental Undergraduate Astronomy Adviser.

3. Five core astronomy courses (fourteen credits): AST 5010, 4100, 4200, 4300 and 5800. In addition, students are required to take eight credits of additional elective courses at the 4000 level or above in physics or in other departments. Suggested electives in physics include PHY 5100, 5200, 5210, 5340/5341, and 5620. Approved electives in other departments include CHM 5160 and HIS 5407.

4. Elementary Mathematics Sequence: MAT 2010, 2020, 2030, 2150.

5. Satisfy all University and College Group and Competency Requirements as well as the University General Education Requirements (see page 18)

Bachelor of Science in Biomedical Physics

Biomedical Physics deals with applications of physics to questions of biology and medicine. It is an interdisciplinary program, combining courses from physics, biology and medicine designed to train students to use quantitative, physical science inspired approaches to problems of the life sciences. Graduates of this program will be pre-

pared for careers or graduate studies in biophysics, medicine, biomedical engineering, medical physics or any other field requiring physical and technological approaches to medical or biological questions.

Admission Requirements for this program are satisfied by the requirements for general undergraduate admission to the University; see page 24. In addition, a student must possess an overall g.p.a of at least 'B' (3.0) for the three courses PHY 2130/2131, PHY 2140/2141 (or PHY 2170/2171, PHY 2180/2181), and MAT 2010 to become a B.S. candidate in Biomedical Physics.

Degree Requirements: Candidates for the B.S. in Biomedical Physics must complete at least 123 credits in course work, including satisfaction of the College Group Requirements (see page 274) and the University General Education Requirements; (see page 18), as well as the requirements listed below. All course work must be completed in accordance with the academic procedures of the University and the College of Liberal Arts and Sciences governing undergraduate scholarship and degrees; see sections beginning on pages 18, 36, and 274. All students will be required to maintain an overall grade point average of 'C' (2.0) for all degree work elected, as well as a grade point average of at least 2.5 in all major and cognate requirements.

Major Requirements: B.S. candidates must take a minimum of 39 credits including PHY 2130 (or 2170), PHY 2131 (or 2171), PHY 2140 (or 2180), PHY 2141 (or 2181), PHY 3700, PHY 4700, PHY 5340/5341, PHY 5620, PHY 5700, PHY 6700, PHY/RAD 6710, PHY 6780.

Cognate Requirements: B.S. candidates in Biomedical Physics must take MAT 1800, MAT 2010, MAT 2020, CHM 1220/1230, CHM 1240/1250, CHM 2280/2290 (or CHM 2220/2230), BIO 1500, and BIO 1510. Some of these courses can be waived with the approval of the Biomedical Physics Advisor if a proof of proficiency is provided or a higher level course is substituted.

Science Electives: B.S. candidates in Biomedical Physics must take a total of four additional science or engineering elective classes beyond the requirements listed above. At least one of these classes must come from the field of biology. These four classes can be chosen from the following list: **BIO** 2200, 2600, 2870, 3070, 3100, 4120; **BME** 5010; **CHM** 2220/2230 (or 2280/2290), 5400, 5420, 5600, 6340, 6620, 6640; **CSC** 1100/1101, 2000, 2110/2111; **MAT** 2030, 2150, 2350, 5100, 5700; **MSE** 5180; **PHY** 3300/3310, 5200, 5500, 6400, 6600; **RAD** 5010. Classes not on this list can be taken if prior approval from the Biomedical Physics student advisor has been obtained.

Advanced Placement

Advanced placement college credit in physics may be obtained by earning a score of five in the calculus-based Advanced Placement (AP) physics 'C' qualifying examination. Credit is awarded for PHY 2170 and 2171 if a score of five is received in the mechanics portion of the AP physics exam. Also, credit is awarded for PHY 2180 and 2181 if a score of five is received in the electricity and magnetism portion of the AP physics exam. Students may enroll in all the subsequent courses provided all the prerequisites for those courses are met.

'AGRADE' Program

Accelerated Graduate Enrollment: Seniors in Physics and Astronomy, with a minimum grade point average of 3.5, may enroll simultaneously in the undergraduate and graduate programs. These students can apply up to fifteen credits towards both the bachelors and masters degrees in physics. Contact departmental adviser for further information.

Honors Program

Undergraduate majors, in both Physics and Biomedical Physics, with a minimum grade point average of 3.3 can enroll in the Honors program of the Department of Physics and Astronomy. Prospective students should consult the departmental adviser as soon as they declare their major.

Minor in Physics

The Department of Physics and Astronomy offers a minor in physics to qualified students from other Departments. The requirement for a minor consists of Physics 2170, 2171, 2180, and 2181 (or Physics 2130, 2131, 2140, and 2141) plus Physics 3300/3310 and at least three other physics courses at the 3000 level or above. Students should consult the Departmental Undergraduate Adviser for approval of the minor prior to undertaking the program.

Minor in Biomedical Physics

The Department also offers a minor in Biomedical Physics. The requirements for a minor consist of PHY 2130 (or 2170), 2131 (or 2171), 2140 (or 2180), 2141 (or 2181), 3700 (or MAT 2030), 4700 and either 5340/5341 or 5620, as well as either PHY 6700 or 6710. The students should consult the Biomedical Physics Advisor for approval of the minor prior to undertaking the program.

Courses for Non-Science Majors

The Department of Physics and Astronomy offers several courses designed primarily for non-science majors for which only minimal high school mathematics preparation is needed. The courses are AST 2010, PHY 1020, 1040, 1070, 1420, 2020, and 3100. The laboratories connected with AST 2010, PHY 1020, 1070, 1420, and PHY 3100 satisfy the natural science laboratory group requirements.

Scholarships and Awards

Vaden W. Miles Undergraduate Award: A monetary award is given to a graduating senior(s) majoring in physics with the most outstanding scholastic record(s).

Department of Physics Undergraduate Scholarships: Scholarships of $500 and $1000 are available to entering freshmen and current full-time undergraduates who are majoring in physics. Selection is based primarily on scholastic achievement and secondarily on the basis of financial need. One scholarship is awarded to an incoming freshman physics major, and depending upon satisfactory progress of the recipient, will be renewed annually up to four years. Another scholarship is open to all full-time undergraduate physics majors with a minimum grade point average of 3.0 or above. For further information, contact the Department of Physics and Astronomy, 135 Physics Building.

UNDERGRADUATE COURSES

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

ASTRONOMY COURSES (AST)

2010 (PS) Descriptive Astronomy. Cr. 4

Lecture course that introduces the concepts and methods of modern astronomy, the solar system, stars, galaxies, and cosmology; recent discoveries about planets, moons, the sun, pulsars, quasars, and black holes. (T)

2011 Descriptive Astronomy Laboratory. Cr. 1 (LAB: 2)

Coreq: AST 2010 or 5010, PHY 5010, or consent of instructor. Laboratory exercises and observations; includes two late evening viewing sessions. Satisfies General Education Laboratory requirement when taken concurrently with AST 2010. Material Fee As Indicated In The Schedule of Classes (T)

4100 Astronomical Techniques. Cr. 3

Prereq: PHY 2180 and 2181, or consent of instructor. Introduction to the techniques of modern astrophysics; the detectors used in astronomy for optical and infrared photons, radio and microwaves, X- and gamma-rays, and neutrinos. Review of techniques in imaging, photometry, spectroscopy, astrometry, polarimetry, and for analyzing public data available on the web

4200 Astronomical Laboratory. Cr. 2 (LAB: 2)

Prereq: AST 4100, or consent of instructor. Introduction to laboratory techniques of modern astrophysics. Focus on optical astrometry including measurement of the quantum efficiency of a CCD-based astronomical digital camera, measurement of the throughput as a function of wavelength of a set of standard astronomical filters, and measurement of the HR diagram of a star cluster using the calibrated camera and filters.

5010 Astrophysics and Stellar Astronomy. (PHY 5010) Cr. 3 (LCT: 3)

Prereq: PHY 2140 or PHY 2180, MAT 2010, or consent of instructor. Electromagnetic radiation and matter; solar characteristics; stellar distances; magnitudes; spectral classification; celestial mechanics; binary stars; stellar motions, structure and evolution; compact and variable stars; Milky Way Galaxy and interstellar medium; galaxies and clusters of galaxies; quasars; Hubble's Law; cosmology. (B:W)

PHYSICS COURSES (PHY)

All courses with a laboratory have a non-refundable materials fee and are so indicated in the Schedule of Classes.

1020 (PS) Conceptual Physics: The Basic Science. Cr. 0-4

Meets General Education Laboratory Requirement when elected for 4 credits (fee applies). Physical concepts and practical applications to everyday life of the basic principles of motion, forces, energy, matter, heat, sound, electricity, magnetism, and light. Lectures, demonstrations and optional laboratory; laboratory is strongly recommended. Material Fee As Indicated In The Schedule of Classes (T)

1040 (PS) Einstein, Relativity and Quanta: A Conceptual Introduction. Cr. 3-4

Offered for four credits only to Honors students. Einstein and the origin of the special theory of relativity; the curvature of space; the uncertainty principle; the quantum theory; the interaction of observer and measurement; fission and fusion; the influence of modern physical theories on society and philosophy. Honors students have one additional hour per week of recitation and are required to write a major paper. (W)

1070 (PS) Energy and the Environment. Cr. 3-4 (LCT: 3;LAB:2)

Prereq: high school algebra. Meets General Education Laboratory requirement when elected for four credits. Introduction to energy production and usage, and environmental impact. Topics include: fossil fuel, electrical energy, nuclear power, solar power, wind energy, hydrogen power. Lectures, demonstrations, and optional laboratory. Material Fee As Indicated In The Schedule of Classes (I)

1420 (PS) Atoms and Stars: A Historical Introduction to Astronomy, Physics and the Process of Scientific Discovery. Cr. 3-4

Meets General Education laboratory requirement when elected for four credits. Historical introduction to key concepts in astronomy and physics; scientific process, ideas and methods. (W)

2020 (PHY 2020) Science, Technology, and War. (HIS 2510) (P S 2440) (PCS 2020) Cr. 4

May not be used to fulfill natural science group requirement. Modern weapons, nuclear and otherwise are becoming increasingly available and dangerous; people with grievances seem eager to use them. Science and technology, as well as constraints of bureaucracy and society underpin weapons development and use, as technologies affect prospects and results of war and peace. History of humanity and its tools of war. (Y)

2130 (PS) General Physics. Cr. 0-3

Prereq: high school algebra and trigonometry; coreq: PHY 2131. Satisfies General Education laboratory requirement only when taken concurrently with PHY 2131. No credit after PHY 2170. For general Liberal Arts and Sciences students and for students preparing for medicine, dentistry, pharmacy and health sciences. Mechanics, thermal physics, wave motions, and optics. (T)

2131 General Physics Laboratory. Cr. 1 (LAB: 2)

Coreq: PHY 2130. Satisfies General Education laboratory requirement only when taken concurrently with PHY 2130. Laboratory experiments in mechanics, thermal physics, wave motions and optics. Material Fee As Indicated In The Schedule of Classes (T)

2140 General Physics. Cr. 0-3

Prereq: PHY 2130; coreq: PHY 2141. No credit after PHY 2180. Continuation of PHY 2130. Electricity, magnetism and introduction to modern physics. (T)

2141 General Physics Laboratory. Cr. 1 (LAB: 2)

Coreq: PHY 2140. Laboratory experiments in electricity, magnetism and modern physics. Material Fee As Indicated In The Schedule of Classes (T)

2170 (PS) General Physics. Cr. 0-4

Prereq: MAT 2010; coreq: MAT 2020, PHY 2171. Satisfies General Education laboratory requirement only when taken concurrently with PHY 2171. No credit after PHY 2175. For students specializing in physics, biology, chemistry, mathematics or engineering. Statics, kinematics, dynamics, energy and linear momentum, rotational kinematics and dynamics, angular momentum, solids and fluids, vibrations and wave motion, thermodynamics. (T)

2171 General Physics Laboratory. Cr. 1 (LAB: 2)

Coreq: PHY 2170. Satisfies General Education laboratory requirement only when taken concurrently with PHY 2170. Laboratory experiments in statics, kinematics, dynamics, energy and linear momentum, rotational kinematics and dynamics, angular momentum, simple harmonic motion, optics, continuum mechanics, thermodynamics. Material Fee As Indicated In The Schedule of Classes (T)

2175 (PS) General Physics. Cr. 0-4

Prereq: MAT 2010; coreq: MAT 2020. Open only to College of Engineering students; others by written consent of instructor. No credit after PHY 2170. For students specializing in engineering. Statics, kinematics, dynamics, energy and linear momentum, rotational kinematics and dynamics, angular momentum, solids and fluids, vibrations and wave motion, thermodynamics. (T)

2180 General Physics. Cr. 0-4

Prereq: PHY 2170, MAT 2020; coreq: PHY 2181. No credit after PHY 2185. Electric forces and electric fields, electrical energy, capacitance, current, resistance, direct current circuits, magnetism, induced voltage and inductance, AC circuits, electromagnetic waves, geometric and wave optics. (T)

2181 General Physics Laboratory. Cr. 1 (LAB: 2)

Coreq: PHY 2180. Laboratory experiments in electrostatics, currents and circuit elements, magnetic fields, magnetic induction, AC circuits, electromagnetic waves, interference of waves. Material Fee As Indicated In The Schedule of Classes (T)

2185 General Physics. Cr. 0-4

Prereq: PHY 2175, MAT 2020. Open only to College of Engineering students; others by written consent of instructor. No credit after PHY 2180. Electric forces and electric fields, electrical energy, capacitance, current, resistance, direct current circuits, magnetism, induced voltage and inductance, AC circuits, electromagnetic waves, geometric and wave optics. (T)

2210 General Physics Laboratory. Cr. 1-2 (Max. 2)

Prereq: PHY 2175 or 2185 if taken for four credits or consent of instructor. No credit after PHY 2170 or PHY 2180 if taken for five credits; register for one credit per section. Laboratory for PHY 2170 and PHY 2180. Material Fee As Indicated In The Schedule of Classes (T)

3100 (PS) The Sounds of Music. Cr. 0-4

Prereq: sophomore standing. Meets General Education Laboratory Requirement. For music majors and other students interested in the physical foundations of the production, perception, and reproduction of musical sounds. Makes only limited use of simple mathematics. Includes topics such as wave properties, loudness levels and the human ear, hearing loss, tone quality, frequency and pitch, musical intervals and tuning, room acoustics, the production of sound by various musical instruments, and electronic reproduction of music. Material Fee As Indicated In The Schedule of Classes (F)

3300 Introductory Modern Physics. Cr. 3

Prereq: PHY 2180 or consent of instructor; coreq. for physics majors only: PHY 3310. For physics, chemistry, engineering, mathematics majors and other interested students. Introduction to relativity, quantum phenomena, atomic structure, quantum mechanics, condensed matter physics, quantum optics, nuclear physics, elementary particles, and anti-particles. (F,W)

3310 Modern Physics Laboratory. Cr. 1

Prereq: PHY 2140 or 2180; coreq: PHY 3300 or PHY 5015. Laboratory course to accompany PHY 3300. Hands-on experience in logical and rigorous analysis of phenomena of modern physics. Material Fee As Indicated In The Schedule of Classes (F,W)

3700 Mathematics for Biomedical Physics. Cr. 4

Prereq: PHY 2130/2140 (or PHY 2170/2180) with grade of B or above; coreq: MAT 2020. Training in specific applied topics of mathematics for biomedical physics majors. (F)

3990 Directed Study. Cr. 1-4 (Max. 4)

Prereq: consent of adviser and instructor. Primarily for students who wish to continue in a field beyond material covered in regular courses, or who wish to study material not covered in regular courses, including certain research participation. (T)

4700 Introduction to Biomedical Physics. Cr. 4

Prereq: PHY 2130/2140 or PHY 2170/2180; MAT 2020; PHY 3700. Basic and applied physical concepts used in biology, human anatomy, and physiology, as well as in medical diagnosis and treatment. (W)

5010 (AST 5010) Astrophysics and Stellar Astronomy. Cr. 3

Prereq: PHY 2140 or 2180, MAT 2010 or consent of instructor. Electromagnetic radiation and matter; solar characteristics; stellar distances; magnitudes; spectral classification; celestial mechanics; binary stars; stellar motions, structure and evolution; compact and variable stars; Milky Way Galaxy and interstellar medium; galaxies and clusters of galaxies; quasars; Hubble's Law; cosmology. (B:W)

5015 Nonclassical Physics for Educators. (PHY 7010) Cr. 3

Open only to middle- or high school teachers. Offered for undergraduate credit only. Prereq: PHY 2130, PHY 2140; coreq: PHY 3310. Development of relativity and quantum mechanics. Emphasis on nuclear physics and elementary particles. Required math: algebra and trigonometry. (F,S)

5030 Plasma Physics. Cr. 3

Prereq: PHY 6600, or 2180 and consent of instructor and MAT 2020. Introduction to plasma physics for students in science and engineering. Motion of charged particles in electromagnetic fields; magnetoionic theory including electron conductivity and mobility; wave propagation in a plasma; plasma kinetic theory with emphasis on Boltzmann, Vlasov and Fokker-Planck equations; plasma sheaths. (B:W)

5100 Methods of Theoretical Physics I. Cr. 3

Prereq: PHY 2180, MAT 2030. Introduction to mathematical tools used in advanced courses in physics. (F)

5200 (WI) Classical Mechanics I. Cr. 3

Prereq: PHY 2180, PHY 5100. Introduction to fundamental ideas: Newton's laws, notions of momentum, angular momentum, kinetic and potential energy, mechanical energy, conservation laws, motion in 1- and 3-D, friction and retardation forces, oscillations, resonances, and gravitation. (F)

5210 Classical Mechanics II. Cr. 3

Prereq: PHY 5200 and MAT 2350. Accelerated reference frames, centrifugal and Coriolis forces, rigid body dynamics, motion of tops and gyroscopes, Lagrange's equations, constraints, Lagrange multipliers, general central force problem, stability of orbits, relativistic mechanics. (W)

5340 Optics. Cr. 3

Prereq: PHY 2140 or PHY 2180, MAT 2030 or PHY 3700; coreq. for PHY majors: PHY 5341. Electromagnetic radiation; geometrical, physical, and modern optics. (F)

5341 Optics Laboratory. Cr. 2

Prereq. or coreq: PHY 5340 or ECE 5760. Experiments involving geometrical, physical, and quantum optics. Material Fee As Indicated In The Schedule of Classes (F)

5500 Thermal Physics. Cr. 4

Prereq: PHY 3300, PHY 5100. Notions of temperature, equation of state, internal energy, the three Laws of Thermodynamics, Carnot's theory, entropy, thermodynamic potentials, kinetic theory, partition function, heat capacity of solids, thermodynamics of radiation, Fermi-Dirac gases. (F)

5620 Electronics and Electrical Measurements. Cr. 5

Prereq: PHY 2180 or PHY 2140 or consent of instructor. Amplifier circuits, operational amplifiers, oscillators, digital electronics, analog and digital measurements. Material Fee As Indicated In The Schedule of Classes (W)

5700 (WI) Biomedical Physics Seminar. Cr. 3

Prereq: PHY 3700, PHY 4700. Introduction to modern research in biomedical physics. Development of presentation and writing skills. (F)

5990 Directed Study. Cr. 1-3

Prereq: junior standing and consent of adviser and instructor. Primarily for students who wish to continue in a field beyond material covered in regular courses, or who wish to study material not covered in regular courses, including certain research participation. (T)

6350 Applied Modern Optics. Cr. 3

Prereq: PHY 5340. Coherent radiation, laser physics and optical devices, optical techniques in experimental science, topics in modern optics. (B:W)

6400 Quantum Physics I. Cr. 3

Prereq: PHY 3300, PHY 5100, MAT 2150. Operators and their eigenfunctions, quantization rules, solution of Schroedinger equation in 1- and 3-D, the hydrogen atom, angular momentum, spin, boson, fermions, Time-independent perturbation theory. (W)

6410 Quantum Physics II. Cr. 3

Prereq: PHY 6400 or consent of instructor. Applications of quantum mechanics: atoms in electric and magnetic fields, multielectron atoms, molecules, quantum statistics, solids (band structure, magnetic properties), nuclei, fundamental forces and standard model. (F)

6600 Electromagnetic Fields I. Cr. 3

Prereq: PHY 5100, PHY 5200, MAT 2150, or consent of instructor. Topics include electrostatics, solution of Laplace equation, dielectric media, electric current, magnetic field of steady currents, magnetic properties of matter, electromagnetic induction. (W)

6610 Electromagnetic Fields II. Cr. 3

Prereq: PHY 6600 or consent of instructor. Continuation of PHY 6600: Maxwell equations, electromagnetism and relativity, optics, wave guides and transmission lines, radiation of EM waves. (W)

6700 Biological Physics. Cr. 4

Prereq: PHY 3700, PHY 4700. Introduction to applications of physics to molecular biology. Capstone course in biomedical physics undergraduate major. (F)

6710 (PHY 6710) Physics in Medicine. (RAD 6710) Cr. 3

Required for B.S. in Biomedical Physics. Applications of physics in medicine including radioactivity; interaction of radiation in matter; x-ray, CT, MRI, ultrasound, and PET imaging; nuclear medicine; radiation oncology; nerve electrophysiology, electrocardiogram, pacemakers, and defibrillators. (W)

6780 Research in Biomedical Physics. Cr. 3

Prereq: PHY 3700, PHY 4700. Introduction to laboratory experience in biomedical physics research. (W)

6850 (WI) Modern Physics Laboratory. Cr. 2

Prereq: PHY 3300 or consent of instructor. Techniques and experiments in physics of atoms, atomic nuclei, molecules, the solid state and other areas that have advanced our modern understanding of physics. Material Fee As Indicated In The Schedule of Classes (W)

6860 Computational Physics. Cr. 3

Introduction to computational languages and local computational environment; description of techniques in numerical analysis including linear algebra, integration, algebraic and differential equations, data analysis and symbolic algebra; optimization and parallel computing. (B:W)

Political Science

Office: 2040 Faculty/Administration Building; 313-577-2630
Chairperson: Daniel S. Geller (Email: av0844@wayne.edu)
Website: http://www.clas.wayne.edu/politicalscience/

Professors

Philip R. Abbott, Timothy Bledsoe, Charles D. Elder, Richard C. Elling, Susan P. Fino, Daniel S. Geller, Michael Goldfield, Charles J. Parrish, Frederic S. Pearson, Lawrence A. Scaff, Marjorie E. Sarbaugh-Thompson, Thomas L. Thompson, Maurice Waters (Emeritus)

Associate Professors

Ronald E. Brown, James T. Chalmers, Kevin Deegan-Krause, Ewa Golebiowska, Mary Herring, Brad Roth, John M. Strate

Assistant Professors

Timothy A. Carter, Kyu-Nahm Jun, Sharon F. Lean, Jodi L. Nachtwey, Yumin Sheng

Degree Programs

BACHELOR OF ARTS with a major in political science
BACHELOR OF PUBLIC AFFAIRS
MASTER OF ARTS with a major in political science
MASTER OF ARTS / JURIS DOCTOR
MASTER OF PUBLIC ADMINISTRATION
DOCTOR OF PHILOSOPHY in Political Science

The study of political science is focused on understanding the nature and problems of government and the role of politics in contemporary society. This is accomplished through systematic exploration of the structure and processes of government at different levels and across nations, through study of individual and collective political behavior, and through analyses of policy problems and the processes through which public policies are formulated and administered. Political science contributes to the goals of general education by promoting civic literacy and cultivating an awareness of the opportunities and obligations of citizenship at local, state, and national levels.

The field of political science is of special importance to students whose career goals include:

1. Professions likely to involve participation in public affairs, including law, engineering, criminal justice, public health, social welfare and education.

2. Administrative or executive positions in government at the local, state or federal levels.

3. Teaching of political and social science at the secondary, junior college and university levels.

4. Positions in the diplomatic service and in foreign and overseas programs of the U.S. Government and of other organizations doing business abroad.

5. Leadership, research, and staff roles in citizen organizations, political parties, campaign organizations, economic and social interest groups, municipal research bureaus, and nonprofit organizations.

6. Positions associated with mass communications, such as radio, television and newspapers, where basic understanding of public affairs and governmental policies and organization is required for accurate reporting and analysis.

7. Positions in private enterprise where knowledge of governmental processes is essential, such as in industrial relations, legislative liaison and public relations.

Bachelor of Arts with a Major in Political Science

Political science majors are offered opportunity to develop programs of study that complement their particular interests and career goals. The major may be used to structure a broad general program or a highly concentrated and specialized one. The following requirements pertain to all B.A. majors.

Admission Requirements for the College are satisfied by general undergraduate admission to the University; see page 24. To enter the Bachelor of Arts degree program in political science, students must have a grade point average of at least 2.0 and must declare their major in accordance with the rules of the College (see page 275).

Transfer Credits: Students wishing to apply transfer credits toward the major should consult the political science undergraduate adviser regarding departmental policies and restrictions on the use of these credits.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits in course work including satisfaction of the College of Liberal Arts and Sciences Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the major requirements listed below. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

Major Requirements: A political science major must satisfactorily complete at least thirty-six credits of course work in the Department. This course work must include:

1. One introductory course in American government (P S 1010 or 1030).

2. At least one course from the following: P S 2510, 2710, 2810, 2820.

3. At least four courses at the 3000 level or higher. (P S 5993 does not count toward fulfillment of this requirement.)

4. Course work in at least two of the following fields: American Government/Public Law (courses numbered with a second digit of 0 or 1), Urban Politics (second digit of 2), Public Policy/Public Administration (second digit of 3 or 4), Political Philosophy (second digit of 5), Research Methods (second digit of 6), and World Politics/Comparative Politics (second digit of 7 or 8). P S 1010, 1030, 2510, 2710, 2810, and 2820 do not count toward fulfilling this requirement.

5. A Writing Intensive (WI) course in political science with co-registration in P S 5993, in order to satisfy the Writing Intensive Course in the Major requirement. Any political science course at the 3000-level or higher, except P S 4460, 5630 and 6640, may be used to fulfill this requirement. To satisfy the requirement, the student must demonstrate proficiency in writing on disciplinary subject matter in a form and style that conform to disciplinary standards. To use a course for this purpose, the student must obtain approval from the instructor and follow the guidelines established by the instructor to demonstrate the required proficiency. The student must also co-register in P S 5993, a zero-credit course for which the student will receive a grade of Satisfactory ('S') upon certification by the instructor that the writing requirement has been fulfilled. Note that completion of the Intermediate Composition (IC) is prerequisite to the WI course.

Recommended Course: It is recommended that majors include P S 3600, Methods of Political Inquiry, in their programs of study.

— Fields of Study

In developing their specific programs of study, students should consult with the political science undergraduate adviser. They may pursue a general program or choose to concentrate in a particular field or subfield. The following are fields in which a student may choose to concentrate. Other areas of concentration and more specialized programs may be developed in consultation with the undergraduate adviser. It is not mandatory that a student have an area of concentration; the listings are only suggestive.

American Government and Politics: Public opinion, electoral politics, and participation in the political process; the role of political parties and interest groups and of the mass media; the workings of Congress, the Presidency, and other governmental institutions. Courses relevant to this area of concentration include (but are not limited to): P S 3010, 3020, 3025, 3030, 3040, 3050, 3060, 3070, 3080, 3430, 5030, 5040, 5050, 6010, 6020, 6050, and 6070.

Public Law/Legal Studies: Judicial interpretation of the Constitution; civil liberties and constitutional rights; the law as a profession; law enforcement and the operations of the judicial system; international dimensions of law. Relevant courses include: P S 3100, 5110, 5120, 5850, and 6120.

Urban Politics and Policy: Governing cities in a federal system; economic conditions and urban problems; local policy-making and the constraints under which policy is made. Relevant courses include: P S 2000, 2240, 3250, 6020, and 6455.

Public Administration: The nature and functions of public agencies; techniques of public management; public bureaucracy in its social setting. Relevant courses include: P S 2310, 2992, 3430, 6120, and 6700.

Public Policy: How policy is formulated, decided, implemented, and evaluated; moral and political standards for making policy. Relevant courses include: P S 2410, 2420, 2460, 2992, 3430, 3450, 3840, 4460, 5850, 6430, and 6455.

Political Philosophy and Ethics: The justification and application of ethical standards to politics; history and analysis of authority and rebellion, individualism and community, justice and equality; modern ideologies such as communism, socialism, liberalism, and conservatism. Relevant courses include: P S 2420, 2510, 3510, 3515, 3520, 3530, 5560, and 5850.

Quantitative Political Analysis: Methods of analysis used to assess alternatives and evaluate the impact of government policy; methods of empirical political research including data collection, statistical description and inference, and the use of computers to organize and interpret data. Relevant courses include: P S 2460, 3600, 4460, 5630, and 6640.

Comparative Politics: The study of government and politics of western, non-western, and third world countries in their historical, cultural, and economic settings; problems of comparison across cultural and national boundaries. Relevant courses include: P S 2710, 3710, 3715, 3735, 4710, and 4799.

World Politics: Conflict and cooperation among nations; causes of war and the pursuit of peace; international law; international organizations and multi-national corporations; North-South relations and issues of development, imperialism, and dependency; East-West relations and the changing world order; American foreign policy and issues of disarmament, intervention, and economic competition. Relevant courses include: P S 2810, 2820, 3811, 3830, 3840, 4810, 5740, 5820, 5830, and 5850.

— Pre-Law Curriculum

Political science provides a useful major for students who anticipate applying to law school. For students choosing the Bachelor of Arts program, a Public Law/Legal Studies concentration drawing upon courses such as P S 3100, 5110, 5120, 5850, 5890, and 6120 is recommended along with courses in American Government and public policy (numbered with second digits of 0 and 4, respectively). Specific programs of study under either degree option should be developed in consultation with the department's pre-law adviser.

Bachelor of Public Affairs

The Bachelor of Public Affairs (B.P.A.) prepares qualified students for professional and technical careers in the public service or for advanced study in public affairs and administration, the social sciences and related disciplines. The program is a structured professional curriculum that builds on the foundation of a general liberal arts education. The curriculum incorporates fundamentals of social science theory and applications of that theory to public management and policy analysis. The B.P.A. provides students with skills needed for working in city, county, state and national government, in other public and non-profit agencies, and in positions in private enterprise that deal with governmental relations. Internships afford students an opportunity to apply what they have learned in public service settings. Students interested in this program should consult the political science undergraduate adviser as early as possible in their college careers. Ideally, students begin B.P.A. course work in their sophomore year and should declare their major as early as possible.

Admission Requirements for the College are satisfied by general undergraduate admission to the University; see page 24. To declare the B.P.A. as a major, a student must have a grade point average of 2.25 and follow the procedures set forth by the College of Liberal Arts and Sciences for declaring a major (see page 275).

Transfer Credits: Students wishing to apply transfer credits toward the B.P.A. major should consult the political science undergraduate adviser regarding departmental policies and restrictions on the use of these credits.

DEGREE REQUIREMENTS: Candidates for the B.P.A. degree must:

1) Complete a total of 120 credits in course work.

2) Satisfy all of the Liberal Arts Group Requirements (see page 274), excepting that the College's foreign language requirement need not be satisfied.

3) Satisfy the University General Education Requirements (see page 18).

4) Satisfy the major requirements listed below.

All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

Major Requirements: A Bachelor of Public Affairs major must complete a minimum of thirty-seven credits, divided between a set of prescribed core courses and coursework in a concentration area. A Writing Intensive course in political science with a co-registration in P S 5993 is also required. Any political science elective or concentration course at the 3000-level or higher, except P S 4460, 5630 and 6640, may be used to fulfill this requirement. Students must demonstrate proficiency in writing on public affairs subject matter in a form and style consistent with B.P.A. standards. Election of a corequisite to P S 5993 must have approval from the instructor and students must follow the instructor's guidelines to demonstrate required proficiency. Upon certification by the instructor that the writing requirement has been fulfilled, a grade of Satisfactory ('S') will be awarded for P S 5993, a 'zero' credit course.

B.P.A. Core Curriculum: Candidates for the B.P.A. degree must satisfy the following core course requirements:

ECO 2010 -- (SS) Principles of Microeconomics: Cr. 3-4
ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 3-4

P S 1010 or P S 1030
-- (AI) American Government: Cr. 4
-- (AI) American Governmental System: Cr. 3
P S 2410 -- Introduction to Public Policy: Cr. 4

P S 2420 or P S 2460
-- Ethics and Politics of Public Policy: Cr. 4
-- Policy and Rationality: Dilemmas of Choice: Cr. 4
P S 3600 or P S 5630
-- Methods of Political Inquiry: Cr. 4
-- Statistics and Data Analysis I: Cr. 4
P S 4460 -- Techniques of Policy Analysis: Cr. 4
P S 5993 -- (WI) Writing Intensive Course in P S: Cr. 0
(taken in conjunction with a 3000-level or higher concentration course)

B.P.A. Concentration Requirement: In addition to completion of required core work, students must select an area of concentration. Depending on the number of credits taken in core work, the minimum number of credits in concentration work will vary between ten and twelve. A minimum of three courses must be taken to constitute a concentration.

Governance: National, State, and Local — Ten to thirteen credits and at least three courses selected from: P S 2240, 2310, 3040, 3050, 3060, 3070, 3100, 4710, 5110, 6020.

Governmental Relations, Lobbying, and Electoral Politics — Ten to thirteen credits and at least three courses selected from: P S 3010, 3020, 3025, 3030, 3040, 3050, 3060, 3070, 3080, 5030, 5040, 5050, 6010, 6050, 6070.

Public Management — Ten to thirteen credits and at least three courses selected from: P S 2310, 3430, 5830, 5890, 6020, 6120, 6340, 6700.

Public Policy and Analysis — Ten to thirteen credits and at least three courses selected from: P S 2310, 3060, 3070, 3430, 3450, 3840, 4810, 6020, 6430, 6440, 6455.

Urban Policy and Management — Ten to thirteen credits and at least three courses selected from: P S 2000 or 2240; 2310, 3060, 3070, 3250, 3430, 5030, 6020, 6440, 6455, 6710.

Other Concentrations: With approval of the undergraduate adviser, an area of concentration may be specifically designed consisting of political science courses related to a student's particular career objectives. Such a concentration must consist of ten to thirteen credits and a minimum of three separate courses. A proposal for such a concentration must be submitted in writing to, and be approved by, the undergraduate adviser of the Department.

Internship Option: Although an internship is not required to earn the B.P.A., it is strongly encouraged, and variable credit for a structured internship may be earned through P S 2992. Students should consult with the undergraduate adviser of the Department regarding internship requirements and placement opportunities.

Honors Programs

Bachelor of Arts and Bachelor of Public Affairs majors with strong academic records are encouraged to pursue departmental honors. To be eligible to enter the honors program, a major must have a cumulative grade point average of 3.3. To graduate with honors, students must:

1. Maintain a 3.3 grade point average.

2. Under the direction of one or more members of the department, complete a senior honors paper (P S 4995).

3. Complete all requirements for the Bachelor of Arts or Bachelor of Public Affairs degree.

4. Complete one 4000-level Honors seminar offered through the Honors College, see page 258.

5. Accumulate at least twelve credits in honors-designated course work, including P S 4995, and the Honors Program seminar. These honors credits can be obtained from any department within the College, including Political Science. For information about honors-desig-

nated coursework available each semester, visit the Honors College website link at: http://www.honors.wayne.edu/classes.php.

Students interested in participating in the program should contact the department's undergraduate adviser no later than the second semester of their junior year.

'AGRADE' Program

Accelerated Graduate Enrollment: Bachelor of Arts and Bachelor of Public Affairs majors with superior academic records (top twentieth percentile overall, with at least a 3.6 g.p.a. in the major) are eligible in their senior year to participate in accelerated graduate enrollment ('AGRADE') programs leading to either a Master of Arts degree with a major in political science or a Master of Public Administration degree. The 'AGRADE' programs enable students to pursue graduate and undergraduate degrees simultaneously and to apply twelve to fifteen credits of approved course work to both degrees. To participate, students must apply and be accepted into the 'AGRADE' program by the Departmental Graduate Committee and secure the approval of the Graduate Officer of the College of Liberal Arts and Sciences in accordance with rules and procedures established by the College (see page 277); this must be done in the junior year. Students should contact the Department's undergraduate adviser for further details.

Minors in Political Science

Students majoring in other subjects may obtain a minor in political science by completing a minimum of twenty credits in Political Science course work. Information on combinations of courses which emphasize particular subfields of political science (public administration, urban politics, public policy, international affairs, etc.) is presented in the listing of Bachelor of Arts concentrations (see above). For information on courses of relevance to such majors as economics, journalism, history, sociology, psychology, philosophy, criminal justice, or urban planning, students should consult the department's undergraduate adviser. A suitable sequence for pre-law students can be provided by the undergraduate adviser.

Internships

Internships in government, political campaigns, political advocacy groups, civic organizations, or public agencies provide valuable work-educational experience that enables students to relate knowledge acquired in the classroom to the world-at-large. They also provide practical training that enhances future job prospects. Academic credit may be earned for an internship through enrollment in P S 2992, Political Science Internship, a course that helps to assure the educational relevance of the internship by requiring interns to prepare papers and reports based on their experiences. Interested students should consult the department's undergraduate adviser.

Study Abroad Exchange Program with the University of Salford

Students may study for one or two semesters at the University of Salford in Salford, England, and earn Wayne State credits through an exchange agreement between the two universities. Applications may be obtained from the Office of Study Abroad and Global Programs website: www.studyabroad.wayne.edu. Interested majors or prospective majors should also consult with the Department's undergraduate adviser.

Scholarships, Awards and Honorary Societies

Also see page 278, above, and the section on the Office of Student Financial Aid, page 34. For further information, contact the Department Office.

The Stephen B. Sarasohn Award is given annually to the outstanding graduating senior majoring in political science.

Pi Sigma Alpha is the Wayne State chapter of the National Political Science Honorary Society for outstanding political science students.

Pi Alpha Alpha is the Wayne State chapter of the National Public Administration Honorary Society for outstanding public affairs/administration students.

POLITICAL SCIENCE COURSES (P S)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

1000 (SS) Introduction to Political Science. Cr. 3

Introduction to the scope and method of political science. Overview of politics, political systems, nature and role of political institutions. Empirical political theory; practice conducting political research. (Y)

1010 (AI) American Government. Cr. 0-4

No credit after P S 1030. Politics and functions of American governmental institutions. Policy processes and the role of citizens in the political process. (T)

1030 (AI) The American Governmental System. Cr. 3

No credit after P S 1010. Structure and functions of the American political system. Governmental institutions and processes. (T)

2000 (U S 2000) (SS) Introduction to Urban Studies. (GPH 2000) (HIS 2000) (SOC 2500) Cr. 4

Urban phenomena, past and present; quality and nature of urban life; major concerns of urban areas; perspectives and techniques of various urban-related disciplines. (Y)

2240 (SS) Introduction to Urban Politics and Policy. Cr. 4

Influences on politics and problems of cities, forms of local political involvement, role of local public officials, impact of state and federal policies. Overview of current issues / problems in policy areas. (Y)

2310 Introduction to Public Administration. Cr. 4

Prereq: P S 1010 or 1030. Governmental and administrative structures and organizations. Concepts and techniques of public management. Impact of public bureaucracies on modern society. (T)

2410 Introduction to Public Policy. Cr. 4

Prereq: P S 1010 or 1030. Public policy-making institutions and processes. Emphasis on theory and practice of policy formation, implementation and evaluation. Models of political decision making. (T)

2420 Ethics and Politics of Public Policy. Cr. 4

Moral and political standards for policy-making, relation of major political and social theorists to policy issues such as economic inequality, racial and sexual discrimination, the enforcement of morals, and violence and social change. (Y)

2440 (PHY 2020) Science, Technology, and War. (HIS 2510) (PCS 2020) Cr. 4

Prereq: P S 1010 or 1030. Increased availability of modern weapons and people inclined to use them. Science, technology, and social

effects on weapons development and use; prospects and results of war and peace. History of humanity and its tools of war. (Y)

2460 Policy and Rationality: Dilemmas of Choice. Cr. 4

Individual decision-making and limitations on human cognition; collective choice; implications for policy development. (Y)

2510 Introduction to Political Ideologies. Cr. 4

Comparison of ideologies, political institutions, and economic systems. Democracy and authoritarianism, capitalism, socialism and communism contrasted. (Y)

2550 (PCS 2050) The Study of Non-Violence. (HIS 2530) (SOC 2050) Cr. 3

Intellectual and social roots of non-violence and the practice of non-violence in different people's life styles. (T)

2700 (P S 2700) (FC) Introduction to Canadian Studies. (ENG 2670) (GPH 2700) (HIS 2700) Cr. 3

Survey of Canada in its cultural, literary, historical, geographical and political aspects; key concepts and social patterns that define the Canadian experience. (Y)

2710 Introduction to Comparative Politics. Cr. 4

Comparison of the political cultures, politics, and political institutions of Eastern, Western, and Southern European political systems. Similarities and differences in public policies; European influence; parallels in developing nations. (B)

2810 World Politics. Cr. 4

Role of power, methods of resolving international conflict, economic relations between industrialized and Third World countries, multinational corporations, terrorists, and other non-state actors. (Y)

2820 (PCS 2000) Introduction to Peace and Conflict Studies. (HIS 2500) Cr. 3

Open to all undergraduate students. Introduction to the peace and conflict studies co-major. Survey, ranging from biology and conflict among animals to disputes involving the individual, the family, the neighborhood and region, the nation and global community. (Y)

2830 (PCS 2010) Topics in Peace and Conflict Studies. (HIS 2520) Cr. 1-4

Special topics relating to peace and conflict studies. (T)

2992 (P S 2992) Political Science Internship. (U S 2992) Cr. 1-4 (Max. 6)

Prereq: consent of undergraduate adviser. Open only to political science majors or minors, urban studies co-majors, or students with twelve credits or more in political science. Offered for S and U grades only. Internship in a public or quasi-public organization, agency, civic or voluntary group, or campaign organization. (T)

3010 Public Opinion and Political Behavior. Cr. 4

Prereq: P S 1010 or 1030 or consent of instructor. Factors that shape public opinion; patterns of political participation and electoral politics. Impact of public opinion and popular participation on the political system. (Y)

3020 Political Parties and Elections. Cr. 4

Prereq: P S 1010 or 1030. Development, structure, functions and operations of American political parties; their electoral and governmental roles; comparison with other systems; possible reforms. (B)

3025 Political Campaigns in America. Cr. 4

Nature and dynamics of campaigns for public office in the U.S. Campaign techniques and strategies in candidate-centered politics. (B)

3030 Political Interest Groups. Cr. 4

Prereq: P S 1010 or 1030. Structure, techniques and internal politics of interest groups, their roles in policy-making and relationship with other groups such as political parties, legislatures and administrative agencies. (B)

3040 The Legislative Process. Cr. 4

Prereq: P S 1010 or 1030. Function, structure, procedures and politics of American legislative bodies with special attention to Congress. Relationships with other political institutions, especially the executive branch, and comparisons with foreign legislative institutions. (Y)

3050 Politics of the American Presidency. Cr. 4

Prereq: P S 1010 or 1030. Constitutional, historical, and political bases of the presidency. Influence of courts, Congress, interest groups, the news media, and personality on the office. (B)

3060 State Government and Politics. Cr. 4

A comparison of states in the United States in terms of their governmental structures, functions and response to changes in national and local relationships. (Y)

3070 Michigan Politics. Cr. 4

History and overview of Michigan politics: structure, process, current issues. (B)

3080 Gender and Politics. Cr. 4

Genesis and perpetuation of gender roles; feminist movements to modify these roles; impact of gender on public policy; gender-differentiated impact of public policy. (Y)

3100 American Legal Systems and Processes. Cr. 4

Analysis of the institutional structure, processes and policy-making of the American judicial system, including the recruitment of lawyers and judges, the influence of legal rules on policy-making, and selected areas of judicial policy-making. Emphasis on federal and state appellate courts. (Y)

3120 (CRJ 3120) Politics of the Criminal Justice Process. Cr. 4

Prereq: sophomore standing. Political aspects of criminal justice; politics of crime legislation, police function, prosecution, adjudication, and corrections; Federal role in criminal justice. (Y)

3250 (P S 3250) Detroit Politics: Continuity and Change in City and Suburbs. (HIS 3240) Cr. 4

Detroit area political systems and processes; historical, economic, and social influences on local politics. Traditions, changes, and future challenges in Detroit and metropolitan area. (B)

3430 Bureaucracy and Public Policy. Cr. 4

Prereq: P S 1010 or 1030. Theory and development of modern governmental bureaucracy. Bureaucratic politics and its significance for decision making and program implementation. Normative aspects of bureaucracy, including accountability to the public and the role of bureaucrats in helping to define rational, efficient policies. (B)

3450 Environmental Policy and Politics. Cr. 4

Introductiory course; primary focus on United States. Discussion of major environmental problems and their causes; environmental politics and the policy process. (I)

3510 (PL) Law, Authority and Rebellion. Cr. 4

Analysis of theories of law, authority, freedom, and political obligation; justifications of disobedience, resistance and revolution. (B)

3515 American Political Thought. Cr. 3-4

American political culture and thought through modern history from 1930 to the present. Interpretations of American political culture including conservative, liberal, Marxist, and post-modernist. (B)

3520 (PL) Justice. Cr. 4

Analysis of major theories of justice; social, economic and political justice. (B)

3530 Great Political Thinkers I. Cr. 3

Great political thinkers from Plato to Machiavelli. (B)

3540 Great Political Thinkers II. Cr. 3

No credit after P S 3530 taken prior to Winter 2006. Great political thinkers from Machiavelli to the present. (I)

3600 Methods of Political Inquiry. Cr. 4

Techniques of political science research: data gathering techniques, especially survey design; data processing and analysis using computers; and the interpretation and reporting of statistical results. (Y)

3710 Politics of Western Europe. Cr. 4

Western Europe: driving force in world politics over centuries; lofty principles and gruesome conflict. Origins of European political systems; twentieth-century crises; ongoing process of creating united Europe. (Y)

3715 Politics of Central and Eastern Europe. Cr. 4

Central and eastern Europe: crossroads of many world civilizations and birthplace of the movements that shaped the modern world. Rise and fall (and rise?) of nationalism, communism, and democracy in the region. (Y)

3725 Politics of Developing Countries. Cr. 4

Politics and social problems facing developing countries. How the developing world interacts with international organizations and Western industrialized countries. (I)

3735 Politics of Latin America. Cr. 4

Political, social, economic and cultural foundations, the structure and function of institutions, and political processes in Latin America. (B)

3740 Women and Politics in the Middle East. Cr. 4

Political status of women in the contemporary Middle East, studied through examination of cultural, socio-economic, and international factors. (B)

3745 Politics of the Middle East. Cr. 4

Evolution of modern Middle East politics; Islam and politics, possibilities for democratization, regional conflict, economic development. (I)

3750 Canadian Politics and Governance. Cr. 4

Functioning and role of Canadian political institutions: cabinet government, Parliament, bureaucracy, the Canadian federal system, interest groups, political parties, the Canadian political economy. Comparisons between key Canadian institutions and their U.S. counterparts. (B)

3770 Politics of East Asia. Cr. 4

Survey of five major polities in East Asia: China, Taiwan, Japan, South Korea, and (more briefly) North Korea. Why some of them have undergone democratization and others have not; how political factors have affected their recent economic performance; what explains conflicts and cooperation among them, and what security implications they hold for the United States. (B)

3795 Latin America in World Affairs. Cr. 4

Latin America's position in the international system; relationships between Latin American countries and the United States. (B)

3811 Theory of World Politics. Cr. 4

Prereq: P S 2810 recommended. Major theoretical approaches. Evaluation of the extent to which theses that devolve from realist, idealist, globalist, culturalist, feminist and decision-making approaches allow the explication of phenomena in world politics. (B)

3820 (AFS 3420) Pan Africanism: Politics of the Black Diaspora. Cr. 4

Interplay of Pan Africanism as a cultural and socio-political movement in world politics from its origins as a concept to organizing practice worldwide. (Y)

3830 War. Cr. 4

Prereq: P S 2810 recommended. Major theoretical and methodological approaches to study of international conflict. Analysis of impact of domestic, state, and global system factors in explicating international war. Civil wars that have become internationalized. (B)

3835 Middle East Conflict. Cr. 4

International and regional factors affecting contemporary political landscape of the region: influence of European colonialism; emergence and persistence of Palestinian-Israeli conflict; contemporary developments in the Persian Gulf and the role of U.S. policy since 9/11. Discussion of topics of current interest such as the situation in Iraq and the prospects for democratic reform in the region. (B)

3840 American Foreign Policy and Administration. Cr. 4

Shaping and administering United States foreign policy; influences of Congress and interest groups on the White House; secrecy; and the foreign service. (B)

3991 Directed Study: WSU-Salford Exchange. Cr. 3-9

Prereq: consent of undergraduate adviser. Open only to students admitted to Salford Exchange Program. Credit earned through approved upper-division course work at the University of Salford, England, as part of the W.S.U.- Salford Exchange Program. (F,W)

3993 (HIS 3993) Topics in Canadian History, Society, Politics, and Culture. (ENG 3993) (GPH 3993) (SOC 3993) Cr. 3-4 (Max. 15)

Significant topics and issues in the development of Canadian history, society, politics, and culture. (F,W)

4460 Techniques of Policy Analysis. Cr. 4

Introduction to several major techniques used by policy analysts to measure and evaluate the effectiveness, efficiency, and equity of public policies and programs. Approaches and methodologies considered will include systems analysis, benefit-cost analysis, and simulation. Material Fee As Indicated In The Schedule of Classes (Y)

4710 Democracy. Cr. 4

"The worst form of government except for all the others?" How democracy has evolved from ancient Athens until today. What makes democracy work. How democratization is proceeding in Latin America, Europe, Africa, Asia. (Y)

4725 Globalization and Politics. Cr. 4

Domestic and international politics and globalization: theories and evidence. Consequences for economic development and democratization or economic inequality. Questions explored include: What is economic globalization? Is it really new? What caused its recent resurrection? What political disjunctions engendered the process and how do they vary within political institutions? How has it threatened sovereign nation-states, constrained governmental policy autonomy, and encouraged regional separatist movements? (Y)

4799 (P S 4799) Topics in Comparative Politics. (P S 6799) Cr. 3-4 (Max. 8)

Prereq: P S 2710. Compelling and emerging issues; thematic topics such as democratization and other changes in political institutions; regional topics such as central Asia and other rapidly changing areas of global concern. Students in P S 6799 will be assigned additional graduate-level assignments (I)

4810 Foreign Policies of Major Powers. Cr. 4 (Max. 8)

Major issues and trends in the foreign policies of Russia, China, Japan, and the European economic community. (B)

4850 International Organizations. Cr. 4

Issues of global governance; role of international organizations in managing issues that cross borders. (B)

4990 Directed Study. Cr. 1-4

Prereq: consent of chairperson and undergraduate adviser. (T)

4995 Senior Honors Paper. Cr. 4

Prereq: admission to political science honors program; consent of adviser. Completion of an extended examination of a topic or research question in political science, under the direction of one or more members of the departmental faculty. (T)

5030 (P S 5030) African American Politics. (AFS 5030) Cr. 4

Nature and texture of black politics; various perspectives on politics by blacks; the impact of blacks on American politics. (Y)

5040 Religion and Politics. Cr. 4

Prereq; P S 1010 or 1030. Religion and American political culture; religious institutions and religious movements; church lobbying in national, state, and local governments; specific manifestations of religion and politics; African Americans, women and conservative Christians. (B)

5050 Mass Media and Politics. Cr. 3

Prereq: P S 1010 or 1030. Role of communications media in modern politics. Historical evolution of media; political impact of newspapers, radio and television; polling and the media; political advertising; media law; mass media and the future of American democracy. (Y)

5110 Constitutional Law. Cr. 4

Examination of the power of judicial review, barriers to court review, distribution of powers in the national government, federal-state relations, federal-state power to regulate and tax interstate commerce, and protection of property through the due process clause. (Y)

5120 Constitutional Rights and Liberties. Cr. 4

The Bill of Rights and the Fourteenth Amendment's due process and equal protection clauses, including rights of criminal defendants, freedom of speech and religion, race and sex discrimination. (Y)

5560 Biopolitics. Cr. 4

Use of the perspective of the life sciences in the study of political behavior, political evolution, political institutions, and contemporary political issues. (B)

5630 Statistics and Data Analysis in Political Science I. Cr. 4

Introduction to statistical description and inference in the study of politics, administration and public policy. Introduction to statistical analysis using microcomputers. Material Fee As Indicated In The Schedule of Classes (Y)

5710 Politics of Europe and the European Union. Cr. 3

Comparative analysis of the politics, culture and societies of major European countries; investigation of the formation and operation of the European Union. (B)

5740 (P S 5740) Ethnicity: The Politics of Conflict and Cooperation. (AFS 5740) (PCS 5500) Cr. 4

Current ethnic (racial, linguistic, religious, and cultural) conflicts regionally, nationally and internationally. Introduction to concepts and analytic perspectives for understanding ethnicity as a factor in nation building and maintenance. (Y)

5760 (N E 5110) History and Development of Islamic Political Thought. Cr. 3

Prereq: N E 2030, N E 3040; or consent of instructor or chairperson. Historical analysis of political Islam through study of the precepts and historical vicissitudes impacting the Islamic world from within and from external forces. (F,W)

5820 International Law. Cr. 4

Sources of international law (treaty and custom); institutions of the international system and relationship to domestic law and the courts; state sovereignty; role of United Nations and other international organizations. Application of legal norms to contemporary armed conflicts and human rights catastrophes. (I)

5830 International Conflict and Management. Cr. 4

Types of international conflict and such methods of resolution as negotiation, mediation and other third-party procedures. (B)

5850 Human Rights. Cr. 4

Theoretical traditions that have inspired the human rights movement; critiques from liberal and conservative perspectives; international human rights treaties and efforts to implement their terms; controversies over cultural relativism, economic and social rights, treatment of women, and the question of non-intervention. (Y)

5860 Conflict in the Nuclear Age. Cr. 3

Examination of post-World War II historical conflicts using formal mathematical models and games of strategic interaction. (Y)

5890 (PCS 5000) Dispute Resolution. (CRJ 5994) (PSY 5710) Cr. 3

Overview of the processes and actors in the field of dispute resolution including negotiation, mediation, arbitration, and conciliation. (Y)

5991 Directed Study: W.S.U.- Salford Exchange. Cr. 3-9

Prereq: consent of undergraduate adviser. Open only to students admitted to WSU-Salford Exchange Program. Credit earned through approved upper-division course work at the University of Salford, England, as part of W.S.U.- Salford student exchange program. (F,W)

5992 Political Science AGRADE Internship. Cr. 4

Prereq: consent of undergraduate adviser and appropriate graduate adviser. Open only to students in Political Science B.A./M.A. or B.P.A./M.P.A. AGRADE Program. Internship to supplement classroom course work with practical experience gained through substantial involvement in a responsible capacity in a public or quasi-public agency or civic organization. (T)

5993 (WI) Writing Intensive Course in Political Science. Cr. 0

Prereq: junior standing, satisfactory completion of the IC requirement, consent of instructor; coreq: any P S course numbered 3000 or higher except P S 3600, 4460, 5630 and 6640. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a designated corequisite; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. (T)

5999 Special Topics in Political Science. Cr. 1-4 (Max. 16)

Prereq: consent of instructor. Open only to juniors, seniors and graduate students. Topics to be announced in Schedule of Classes . (T)

6010 (P S 6010) Political Psychology. (PSY 6020) Cr. 3

Prereq: P S 1010 or equiv. Political attitudes and behavior of both ordinary citizens and political elites using theory and research that adopt a psychological perspective. Topics include: political socialization, ideological belief systems, role of mass media in shaping beliefs and attitudes, race and gender stereotypes and their psychological and political consequences, personality and the dynamics of political leadership. (Y)

6020 Intergovernmental Relations and American Federalism. Cr. 3

Legal, fiscal, political and administrative relationships among governments in the American federal system. Current issues and public policies which affect or are affected by intergovernmental relationships. (B)

6050 (P S 6050) Class, Race, and Politics in America. (AFS 6100) (HIS 5110) (SOC 7330) (U P 7030) Cr. 3

Prereq: senior standing or consent of instructor. Historical and analytic investigation into the role of class and race in American politics. (I)

6070 (P S 6070) Labor and American Politics. (I R 7420) Cr. 3

Role of organized labor in American politics. Historical background, including rise of the UAW and its role in Detroit and Michigan politics. Recent declines; future of organized labor as a force in American politics. (B)

6120 Administrative Law and Regulatory Politics. Cr. 3

Constitutional and statutory status of bureaucratic agencies; administrative powers and procedures; judicial review of administrative decisions; Congressional oversight of bureaucracies. (B)

6430 Social Welfare: Politics and Policy. Cr. 3

National government policy related to old-age assistance, income maintenance, food stamps, health care, and other entitlement programs. (B)

6455 (U P 6455) Discrimination and Fair Housing. (AFS 6455) (ECO 6455) (SOC 6455) (U S 6455) Cr. 3

Prereq: senior or graduate standing. Multidisciplinary investigation into the nature, motivations, consequences, and legal/public policy implications of racial/ethnic discrimination in housing and related markets (mortgage, insurance) in U.S. metropolitan areas. (B)

6640 Statistics and Data Analysis in Political Science II. Cr. 3

Prereq: P S 5630 or equiv. Modern statistical theory applied to the study of politics, administration, and public policy. Multivariate analysis: multiple regression, logistic regression, path analysis, and factor analysis. Material Fee As Indicated In The Schedule of Classes (Y)

6700 Financial Management for Nonprofit Organizations. Cr. 3

Conducting financial management in nonprofit organizations. Topics include: legal responsibilities, cash versus accrual basis accounting, financial statements, fund accounting, fixed assets and depreciation, contributions and budgeting. (F)

6830 Civil War and Conflict Processes. Cr. 3

Undergrad. prereq: consent of instructor. Introduction to literature on civil wars: origins, variables affecting their duration, termination. Peace making and peace agreements studied comparatively. Recent Balkan and African civil wars. (W)

6850 International Organizations. Cr. 3

Undergrad. prereq: consent of instructor. Problem of cooperation in international relations: When does cooperation take place? Can it be institutionalized? Survey of major institutional theories; security and economic organizations. Student presentations. (W)

6860 American Foreign Policy. Cr. 3

Contending paradigms of realism and liberalism as they relate to programs for American foreign policy. (Y)

6870 (LEX 7888) United States Foreign Relations Law. Cr. 4

Prereq: P S 5110, P S 5820, or consent of instructor. U.S. constitutional law and politics relating to the branches' competencies in conduct of foreign affairs and to incorporation of international law in U.S. courts; war powers, counterterrorism, treaties, human rights litigation, immunities. (Y)

Psychology

Office: 7th floor, 5057 Woodward; 313-577-2800
Chairperson: R. Douglas Whitman
Associate Chairperson: Marcus W. Dickson
Undergraduate Academic Adviser: Shelly Seguin

Website: http://www.clas.wayne.edu/psychology/

Professors

Antonia Abbey, Ernest L. Abel, Sheldon Alexander (Emeritus), John Arnold (Research), David Asdourian (Emeritus), Boris B. Baltes, Douglas Barnett, Alan R. Bass (Emeritus), Donald V. Coscina (Emeritus), Marcus W. Dickson, Donald N. Elliott (Emeritus), Ira J. Firestone, Joseph M. Fitzgerald, John Hannigan, M. Marlyne Kilbey(Emerita), Sheldon G. Levy, Mark Lumley, Lisa Rapport, Hilary Ratner, Naftali Raz, Annette U. Rickel (Emerita), Paul Toro, Glenn E. Weisfeld, R. Douglas Whitman

Associate Professors

Marjorie Beeghly, George Borszcz, Scott Bowen, Rita Casey, Kenneth Davidson (Emeritus), Thomas Fischer, Sebastiano Fisicaro, Winifred R. Fraser (Emeritus), Melissa G. Kaplan-Estrin (Emerita), Jeffrey G. Kuentzel, Cary M. Lichtman, Scott Moffat, Robert Partridge, Sarah Raz, Michael M. Reece (Emeritus), Patricia Siple, John Woodard, Annmarie Cano Wurm, Lee Wurm

Assistant Professors

Marla Bartoi, Emily Grekin, Lara L. Jones, Jeffrey G. Kuentzel, Rusty McIntyre, Kimberly O'Brien, Valerie Simon, Richard B. Slatcher, Ann M. Stacks, Michelle Tomaszycki, Christopher Trentacosta

Senior Lecturer

Margo Bowman

Adjunct Professors

Kenneth Adams, Naomi Breslau, Gisela Labouvie-Vief, Brian Lakey, Peter Lichtenberg, Timothy Roehrs

Adjunct Associate Professors

Bradley Axelrod, Mark Greenwald, Mark Ketterer, Helene Lycaki, Timothy Roehrs

Adjunct Assistant Professors

Linda Angell, Rinat Armony-Sivan, Rebecca Baird, Jesse Bell, Jay Cohen, Allan Dehorn, Grenae Dudley, Melissa Franks, Robin Hanks, Lisa Fruchtman, Brynda Holton, Mark Kelland, Joan Lessen-Firestone, Ira Lourie, Michael Marsiske, Scott Millis, Lynn Pantano, Steven Putnam, Kenneth Reeder, Robert Rothermel, William Schafer, Richard Smith, Barry Tanner

Degree Programs

BACHELOR OF SCIENCE with a major in Psychology
BACHELOR OF ARTS with a major in Psychology
MASTER OF ARTS with a major in Psychology
MASTER OF ARTS in Industrial/Organizational Psychology
DOCTOR OF PHILOSOPHY with a major in psychology and concentrations in biopsychology, clinical, cognitive, developmental, industrial/organizational, or social psychology

Undergraduate training offered by the Department of Psychology serves several related purposes. For the science major and the lib-

eral arts major, the study of psychology provides an opportunity to learn the scientific approach to the study of behavior which will include material helpful in increasing self-understanding and insight into the behavior of others. For students preparing for medicine, law, education, nursing, business, and other professions, psychology provides important basic knowledge useful in these vocations. For those planning to carry on graduate study in psychology, undergraduate instruction establishes a sound foundation for entering graduate programs in psychology. For those students who plan to work as technicians or paraprofessionals in an area related to human development, psychology provides a theoretical foundation and basic skills.

During the freshman year, or as early as possible, students interested in psychology should consult the Department's website (http://www.clas.wayne.edu/psychology/) and visit the Department's undergraduate office to obtain information from the undergraduate adviser.

Students planning to enter a Ph.D. program in psychology after graduation should have a solid background in the core areas of the field. These areas include learning, perception, abnormal, social, developmental, physiological, and cognitive psychology. In addition, all graduate programs require a background in statistics, experimental design and research experience.

Bachelor of Science or Bachelor of Arts Degrees

Admission Requirements for the College are satisfied by the general requirements for undergraduate admission to the University; see page 24.

Declaring a Major: To major in psychology, students must earn a minimum of a grade of C in the Introductory Psychology Requirement (either) A) PSY 1010, Introductory Psychology, or B) PSY 1020, Elements of Psychology PLUS PSY 1030, Introductory Psychology Laboratory.) For psychology majors, a minimum grade of C in the Introductory Psychology Requirement is a pre-requisite for all other PSY courses. Students must have at least a 2.0 overall grade point average in their psychology coursework to graduate. PSY 1010 is recommended over PSY 1020 for students who intend to major in psychology.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits in course work including satisfaction of College Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the major requirements. All course work must be completed in accordance with the academic procedures of the University and the College; see sections beginning on page 18, 36, and 274.

Major Requirements: To graduate with a major in psychology, a student must complete satisfactorily at least thirty-three credits in the Department of Psychology BEYOND the Introductory Psychology. Degree requirements include:

PSY 1010 or (PSY 1020 and PSY 1030)
-- (LS) Introductory Psychology: Cr. 4
-- Elements of Psychology: Cr. 3
-- Introductory Psychology Laboratory
PSY 3010 -- Statistical Methods in Psychology: Cr. 4

In the following curriculum, students are strongly urged to take PSY 3010 within one year after completion of the Introductory Psychology requirement. PSY 3010 is a mandatory pre-requisite for other courses, such as PSY 3050, 3070, and 3090

One lecture/laboratory combination chosen from the list below (Please note that an Intermediate Composition (IC) course must be completed prior to the lecture/laboratory combination):

PSY 3040 and PSY 3050
-- Psychology of Perception: Fundamental Processes: Cr. 3
-- Laboratory in Psychology of Perception: Cr. 2

OR

PSY 3060 and PSY 3070
-- Learning and Memory: Fundamental Processes: Cr. 3
-- Laboratory in Learning and Memory: Cr. 2

OR

PSY 3080 and PSY 3090
-- Cognitive Psychology: Fundamental Processes: Cr. 3
-- Laboratory in Cognitive Psychology: Cr. 2

In satisfying a given laboratory course requirement, the lecture and laboratory sections can be taken concurrently or in separate semesters, but if taken separately, the lecture MUST be taken first. PSY 5993, the Writing Intensive (WI) Course in Psychology, may only be satisfied by co-registration with one of the laboratory courses above. (See course description for details.)

Three of the following courses (or two of them and a second two-credit lab course (PSY 3050, 3070, or 3090) from the list above):

PSY 2100 -- Psychology in the Workplace: Cr. 3
PSY 2400 -- Developmental Psychology: Cr. 4
PSY 2600 -- Psychology of Social Behavior: Cr. 4
PSY 3120 -- Brain and Behavior: Cr. 3
PSY 3350 -- Psychology of Personality: Cr. 3
PSY 4020 -- Research in Psychology: Cr. 3
PSY 5050 -- Physiological Psychology: Cr. 3

No more than forty-six credits in psychology can be counted toward the total required for a degree. Transfer students must complete at least twenty credits in the Psychology Department at Wayne State University.

The Bachelor of Science degree a minimum of twenty-seven credits earned in natural science outside the field of psychology. See the Psychology Undergraduate Adviser for a list of applicable science courses.

The Bachelor of Arts degree incorporates all of the College Group Requirements; see page 274.

Preparation for Psychology Graduate Work: While individual graduate programs in psychology have different requirements for admission, students who intend to do graduate work are advised to earn the B.A. or B.S. degree and take the following courses: Psychology 2400, 2600, 4020, 4990, and 5050. Additional courses in mathematics, computer science, biology, and sociology are strongly recommended.

Psychology-related employment for graduates with a bachelor's degree has increased in recent years. Such employment, of course, has depended on the personal characteristics of the individual, on the special qualifications and training of the individual, and particularly on job opportunity.

Honors Program

Students with an overall grade point average of 3.3 are eligible for admission to the Department's Honors Program. Satisfactory completion of the Honors Program will lead to a degree 'With Psychology Honors' on the diploma. Students interested in the program should obtain detailed information from the Undergraduate Adviser of the Psychology Department.

Honors Sections provide smaller classes, somewhat more advanced readings, and opportunities for independent work by students in the following courses: 1010 (Introductory Psychology), 2400 (Developmental Psychology), and 2600 (Psychology of Social Behavior) and 5020 (Research Methods in Psychology: Honors). In addition, students must complete a 3 credits Honors Directed Study (4991) and an senior thesis (PSY 4998).

Minor in Psychology

All students considering psychology as a minor field of concentration may obtain an information sheet from the psychology undergraduate office.

Minor Requirements: For a minor in psychology, a student must complete a minimum of eighteen credits in psychology, one course of which must be Introductory Psychology (PSY 1010 or 1020). At least three of the courses must be taken at Wayne State. Psychology 4993 or 4994 (offered for S and U grades only) may not be counted in the eighteen required credits.

Health Psychology Minor: For this minor, a student must complete a minimum of eighteen credits in psychology. Courses must include: PSY 2080, 2410, 3310, 3120 or 5050; plus one of the following electives: PSY 2400, 2600, 3380, 6490, 4990, or 4993 (PSY 4990 and 4993 require prior approval from health psychology faculty).

Non-majors are encouraged to consult with departmental advisers regarding optimum course selections for various purposes.

'AGRADE' Program

Accelerated Graduate Enrollment: Bachelor of Arts and Bachelor of Science Psychology majors with superior academic records (top twentieth percentile overall, with at least a 3.6 g.p.a. in the major) are eligible in their senior year to participate in accelerated graduate enrollment ('AGRADE') programs leading to a Masters of Arts in Industrial/Organizational Psychology. The 'AGRADE' program enables students to pursue graduate and undergraduate degrees simultaneously and to apply twelve to fifteen credits of approved course work to both degrees. To participate, students must apply and be accepted into the 'AGRADE' program by the Psychology Graduate Admission Committee and secure the approval of the Graduate Officer of the College of Liberal Arts and Sciences in accordance with rules and procedures established by the College; this must be done in the junior year. Acceptance into the 'AGRADE' program does not guarantee acceptance into the graduate program. All other admission standards must be met. The 'AGRADE' program is only available for the Masters of Arts in Industrial/Organizational Psychology, and does not apply to any other graduate programs offered by the Department of Psychology. Students should contact the Psychology Undergraduate Adviser for further details.

Financial Aid

See Office of Student Financial Aid, page 34.

PSYCHOLOGY COURSES (PSY)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

1010 (LS) Introductory Psychology. Cr. 0-4

Meets General Education Laboratory Requirement. No credit after PSY 1020. Introduction to the science of behavior. Principles, concepts, and theories of human thought and action. Selected concepts illustrated through laboratory experiments. (T)

1020 (LS) Elements of Psychology. Cr. 3

No credit after PSY 1010. Principles, theories and applications of psychological knowledge. (T)

1030 Introductory Psychology Laboratory. Cr. 1

No credit after PSY 1010. Prereq. or coreq: PSY 1020. Principles, concepts, and theories of human thought and behavior illustrated through laboratory experiments. (T)

2080 Introduction to Drugs, Behavior, and Society. Cr. 3

Introduction to drugs and their actions. Emphasis on psychoactive drugs, their effects, and the consequences of their use and misuse to the individual and society. (T)

2100 Psychology and the Workplace. Cr. 3

Prereq: PSY 1010 or PSY 1020. Psychology as applied to business and industry. Major areas of industrial psychology: selection, placement, and training procedures; human factors research. Industrial social psychology: motivational and organizational research and theory. (T)

2300 Psychology of Everyday Living. Cr. 4

Prereq: PSY 1010 or 1020. Applications of psychological principles to everyday life. How research can be used to guide positive self-change in various contexts (e.g., stress, psychological problems, personality, persuasion, attitudes). (T)

2400 Developmental Psychology. Cr. 4

Prereq: PSY 1010 or 1020. Facts, principles, theories of psychological development throughout the lifespan. Development of intellectual, emotional, perceptual, linguistic, and social behavior. Developmental trends. (T)

2410 Health Psychology. Cr. 4

Prereq: PSY 1010 or 1020. Clinical, social, developmental, and biopsychosociological theory and research on relationship of psychological and behavioral factors to physical health and well-being. Positive and negative health behaviors, stress and coping, social relations and social support, psychoneuroimmunology, patient-practitioner interaction and health utilization, management of chronic illness. (T)

2500 Psychology of Racism. Cr. 3

Dynamics and attendant problems of racism directed toward African Americans. Lectures, class discussions, film presentations. (I)

2600 Psychology of Social Behavior. Cr. 4

Prereq: PSY 1010 or 1020. Social behavior of the individual as influenced by the group. Particular attention given to social perception, motivation, and learning; attitudes and values; dynamics of social groups. (T)

3010 Statistical Methods in Psychology. Cr. 4

Prereq: PSY 1010 or 1020 or consent of instructor for non-psychology majors. WSU Math Competency (MC) requirement must be complete. Primarily for psychology majors. Principles and computational methods that apply to quantitative aspects of psychological procedure; elementary correlation theory and prediction, sampling problems, tests of hypotheses, elementary test theory, interpretation of results. (T)

3040 Psychology of Perception: Fundamental Processes. Cr. 3

Prereq: PSY 1010 or equiv. Fundamental theories, concepts, and empirical studies of basic sensory processes and the perception and organization of sensory phenomena. (Y)

3050 Laboratory in Psychology of Perception. Cr. 2

Prereq: PSY 1010 and 3010; prereq. or coreq: 3040. Laboratory investigations of basic perceptual phenomena and sensory processes involving vision, hearing, smell and touch. Use of different experimental paradigms including traditional psychophysical methods. This course will satisfy the Writing Intensive (WI) requirement when elected with coreq. PSY 5993. Material Fee As Indicated In The Schedule of Classes (Y)

3060 Psychology of Learning and Memory: Fundamental Processes. Cr. 3

Prereq: PSY 1010 or equiv. Fundamental theories, concepts, and empirical findings in field of learning. (Y)

3070 Laboratory in Learning and Memory. Cr. 2

Prereq: PSY 1010 and 3010; prereq. or coreq: 3060. Laboratory investigations of basic learning processes, including sensory and motor learning and complex learning processes. This course will satisfy the Writing Intensive (WI) requirement when elected with coreq. PSY 5993. Material Fee As Indicated In The Schedule of Classes (Y)

3080 (PSY 3080) Cognitive Psychology: Fundamental Processes. (LIN 3080) Cr. 3

Prereq: PSY 1010 or equiv. Fundamental theories, concepts, and empirical findings in study of human cognition. Topics include: thinking, problem solving, language comprehension and production, memory and attention. (Y)

3090 Laboratory in Cognitive Psychology. Cr. 2

Prereq: PSY 1010 and 3010; prereq. or coreq: 3080. Laboratory investigations of cognitive processes, including attention, memory, language processing and problem solving. This course will satisfy the Writing Intensive (WI) requirement when elected with coreq. PSY 5993. Material Fee As Indicated In The Schedule of Classes (Y)

3120 Brain and Behavior. Cr. 3

Prereq: PSY 1010 or 1020. No credit after PSY 5050. Introduction to the brain and its influence over behavior. Structure and function of the nervous system, neural communication, and neural mechanisms of higher nervous system functions and dysfunctions. Topics include: biological basis of sleep, sex, learning, memory, language, schizophrenia, and depression. (T)

3200 Motivation, Feeling and Emotion. Cr. 3

Prereq: PSY 1010 or 1020. Experimental findings in psychological and allied fields on topics of motivation, feeling, and emotion; evaluation of classical theories and an attempt to develop a theoretical approach based on factual knowledge. (I)

3250 Psychology of Women. Cr. 3

Prereq: PSY 1010 or 1020. Scientific issues relating to the psychological understanding of women: gender identity, psychobiology, mental health, achievement motivation, role conflict, psychology of career choice. (T)

3310 Abnormal Psychology. Cr. 4

Prereq: PSY 1010 or 1020. Nature and causes of various forms of abnormal behavior, including schizophrenia, depression, and neurosis, viewed from psychological, biological, cultural, developmental and historical perspectives. Diagnosis and treatment of pathological behavior. (T)

3350 Psychology of Personality. Cr. 3

Prereq: PSY 1010 or 1020. An examination of the major approaches to the study of personality. Current psychological findings in the field of personality and their implications for psychotherapy and assessment. (T)

3380 Human Sexuality. Cr. 3

Prereq: PSY 1010 or 1020. Biological, psychological and socio-cultural aspects of human sexuality. Topics include anatomy and development, sexual behavior, and cultural influences. (T)

3430 Infant Development. Cr. 3

Prereq: PSY 2400. Not open to psychology doctoral students. Development of the infant from conception through the toddler years. Physical, motor, perceptual, cognitive, language, social and emotional development. Current findings and their implications for parenting, programming and care. (Y)

3440 Psychology of Child Behavior and Development. Cr. 3

Prereq: PSY 2400. Developmental processes in childhood; language acquisition, cognitive development, development of peer-peer interactions. (Y)

3460 Psychology of Adolescent Behavior and Development. Cr. 3

Prereq: PSY 1010 or 1020. Factors that promote the emergence of new relationships with parents, changes in peer relationships, increased independence, preparation for marriage and parenthood, and socioeconomic integration into the larger society. Biological and anthropological perspectives on sex roles. (Y)

3480 Parent-Child Interaction Across the Lifespan. Cr. 3

Prereq: PSY 2400. Theory and research on interactions between parents and children. Focus on normal developmental concerns, infancy through adulthood: discipline, sibling rivalry, sex-role identification, parental support. (Y)

3490 Psychology of Adult Development and Aging. Cr. 3

Prereq: PSY 1010, 2400. The adulthood and aging years from a developmental perspective, including: intelligence, memory, personality, and social behavior. (I)

4020 Research in Psychology. Cr. 3

Prereq: PSY 1010 or 1020. Primarily for students interested in future graduate studies in planning and evaluation of psychological research. Critical evaluation of scientific literature and the planning and development of psychological research proposals. The range of research methods and areas in psychology. (Y)

4110 Psychological Testing and Measurement. Cr. 3

Prereq: PSY 1010 or 1020, and 3010. Principles of psychological measurement, development, administration, and analysis of psychological tests. Quantitative methods of assessing reliability and validity of psychological test scores. Interpretation and application of psychological testing in educational, clinical and industrial settings. (I)

4310 Psychological Disorders of Children. Cr. 3

Prereq: PSY 1010 or 1020. Points of view, methods of study and research findings regarding psychopathology in children. (F)

4320 Introduction to Clinical Psychology. Cr. 3

Prereq: PSY 1010 or 1020. An introduction to the methods, rationale, and empirical foundations of clinical psychology. Issues in the assessment and treatment of psychopathology. (W)

4990 Directed Study and Research. Cr. 2-4 (Max. 9)

Prereq: psychology major; written consent of adviser and instructor. Library or laboratory study of an advanced problem in psychology under the guidance of a faculty member. Students must initiate contact and make arrangements with faculty prior to registration. (T)

4991 Honors Directed Study. Cr. 2-4 (Max. 9)

Prereq: written consent of instructor. Open only to honors majors in psychology. Honors library or laboratory study of advanced problem in psychology under guidance of a faculty member. Students must initiate contact and make arrangements with faculty prior to registration. (T)

4993 Field Study. Cr. 3 (Max. 6)

Prereq: two courses in psychology. Students must register for two semesters in order to receive credit. Offered for S and U grades only. Assignment to a hospital, clinic or other agency under faculty supervision. Term paper on observations made in the field. Agency placement contingent upon appropriate background and training in psychology. (F,W)

4994 Special Projects. Cr. 1-4 (Max. 9)

Prereq: two courses in psychology; written consent of instructor. Offered for S and U grades only. Departmental assignment to special projects such as tutoring introductory courses. (T)

4995 Special Topics in Psychology. Cr. 3 (Max. 6)

Prereq: PSY 1010 or 1020. Topics of current interest to be announced in Schedule of Classes . (I)

4998 Senior Thesis Seminar. Cr. 3

Open only to honors majors in psychology. Pro-seminar leading to the design and execution of a senior honors thesis in psychology. (Y)

5020 Research Methods in Psychology - Honors. Cr. 3

Prereq: admission to Honors major program. Basic principles of research design in psychology: reliability and validity of measurement of psychological constructs, experimental design, control for confounding in correlation studies, multivariate analysis. (Y)

5030 Evolutionary Psychology of the Emotions. (PSY 7030) Cr. 3

Undergrad. prereq: PSY 1010 or 1020; grad. prereq: graduate standing or consent of instructor. No credit for PSY 7030 after PSY 5030. Functional analysis of basic human emotions: their elicitors, affects, expressions, visceral changes, overt behaviors, neural bases, development, and normal and pathological variation. (I)

5040 Cognitive Neuroscience. Cr. 3

Prereq: PSY 3080 or PSY 3120. Brain processes and brain structures that support them, framed in terms of theoretical models and empirical evidence from brain imaging techniques and patient populations. Topics include attention, memory, space, language, and decision-making. (I)

5050 Physiological Psychology. Cr. 3

Prereq: PSY 1010 or 1020. Physiological mechanisms underlying behavior and mental processes: sensory-motor mechanisms; integrative action of the nervous system; neuro-physiological mechanisms involved in emotional behavior, learning and memory; influences of hormones on behavior. (F,W)

5070 Bio-behavioral Bases of Drug Action. Cr. 3

Prereq: PSY 3120 or 5050 or equiv., or BIO 1020 or equiv. Physiological and behavioral bases of drug action, with emphasis on brain neurotransmitters, psychopharmacology, and substance abuse disorders. (I)

5080 Cellular Basis of Animal Behavior. (BIO 5080) Cr. 3

Relationship between behavior and neuroscience using a variety of animal models, each examined from the level of natural behavior progressively to the cellular level. Topics include: sensory systems, motor behavior, and learning. (W)

5100 Applied Statistics in Psychology. Cr. 4

Prereq: PSY 3010 or equiv. or consent of instructor. General linear model, coding techniques, multiple correlation and regression, analysis of variance and covariance, planned and post hoc tests, use of statistical computer packages. (W)

5490 The Aging Individual in Society. Cr. 3

Prereq: PSY 1010 or 1020. Biological, social, and psychological theories of aging; time-associated changes in behavior; personality changes in later life; social and personal adjustment and psychopathology in later life. (I)

5540 Motivation in the World of Work. Cr. 3

Prereq: PSY 1010 or 1020. Relationships among motivation, satisfaction, and organizational behavior. Motivational theory and research; organizational influences on motivation and satisfaction; motivational intervention; survey and evaluation. (I)

5700 (AFS 5700) The Psychology of African Americans. Cr. 4

Prereq: upper division standing. Methodological approaches to and theories of Black behavior and personality development. Topics include: race and pathology, life-span and psycho-sexual development, personality formation, social and environmental stress and adaptation. (T)

5710 (PCS 5000) Dispute Resolution. (CRJ 5994) (P S 5890) Cr. 3

Overview of the processes and actors in the field of dispute resolution including negotiation, mediation, arbitration, and conciliation. (Y)

5993 (WI) Writing Intensive Course in Psychology. Cr. 0

Prereq: junior standing, satisfactory completion of the IC requirement, consent of instructor; coreq: PSY 3050, 3070, or 3090. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a course designated as a corequisite; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. (T)

6010 (ELE 6010) Family Centered Collaboration in Early Childhood Intervention and Special Education. (O T 6150) (S W 6010) Cr. 3-4

Theories, concepts and practices of family centered intervention services for young children with special needs. Team-building and cross-disciplinary communication and collaboration with families. (F)

6020 (P S 6010) Political Psychology. Cr. 3

Prereq: P S 1010 or equiv. Political attitudes and behavior of both ordinary citizens and political elites using theory and research that adopts a psychological perspective. Topics include: political socialization, ideological belief systems, role of mass media in shaping beliefs and attitudes, race and gender stereotypes and their psychological and political consequences, personality and the dynamics of political leadership. (Y)

6200 Development of Memory. Cr. 3

Prereq: PSY 3080 and 2400 or equiv.; and consent of instructor for undergraduates. Major theoretical models of memory development will be discussed and used to explore various aspects of the memory process from infancy to adulthood. (I)

6270 (NFS 6270) Eating Behavior and Body Weight Regulation. Cr. 3

Prereq: BIO 2870. Central and peripheral regulation of food intake, normal and abnormal eating behavior, physiological and psychological regulation of body weight, different models of obesity, etiology of treatment of obesity. (W)

6420 (PSY 6420) Psychology of Infant Behavior and Development. (PSY 7425) Cr. 3

Prereq: graduate standing, or PSY 2400 and consent of instructor. Prenatal development and infancy through the toddler years. Major theoretical positions and research relating to motor, perceptual, cognitive, language, social, and emotional development. Implications for parenting, programming, and care. (F)

6490 Developmental Psychology of Death, Dying and Lethal Behavior. Cr. 3

Prereq: PSY 1010 or 1020. Changing relationship to death and finitude throughout the life-cycle; development and function of death cognitions, factors predisposing toward suicide and other premature deaths at various age levels, and the dying process. (I)

6500 Advanced Psychological Statistics. Cr. 3

Prereq: PSY 3010 or equiv.; admission to I/O M.A. program. Review of core statistical procedures; in-depth exploration of concepts of correlation and regression. Brief review of descriptive statistics and methods of statistical inference. Statistical software will be introduced and used. (F)

6510 Organization Theory. Cr. 3

Prereq: PSY 2100 or equiv., or consent of instructor. Not open to psychology doctoral students. Work organization theories, and history of social modeling; classical, neoclassical, and open system of contingency theories. (Y)

6520 Organizational Behavior. Cr. 3

Prereq: PSY 2100, or consent of instructor. Not open to psychology doctoral students. Employee motivation, job attitudes, leadership and management development; related aspects of organizational behavior, design and development. (Y)

6535 Psychometric Theory. Cr. 3

Prereq: PSY 6500 or equiv.; admission to industrial and organizational psychology M.A. program. Development, validation, and use of psychological tests and other psychological instruments. Origins and value of psychological testing. (W)

6540 Organizational Staffing. Cr. 3

Prereq: PSY 2100 or equivalent industrial/organizational psychology course with consent of instructor. Not open to psychology doctoral students. Job analysis, recruitment and screening, prediction and measurement of job performance, selection procedures, principles and methods of testing and measurement. (I)

6550 Training and Employee Development. Cr. 3

Grad. prereq: graduate standing; undergrad. prereq: PSY 2100 or equivalent industrial/organizational psychology course with consent of department. Not open to psychology doctoral students. Theory and practice of organizational training, employee development, and management development; establishment of performance standards, performance appeal process, evaluation of training and development programs. (I)

6570 Research Methods in Industrial/Organizational Psychology. Cr. 3

Prereq: one semester of statistics comparable to PSY 3010. Not open to psychology doctoral students. Field and lab research methods for workplace settings. (I)

6710 (PSY 6710) Psycholinguistics. (LIN 6710) Cr. 3

Prereq: graduate standing or undergraduates with a strong psychology or linguistics background. Theory and research in various topics in psycholinguistics, including language development, speech perception and production, and language comprehension. (I)

6995 Advanced Special Topics. Cr. 0-3 (Max. 6)

Prereq: senior standing; psychology major with 3.0 g.p.a. or honors program seniors. S and U grades only when offered for zero credit. Topics to be announced in Schedule of Classes . (I)

Sociology

Office: 2228 Faculty/Administration Building; 313-577-2930
Chairperson: Janet R. Hankin; email: janet.hankin@wayne.edu

Website: http://www.clas.wayne.edu/Sociology/

Professors

Janet R. Hankin, Mary C. Sengstock, Mark Wardell, Leon H. Warshay

Associate Professors

Heather E. Dillaway, David Fasenfest, Heidi Gottfried,

Assistant Professors

R. Khari Brown, Krista M.Brumley, David Merolla, Sarah C. Swider, Monica M. White

Affiliated Faculty

Nicole Trujillo-Pagan

Degree Programs

BACHELOR OF ARTS with a major in sociology
MASTER OF ARTS with a major in sociology
DOCTOR OF PHILOSOPHY with a major in sociology

The courses in sociology are designed for various groups of students: 1) those desiring scientific knowledge of social relationships as a part of their general education; 2) those planning to enter a public service profession such as social and urban planning, public administration, nursing, medicine, dentistry, or law; 3) those expecting to engage in work that will require a broad grasp of the nature of society, of public opinion, and of social change such as public affairs, journalism, public relations, communications, marketing, etc.; 4) those anticipating a career in social and statistical research and planning; 5) those looking forward to the teaching of social studies and sociology; 6) those preparing for a career in international studies or for service in foreign affairs; 7) those majoring in sociology as a preparation for graduate professional training in social work; 8) those planning to pursue graduate studies in sociology.

Students concerned with sociology as preparations for these careers are encouraged to consult with the undergraduate adviser and with members of the faculty.

Bachelor of Arts with a Major in Sociology

Admission Requirements for these programs are satisfied by the general requirements for undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits in course work including satisfaction of the College of Liberal Arts and Sciences Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the major requirements of one of the following programs. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on pages 18, 36, and 274. It is expected that Group Requirements will be fulfilled during the freshman and sophomore years. Language Group Requirements should normally be fulfilled before election of the major.

Major Requirements: Effective September 1, 2010, students majoring in sociology are required to elect a minimum of thirty-four credits in the field of sociology, including Sociology Core courses: SOC 2000, 3300, 4050, 4200, 4220, all of which must be completed with a grade of 'C' or better before enrolling in required SOC 4996. SOC 4996 MUST ALSO BE COMPLETED WITH A GRADE OF 'C' OR BETTER. Students may not elect more than forty-five credits in course work within the Department AND ALL ELECTIVE CREDITS MUST BE COMPLETED WITH A GRADE OF 'C-MINUS' OR BETTER.

Model Plan for Majors

Sophomore Year: Sociology2000, 3300, and electives

Junior Year: Sociology 4200, 4050, 4220, and elective courses. Students are urged to take Sociology 4200, 4050, and 4220 in particular, in the junior year.

Senior Year: Sociology 4996 and elective courses; remaining requirements not taken in junior year.

Minor and Cognate Study

Minor Requirements: A minor in sociology is offered for students majoring in other fields. The minor requires at least twenty credits including a core of:

SOC 2000 -- (SS) Understanding Human Society: Cr. 3
SOC 4050 -- Basic Sociological Theory: Cr. 4
SOC 4200 -- Methods of Social Research: Cr. 4

All core courses must be completed with a grade of 'C' or better, and all elective credits must be completed with a grade of 'C-minus' or better.

Sociology as a Career Component: A good background in Sociology can be a valuable component of preparation for a variety of careers, professions, and occupations. The following information summarizes some of these opportunities. Faculty Advisers in Sociology can provide additional information on these and other areas.

1. Human Services Work: Students whose occupational aspirations include working with families, or with men and women in various types of human services or therapeutic settings (Social Work, Nursing, Education, Psychology, Law, Medicine) might consider electing one or more of the following courses: Sociology 2600 (Race and Racism: America), 3400 (Exploring Marriage and Other Intimate Relationships), 4460 (Women in Society), 5400 (The Family), 5410 (Marriage and Family Problems), 5700 (Seminar in Social Inequality), 5870 (Violence in the Family).

2. Business: Students who are preparing for a career in business might consider electing Sociology 3300 (Social Inequality) or 4100 (Social Psychology).

3. Inter-Group Relations: Any student whose future occupation will entail working with peoples of diverse ethnic and racial groups might be advised to consider taking the following course: Sociology 2600 (Race and Racism: America), 3300 (Social Inequality), 4460 (Women in Society), 5570 (Race Relations in Urban Society), 5700 (Seminar in Social Inequality).

4. Crime and Criminal Justice: Students whose career goals are in the areas of criminal justice, police work, corrections, probation, law, or related fields might be advised to select their elective courses from among the following: Sociology 2020 (Social Problems), 4800 (Outsiders and Deviants), 5810 (Law in Human Society), or 5870 (Violence in the Family).

5. Work with Health Agencies or the Aged: Students who plan to work with the aged or in health care fields (social gerontology) might consider taking one of more of the following courses: Sociology 4360 (Women and Health) or 5360 (Introduction to Medical Sociology) or 5760 (Society and Aging).

Honors Program

An honors major in sociology is available to students who fulfill all requirements for the major, and who maintain a cumulative grade point average of at least 3.3 and at least 3.3 in sociology courses. Honors majors must demonstrate the ability to do original work by writing an Honors Thesis during their senior year. The Sociology Honors Program leads to a degree designation 'With Honors in Sociology.'

Requirements for the Honors Degree are:

1. satisfaction of all requirements for a major in sociology;
2. completion of Honors section of SOC 4220 with grade of 'C' or better;
3. Competion of Honors Section SOC 4996 with a grade of 'C' or better;
4. overall g.p.a. of 3.3; and. sociology g.p.a. of 3.3;
5. an approved honors thesis;
6. at least one 4000-level seminar offered through the Honors Program of the College of Liberal Arts and Sciences. and

7. an accumulation of at least fifteen credits in honors-designated course work including HON 42XX, SOC 4220 and 4999, and five additional Honors credits in any department. For information about honors-designated coursework available each semester, visit the Honors College website link at: http://www.honors.wayne.edu/classes.php.

'AGRADE' Program

Accelerated Graduate Enrollment: The Department of Sociology permits academically superior majors to petition for admission into the College's 'AGRADE' Program. 'AGRADE' procedures enable qualified seniors in the Department to enroll simultaneously in the undergraduate and graduate programs of the College and apply a maximum of fifteen credits towards both a bachelor's degree and a master's degree in the major field. Students electing 'AGRADE' programs may expect to complete the bachelor's and master's degrees in five years of full-time study. Students who have a 3.6 GPA and who have completed 90 credits of their Bachelors degree can apply for AGRADE.

For more details about the 'AGRADE' Program, contact the Chairperson of the Sociology Department, or the Graduate Office of the College of Liberal Arts and Sciences (313-577-2690).

Awards and Scholarships

Frank Hartung Award: Dr. Frank Hartung was a distinguished criminologist and a faculty member of the Wayne State University Sociology Department through the 1970s. An award in his memory is given once a year to either undergraduate or graduate students. Students applying for the award must write a paper in the area of sociology. A committee of three faculty members reviews the entries and selects the awardee. The recipient receives a monetary award and plaque.

Shirley Falconer Slayman Memorial Scholarship: This scholarship is provided by the family of Shirley Falconer Slayman in memory of her attendance at Wayne State University and activity in the City of Detroit. Applications are accepted from full-time undergraduate students, or from students accepted for study at Wayne State University who are majoring or co-majoring in sociology. Recipients are selected on the basis of financial need, scholastic achievement, qualities of leadership, and commitment to contribute to community improvement, with financial need being the primary consideration. Selected recipients receive the award for two academic years. The award alternates between undergraduate and graduate students every two years.

To find out more about how to apply for sociology awards and scholarships, please contact the Sociology Department.

SOCIOLOGY COURSES (SOC)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

2000 (SS) Understanding Human Society. Cr. 3

Analysis of basic sociological concepts and principles to give the student an understanding of the perspective that sociology brings to the study of human society. (T)

2020 (SS) Social Problems. Cr. 3

Consideration of major contemporary social problems which reveal structural strains, value conflicts, deviations and changes in society. Analysis of socio-cultural factors creating problems and of possible solutions. (T)

2050 (PCS 2050) The Study of Non-Violence. (HIS 2530) (P S 2550) Cr. 3

Intellectual and social roots of non-violence and the practice of non-violence in different people's life styles. (T)

2100 Topics in Sociology. Cr. 3 (Max. 9)

Specialized and topical studies of sociological themes. Topics to be announced in Schedule of Classes. (T)

2500 (U S 2000) (SS) Introduction to Urban Studies. (GPH 2000) (HIS 2000) (P S 2000) Cr. 4

Urban phenomena both past and present, including the quality and nature of urban life; major concerns of urban areas; perspectives and techniques of various urban related disciplines. (Y)

2600 (AFS 2600) Race and Racism in America. Cr. 3

Examination of the nature and practice of racism in American society from its historical foundations to its contemporary institutional forms. (B)

3300 (SS) Social Inequality. Cr. 4

Structure and process in society, institutions, communities, and organizations. Scientific analysis of organization, conflict, and change in the economy, government, religion, education, and family. (Y)

3350 Religion and Social Activism. Cr. 3

Objective analysis of the interrelations between religious phenomena and social institutions, social structure and behavior. (B)

3400 Exploring Marriage and Other Intimate Relationships. Cr. 3

Students examine, from a sociological perspective, issues concerning intimate relationships. Major emphasis on description and analysis of changes in monogamous marriage. Non-traditional marital forms also examined. Focus upon the intimate relationships as they relate to personal, functional concerns of the student. (B)

3440 (HIS 3440) American Medicine in the Twentieth Century. (SOC 3440) (HIS 6440) Cr. 3

Major historical benchmarks in the making of the medical system in the U.S., including developments in medicine and medical knowledge, as well as social and political factors that influenced their reception and implementation. (W)

3510 (SS) The Nature and Impact of Population on Society. Cr. 3

Birth, death and migration investigated with respect to their social causes and consequences for society and human behavior. The population explosion and its implication for government policy. Recommended for students interested in urban studies, medicine, nursing, political science and history. (B)

3710 (CBS 3710) Learning About Your Community Through Research. (SOC 3710) Cr. 4

Prereq: consent of instructor. Blend of participatory, in-service, and classroom work to enhance undergraduate research skills by linking social science theories and concepts to hands-on community-based learning opportunities. (F)

3820 Criminology. Cr. 3

Review and critique of explanations of criminal behavior. Criminal behavior patterns, sources of crime statistics, social structure of criminality, crime typologies, and other theoretical issues regarding crime and delinquency. (T)

3840 (CRJ 4300) Corrections. Cr. 4

No credit after former SOC 5840. Description and analysis of legal, social and political issues affecting contemporary correctional theory and practice. Topics include: history of corrections, function and social structure of correctional institutions, institutional alternatives including diversion, probation and parole. Field trips to institutions and community correctional settings normally required. (T)

3860 (AFS 3860) Race, Class and the Criminal Justice System. Cr. 3

Prereq: upper division standing or criminal justice majors or minors. Survey of race and class in the criminal justice system: police, courts, jails and prisons. Socio-economic environment of offenders, and effects of criminal justice process on their ability to function positively within that environment. (T)

3990 Directed Study. Cr. 1-3 (Max. 6)

Prereq: written consent of full time sociology instructor. Open only to juniors and seniors with not less than sixteen credits in sociology, with a grade of A or B. For students who show evidence of ability and interest, and desire to do advanced reading. Part-time and student instructors are ineligible to supervise directed study. (T)

3991 Directed Study: Salford - W.S.U. Exchange. Cr. 3-9

Prereq: consent of departmental adviser. Open only to students admitted to Salford-WSU Exchange Program. Directed study at University of Salford, England. (F,W)

3993 (HIS 3993) Topics in Canadian History, Society, Politics, and Culture. (ENG 3993) (GPH 3993) (P S 3993) Cr. 3-4 (Max. 15)

Significant topics and issues in the development of Canadian history, society, politics, and culture. (F,W)

4050 Basic Sociological Theory. Cr. 4

Introduction to sociological theory from a general conceptual framework. Major concepts, theoretical positions and recent trends in theoretical sociology will be considered. (Y)

4100 (SS) Social Psychology. Cr. 4

An introduction to the major issues in social psychology. Topics such as socialization, social perception, self-conceptions and social definitions of selves and situations. (T)

4200 Methods of Social Research. Cr. 4

An elementary research methods course that covers the process of doing social research, including research design, data collection techniques, processing and analysis of data, as well as the interpretation of data. (Y)

4220 Computing Applications for the Social Sciences. Cr. 4

Open only to sociology majors. Prereq: SOC 4200. Application of computers in conducting social research: computer-aided statistical analysis; management of data sets and calculation of statistics. (T)

4360 (SOC 4360) Women and Health. (SOC 7100) Cr. 4

Analysis of sociological issues surrounding women and health, including gender differences in morbidity and mortality, the use of health services, interaction with providers, gender differences in mental disorder, alcoholism, drug abuse, gender roles and the professions of physicians and nurses. (T)

4460 Women in Society. Cr. 3

In-depth investigation of the living and working conditions of women in the world today, with a particular emphasis on the impact of socio-economic changes on the lives of women (including their relationships with men). (Y)

4800 (SOC 4800) Outsiders and Deviants. (CRJ 4800) Cr. 4

Definition and characteristics of behaviors which have, at times, been considered deviant, such as: criminality, mental illness, alcoholism, drug addiction, abortion, prostitution, and pornography. Interdisciplinary theories introduced to facilitate understanding of those behaviors, their diagnosis, management, control, and prevention. (T)

4996 (WI) Sociology: Capstone Course. Cr. 4

Prereq: SOC 2000, 3300, 4050, 4200, and 4220. Students choose a specific researchable topic related to the discipline and explore possible theoretical approaches. In addition, students develop a research proposal related to a topic which will include research methodology. (F,W)

5010 Selected Sociological Topics. Cr. 1-4

Topics to be announced in Schedule of Classes. (Y)

5020 (NUR 7515) End-of-Life Issues. (ANT 5430) (ANT 7430) (LIS 7635) (SOC 7020) Cr. 3-4

Physical, spiritual, legal, economic, political, cultural, and ethical issues at the end of life, examined as stories about individuals, families, and communities. (Y)

5360 Introduction to Medical Sociology. Cr. 3

Sociological and social psychological examination of health and illness behavior, health care providers, patient-provider-hospital relations, and health policy both in the United States and cross-culturally. Detroit area data and sex roles in medicine are discussed. This course is appropriate for non-sociology students with an interest in health issues (nursing, pre-medicine, and others), as well as for sociology and psychology students. (Y)

5400 The Family. Cr. 3

An introduction to the sociology of the family: forms of organization, interaction patterns throughout the life cycle, ethnic and cultural differences, conflict and change. Especially useful for students in social work, counseling, family and consumer resources, nursing and education, as well as the other social sciences. (T)

5410 Marriage and Family Problems. Cr. 3

Social and historical context of marriage and family problems. Power, conflict, communication and crisis as they relate to the nature and dynamics of the family. Problem solving techniques; specific family problems: divorce or child abuse. (T)

5500 (SOC 5500) Urban and Metropolitan Living. (U P 5210) Cr. 3

Examination of the development and organization of urban living as it emerged from village to city to metropolitan regions. Consideration given to such topics as the causes of urbanization and its consequences for the ecological and social structure of the city, intergroup relations, crime and poverty in the city. (I)

5540 (ANT 5060) Urban Anthropology. Cr. 3

Prereq: ANT 2100 or consent of instructor. Socio-cultural effects of urbanization in the developing areas of the world, particularly Africa, Latin America, Southeast Asia and India. The process of urbanization. The anthropological approach in the area of urban studies. (I)

5570 (SOC 5570) Race Relations in Urban Society. (AFS 5570) Cr. 3

Theoretical orientations applied analytically to enhance an understanding of the patterned structures of privilege in society which are based on race. Inequality, segregation-desegregation, pluralism; social structural frameworks; some attention to social-psychological aspects of topics such as prejudice and racism. (Y)

5580 (AFS 5580) Law and the African American Experience. Cr. 4

Prereq: upper division standing. Offered for undergraduate credit only. In-depth examination of the African American experience with law in the U.S.; historical development of the U.S. Constitution; legal barriers to equality and the influence of race on the law; use of law as a political instrument; participation of blacks in the legal process; comparisons with other countries. (B)

5700 (SOC 5700) Seminar in Social Inequality. (SOC 8700) Cr. 4

Sociological framework for analyzing several inequalities in contemporary U.S. society. Race, class, and gender as individual topics and as they intersect in society; inequalities in personal life experience. (Y)

5760 Society and Aging. Cr. 3

Personal, interpersonal and institutional significance of aging and age categories. Sociological dimensions of aging based on physical, social-psychological, and demographic backgrounds. (Y)

5810 (SOC 5810) Law in Human Society. (CRJ 5810) Cr. 3

Law and the legal structure in its social context. The development, enforcement and interpretation of law; emphasis on the American system of government. Reciprocal effects of law and the society in which it develops; comparative analysis. Designed for pre-law, criminal justice, and political science students, as well as for sociology majors. (Y)

5830 Juvenile Delinquency. Cr. 3

Nature, incidence, causes, treatment, prevention and control of juvenile delinquency. The juvenile justice system as distinguished from the criminal justice system. (Y)

5870 Violence in the Family. Cr. 3-4

Open for four credits to Liberal Arts Honors students only. Analysis of the nature of violence in family and family-like relationships; prevalence and types of family violence; social and social psychological correlates of violence in families. (Y)

6050 Sociological Theory Before 1920. Cr. 4

Prereq: SOC 2000 and 4050 or consent of instructor. Sociological theorists before 1920, their thought and the historical context in which such thought developed. (Y)

6060 Sociological Theory Since 1920. Cr. 4

Prereq: SOC 2000 and 4050 or consent of instructor. Historical and theoretical analysis of sociological thought in the present century. Current trends in sociological theory. (Y)

6080 (PHI 5230) Philosophy of Science. Cr. 4

Prereq: PHI 1850 or PHI 1860 or any course from the Philosophical Problems group or consent of instructor. Intensive investigation and discussion of special topics or particular authors in the philosophy of science. Topics and authors to be announced in Schedule of Classes. (Y)

6280 Social Statistics. Cr. 4

Basic techniques for organizing and describing social data, measures of central tendency and dispersion, probability theory and hypothesis testing, tests of significance and confidence intervals, measures of association for two variables, analysis of variance. (Y)

6400 Family Theories and Research. Cr. 3

Major sociological and social psychological theories relevant to the study of the family combined with a comprehensive survey of family research; these theories and research findings applied to contemporary family issues and family policy. (I)

6455 (U P 6455) Discrimination and Fair Housing. (AFS 6455) (ECO 6455) (P S 6455) (U S 6455) Cr. 3

Prereq: senior or graduate standing. Multidisciplinary investigation into the nature, motivations, consequences, and legal/public policy implications of racial/ethnic discrimination in housing and related markets in U.S. metropolitan areas. (B)

6580 Applied Sociology I: Research and Theory in Applied and Clinical Settings. Cr. 4

Prereq: graduate students or advanced social science undergraduates. The logic of applied sociological theory and research design. Ethical issues in applied and clinical social science projects, and of contributions of related social science disciplines. Development of writing skills in applied and clinical research and theory. (Y)

6590 Applied Sociology II: Strategies for Changing Social Behavior. Cr. 3-4

Prereq: consent of director of applied sociology. Analysis of theoretical and practical strategies for promoting the change of social behavior. Focus on behavior of the individual, small group, and community structural levels. Means of evaluating effectiveness of change strategies. Materials drawn from theory and practice in sociology and related social sciences. (Y)

6750 Sociology of Urban Health. Cr. 3

Prereq: graduate standing; undergraduates by consent of instructor. Review of theories and research on health status and health care delivery issues in urban communities. (I)

6850 (ECO 6810) Political Economy of the Urban Ghetto. (U P 6670) Cr. 3

Prereq: graduate standing; upper division undergraduates by consent of instructor. Examination of the economic, social and political transformation of U.S. cities; particular attention to the formation, dynamics, economics and social sub-systems of urban ghettos and their relationship to broader contexts. (B)

Urban Studies and Planning

Office: 3198 Faculty Administration Building; 313-577-2701;
Fax: 313-577-0022
Chairperson: Robert M. Boyle

Web: http://www.CLAS.wayne.edu/DUSP/

Professors

Robert M. Boyle, George Galster, George J. Honzatko (Emeritus), Robert Sinclair (Emeritus), Avis Vidal

Associate Professors

Kamishwari Pothukuchi, S. Rayman Mohamed, Bryan Thompson (Emeritus)

Assistant Professor

Lei Ding, Carolyn G. Loh

Lecturers

Jeffrey Horner, Paul Vigeant

Adjunct Faculty

Janet Anderson, Dennis Burin, Sii-Monni Chabi, Robert Heuton, Darryl LaFlamme, Ernando Minghine, William James, Douglas Plachcinski, Willian Quigley, Portia Reuben, Robert Turner, Benjamin Tallerico

Degree Programs

BACHELOR ARTS with a major in urban studies
MASTER OF URBAN PLANNING

The field of urban studies is concerned with exploring contemporary cities and urban trends and addressing some of today's most pressing problems. In a growing number of countries, complex systems of urban settlement house the overwhelming majority of the population and dominate their residents' social, economic, cultural, and intellectual lives. In the U.S., in particular, exploring the development and transformation of metropolitan regions is essential to understanding some of the most significant dynamics affecting the nation. Especially pertinent are the powerful forces of suburbanization, political fragmentation, and residential segregation along lines of race and class that reshaped our society in the latter half of the 20th century. These forces structure the resources, activities, and opportunities that unite and divide Americans. Wayne State's Detroit location gives this university a powerful vantage point from which to give students a special appreciation of these complex dynamics.

The profession of urban planning is responsible for the development of comprehensive plans and programs for local communities as well as larger regional units. These plans visualize future conditions of social, economic, and physical change, and provide an estimate of the community's long-range needs for various facilities and services. Professional urban planners perform a variety of tasks such as developing plans for housing, transportation, rehabilitation of blighted metropolitan areas, and improving the appearance and efficiency of communities. The program seeks to prepare individuals for working with local community planning agencies and regional groups.

Bachelor of Arts
with a Major in Urban Studies

Admission requirements for this program are satisfied by the general requirements for undergraduate admission to the University; see page 24.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits in course work, including satisfaction of the College of Liberal Arts and Sciences Group Requirements (see page 274) and the University General Education Requirements (see page 18), as well as the major requirements listed below. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 18, 36, and 274.

Major Requirements: A major in urban studies requires completion of twenty-eight credits in seven core courses and ten credits of additional urban-related electives, as outlined in the following curriculum.

CORE COURSES (22 credits required)

U S 2000 - (SS) ntroduction to Urban Studies (SOC 2500) (GPH 2000) (HIS 2000) (P S 2000): Cr. 4
U S 4510 -- Cities and Regions (GPH 4510): Cr. 4
U S 6050 -- Independent Field Study Cr.2
ECO 5800 - Urban and Regional Economics (ECO 6800) (U P 5820): Cr. 4 (Prereq: ECO 2010)
GPH 3130 - (SS) Introductory Urban Geography: Cr. 4
P S 2240 - I(SS) ntroduction to Urban Politics and Policy: Cr. 4

RESEARCH METHODS COURSES (4 credits required)

CRJ 4860 -- Research Methods in Criminal Justice: Cr. 4
GPH 6420 -- (U P 6320) Quantitative Techniques I: Cr. 4
P S 3600 -- Methods of Political Inquiry: Cr. 4
SOC 4200 -- Methods of Social Research: Cr. 4

COGNATE COURSES (3-4 Credits required)

AFS 3160 -- Black Urban History (HIS 3160): Cr. 4
ANT 5060 -- Urban Anthropology (SOC 5540): Cr. 3 (Prereq: ANT 2100)
SOC 5500 -- Urban and Metropolitan Living (UP 5210): Cr. 3
SOC 5570 -- Race Relations in Urban Society (AFS 5570): Cr. 3

ELECTIVE COURSES IN URBAN STUDIES (10 Credits required)

ANT 3110 -- Detroit Minorities: Arabs, Hispanics, and African Americans: Cr. 3-4
ANT 3200 -- (HS) Lost Cities and Ancient Civilizations (HIS 3200): Cr. 3
ECO 6810 -- Political Economy of the Urban Ghetto (SOC 6850) (UP 6670): Cr. 3
GPH 3600 -- Introduction to Geographic Information Systems: Cr. 4
GPH 5650 -- Metropolitan Detroit (U P 5650): Cr. 4
GPH 6150 -- Internal Structure of the City (U P 5420): Cr. 4
GPH 6240 -- Industrial Geography (U P 5520): Cr. 4
GPH 6280 -- Marketing Geography (U P 5620): Cr. 4
GPH 6830 -- Advanced GIS Applications (U P 6830): Cr. 4
GPH 3130 -- (SS) Introductory Urban Geography: Cr. 4
HIS 2050 -- United States Since 1877: Cr. 3-4
HIS 5220 -- The Changing Shape of Ethnic America: Cr. 3-4
HIS 5300 -- Economic History of the United States (HIS 7300): Cr. 4
HIS 5340 -- History of Ancient Rome (HIS 7340): Cr. 3
P S 3250 -- Detroit Politics: Continuity and Change in City and Suburbs (HIS 3240): Cr. 4
SOC 2020 -- (SS) Social Problems: Cr. 3
SOC 3510 -- (SS) The Nature and Impact of Population on Society: Cr. 3
SOC 5400 -- The Family: Cr. 3
SOC 5570 -- Race Relations in Urban Society (AFS 5570): Cr. 3
U P 3530 -- Urban and Regional Planning (GPH 3530): Cr. 3
U P 6550 -- Regional, State and Urban Economic Development (P S 6440) (ECO 6650): Cr. 3
U P 5110 -- Urban Planning Process: Cr. 3
U P 6310 -- Real Estate Development: Cr. 3
U P 6510 -- Urban and Regional Systems (GPH 6510): Cr. 4
U P 6520 -- Transportation Policy and Planning: Cr. 3
U P 6650 -- Planning and Development Law: Cr. 3
U S 6000 -- Urban Studies Internship: Cr. 2-4

Honors Program

Students with a grade point average of 3.3 or higher may be admitted to the Honors Program in Urban Studies. The honors major must elect one semester of a 4000-level Honors College seminar and accumulate at least fifteen credits in honors-designated course work. Honors courses from any Department in the College, including this one, all contribute to the fifteen-credit requirement. The honors major student is permitted to follow a course of study somewhat independent of standard requirements, through the election of Honors Directed Study (GPH 4990). For information about honors-designated coursework available each semester, including the required 4000-level Honors Program seminar, visit the Honors College website link at: http:// www.honors.wayne.edu/classes.php

Minor in Urban Studies

The requirements for a minor concentration in Urban Studies include at least three courses from the core requirements for the Urban Studies Major (see above), which must include U S 2000 - Introduction to Urban Studies. Other than U S 2000, none of these core requirement courses can be listed or cross-listed as part of a student's declared major program.

The remainder of a student's 20 credits must be completed by selecting courses from the list of Urban Studies Electives, or from additional courses not included in the list but approved by the student's faculty advisor within the Department of Urban Studies and Planning.

COURSES OF INSTRUCTION

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

GEOGRAPHY COURSES (GPH)

1100 (SS) World Regional Patterns. Cr. 4

Concepts and theory in analyzing areal relationships and distinguishing regional patterns of human activity; cultural factors and physical conditions (climate, landforms) as factors in regional delineations; comparisons and contrasts in regional economic development; analysis of concentrations/dispersals of human activity; local, national and regional phenomena in the interpretation of global patterns. (T)

2000 (U S 2000) (SS) Introduction to Urban Studies. (HIS 2000) (P S 2000) (SOC 2500) Cr. 4

Urban phenomena both past and present, including the quality and nature of urban life; major concerns of urban areas; perspectives and techniques of various urban-related disciplines. (T)

2200 Geography of Michigan. Cr. 3

The spatial physical, social, environmental, settlement and developmental patterns and problems of the State of Michigan. (I)

2500 (GPH 2500) Geography of Africa. (AFS 2500) Cr. 4

Geography of modern Africa: regions, countries, peoples. Physical environment, resource potential, population groups, migrations, economics, development, political systems and conflicts. (I)

2700 (P S 2700) (FC) Introduction to Canadian Studies. (ENG 2670) (HIS 2700) Cr. 3

Survey of Canada in its cultural, literary, historical, geographical and political aspects; key concepts and social patterns that define the Canadian experience. (Y)

3020 (WI) Spatial Organization: Concepts and Techniques. Cr. 3

Introduction to spatial organization concepts, survey research procedures and statistical techniques. Topics include: geographic problems, research design, models, data sources, sampling, questionnaire design and descriptive statistics. (Y)

3120 Cartography/Map Analysis. Cr. 4

Basic map design; coordinate systems; map symbology and text; scale; topographic, thematic and surface maps; surveying and land record systems; digital mapping; global positioning systems. (Y)

3130 (SS) Introductory Urban Geography. Cr. 4

An introduction to the geographer's view of cities, with emphasis on the North American city. Topics include the pre-industrial city, migration, evolution of the American urban pattern, city classification, city-regional relationships, and the city's internal structure (ethnic, residential, commercial, and industrial). (Y)

3200 (SS) Europe. Cr. 3

Analysis of European countries. Emphasis on population changes resource problems, industrial location, urbanization, regional development, and emerging economic and political unities. (I)

3400 The Physical Landscape. Cr. 4

Physical processes such as running water, glaciers, wave and wind action, plus the resultant erosional and/or depositional landforms. (B)

3500 Introduction to Remote Sensing. Cr. 4

Prereq: familiarity with personal computers; introductory statistics recommended. Methodologies for the thematic extraction of earth resource information using computer-based image processing systems. (Y)

3530 (U P 3530) Urban and Regional Planning. (U S 3530) Cr. 3

Prereq: U S 2000 or admission to Master of Urban Planning degree program or consent of instructor. Introduction to urban and regional planning concepts, including zoning, growth management and economic development. Emphasis on metropolitan Detroit. (Y)

3600 Introduction to Geographic Information Systems. Cr. 4

Prereq: GPH 3120 and GPH 3500 or equiv. recommended. Theory and application of computer-based systems for the analysis and representation of spatial data. (Y)

3900 Topics in Geography. Cr. 3

Topics to be announced in Schedule of Classes. (B)

3990 Directed Study. Cr. 1-3 (Max. 9)

Prereq: consent of adviser. Readings and research. (T)

3991 Directed Study: Salford - W.S.U. Exchange. Cr. 3-9

Prereq: consent of departmental adviser. Open only to students admitted to Salford - WSU exchange. Courses available for lower division credit in geography for W.S.U. - Salford exchange. (F,W)

3993 (HIS 3993) Topics in Canadian History, Society, Politics, and Culture. (ENG 3993) (P S 3993) (SOC 3993) Cr. 3-4 (Max. 15)

Significant topics and issues in the development of Canadian history, society, politics, and culture. (F,W)

4510 (U S 4510) Cities and Regions. Cr. 4

Processes of urbanization and metropolitanization in both the western and non-western worlds. (W)

4600 Advanced Geographic Information Systems. Cr. 4

Prereq: GPH 3600 or equiv. Application of GIS to analyses of spatially-referenced data. (Y)

4650 GIS Practicum. Cr. 4

Prereq: GPH 4600 or equiv; written consent of instructor. Placement with public or private agency; supervised work experience utilizing GIS. (Y)

4990 Directed Study: Honors Program. Cr. 2-12 (Max. 16)

Prereq: consent of chairperson. (T)

5650 (GPH 5650) Metropolitan Detroit. (U P 5650) Cr. 4

Comprehensive geographic analysis of metropolitan Detroit: city, suburbs and surrounding region. Historical development, physical foundations, economic and political expansion, ethnic and cultural areas, geopolitical infrastructure, social change, present-day problems and current events shaping the area's spatial structure. (Y)

5750 Social and Economic Geography of the United States and Canada. Cr. 4

Human geography of North America: population distribution and change, economic geography and economic restructuring, the urban system and urban development, and changing social patterns and problems. (Y)

5991 Directed Study: Salford - W.S.U. Exchange. Cr. 3-9

Prereq: consent of departmental adviser. Open only to students admitted to Salford - WSU exchange. Courses available for upper division credit in geography for W.S.U. - Salford exchange. (F,W)

6150 (GPH 6150) Internal Structure of the City. (U P 5420) Cr. 4

Perception of the urban environment, spatial interaction and movement, models of structure and growth, migration to and within the city, ethnic and social areas, community extension, social processes and spatial form. (Y)

6240 (GPH 6240) Industrial Geography. (U P 5520) Cr. 4

Location of industry in theory and practice. Locational analysis of selected industries and selected manufacturing regions. Locational practices of multinational corporations, global transformation of manufacturing, industrial restructuring, industrial decline. Industries and services in a post-industrial economy. Industrial location and urban development. (B)

6280 (GPH 6280) Marketing Geography. (U P 5620) Cr. 4

Factors underlying retail location and shopping center development; evaluation of population, income levels, access and competition for location decisions; techniques applicable to sales potential/rent-up/sell-out estimates for retail units, housing developments, recreation facilities, office buildings; retail impact on urban land use; crime and commercial location; considerations for the elderly in commercial locations. (B)

6420 (U P 6320) Quantitative Techniques I. Cr. 4

Statistical inference with emphasis on applications including central tendency, dispersion, hypothesis testing, correlation and regression. (Y)

6510 (U P 6510) Urban and Regional Systems. Cr. 3

Theory course dealing with concepts, processes and organization of urban and metropolitan regions, primarily focusing on the western world experience. Primary focus on system structure and change in response to market forces, technology, and public policy. (Y)

6520 (GPH 6520) Independent Field Study. (U S 6050) Cr. 2-4

Prereq: consent of instructor. Observation and interpretation of data in the field. (Y)

6550 Principles of Cartography and Remote Sensing. Cr. 4

Theories of map design and interpretation; acquisition and interpretation of remotely sensed data including air photos and satellite imagery. (I)

6700 Geographic Information Systems. Cr. 4

Principles and applications of GIS, including spatial statistics, computer graphics, computer cartography. (Y)

6830 Advanced GIS Applications. (U P 6830) Cr. 4

Prereq: GPH 6700 or written consent of instructor. Use of GIS for spatial analysis and computer cartography. (Y)

6850 GIS Internship. Cr. 4

Prereq: GPH 6830 or equiv. and written consent of instructor. GIS related work experience with public or private sector agency in Southeast Michigan. (Y)

URBAN PLANNING COURSES (U P)

3530 (U P 3530) Urban and Regional Planning. (GPH 3530) (U S 3530) Cr. 3

Prereq: U S 2000 or admission to Master of Urban Planning degree program or consent of instructor. Introduction to urban and regional planning concepts, including zoning, growth management and economic development. Emphasis on metropolitan Detroit. (Y)

5010 Resources and Communication in Planning. Cr. 3

Open only to graduate and post-bachelor students; others by consent of instructor. Introduction to the use of basic tools and techniques of professional planning practice, including data resources, computer applications, map and plan preparation, presentation techniques. (Y)

5110 Urban Planning Process. Cr. 3

Open only to graduate and post-bachelor students; others by consent of instructor. Scope and historical development of planning. Topics relevant to the practice of planning: theory, planning practice, social and physical development policy. (Y)

5210 (SOC 5500) Urban and Metropolitan Living. Cr. 3

Open only to graduate and post-bachelor students; others by consent of instructor. Examination of the development and organization of urban living as it emerged from village to city to metropolitan region. Topics include: causes of urbanization and its consequences for the ecological and social structure of the city, intergroup relations, crime and poverty in the city. (I)

5310 Current Planning Practice. Cr. 3

Open only to graduate and post-bachelor students; others by consent of instructor. Practical application of planning theory to current issues of planning and community development, including land use, economic development, and environmental concerns. (B)

5420 (GPH 6150) Internal Structure of the City. Cr. 4

Open only to graduate and post-bachelor students; others by consent of instructor. Topics include: perception of the urban environment, spatial interaction and movement, models of structure and growth, migration to and within the city, ethnic and social areas, community extension, social processes and spatial form. (Y)

5520 (GPH 6240) Industrial Geography. Cr. 4

Open only to graduate and post-bachelor students; others by consent of instructor. Theory and practice of the location of industry, analysis of selected manufacturing industries and selected industrial regions. The role of industrial location in urban and regional development. (B)

5620 (GPH 6280) Marketing Geography. Cr. 4

Open only to graduate and post-bachelor students; others by consent of instructor. Factors underlying retail location and shopping center development; evaluation of population, income levels, access and competition for location decisions; techniques applicable to sales potential/rent-up/sell-out estimates for retail units, housing developments, recreation facilities, office buildings; retail impact on urban land use; crime and commercial location; considerations for the elderly in commercial locations. (B)

5650 (GPH 5650) Metropolitan Detroit. Cr. 4

Comprehensive geographic analysis of metropolitan Detroit: city, suburbs and surrounding region. Historical development, physical foundations, economic and political expansion, ethnic and cultural areas, geopolitical infrastructure, social change, present-day problems and current events shaping the area's spatial structure. (Y)

5820 (ECO 5800) Urban and Regional Economics. (ECO 6800) Cr. 4

Prereq: ECO 2010. Open only to graduate and post-bachelor students; others by consent of instructor. Introduction to the economic foundations of urban problems; land use, housing, poverty, transportation, local public finance; regional industry mix, income, growth and development; the national system of cities and location of firms. (Y)

6120 Planning Studies and Methods. Cr. 4

Open only to graduate and post-bachelor students; others by consent of instructor. Economic base, population, and land use studies. Discussion of approaches used to solve selected community development problems. (Y)

6210 Urban Design Elements. Cr. 3

Open only to graduate and post-bachelor students; others by consent of instructor. Introduction to the role of urban design and the concept of design criteria, design variables, and terminology. (B)

6310 Real Estate Development. Cr. 3

Open only to graduate and post-bachelor students; others by consent of instructor. Process of urban real estate development; emphasis on market analysis, the construction process, and finance. (Y)

6320 (U P 6320) Quantitative Techniques I. (GPH 6420) Cr. 4

Open only to graduate and post-bachelor students; others by consent of instructor. Statistical inference with emphasis on applications including central tendency, dispersion, hypothesis testing, correlation and regression. (Y)

6350 Housing Policy and Programs. Cr. 3

Open only to graduate and post-bachelor students; others by consent of instructor. Governmental housing policies and programs at the Federal, state and local levels. Role of community-based organizations in housing activities. (Y)

6400 Planning Issues. Cr. 2-4 (Max. 6)

Open only to graduate and post-bachelor students; others by consent of instructor. Studies of urban policy issues as they affect land use. Social and economic determinants of the physical composition of urban areas. (B)

6420 Quantitative Techniques II. Cr. 4

Open only to graduate and post-bachelor students; others by consent of instructor. Multivariate analysis with emphasis on applications, including matrix algebra, vector spaces, linear and non-linear models, principal components analysis, and programming

approaches. Material Fee As Indicated In The Schedule of Classes (B)

6455 (U P 6455) Discrimination and Fair Housing. (AFS 6455) (ECO 6455) (P S 6455) (SOC 6455) (U S 6455) Cr. 3

Open only to graduate and post-bachelor students; others by consent of instructor. Multidisciplinary investigation into the nature, motivations, consequences, and legal/public policy implications of racial/ethnic discrimination in housing and related markets in U.S. metropolitan areas. (B)

6510 (U P 6510) Urban and Regional Systems. (GPH 6510) Cr. 3

Open only to graduate and post-bachelor students; others by consent of instructor. Theory course dealing with concepts, processes and organization of urban and metropolitan regions, primarily focusing on the western world experience. Primary focus on system structure and change in response to market forces, technology, and public policy. (Y)

6520 (U P 6520) Transportation Policy and Planning. (C E 6525) Cr. 3

Open only to graduate and post-bachelor students; others by consent of instructor. Introduction to the role of transportation in the planning process involving both regional and urban considerations. (Y)

6650 Planning and Development Law. Cr. 3

Open only to graduate and post-bachelor students; others by consent of instructor. Techniques available to guide land development. Concepts in zoning, subdivision regulations, timing and sequence of land development. (Y)

6670 (ECO 6810) Political Economy of the Urban Ghetto. (SOC 6850) Cr. 3

Open only to graduate and post-bachelor students; others by consent of instructor. Examination of the economic, social and political transformation of U.S. cities; particular attention to the formation, dynamics, economics and social sub-systems of urban ghettos and their relationship to broader contexts. (B)

6750 (ECO 5520) State and Local Public Finance. (ECO 6520) Cr. 4

Prereq: ECO 2010 or consent of instructor. Open only to graduate and post-bachelor students; others by consent of instructor. Theory and practice of state and local government taxation and expenditure. Attention devoted to State of Michigan and municipalities in Detroit metropolitan area. Topics include: government organization, voting and mobility models, property and sales taxes, user charges, grants, education expenditure, and economic development. (Y)

6850 Cost-Revenue Workshop. Cr. 3

Offered for S and U grades only. No credit after U P 6050. Open only to graduate and post-bachelor students; others by consent of instructor. Evaluation of the fiscal impacts of land use projects as they affect community tax revenue. Presentation of methods for assessing costs and revenues associated with residential and non-residential growth. (B)

URBAN STUDIES COURSES (U S)

2000 (U S 2000) (SS) Introduction to Urban Studies. (GPH 2000) (HIS 2000) (P S 2000) (SOC 2500) Cr. 4

Urban phenomena, past and present, quality and nature of urban life, major concerns of urban areas; perspectives and techniques of various urban-related disciplines. (T)

2992 (P S 2992) Political Science Internship. Cr. 1-4 (Max. 6)

Prereq: consent of undergraduate adviser. Open only to political science majors or minors, urban studies co-majors, or students with twelve credits or more in political science. Offered for S and U grades only. Internship in a public or quasi-public organization, agency, civic or voluntary group, or campaign organization. Collateral reading, written work, arranged conferences with faculty supervisor. (T)

3530 (U P 3530) Urban and Regional Planning. (GPH 3530) Cr. 3

Prereq: U S 2000 or admission to Master of Urban Planning degree program or consent of instructor. Introduction to urban and regional planning concepts, including zoning, growth management and economic development. Emphasis on metropolitan Detroit. (Y)

4510 (U S 4510) Cities and Regions. (GPH 4510) Cr. 4

Processes of urbanization and metropolitanization in both the western and non-western worlds. (W)

6000 Internship. Cr. 2-4 (Max. 4)

Offered for undergraduate credit only. Comprehensive internship program involving various criminal justice agencies. Placement may be made in court, corrections, police, juvenile justice, and other agencies at the state, county and local levels; opportunities include agency procedure and policy, patrol, case analysis, report writing and research. (T)

6050 (GPH 6520) Independent Field Study. Cr. 2-4 (Max. 4)

Prereq: consent of instructor. Observation and interpretation of data in the field. (Y)

6455 (U P 6455) Discrimination and Fair Housing. (AFS 6455) (ECO 6455) (P S 6455) (SOC 6455) Cr. 3

Prereq: senior or graduate standing. Multidisciplinary investigation into the nature, motivations, consequences, and legal/public policy implications of racial/ethnic discrimination in housing and related markets in U.S. metropolitan areas. (B)

Women's Studies

Office: 3063 F/AB, 656 West Kirby; 313-577-6331
Web: http://www.clas.wayne.edu/wsp/

Director: Anne E. Duggan

Participating Faculty

Melba Boyd (Africana Studies), Krista Brumley (Sociology), Jackie Byars (Communication), Simone R. Chess (English), Jorgelina Corbatta (Classical and Modern Languages), John Corvino (Philosophy), Jose Cuello (History), Robert Diaz (English), Heather Dillaway (Sociology), Elizabeth Faue (History), David Fasenfest (Sociology), Liette Gidlow (History), Ewa Golebiowska (Political Science), Jaime Goodrich (English), Heidi Gottfried (Sociology), Janet Hankin (Sociology), Jacalyn Harden (Anthropology), Mary Herring (Political Science), Lisabeth Hock (Classical and Modern Languages), renée c. hoogland (English), Leisa Kauffmann (Classical and Modern Languages), Laura Kline (Classical and Modern Languages), Janine Lanza (History), Kathryne Lindberg (English), Xavier Livermon (Africana Studies), Elizabeth Dorn Lublin (History), Lisa Maruca (English), Caroline Maun (English), Jennifer Sheridan Moss (Classical and Modern Languages), Daphne Ntiri (Africana Studies), Frances J. Ranney (English), Ruth Ray (English), Aaron Retish (History), Michael Scrivener (English), May Seikaly (Classical and Modern Languages), Mary Sengstock (Sociology), Chris Tysh (English), Sandra Van Burkleo (History; Law), Anca Vlasopolos (English), Renata Wasserman (English), Monica White (Sociology), Lisa Ze-Winters (Africana Studies; English)

Co-Major Program

The Women's Studies Program provides an interdisciplinary undergraduate curriculum designed to give students the theoretical bases and methodological skills for analyzing the historical, social, cultural, economic, and political contexts which influence women's lives. The aims of the program are:

1. to instruct students in current scholarship on women and gender issues;

2. to explore the multicultural and international contexts of women's lives;

3. to introduce students to the social, cultural, economic, and political contributions of women to the societies in which they live;

4. to provide an intellectually coherent curriculum for students to explore their individual investments in gender issues.

The program offers co-major and minor concentrations of study. The co-major is designed for students who wish both the diversity of a wide array of gender-related courses reflecting the range of university disciplines and the specialization to be derived from a substantial project utilizing gender theory and methods. The minor is intended for students whose programs may be too demanding to accommodate the co-major requirements but who wish to pursue a significant amount of work in women's and gender studies.

Students wishing to pursue a co-major or minor in women's studies should meet with the program director and the university Advising Office for advising.

CO-MAJOR REQUIREMENTS consist of thirty-two credits as cited below. At least three courses must address race/ethnicity and gender as an integral issue and at least one course must address international issues.

W S 2700 -- Interdisciplinary Topics in Women's Studies (Cr. 3-4): Cr. 6
W S 3010 -- (SS) Interdisciplinary Introduction to Women's Studies: Cr. 3-4
W S 5010 -- Women's Studies Theories: Cr. 3
W S 5990 -- Senior Project Seminar: Cr. 4
Group One Electives (see below) -- at least eight credits: Cr. 8
Additional electives from Group One or Group Two (see below): Cr. 3-8

Group One Electives

These courses are informed by current debates in feminist theory regarding the nature of feminism as perceived by women from different races and ethnicities — an issue central to women's studies programs, departments, and organizations throughout the United States. The courses make use of feminist scholarship, interrogate the construction of gender, and address issues of concern to women.

AFS 5110 -- Black Women in America (W S 5110): Cr. 3
ANT 5240 -- Cross Cultural Study of Gender: Cr. 3
ENG 2570 -- (IC)Literature By and About Women: Literature & Writing: Cr. 3
ENG 5030 -- Topics in Women's Studies (W S 5030): Cr. 3
HIS 3250 -- The Family in History: Cr. 3-4
HIS 5200 -- Women in American Life and Thought: Cr. 3
PSY 3250 -- Psychology of Women: Cr. 3
SOC 4360 -- Women and Health: Cr. 4
SOC 4460 -- Women in Society: Cr. 3
SOC 5410 -- Marriage and Family Problems: Cr. 3

Group Two Electives

These courses raise questions about their particular discipline from a feminist perspective and have a substantial component devoted to gender issues. Many of these entries are variable topics courses in which different specific contents are offered either in different sections or in different terms as reflected in the Schedule of Classes. For use as Women's Studies co-major or minor credit all such courses are cited below as applicable only when approved by the Program Director.

A H 6730 -- Contemporary Theory and the Visual Arts (when approved): Cr. 3
CLA 3190 -- Topics on Women in Antiquity: Cr. 3
COM 3010 -- (WI) Television Criticism (when approved): Cr. 3
COM 5020 -- Studies in Film History (when approved): Cr. 4
ENG 5150 -- Shakespeare (when approved): Cr. 3
GER 5400 -- Cultural Studies and Criticism (when approved): Cr. 3-4
HIS 5390 -- Europe in the Age of the Reformation (when approved): Cr. 3
SOC 5870 -- Violence in the Family: Cr. 3-4

Courses cited in the women's studies curriculum which are resident in other Departments and count toward those Departmental majors and/or group requirements may also count toward women's studies co-major or minor credit. Each semester the Program Director prepares a course list of offerings for the subsequent term in order to help students make selections. This list is available in the office of the Women's Studies Program and is listed on the Women's Studies Website: http://www.clas.wayne.edu/wsp

Minor or Cognate Study

Minor Requirements: eighteen credits distributed as follows:

W S 2700 -- Interdisciplinary Topics in Women's Studies: Cr. 3
W S 3010 -- (SS) Interdisciplinary Introduction to Women's Studies: Cr. 3-4
W S 5010 -- Women's Studies Theories: Cr. 3
Electives from Group One or Two (see above): Cr. 9

WOMEN'S STUDIES COURSES (W S)

The following courses are offered for undergraduate credit. For interpretation of numbering system, signs and abbreviations, see page 504.

2700 Interdisciplinary Topics in Women's Studies. Cr. 3-4 (Max. 12)

Topics addressed from a variety of disciplinary approaches, such as: women and representation, women and violence, women's roles around the globe. Multicultural and international issues of concern to women, based in contemporary women's studies scholarship. (F,W)

3010 (SS) Interdisciplinary Introduction to Women's Studies. Cr. 3-4

Introduction to topics addressed from variety of approaches, such as: women and representation, women and violence, women's roles around the globe, multicultural and international issues of concern to women. (F,W)

3520 (N E 3520) Women and Gender in Middle East History. Cr. 4

Women's role in Middle East history; impact of religion, culture, social and economic change on construction of gender in the Middle East. (Y)

3750 (CRJ 3750) Diversity in Criminal Justice. Cr. 4

Critical examination of gender, race, class, and ethnicity issues in criminal justice; impact on defendants, inmates, victims, and criminal justice personnel; relation to policy issues. (F,W)

3990 Directed Studies. Cr. 1-3

Prereq: W S 3010, consent of program director. Individually-designed research projects, developed with a supervising professor and approved by program director. (T)

5010 Women's Studies Theories. Cr. 3

Prereq: W S 3010 or written consent of instructor. Investigation of what is defined as theory in the women's movement and within the discipline of women's studies; focus on current debates within women's studies and their relationship to grassroots politics. Attention given to race, class, sexuality, colonialism, and the construction of gendered categories. (Y)

5030 (ENG 5030) Topics in Women's Studies. Cr. 3 (Max. 9)

Prereq: 12 credits in ENG above the 1000 level. Thematic, critical or generic study of women and literature. Topics to be announced in Schedule of Classes. (Y)

5110 (AFS 5110) Black Women in America. Cr. 3

Social, cultural, artistic and economic development of Black women in America; topics include: racism, sexism, marriage, motherhood, feminism, and the welfare system. (Y)

5360 (COM 3600) Gender and Communication. Cr. 3

Offered for undergraduate credit only; exceptions require consent of instructor. Analysis of gender communication issues within interpersonal, group, organizational, intercultural, public, and mass mediated contexts. (Y)

5990 Senior Project Seminar. Cr. 4

Prereq: W S 2700, 3010, 5010; consent of instructor and program director. Scholarly research project or internship combined with scholarship, resulting in substantial paper. Students meet with instructor several times during semester. (Y)

SCHOOL OF LIBRARY and INFORMATION SCIENCE

DEAN: Sandra G. Yee

Foreword

The Information Profession

The School of Library and Information Science prepares information professionals to assume leadership roles in libraries and other information organizations. By emphasizing the practical application of knowledge and skills, students are trained in the core principles of librarianship - information access, organization, services, and management - as well as emerging fields incorporating electronic media such as digital collections, competitive intelligence, information architecture, and web site development. LIS faculty research issues that improve library and information services as an essential component to cultural enrichment, knowledge dissemination, economic development, and the overall quality of life.

Currently, qualified information professionals are working in varied settings all over the globe. "Librarians held about 159,000 jobs in 2008. About 59 percent were employed by public and private educational institutions and 27 percent were employed by local government." (Occupational Outlook Handbook, http://www.bls.gov/oco/ocos068.htm). Exciting career opportunities exist in the public and private sectors, including business, law, medicine, publishing, government, archives and museums, communications and media, engineering, academic environments, and pre-K-12 education. The Master of Library and Information Science (M.L.I.S.) degree is recognized by the American Library Association (ALA) as the first professional degree in this field and serves as the credential for entry-level employment.

Accreditation

The School of Library and Information Science (SLIS) first received accreditation for its master's degree by the American Library Association in 1967; the School's most recent accreditation was granted by the ALA Committee on Accreditation in 2010.

Mission and Goals

VISION STATEMENT: Wayne State University's School of Library and Information Science (SLIS) educates students for careers within the information profession and to be leaders and advocates for the multiplicity of roles information and its providers play within societies. The SLIS offers its students innovative, collegial, and stimulating intellectual and physical environments. Situated within one of the nation's major urban research universities, the SLIS benefits from its close proximity to numerous libraries, archives, and preeminent cultural institutions while also deploying an array of robust online tools and environments. The School provides opportunities for research and practice excellence within multicultural, diverse, and global settings.

MISSION STATEMENT: Aligned with Wayne State University's missions of preeminence in teaching, learning, research, and service, the mission of the School of Library and Information Science is to prepare students to assume professional and leadership roles in dynamic and evolving library and information environments. The School is committed to excellence in all of these areas.

GOALS AND OBJECTIVES

Research: The SLIS will foster, facilitate, and support research by faculty and students;

assist students in appreciating the importance of research within practice, and for developing theoretical approaches to library and information science;

foster student engagement in research, through courses and directed studies, and other independent learning opportunities;

support students in presenting their research in courses, at conferences, and through publication;

support faculty research and scholarly communication;

and cultivate faculty engagement with student research experiences and skill development.

Teaching: The SLIS will encourage and teach professional approaches and a service philosophy;

provide the skills and dispositions for excellence in information service delivery;

offer opportunities to sustain professional growth and achievement, including career mentoring;

expose students to the historical, social, cultural, educational, political, and economic dimensions of information and information agencies;

educate students in the history, philosophies, theories, principles, policies, and ethics of library and information science;

and inculcate the importance of career-long professional learning.

Service: The SLIS will be engaged within the diverse communities and world of which we are a part;

seek diversity among the faculty;

seek diversity and facilitate inclusion among the student body;

address the roles of library and information services in a diverse global society, paying particular attention to the underserved;

facilitate student experience in multicultural and multiethnic information environments;

and integrate urban issues across its curriculum, activities, and provide opportunities for community engagement and professional growth.

Leadership: The SLIS will foster leadership in traditional as well as interdisciplinary research, scholarship, and practices that address important information and library issues;

engage the library community, alumni, and employers;

promote commitment and involvement in professional associations and organizations;

encourage involvement in the community and community organizations;

and support service activities and participation in leadership roles at the School, University, local, state, national, and international levels.

Technology: The SLIS will educate within and for an evolving technological world;

continuously evaluate and apply technologies to its teaching, learning, research, and service programs;

enable all students to assess critically the effective uses of technologies in information practice;

and assist students in understanding the roles of information technologies.

Competencies: Students who successfully complete the Master of Library and Information Science degree will be able to:

understand the interactions between societal factors and information environments;

evaluate, synthesize, and disseminate information.

employ theories, best practices, and assessment strategies to the range of information functions;

articulate the importance of intellectual freedom in information access and dissemination;

identify the significance of intellectual property, security, and privacy issues;

recognize the value of professional ethics, teaching, service, research, and continuing education to the advancement of the profession;

facilitate the communication between information resources and information users;

understand and apply multiple and emerging approaches to the organization of knowledge, published literatures, and records;

apply current management and leadership theories and practices;

demonstrate competencies in the latest information technologies;

and read, evaluate, and apply library and information science research to problems of professional practice.

University Library System

The Library System of the University includes the David Adamany Undergraduate Library, the Arthur Neef Law Library, the Purdy/ Kresge Library, the Science and Engineering Library, the Vera P. Shiffman Medical Library and its Learning Resource Center at the Eugene Applebaum College of Pharmacy and Health Sciences, and the Library Services Center at the Oakland Center in Farmington Hills.

Scholarly materials in the University Libraries total more than three million volumes, 18,000 journal subscriptions and a broad range of electronic resources, including e-books and electronic journals, many of which are available in full-text. All University libraries offer reference and research support, interlibrary loan, circulation and course reserve services, document delivery and library and information literacy programs. The libraries utilize and support the latest information technologies to provide state-of-the-art access to instructional and research materials. Students are welcomed at all library facilities. The libraries provide a range of study environments, both silent and interactive, including a 24-hour facility. Students are encouraged to identify study locations that best meet their studying needs and to consult with staff members whenever questions or needs arise.

The location of Wayne State University in the heart of Detroit's cultural center provides additional advantages to the library and information science student. Readily available to the University student is the main branch of the Detroit Public Library, the professional research library of the Detroit Institute of Arts, the Detroit Historical Museum, and the Charles H. Wright Museum of African American History.

Computer Laboratories: The School of Library and Information Science provides LIS students, faculty, and staff with a variety of computing resources that support the School's on-campus and online programs. The School offers students a variety of software products at no cost, including major productivity suites, powerful database software, diagramming tools, and current operating systems. The School provides free technical support to all of its students through several mediums, including email and over the phone. The School maintains a web server for student use, as well as provides access to synchronous online meeting tools for classes and student groups. LIS students have full access to the resources provided by University Computing and the University Library System, including public access computing labs, email and calendaring services, learning management systems, library databases, and full-text e-journals and other resources.

Undergraduate Program

Undergraduates interested in enrolling in library and information science courses should contact the School of Library and Information Science regarding admission requirements, sequence of courses, the curriculum, career planning, professional development, job opportunities, and Senior Rule requirements.

Graduate Degrees and Certificates

MASTER OF LIBRARY AND INFORMATION SCIENCE
(also offered as a joint degree with a Master of Arts in History)

SPECIALIST CERTIFICATE in Library and Information Science

GRADUATE CERTIFICATES in Archival Administration, Arts and MuseumLibrarianship, Information Management for Librarians, Public Library Services to Children and Young Adults, and Records and Information Management

School Directory

DEAN:
Sandra G. Yee: 3100 David Adamany Library; (313) 577-4020
Fax: (313) 577-5525; e-mail: aj0533@wayne.edu

DIRECTOR:
Stephen T. Bajjaly: 106 Kresge Library; (313) 577-0350
e-mail: dx1042@wayne.edu

GENERAL INFORMATION:
106 Kresge Library; (313) 577-1825
(877) 263-2665 (toll-free); Fax: (313) 577-7563;
e-mail: asklis@wayne.edu
Website: http://slis.wayne.edu/

ADMISSIONS AND RECRUITMENT:
Matt Fredericks: 106 Kresge Library; (313) 577-2446
e-mail: aj8416@wayne.edu

OFFICE ADMINISTRATION:
Yolanda Reader: 106 Kresge Library; (313) 577-2512
e-mail: af7735@wayne.edu

ACADEMIC SERVICES AND SUPPORT:
Jennifer Bondy: 106 Kresge Library; (313) 577-2523;
e-mail: aa1676@wayne.edu

SCHEDULING AND FACULTY LIAISON:
Megen Rehahn Drulia: 106 Kresge Library; (313) 577-8543
e-mail: ay6086@wayne.edu

STUDENT RECORDS:
Llauna Parker: 106 Kresge Library; (313) 577-1825
e-mail: ab1790@wayne.edu

E-LEARNING INSTRUCTIONAL SUPPORT:
David Foote: 106 Kresge Library; (313) 577-5328;
e-mail: bb0875@wayne.edu

OFF-CAMPUS PROGRAMS:
Stephen T. Bajjaly: 106 Kresge Library; (313) 577-0350

Faculty

Professors

Stephen T. Bajjaly, Genevieve M. Casey (Emerita), Robert P. Holley, Joseph J. Mika, Ronald R. Powell (Emeritus), Peter Spyers-Duran (Emeritus), Dian Walster

Associate Professors

Hermina Anghelescu, John Heinrichs, Gordon B. Neavill

Assistant Professors

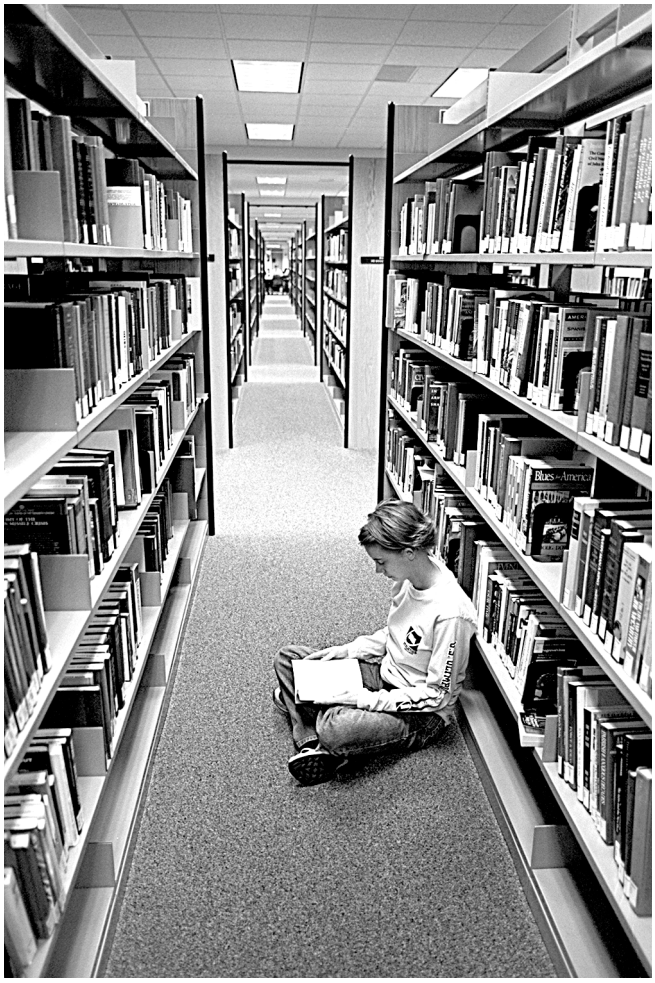
Joan Beaudoin, Scout Calvert, Maria E. Gonzalez, Kafi Kumasi, Jen Pecoskie, Joseph M. Turrini

Lecturer

Bin Li

Professional in Residence

Judith J. Field



Financial Aids and Awards

Financial Aid

Financial assistance may be available to new and continuing students in the School of Library and Information Science. Scholarships, graduate student assistantships, work-study opportunities and Wayne State University student loans are available. Please note that international students are not eligible for financial aid but may be eligible for School scholarships or assistantships Details of LIS scholarship opportunities are posted on the School of Library and Information Science web page at the online address: http://slis.wayne.edu/financialaid.php. For information on student loans, contact the WSU Office of Student Financial Aid.

Assistantships and Library Employment

The University Library System offers employment opportunities to library and information science students. These positions provide students with an excellent opportunity to gain practical skills while supplementing their income. Students are encouraged to take advantage of these learning opportunities. Assignments involve relevant work experience at the pre-professional level in a number of areas within the University Library System. These include the Purdy/Kresge Library (for business, education, humanities, and social sciences), the Science and Engineering Library, the Vera Shiffman Medical Library, the Arthur Neef Law Library, and the David Adamany Undergraduate Library. Contact the University Library System Dean's Office at 313-577-4085 for additional information.

Student Assistants help LIS faculty and staff in a variety of administrative duties and may be called upon to assist with faculty research. Student assistants are paid an hourly rate. Contact the School of Library and Information Science at 313-577-2512 for additional information.

Placement Services

The School of Library and Information Science offers a variety of career and placement services to meet the needs of its students. The School maintains an extensive listing of positions in libraries and information centers in the Detroit metropolitan area and throughout the United States and Canada. Job postings are available for viewing both electronically and physically in 106 Kresge Library. Individual career advising can be scheduled through the School's main office. The School also sponsors an annual job fair for LIS students providing on-campus interviews with prospective employers. In addition to these services, students may visit Wayne State University Career Planning and Placement Services for career and employment assistance.

Student Activities

Student Organizations of Library and Information Science (SOLIS): recognized by the university as the organization of students in the School of Library and Information Science. All LIS students automatically become members of the association. Meetings are held throughout the academic year.

American Library Association (ALA)-Student Chapter: Chartered by the ALA in 1988, the Chapter sponsors professional activities, promotes professionalism, and is open to all student ALA members.

Special Libraries Association (SLA)-Student Chapter: Chartered by the SLA in 1989, the Group promotes professionalism, sponsors professional activities in special librarianship, and is open to all student SLA members.

American Society for Information Science and Technology (ASIS&T)-Student Chapter: Chartered by ASIS&T, the Chapter sponsors meetings and events throughout the year which promote the organization's goals concerning information technology and its transfer. Membership is interdisciplinary and is open to all student ASIS&T members.

Society of American Archivists (SAA)-Student Chapter: Chartered by the SAA in 1996, the chapter serves as a means of introducing and integrating new archivists into the profession; to engage in professional activities; to promote communication among student members of the Society; to develop leaders of tomorrow's archival profession; and to attract new members into the Society.

Library and Information Science Alumni Association (LISAA): Library and Information Science graduates have established the Library and Information Science Alumni Association, which is active at the local level. Meetings are held frequently throughout the year covering a broad range of library interests, including public, school, academic, and special libraries. Alumni work with the School of Library and Information Science to sponsor alumni gatherings at professional conferences.

SCHOOL OF MEDICINE

DEAN: Robert M. Mentzer, Jr.

Foreword

The primary mission of the School of Medicine is to provide the Michigan community with medical and biotechnical resources, in the form of scientific knowledge and trained professionals, so as to improve the general health of the community.

The School offers educational programs leading to the following degrees: Doctor of Medicine, Doctor of Philosophy, Master of Science, and Master of Arts. Graduate education in clinical fields, post-doctoral study and continuing medical education programs are also offered within the School. Three hundred students are admitted annually to the M.D. program and approximately three hundred eighty students are enrolled in Ph.D. or Master's degree study in twenty-one program areas, predominantly in the basic medical sciences. More than nine hundred students are post-graduate trainees as medical residents, post-doctoral fellows, or fellows in twenty-nine different clinical research programs. A combined M.D./Ph.D. program recently has been established, which admits four highly qualified candidates each fall to participate in a rigorous seven to eight year program of study supported by scholarships from the university. Continuing education programs, seminars and colloquiums serve the faculty and students of the School as well as professionals throughout the community as a resource for current and ongoing developments in the health sciences. In addition to degree programs, the School offers courses in many basic medical science disciplines which are appropriate for students in other colleges and schools of the University. Non-degree enrollment in basic science courses at the graduate level is permitted on a limited basis for qualified students.

Research focusing on human health is the foundation of the activities in the School of Medicine. Fundamental and applied research in biomedical sciences, clinical specialties, and health care systems is directed by faculty of the School. Research programs at the School are supported by over 130 million dollars annually through research grants, contracts and gifts. Members of the faculty serve on scientific boards, panels, study groups and in professional leadership roles in health care regionally, nationally and internationally. The research facilities of the School are modern, well-equipped and continually growing with the pace of current technological advances.

The clinical services provided by the faculty, post-graduates and students in the School are rendered predominantly through the Detroit Medical Center institutions. Through a master affiliation between the Detroit Medical Center (DMC) and Wayne State University, the DMC serves as the University's academic health center. The DMC owns and operates seven hospitals, two nursing centers, and more than 100 outpatient facilities throughout southeastern Michigan, and is affiliated with the Barbara Ann Karmanos Cancer Hospital. The chairpersons of our departments or their designees serve as heads of departments or divisions within each of the Medical Center hospitals. In addition, the School conducts clinical training for its students through a consortium of teaching hospitals located throughout metropolitan Detroit. The School also perceives a responsibility to the population of the Detroit metropolitan region as a whole, both as an educational institution and as a supplier of physicians, who are highly-skilled providers of medical care.

History of the School

The School of Medicine of Wayne State University has been operating and granting degrees as a college of medicine since 1868. Originally called The Detroit Medical College, it was founded by Detroit native Dr. Theodore A. McGraw.

In 1879, a second medical college, the Michigan College of Medicine, opened in Detroit. The two colleges soon united to become the Detroit College of Medicine. In 1919, the Detroit College of Medicine and Surgery, as it was known then, became an official part of the Detroit Board of Education and thus an important unit in the rapidly developing Colleges of the City of Detroit. In 1933, the name of the Colleges of the City of Detroit changed to Wayne University in honor of the American Revolutionary War hero, General Anthony Wayne. Wayne University became a State institution in 1956.

The School of Medicine entered its second century with a period of substantial growth and the creation of a totally new campus in the Detroit Medical Center. With the opening of the Gordon H. Scott Hall of Basic Medical Sciences in 1971, the size of the entering class increased to 256 students. With a recent increase to 300 students, the Wayne State University School of Medicine is the largest single campus medical school in the country, and the fourth largest overall.

Wayne State University Medical School Facilities

Gordon H. Scott Hall is the main education building for the School of Medicine. It provides facilities for pre-clinical and basic science education, basic science departments, research laboratories for basic and clinical programs and the administrative offices of the School.

The Helen Vera Prentis Lande Medical Research Building houses research laboratories for clinical and basic science faculty.

The Vera P. Shiffman Medical Library, located adjacent to Scott Hall, houses a full medical reference library, as well as computer instruction facilities.

The Louis M. Elliman Clinical Research Building provides research laboratories, experimental surgical suites and specialized research facilities for the Departments of Internal Medicine, Surgery, Pediatrics, and Neurology.

The C. S. Mott Center for Human Growth and Development provides research space for programs in human reproduction, growth and development.

The Hudson-Webber Cancer Research Center is the translational facility research flagship facility for W.S.U. cancer research in partnership with the Barbara Ann Karmanos Cancer Hospital.

The School of Medicine is closely affiliated with the John D. Dingell Veterans' Administration Medical Center and the Henry Ford Health System. In addition to training at the DMC, medical students may train at eighteen other medical facilities as well as hundreds of local physician's offices.

The School is an active partner in nationally- and regionally-recognized research programs and has defined several areas of noted excellence, including cancer, women's, and children's medicine, cardiology and cardiovascular health, the neurosciences, and ophthalmology.

Detroit Medical Center Facilities

The Detroit Medical Center includes:

Children's Hospital of Michigan, which specializes in medical research and treatment for infants and children — in particular, pediatric hematology, oncology, cardiac surgery, and the treatment of renal disease; and houses a major poison control center;

Detroit Receiving Hospital and University Health Center, which specializes in the treatment of adult emergency/trauma cases, and includes special facilities for the care of emergency psychiatry, burn and spinal injuries; The University Health Center, connected to the hospital, is one of the country's largest multidisciplinary outpatient facilities, with twelve primary care service groups and more than twenty-five medical specialty services for ambulatory care;

Sinai-Grace Hospital, a full-service hospital which offers a wide range of outpatient services;

Harper Hospital, which specializes in oncology, cardiology, general surgery and a number of additional surgical specialties and subspecialities;

Huron Valley-Sinai Hospital, located in a northern suburb, is also operated by the DMC, and provides community hospital inpatient and outpatient services;

Hutzel Hospital, which includes among its areas of excellence: obstetrics, gynecology, gynecologic oncology, opthalmology, neonatology, perinatology, and orthopedic surgery;

Rehabilitation Institute of Michigan, which uses an interdisciplinary approach to help physically disabled persons reach their maximum level of independence;

Kresge Eye Institute of Wayne State University, housed in Hutzel Hospital, which is a major center for research and treatment of eye diseases;

Barbara Ann Karmanos Cancer Hospital, which provides comprehensive cancer prevention, screening, diagnostics, treatment and supportive care to more than 10,000 new patients annually, and is one of only thirty-two federally-designated comprehensive cancer centers in the country.

Gershenson Radiation Oncology Center, which provides technologically advanced radiation oncology services for all Medical Center facilities. Unique services include neutron therapy, Gamma Knife procedures, and total body irradiation.

Shiffman Medical Library — Medical Learning Resource Centers

Interim Director: Sandra Martin
Website: http://www.lib.wayne.edu/shiffman/

HOURS:
Monday - Thursday: 8:00 a.m. - 11:00 p.m.
Friday: 8:00 a.m. - 9:00 p.m.
Saturday: 9:00 a.m. - 5:00 p.m.
Sunday: 12:00 n. - 11:00 p.m.

The Shiffman Medical Library is the health sciences library for Wayne State University, including the School of Medicine, the Eugene Applebaum College of Pharmacy and Health Sciences, and the Detroit Medical Center. All W.S.U. students are welcome at this library, where many types of health information and assistance may be obtained; Internet-connected general computers are available to all. The W.S.U. OneCard can be used to enter the library automatically. All persons are welcome to use the library for library research, health information seeking, or educational purposes. Online and off-site access to the digital information resources of the Medical Library and all University libraries require the University AccessID. Call the Library Help Desk (313-577-1094) or consult the School Web page for instructions for accessing electronic biomedical information.

The School of Medicine and the Shiffman Medical Library offer the Medical Students' Study, which provides a twenty-four-hour, seven day per week quiet study location. Two learning resource centers with sixty-five networked computers and an array of computer-based instructional software are available in support of School curricula. A student advisory group solicits ideas and advice. Faculty place course materials on reserve at the Library's circulation desk, which also maintains copies of textbooks, software manuals, and media.

Office of Student Affairs

Assistant Dean for Student Affairs: Kertia Black, M.D.

This office provides academic, career, and personal counseling services; financial aid counseling; tutorial services; a special study skills consultation service; and support for student government and organization activities. The staff is committed to assisting students in every way possible as they work toward M.D. degrees. These programs are part of the School's commitment to provide each matriculant with support services so that the rigorous educational program can be presented within as comfortable an environment as possible.

SERVICES

Health Services: Acute health care for medical students is available in the Primary Care Center of the University Health Center.

Counseling: Appointments for academic, personal and career counseling can be arranged through the Office of Student Affairs.

Academic Resources Counseling: A specialist in techniques designed for the medical curriculum is available to all students seeking to improve and/or enhance their academic performance. Individual tutoring services are available as well as group review sessions.

Development and Alumni Affairs

Office: University Health Center 6G-12
Telephone: 313-577-1495; Alumni Telephone: 313-577-3587
Executive Director of Development and Alumni Affairs:
Douglas Czajkowski
Manager of Alumni Affairs: Lori H. Robitaille

The Development Office maintains a staff to support all aspects of fund raising from private sources. It is dedicated to helping meet current challenges and prepare for future opportunities in keeping with the spirit and traditions established by the School's founders over a century ago.

The Development Office's fund-raising programs are based on the premise that the personal and financial involvement of its alumni and friends enhance the quality and reputation of this School. Only through a broad base of volunteer assistance can the School of Medicine secure enough private gifts to supplement state assistance, tuition, and other means of support essential to providing an outstanding program of education and research.

Each year the *W.S.U. Medical Alumni Association* conducts a Clinic Day and Alumni Reunion where discussions by leading scientists and an awards program are held. The Association provides scholarships and awards which are announced at commencement. In addition, the School sponsors reunions at several medical specialty conventions around the country. Alumni and former residents (now numbering over 11,400, and house officers numbering 5,200) and their spouses are encouraged to maintain close ties with the School. The alumni office carries out the decisions and plans made by the W.S.U. Medical Alumni Association Board of Governors.

Office of Public Affairs and Publications

Office: University Health Center, 5D-6
Interim Director: Douglas Czajkowski

The Office of Public Affairs and Publications is responsible for the communications and public relations programs for the School. The Office publishes alumni and faculty newsletters, a research magazine, an annual report and a variety of collateral publications. In addition, the Office conducts media relations and promotional activities and serves as an information resource regarding faculty, student and alumni achievement related to research, clinical care, and medical education.

Undergraduate-level Service Courses in Physiology (PSL)

3220 Fundamentals of Human Physiology. Cr. 4

Prereq: high school physics, chemistry, or physical science elective; BIO 1030. Survey of fundamental physiological processes designed for upper-class undergraduate students. (Y)

3230 Discussions in Physiology. Cr. 1

Prereq. or coreq: PSL 3220. Discussion and questions about lecture material presented in PSL 3220. (Y)

Graduate Degrees and Certificates

There are two major types of academic programs in the School of Medicine — those leading to the M.D. degree and postgraduate medical education; and those programs in the basic medical sciences which offer Master of Science or Doctor of Philosophy degrees. For descriptions of all of these degree programs see the Wayne State University Graduate Bulletin.

DOCTOR OF MEDICINE

DOCTOR OF PHILOSOPHY with major in:
- *Anatomy and Cell Biology*
- *Biochemistry and Molecular Biology*
- *Cancer Biology*
- *Immunology and Microbiology*
- *Medical Physics*
- *Molecular and Cellular Toxicology*
- *Molecular Biology and Genetics*
- *Pathology*
- *Pharmacology*
- *Physiology*
- *Translational Neuroscience*

MASTER OF PUBLIC HEALTH

MASTER OF SCIENCE with major in:
- *Anatomy and Cell Biology*
- *Biochemistry and Molecular Biology*
- *Genetic Counseling*
- *Immunology and Microbiology*
- *Molecular Biology and Genetics*
- *Pharmacology*
- *Physiology*
- *Psychiatry*
- *Radiological Physics*

MASTER OF SCIENCE in Basic Medical Sciences

MASTER OF SCIENCE in Medical Research

GRADUATE CERTIFICATE in Clinical Translational Science

GRADUATE CERTIFICATE in Pediatric Global Health

GRADUATE CERTIFICATE in Public Health Research and Evaluation

School of Medicine Directory

Office of the Dean: 1241 Scott Hall; 313-577-1335

Administration and Finance: 1241 Scott Hall; 313-577-1448

Continuing Medical Education: 101 E. Alexandrine; 313-577-1453

Advancement: University Health Center 6G-12: 1128 Scott Hall; 313-577-1495
Development. & Alumni Affairs: University Health Center 6G-12; 313-577-1495
Public Affairs: University Health Center, 5D-6; 313-577-1429

Information: 1102 Scott Hall; 313-577-1460

M.D. Programs
Admissions: 1310 Scott Hall; 313-577-1466
Academic and Student Programs.: 1206 Scott Hall; 313-577-1450
Student Affairs: 1369 Scott Hall; 313-577-1463
Financial Aid: 1374 Scott Hall; 313-577-1039
Records and Registration: 1272 Scott Hall; 313-577-1470

Human Resources: 154 Lande Bldg; 313-577-1163

Ph.D. and M.S. Programs: 1128 Scott Hall; 313-577-1455

Research Administration: 1261 Scott Hall; 313-577-9553

Residency:

Graduate Medical Education: University Health Center 2B; 313-745-5146

Sponsored Programs Administration.: University Health Center; 9D; 313-577

Website: http://www.med.wayne.edu/

Mailing address for all offices: Wayne State University, School of Medicine, 540 East Canfield, Detroit, Michigan 48201

Doctor of Medicine

Educational Goals

The Wayne State University School of Medicine has established a comprehensive set of competencies and institutional learning objectives for the Doctor of Medicine program. This list formalizes the goals of a W.S.U. medical education, and defines what a graduating physician should know to practice medicine in the 21st century. There are six general competencies, including: 1) integration of the basic sciences in medicine; 2) integration of clinical knowledge and skills to patient care; 3) interpersonal and communication skills; 4) professionalism; 5) organizational and systems-based approaches to medicine, and; 6) life-long learning and self-improvement. Each of these competencies is further refined into specific educational objectives which are taught and measured through the medical school curriculum. For more detail about the competencies and educational objectives, go to the School of Medicine website at http://www.med.wayne.edu/educational_programs/form.asp.

Admission — M.D.

Assistant Dean for Admissions: Silas Norman, Jr., M.D.

The School of Medicine currently accepts 290 students for its entering class. The students are selected from a large number of applicants who apply through the American Medical College Application Service (AMCAS).

Selection Factors

The Committee on Admissions will select those applicants who, in its judgment, will make the best students and physicians. Consideration is given to the entire record, g.p.a., Medical College Admission Test (MCAT) scores, recommendations, and interview results as these reflect the applicant's personality, maturity, character, and suitability for medicine. Additionally, the Committee regards as desirable certain health care experiences such as volunteering or working in hospitals, hospices, nursing homes, or doctor's offices. The Committee also values experience in biomedical laboratory research. Following an initial screening process, students with competitive applications are selected to complete a secondary application. Special encouragement is given to candidates from medically underserved areas in Michigan.

As a state-supported school, the institution must give preference to Michigan residents; however, out-of-state applicants are encouraged to apply. An applicant's residency is determined by University regulations. Applicants must be a U.S. or Canadian citizen or U.S. permanent resident to be eligible for admission. Students whose educational backgrounds include work outside the United States must have completed two years of course work, including the prerequisite courses at a U.S. or Canadian college or university. Canadian citizens are considered non-resident for both admission and tuition purposes. Interviews are required but are scheduled only with those applicants who are given serious consideration. The Committee on Admissions meets on a weekly basis to evaluate candidates. Offers of acceptance will be made monthly during the application cycle. Students are urged to apply by November 1.

Entrance Requirements

The Medical College Admission Test (MCAT) is required, in addition to a baccalaureate degree or its equivalent. The MCAT should be taken during the year of application, preferably in the spring but no later than September of the year prior to desired start year. Required courses for medical school admission are:

General biology or zoology (with lab): 1 year
Inorganic chemistry (with lab): 1 year
Organic chemistry (with lab): 1 year
General physics (with lab): 1 year
English: 1 year

Besides a strong preparation in the basic sciences, a broad educational background in a liberal-arts oriented program is desirable. Applicants are encouraged to select subjects that will contribute substantially to a broad cultural background.

The School of Medicine curriculum employs a combination of traditional and newer approaches to the teaching of medical students. It uses traditional lectures, small group and panel discussions, computer-assisted instruction, and multimedia in its teaching program.

YEAR 1 begins with an introductory clinical medicine course which runs through all four years, including introduction to the patient, human sexuality, medical interviewing, physical diagnosis, public health and prevention, and evidence-based medicine. Year 1 is organized around the disciplines of structure (anatomy, histology, and embryology), and function (biochemistry, physiology, genetics, and nutrition), and ends with an integrated neuroscience course

YEAR 2 is a completely integrated year focusing on pathophysiology, including immunology/microbiology, and pharmacology.

YEAR 3 is a series of clinical clerkships including medicine, surgery, pediatrics, family medicine, psychiatry, neurology, and obstetrics/gynecology. During year 3 all students have a six-month continuity clerkship.

YEAR 4 has three required courses including, emergency medicine, a sub-internship, and an ambulatory block month. Additionally, students must take a minimum of five elective months.

Application and Acceptance Policies

The School of Medicine adheres to the acceptance procedures of the Association of American Medical Colleges, including the 'Early Decision Plan.' Admission procedures of this School are:

1. AMCAS (American Medical College Application Services) application must be filed between June 1 and December 15 of the year preceding anticipated matriculation.

2. Applicants must respond to acceptance offer within three weeks of the offer.

3. Payment of a $50.00 deposit is required upon acceptance by the student of a place in the first-year class. The deposit will be credited toward the initial tuition payment.

Admission with Advanced Standing

Students from Liason Committee on Medical Education (LCME) approved medical schools may be admitted with advanced standing to the third year only, subject to the number of vacancies which may exist in the third year. Application for advanced standing should be made not later than July 15. The following requirements must be met:

1. An applicant must be matriculated as a student in an LCME accredited United States or Canadian medical school for a period of time equal to that spent by the class in which he/she seeks entrance and must have completed courses equivalent to those required of that class.

2. The applicant must file a completed application form available on our website and must present official transcripts from each school attended showing that he/she meets, in full, the entrance requirements for admission to this School.

3. The applicant must be a student in good standing at the medical school from which he/she is transferring. A letter of support from the dean of that school is required.

4. The applicant must take and pass the United States Medical Licensing Examination (USMLE), Step I, for consideration to transfer with advanced standing into Year Three.

COLLEGE OF NURSING

DEAN: Barbara K. Redman

Foreword

The Wayne State University College of Nursing is regionally, nationally, and internationally recognized for educating graduate and undergraduate students as practitioners and scholars in the nursing profession. The College is committed to research and scholarly activity which contributes to the discipline of nursing and excels in the development, application, and dissemination of such knowledge to promote human health and well-being.

Nursing is an academic discipline and a profession. As a discipline, nursing develops knowledge concerning human beings, their care, health, and the environment. Concepts derived from such research order the discipline and profession of nursing as well as give identity to nursing practice and direct inquiry and theory development. As a profession, nursing creatively uses knowledge in response to the health care needs of society. Both of these functions are enhanced by the scholarly environment of the University and its multicultural urban setting as a context for professional nursing practice.

Consistent with this view of the nursing profession, the College supports the importance of the liberal arts, humanities, and the sciences in nursing education. The faculty believes that programs designed for the preparation of nurses must be composed of the intellectual, social, cultural, and technical components of liberal and professional education that are available to students within an institution of higher learning. The faculty also affirms the necessity and value of clinical practice within a professional nursing program. Experience within a variety of clinical and vulnerable populations is one of the primary modes for the development of nursing practice competencies.

Learners from diverse backgrounds enter the College to begin or continue their education and thereby add to the richness of this learning environment. The faculty supports the right of students to question, challenge and debate within the context of inquiry as an essential ingredient to their development. Continuing evaluation on the part of the students and the faculty is essential to advancing nursing knowledge and sustaining the integrity of the program.

The faculty of the College of Nursing, as members of the academic community, recognizes that its professional functions extend beyond contributions to formal teaching. Research, practice, and community service are important expectations of the faculty. The faculty views as essential, academic freedom, shared governance, opportunity to develop knowledge, and responsibility to incorporate new knowledge into teaching and nursing practice. The faculty assumes responsibility for enhancing the image of the College of Nursing and the University locally, nationally, and internationally through various avenues including research, scholarship, practice, consultation, and participatory decision making.

Accreditation

The baccalaureate program is approved by the Michigan State Board of Nursing, and graduates are admitted to the licensing examination for professional nurses in the State of Michigan. The baccalaureate and master's programs of the College are accredited by the Commission for Collegiate Nursing Education (CCNE).

Degree Programs

BACHELOR OF SCIENCE in Nursing

MASTER OF SCIENCE in Nursing — with a clinical major in:

- Adult Acute Care Nursing
  - —Adult Critical Care Nursing Option
- Adult Primary Care Nursing
  - —Gerontological Nurse Practitioner Option
- Advanced Nursing Practice with Women, Neonates and Children
  - — Certified Nurse-Midwife
  - — Neonatal Nurse Practitioner
  - — Pediatric Nurse Practitioner- Primary Care
  - — Pediatric Nurse Practitioner- Acute Care
  - — Women's Health Nurse Practitioner
- Community Health Nursing
- Psychiatric Mental Health Advanced Practice
  - — Psychiatric Mental Health Nurse Practitioner Option

GRADUATE CERTIFICATE in Nurse-Midwifery

GRADUATE CERTIFICATE in Nursing Education

GRADUATE CERTIFICATE in Pediatric Primary Care Nursing

GRADUATE CERTIFIATE in Pediatric Acute Care Nursing

GRADUATE CERTIFICATE in Psychiatric Mental Health Nurse Practitioner

GRADUATE CERTIFICATE in Transcultural Nursing

GRADUATE CERTIFICATE in Women's Health

DOCTOR OF PHILOSOPHY in Nursing

Administration and Faculty

Dean: Barbara Redman
Associate Dean, Academic and Clinical Affairs: Stephen Cavanagh
Associate Dean, Research: Nancy Artinian
Assistant Dean, Adult Health: Jean Davis
Assistant Dean, Family, Community, and Mental Health: Linda Lewandowski
Assistant Dean, Office of Student Affairs: Cynthia Redwine
Academic Staff: Robert Hellar, Felicia Grace, Dennis Ross

Professors

Nancy Artinian, Stephen Cavanagh, Judith Floyd, Helene Krouse, Barbara Pieper, Barbara Redman, Virginia Rice, Thomas Templin (research), Hossein Yarandi

Associate Professors

Ramona Benkert, Jean Davis, Patrica Jarosz, Linda Lewandowski, Judith Fry-McComish, Rosalind Peters, Stephanie Schim, April Vallerand, Deborah Walker (clinical), Feleta Wilson

Assistant Professors

Joan Bickes (clinical), Lorraine Buis, Jessie Casida, Lisa Chiodo, Ann Collins (clinical), Rhonda Connor-Warren, Mary Kathryn Cresci, Margaret Falahee (clinical), Diane Featherston (clinical), Judith Fouladbakhsh, Carolyn Herrington, Nancy George (clinical), Wanda Gibson-Scipio (clinical), Janet Harden (clinical), Kay Klymko (clinical), Mary McCoy (clinical), Samira Moughrabi, Cheryl Nordstrom, Leanne Nantais-Smith (clinical), Janna Roop (clinical), Patricia Thornburg (clinical), Horng-Shiuann,Wu, Rachel Zachariah

Clinical Instructors

Joanne Ashare, Katherine Balint, Hedi Bednarz, Suzanne Billingsley, Darlene Blair, Susan Bushinski, Ruth Chaplen, Sheryl Czopek, Wanda Edwards, Tamiah Edwards, Kathryn Keves-Foster, Kathleen Kowalewski, Margie Miller, Vivian Murphy, Teofanes Natavio, Karen Olsen, Jessica Parker, Jessica Pastor, Kimberly Shmina, LaVonne Shpakoff, Susan Szczesny, Sue Webb, Mary White Barbara Williams, Kathleen Zimnicki, Mary Zugcic

Senior Lecturer

Barbara Williams

College Directory

Dean: 112 Cohn; 313-577-4070
Associate Dean for Academic & Clinical Affairs: 230 Cohn
313-577-4138 and: 800-544-3890
Associate Dean for Research: 319 Cohn; 313-577-4135
Assistant Dean, Adult Health: 376 Cohn; 313-577-4144
Assistant Dean, Family, Community & Mental Health
242 Cohn; 313-577-4119

Office of Student Affairs: 10 Cohn; 313-577-4082 and 888-837-0847
Center for Health Research: 315 Cohn; 313-577-4134
Administrative Manager: 100 Cohn; 313-577-4086

Mailing address for all offices: College of Nursing, Wayne State University, 5557 Cass Avenue, Detroit, Michigan 48202

Web: http://www.nursing.wayne.edu

Bachelor of Science in Nursing

The undergraduate nursing program is designed to prepare students who, upon graduation, will begin the practice of professional nursing. The program leads to the degree of Bachelor of Science in Nursing (B.S.N.) and provides a basis for graduate study in this discipline. The curriculum consists of courses in both general and professional education and is offered with different options oriented to the varying admissions qualifications of the applicants: Traditional, Second Career/Second Degree, RN-B.S.N. and RN-M.S.N. Programs.

UNDERGRADUATE ADMISSION

B.S.N. Traditional Admission

Pre-Nursing Admission: Students in this category are presumed to be entering professional nursing for the first time. They are admitted through University Undergraduate Admissions (see page 24) and complete a preprofessional nursing program offered through the College of Liberal Arts and Sciences.

Subsequent application to the Traditional Bachelor of Science in Nursing Program requires completion of a minimum of thirty credits and all prerequisites (see below). All courses must be completed with a grade of 'C' or better and candidates must have a minimum 2.5 grade point average in prerequisite courses to be eligible for consideration. A minimum grade point average of 2.5 in science prerequisites is also required. If any professional nursing courses have been taken, grades earned in those courses will be taken into account. Admission to the program is highly competitive; completion of prerequisites with minimum requirements does not guarantee admission.

Prerequisites: The following are prerequisite requirements for admission consideration to the Traditional Professional Program in the College of Nursing. (All science courses marked with an asterisk (*) must have a lab components.)

BIO 1510* -- (LS) Basic Life Mechanisms: Cr. 4
BIO 2200* -- (LS) Introductory Microbiology: Cr. 4
BIO 2870* -- Anatomy & Physiology: Cr. 5
CHM 1020* -- (PS) Survey of General Chemistry: Cr. 4
CHM 1030* -- Survey of Organic/Biochemistry: Cr. 4
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
PSY 1010 -- (LS) Introductory Psychology: Cr. 4
PSY 2400 -- Developmental Psychology: Cr. 4
SOC 2000 or ANT 2100
-- (SS) Understanding Human Society: Cr. 3
-- (SS) Introduction to Anthropology: Cr. 3-4

Mathematics (MC): Students must have satisfied Math Competency (by exam or an approved course)

B.S.N. Second Career/Second Degree Program

Applicants in this category are eligible to apply for entry into Second Career/Second Degree Bachelor of Science in Nursing Program if they have completed a bachelor's degree in an area other than nursing and have completed the prerequisites (see below). Applicants must have completed all prerequisite courses with a grade of 'C' or better and candidates must have a minimum 2.5 grade point average in prerequisite courses to be eligible for consideration. A minimum grade point average of 2.5. in the science prerequisites is also required. If any professional nursing have been taken, grades earned in those courses will be taken into account. Admission to the program is highly competitive; completion of prerequisites with minimum requirements does not guarantee admission.

Prerequisites: The following are prerequisite requirements for admission consideration to the Second Career/Second Degree Program in the College of Nursing. This set of prerequisite courses also

applies to students with a bachelor's degree who are interested in pursuing the Traditional (three-year) program rather than the Second Degree Program. (All science courses marked with and asterisk (*) must have a lab component.)

BIO 1510* -- (LS) Basic Life Mechanisms: Cr. 4
BIO 2200* -- (LS) Introductory Microbiology: Cr. 4
BIO 2870* -- Anatomy & Physiology: Cr. 5
CHM 1020* -- (PS) Survey of General Chemistry: Cr. 4
CHM 1030* -- Survey of Organic/Biochemistry: Cr. 4
NFS 2030 -- (LS) Nutrition & Health: Cr. 3
PSY 2400 -- Developmental Psychology: Cr: 4
Sociology Course
Anthropology or any (FC) Foreign Culture Course
Humanities: any (PL) Philosophy & Letters course
or any (VP) Visual and Performing Arts course

RN-B.S.N. Completion Program

RN-B.S.N. PROGRAM: (Admissions moratorium in effect.) The RN-B.S.N. Program is geared toward Michigan-licensed registered nurses (RNs) who have completed diploma or associate degree programs and wish to continue their professional education. Progression into senior year professional nursing courses is granted after completion of all prerequisite requirements. The College of Nursing is no longer admitting students to this program. Students currently in the program are encouraged to expeditiously complete their requirements.

RN-M.S.N. Completion Program

RN-M.S.N. PROGRAM: (Admissions moratorium in effect.) The RN-M.S.N. Program is geared toward students who possess a BSN , is a Michigan-licensed registered nurses, have a minimum ,. of 3.0, and are ultimately interested in preparing for advanced nursing practice at the master's level. Completion of this program completes a B.S.N. and allows students to take a maximum of fifteen graduate credits, which can then be applied toward a graduate degree in nursing. Upon completion of all RN-B.S.N. requirements, students, if admitted to a graduate program, complete the remaining M.S.N. requirements. The College of Nursing is no longer admitting to this program. Students currently in the program are encouraged to expeditiously complete program requirements.

Progression into senior year professional nursing courses is granted after completion of all prerequisite requirements. Students must have a grade point average of at least 3.0 and meet with the graduate program director of their major interest prior to taking any graduate level course.

M.S.N. Admission: Admission to the M.S.N. program involves a separate application process and students must meet all College of Nursing and Graduate School admission requirements for graduate study (see Wayne State University Graduate Bulletin for details). This process begins at the start of senior level professional course work. Completion of the Bachelor of Science in Nursing does not automatically guarantee admission to graduate study in the College of Nursing.

Application

Application to the Bachelor of Science in Nursing programs is a dual application process.

Step I - Application to Wayne State University: Applicants must apply to the Office of Undergraduate Admissions and submit all required documentation and materials to that office (including the application fee, and official transcripts from all post-secondary institutions attended). Applicants must meet all the general requirements for undergraduate admission to the University (see page 24).

Step II - Application to the College of Nursing: Applicants must submit to the College of Nursing Office of Student Affairs the on-line Application for Admission to the Bachelor of Science in Nursing Program, official copies of all transcripts from all post-secondary institutions attended, and any other required documentation (test scores, etc.) to:

http://www.nursing.wayne.edu/Students/Prospective%20students/apply.html

Application Fees: All Traditional Bachelor of Science in Nursing and Second Career/Second Degree Bachelor of Science in Nursing applicants must submit a $50.00 non-refundable application fee. Checks or money orders may be made out to WSU College of Nursing-Application Fee. The undergraduate University Admissions application fee is $30. Checks should be made payable to Wayne State University and submitted to University Admissions.

Application Deadlines: All admission materials listed above must be received in the appropriate offices by the program application deadline dates listed below:

TRADITIONAL PROGRAM:

Fall Admission: March 31

SECOND CAREER/SECOND DEGREE PROGRAM:

Fall Admission: March 31

Evidence of completion of all prerequisites must be received by the College of Nursing Office of Student Affairs no later than June 1.

All application materials must be received by the deadline date to be considered for admission.

Non-native English-speaking candidates must submit Internet-Based Test of English as a Foreign Language (TOEFL) scores to the College of Nursing; a minimum total score of 101 is required, with minimum scores of 25 in listening, 25 in reading, 25 in writing and 26 in speaking.

Admission Criteria

All applications are reviewed to determine the capability of applicants to complete a Bachelor of Science in Nursing. Admission is highly competitive and is based primarily on academic performance, especially grades earned in the prerequisite courses with an emphasis on the science prerequisites. Transcripts are reviewed for patterns of withdrawals and repeated courses. Prerequisite repeats are taken into account and can make an applicant less competitive. Transcripts are also reviewed for full-time scholarly achievement and promise of success in a rigorous science-based curriculum. Consideration is given to students who took all prerequisites or all science prerequisites at Wayne State University. An interview may also be possible.

Readmission

Nursing students whose attendance in the nursing clinical sequence of the curriculum has been interrupted for more than one academic year must apply for readmission to the College of Nursing. Contact the Office of Student Affairs for application materials and deadline dates. There is no assurance that a student can be readmitted once the student withdraws from the program or does not progress in the program within the specified time limitations.

Enrollment in Professional Nursing Courses

1. Admission to the College of Nursing and successful completion of all prerequisites/corequisites identified for nursing courses.

2. Health Clearance: Students admitted to the College are required to submit a *Health Clearance Form* to the Office of Student Affairs. The health clearance must indicate that the student is in good health, free from communicable disease, and able to engage in a rigorous professional program with extensive clinical experiences. Health requirements are specified on the clearance form; some must be repeated yearly. Verification of compliance must be supplied annually to the Office of Student Affairs prior to August 15. Throughout the program students must maintain a level of health consistent with

meeting the objectives of the curriculum and practicing nursing safely. If a health problem occurs during a student's educational program, the faculty member responsible for clinical practice will assess the student's ability to continue in the program and will make recommendations for action to the Associate Dean for Academic and Clinical Affairs. The University and the College reserve the right to refuse or cancel a student's admission or to restrict his/her activities in the College if the health status indicates such action is warranted for safeguarding the patient, the student, other students, or the University.

3. Liability Insurance: The minimum amount of malpractice liability insurance acceptable is $1,000,000/$6,000,000 to cover each year of the student's nursing studies. Students must present a copy of their insurance policy from an approved insurer to the Office of Student Affairs no later than August 15 of each year. This copy must show the amount of coverage, the expiration date, and the student's name. Students may not participate in clinical courses without a copy of this policy being on file.

4. BLS for Health Care Providers Certification: All students must have BLS (Basic Life Support) for Health Care Providers (BLS-HCP) Certification or the equivalent for entry to clinical courses. It must be updated each year and students must have current, updated certification on file in the Office of Student Affairs by August 15 of each year.

5. Criminal Background and Drug Testing History: Students admitted to the College of Nursing are required to have a Criminal Background Investigation and a ten panel drug test completed prior to beginning nursing courses. The Criminal Background Investigation is intended to discover if the applicant has had a felony conviction in the fifteen years prior to application, or a conviction of a misdemeanor involving abuse, neglect, assault, battery, or criminal sexual conduct in the ten years prior to application. Conviction of either the felony or misdemeanor as outlined prohibits the student from participation in clinical courses.

6. Alliance for Clinical Education (ACE): All undergraduate students are required to participate in the Michigan Health Alliance ACE program for clinical education and placement. Annual fees for ACE are $50.00 per academic year. Health status reports, liability insurance, BCLS, criminal background checks and drug screens are tracked though the ACE and provided to participating clinical institutions. As part of the ACE program, students complete mandatory HIPPA, OSHA and bloodborne pathogen training.

Faculty are directed to deny students access to clinical experiences if the student has not met clinical clearance requirements.

Re-Entry into the Clinical Sequence of the Nursing Curriculum

Students whose progression in the clinical sequence of the program is interrupted due to unsatisfactory completion of prerequisite course work in a clinical course or to interruption in attendance in the program, must apply for re-entry into the clinical sequence. Contact the Office of Student Affairs for re-entry application materials. Students must file this application prior to March 31 for Fall Term re-entry, or August 31 for Winter Term re-entry. Application for re-entry will be reviewed by the College's Scholastic Policy and Admissions (SPA) Committee. Re-entry decisions are based on the student's academic record in the program. Consideration is given to grades in prerequisite and nursing courses, length of time absent from the program, and potential for successful completion of the program. Re-entry into the clinical sequence and into the program option (traditional or second career/second degree) in which the student was previously enrolled is not guaranteed.

Registration

All students are required to register for required classes prior to attending classes. Registration procedures and schedules published in the official University Schedule of Classes, available online at: http://www.classschedule.wayne.edu. The usual full-time undergraduate program is 12-17 credits per term.

Clinical locations assignments are assigned through the Office of Student Affairs and the Alliance of Clinical Education. Students are notified of assignments prior to registration.

DEGREE REQUIREMENTS

Candidates for the Bachelor of Science in Nursing degree must complete 126 semester credits in course work including satisfaction of the University General Education Requirements (see page 18) and in accordance with the academic procedures of the University and the College; see sections beginning on pages 36 and 436.

Residency: The last thirty credits of the degree must be taken at Wayne State University.

Grade Point Average: Students must maintain a grade point average of at least 2.0 in total residence credit and in all nursing courses.

Curriculum and Program Requirements: A student must complete all curriculum and program requirements, remove any marks of 'I' or 'Y', and be recommended by the faculty for the B.S.N. degree. Student must complete the required minimum number of credits, elect courses in the proper sequence in the appropriate curriculum (as shown below), and satisfy all course prerequisites or corequisites

Professional and General Education Requirements for the Traditional Program

The following curriculum outlines the minimum of 126 semester credits required for the Bachelor of Science in Nursing, including sixty-one credits in nursing major courses. The curriculum below is for informational purposes and is subject to change by the College of Nursing

FRESHMAN YEAR

First Semester (Fall)

BIO 1510 -- (LS) Basic Life Mechanisms (Laboratory): Cr. 4
CHM 1020 -- (PS) Survey of General Chemistry (Laboratory): Cr. 4
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
PSY 1010 -- (LS) Introductory Psychology: Cr. 4
Math Competency (MC): Cr. 0-3
Total Credits: 16-19

Second Semester (Winter)

BIO 2200 -- (LS) Introductory Microbiology (Laboratory): Cr. 4
BIO 2870 -- Anatomy and Physiology (Laboratory): Cr. 5
CHM 1030 -- Survey of Organic/Biochemistry: Cr. 4
PSY 2400 -- Developmental Psychology: Cr. 4
SOC 2000 or ANT 2100
-- (SS) Understanding Human Society: Cr. 3
-- (SS) Introduction to Anthropology: Cr. 3
Mathematics Competency (MC) (if needed): Cr: 0-3
Total Credits: 20-23

SOPHOMORE YEAR

First Semester (Fall)

NUR 2010 -- Health Assessment: History Taking & Physical Examination: Cr. 3
NUR 2030 -- Pathophysiology Related to Nursing Practice: Cr. 3
NUR 2060 -- Nursing Implications of Drug Administration: Cr. 3
NUR 2995 -- Special Topics in Foundations of Professional Nursing: Cr. 3
Philosophy and Letters (PL) (PHI 1100 or 2320 recommended)): Cr. 3
Total Credits: 15

Second Semester (Winter)

NUR 2050 -- Supportive Measures for Basic Care Needs: Cr. 5
NFS 2030 -- (LS) Nutrition and Health: Cr. 3
Computer Literacy (CL) Competency (NUR 1110 recommended): Cr. 0-2
Oral Communication (OC) Competency: Cr. 0-2
Philosophy and Letters (PL): Cr. 3
Total Credits: 8-17

JUNIOR YEAR

First Semester (Fall)

NUR 3010 -- Restorative Care of Adults and Elders with Acute Illness: Cr. 5
NUR 3015 -- Restorative Care: Psychiatric Mental Health Nursing: Life Span: Cr. 5
ENG 3010 -- (IC) Intermediate Writing: Cr. 3
Critical Thinking (CT) Competency: Cr. 0-3
Total Credits: 16

Second Semester (Winter)

NUR 3020 -- Restorative Care of Adults & Elders with Chronic Illness: Cr. 5
NUR 3400 -- Introduction to Nursing Research: Cr. 2
Foreign Culture (FC) (NUR 4800 recommended): Cr. 3
American Society & Institutions (AI): Cr. 3
Visual and Performing Arts (VP): Cr. 3
Total Credits: 16

SENIOR YEAR

First Semester (Fall)

NUR 4010 -- Integrative Care of Children and their Families: Cr. 5
NUR 4020 -- Integrative Care of the Perinatal Family: Cr. 5
NUR 4040 -- Leadership and Management in Nursing Practice: Cr. 4

Total Credits: 17

Second Semester (Winter)

NUR 4050 -- Transition to Professional Nursing Practice: Cr. 5
NUR 4060 -- Synthesis of Core Nursing Knowledge: Cr. 2
NUR 4120 -- (WI) Community Focused Nursing Practice: Cr. 6
Historical Studies (HS): Cr. 3
Total Credits: 16

Total B.S.N. Credits: 126

Professional Requirements for the Second Career/Second Degree Program

In addition to the pre-nursing requirements for the Second Career/ Second Degree Program (see page 431) the following professional educational courses are required, in addition to a minimum of sixty-five credits in prior baccalaureate and pre-nursing requirements:

First Semester (Fall)

NUR 2010 -- Health Assessment: History Taking & Physical Examination: Cr. 3
NUR 2030 -- Pathophysiology Related to Nursing Practice: Cr. 3
NUR 2050 -- Supportive Measures for Basic Care Needs: Cr. 5
NUR 2060 -- Nursing Implications of Drug Administration: Cr. 3
NUR 2995 -- Special Topics in Foundations of Professional Nursing: Cr. 3
Total Credits: 17

Second Semester (Winter)

NUR 3010 -- Restorative Care of Adults and Elders With Acute Illness: Cr. 5
NUR 3015 -- Restorative Care: Psychiatric Mental Health Nursing Across the Life Span: Cr. 5
NUR 3020 -- Restorative Care of Adults and Elders With Chronic Illness: Cr. 5
Total Credits: 15

Third Semester (Spring/Summer)

NUR 3400 -- Introduction to Nursing Research: Cr. 2
NUR 4010 -- Integrative Care of Children & their Families: Cr. 5
NUR 4020 -- Integrative Care of the Perinatal Family: Cr. 5
Total Credits: 12

Fourth Semester (Fall)

NUR 4040 -- Leadership and Management in Nursing Practice: Cr. 4
NUR 4050 -- Transition to Professional Nursing Practice: Cr. 5
NUR 4060 -- Synthesis of Core Nursing Issues: Cr. 2
NUR 4120 -- (WI) Community-Focused Nursing Practice: Cr. 6
Total Credits: 17

Total Nursing Credits: 61
Total Non-Nursing Credits: 65
Total B.S.N. Credits: 126

RN to B.S.N. Completion Program

Requirements: All students must achieve a grade of 'C' or better in all courses cited below. A cumulative grade point average of 2.00 or above must be maintained. These courses may not be taken for Passed-Not Passed grades.

Admission to Senior Standing: All RN students must file an Application for Admission to Senior Standing by the appropriate deadline. Upon admission to Senior Standing, RN students will receive thirty-three credits for previous nursing education validated by a current license to practice in the state of Michigan.

Completion of the following courses is required for admission to Senior Standing

BIO 1510 -- (LS) Basic Life Mechanisms (Laboratory): Cr. 4
BIO 2200 -- (LS) Introductory Microbiology (Laboratory): Cr. 4
BIO 2870 -- Anatomy and Physiology (Laboratory): Cr. 5
CHM 1020 -- (PS) Survey of General Chemistry (Laboratory): Cr. 4
CHM 1030 -- Survey of Organic/Biochemistry (Laboratory): Cr. 4
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
ENG 3010 -- (IC) Intermediate Writing: Cr. 3
NUR 2010 -- Health Assessment: History Taking & Physical Examination: Cr. 3
NUR 2070 -- Professional Nursing in the Future: Health Promotion: Cr. 3
NUR 3400 -- Introduction to Nursing Research: Cr. 2
PSY 1010 -- (LS) Introductory Psychology: Cr. 4
PSY 2400 -- Developmental Psychology: Cr. 4
SOC 2000 or ANT 2100
-- (SS) Understanding Human Society: Cr. 3
-- (SS) Introduction to Anthropology: Cr. 3

The student must also demonstrate satisfactory completion of the University General Education competency Requirements (see page 18), including Mathematics Competency (MC), Critical Thinking (CT), Computer Literacy (CL), Oral Communication (OC).

RN - B.S.N. PROGRAM — SENIOR LEVEL PROFESSIONAL AND GENERAL EDUCATION REQUIREMENTS

In addition to the prerequisites for admission to Senior Standing listed above, the following upper-level professional nursing courses are required. The remaining General Education Requirements and liberal arts credits (if needed) comprise the balance of the 126 credits required for the Bachelor of Science in Nursing; these courses may be taken prior to the upper-level professional work. The last thirty credits in course work must be taken at Wayne State University.

NUR 4120 -- (WI) Community Focused Nursing Practice: Cr. 6
NUR 4040 -- Leadership and Management in Nursing Practice: Cr. 4
NUR 4300 -- Nursing Informatics: Cr. 3
NUR 4800 -- (FC) Transcultral Health Through the Life Cycle: Cr. 3

Historical Studies (HS): Cr. 3
Visual and Performing Arts (VP): Cr. 3
Philosophy and Letters (PL): Cr. 3
American Society and Institutions (AI): Cr. 3

RN to M.S.N. Completion Program

All students must achieve grades of 'C' or better in all courses cited below. These courses may NOT be taken for Passed/Not Passed grades. A cumulative University grade point average of 2.00 or above must be maintained.

ADMISSION TO SENIOR STANDING

All RN students must file an Application for Admission to Senior Standing by the appropriate deadline. The application is available in the Office of Student Affairs. Upon admission to Senior Standing, RN students will receive thirty-three credits for previous nursing education validated by a current license to practice in the state of Michigan.

Completion of the following courses is required for admission to Senior Standing:

BIO 1510 -- (LS) Basic Life Mechanisms (Laboratory): Cr. 4
BIO 2200 -- (LS) Introductory Microbiology (Laboratory): Cr. 4
BIO 2870 -- Anatomy and Physiology (Laboratory): Cr. 5
CHM 1020 -- (PS) Survey of General Chemistry (Laboratory): Cr. 4
CHM 1030 -- Survey of Organic/Biochemistry (Laboratory): Cr. 4
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
ENG 3010 -- (IC) Intermediate Writing: Cr. 3
NUR 2010 -- Health Assessment: History Taking and Physical Examination: Cr. 3
NUR 3400 -- Introduction to Nursing Research: Cr. 2
PSY 1010 -- (LS) Introductory Psychology: Cr. 4
PSY 2400 -- Developmental Psychology: Cr. 4
SOC 2000 or ANT 2100
-- (SS) Understanding Human Society: Cr. 3
-- (SS) Introduction to Anthropology: Cr. 3

The student must also demonstrate satisfactory completion of the University General Education Requirements (see page 18) including Mathematics Competency (MC), Critical Thinking (CT), Computer Literacy (CL), Oral Communication (OC).

RN to M.S.N. PROGRAM — SENIOR/GRADUATE LEVEL PROFESSIONAL AND GENERAL EDUCATION REQUIREMENTS

In addition to the prerequisites for progression into senior year (listed above), the following senior level professional nursing courses are required. The remaining General Education requirements and liberal arts credits (if needed) comprise the balance of the 126 credits required for the Bachelor of Science in Nursing; these courses may be taken prior to the senior level professional courses. The last 30 semester credits of course work must be completed at Wayne State University.

NUR 4040 -- Leadership and Management in Nursing Practice: Cr. 4
NUR 4120 -- (WI) Community Focused Nursing Practice: Cr. 6

Foreign Culture (FC): Cr. 3
Historical Studies (HS): Cr. 3
Visual and Performing Arts (VP): Cr. 3
Philosophy and Letters (PL): Cr. 3
American Society and Institutions (AI): Cr. 3

RN to M.S.N. Declaration of Graduate Major: Students in the RN to M.S.N. Program must meet with the graduate director of their chosen program prior to registering for any graduate level courses. Students should begin the application process for admission to the Graduate School and the Master of Science in Nursing program during the last year of their undergraduate program. **Admission to graduate study is neither automatic nor guaranteed. Separate application for graduate study must be submitted by the established deadline date.**

GRADUATE LEVEL COURSE OPTIONS: Three of the following:

NUR 6510 -- Health Economics, Policy, and Professional Issues for APNs: Cr. 4
NUR 7015 -- Research: Evidence Based Advanced Practice I: Cr.3
NUR 7018 -- Research: Evidence Based Advanced Practice II: Cr.3
NUR 7105 -- Theoretical Foundations: Advanced Practice: Cr. 3

In all graduate level courses taken in the RN to M.S.N. Completion Program, a grade of 'B' or better must be achieved for these courses to be transferable to the graduate plan of study. A maximum of fifteen credits of the graduate level courses above may be applied toward the Master of Science in Nursing for students admitted to graduate study in the College of Nursing. Once admitted to the M.S.N. program, completion of degree requirements will require additional credits in graduate course work, depending on the nursing major. Graduate majors include: Adult Acute and Critical Care Nursing, Adult Primary Care Nursing/Gerontological Nurse Practitioner, Psychiatric Mental Health Nurse Practitioner, Community Health Nursing, and Advanced Practice Nursing with Women, Neonates and Children and Midwifery.

Academic Regulations

For complete information regarding academic rules and regulations of the University, students should consult the section beginning on page 5. The following additions and amendments pertain to College of Nursing students.

Academic Regulations Terminology:

1. *Professional course* is any course required in the professional nursing curriculum.

2. *Satisfactory grade* is a grade of 'C' (2.0) or better.

3. *Unsatisfactory grade* is a grade below 2.0, or a mark of 'X' or an unauthorized mark of 'WP' or 'WF.'

4. *Probation* is a restricted status in the nursing program.

5. *Exclusion* from the program means that the student may not register in the program. (Continued registration in the University will necessitate that the student processes a Change of College to another academic program.)

Attendance

Regular punctual attendance in classes and clinical practice is expected. It is imperative that students maintain a perfect or near-perfect attendance record. Tardiness and/or failure to report to class can result in a lowering of the final course grade or exclusion from the course.

First Day of Class: Due to the nature of clinical courses and time requirements, first day class attendance is MANDATORY. Unexcused absences from the first day of any course may result in an administrative withdrawal for the student for that class and could delay progression in the program. If a student is removed from a class for non-attendance, clinical space in the subsequent class offering is not guaranteed.

Travel Requirements: It is the responsibility of the student to make all travel arrangements necessary to complete degree requirements. This includes travel arrangements required by clinical agencies.

EXAMINATIONS

Final Examinations for courses are offered on two occasions only; the day the University sets as the final examination date, and usually the Saturday immediately following the this date. The College will make no other arrangements for final examinations. If students miss both examination opportunities due to circumstances covered by one of the Special Circumstances (see below), they will receive an incomplete 'I' grade for the course. They will have twelve months to convert the 'I' grade into a passing grade ('A' to 'C'). If the course is a clinical, the College will make every effort to enable the student to take the next offering of the course, subject to availability. However, the College makes no guarantees when a place will become available.

Other Examinations or Assessments (e.g., Mid-terms): The regulations for other examinations will be specified in the course syllabus. However, the regulations for notifying the College of missing an examination and the need to fulfill the Special Circumstances Rule (see below) to take a make-up examination will still apply.

Online Learning Assessments: The College of Nursing uses an educational software package that is integrated into the Nursing curriculum. It consists of tutorials, reviews, and assessments that will be included in certain courses. In the event that required assessments are not completed as required in the syllabi, students will receive an incomplete 'I' grade for that assignment/course unless stated otherwise in the course syllabus. Students will have twelve months to convert the 'I' grade into a passing grade ('A' to 'C'). While carrying an 'I' grade students will not be permitted to progress in their studies.

Missing an Examination: It is the students' responsibility to call 313-577-0130 if he/she is unable to be present for an examination. Calls must be made before the beginning of the examination if the student intends to claim eligibility to sit for the make-up examination. While the student may also notify his/her professor directly, the date and time stamp on the examination hotline is the only acceptable record that he/she has called in time to miss an examination.

Make-Up Examinations (Saturdays): Students are not automatically entitled to sit for Saturday make-up examinations. To be eligible, the student must have called the examination hotline (313-577-0130) prior to the start of the examination they intend to miss, and the reason for missing the examination must be one covered by the Special Circumstances cited below.

Special Circumstance Rules: In addition to natural disasters the following are examples of events that qualify as a Special Circumstance for the purposes of missing examinations as well as the documentation (when appropriate) expected of students claiming these circumstances:

Illness on the day of the examination or receiving health treatment:
Provider note

Death in the immediate family: Death Certificate

Jury Duty or Court Summons:
Jury duty notification or Court notice of summons

Incarceration: Court notice

Military Service: Service notice

In the event that a student finds him/herself in any of these circumstances he/she must call 313-577-0130 and inform the College. Such students must supply the appropriate documentation as evidence of their need to sit for the make-up examination. Documents must be presented to faculty within forty-eight hours of missing the examination.

Time Limitation

The Traditional Program must be completed within four calendar years of admission to professional course work, unless an extension is granted by the Scholastic Policy and Admissions (SPA) Committee.

The Second Career/Second Degree Program must be completed within four consecutive semesters following admission to the program unless an extension is granted by the Scholastic Policy and Admissions (SPA) Committee.

All students whose progress is delayed by reason of academic failure and/or leaves of absence beyond the time limitation for the program may be required to repeat and/or take additional course work in order to assure graduation with appropriate preparation for current professional nursing practice. Such determination will be made by the Scholastic Policy and Admissions Committee.

Authorized Leave of Absence

A leave of absence may be requested by a student when personal circumstances interfere with the student's ability to devote sufficient time to academic pursuits to assure reasonable expectation of success. Leaves of absence are requested from and granted by the Associate Dean for Academic and Clinical Affairs, in consultation with the Scholastic Policy and Admissions Committee. The student should contact the Office of Student Affairs for the necessary materials and deadline dates regarding leaves of absence. A leave of absence is granted to students in good academic standing only. A student who is granted an approved leave of absence may return only if there is available space in the program. A student who takes an unauthorized leave of absence will be considered to have voluntarily withdrawn from the program and must apply for readmission to the College.

Licensure Preparation

All students graduating from the Traditional and Second Career/Second Degree Programs must meet the following requirements: As a requirement of graduation, undergraduate students must earn a satisfactory score on a comprehensive exam in the last semester of the program. A satisfactory score is dictated by the comprehensive exam used and will be identified prior to the beginning of the examination. Each student is expected to complete additional hours in the Learning Resource Center in preparation for this exam.

Each graduating student (who is not already a licensed RN) must attend a NCLEX Review course in preparation for the NCLEX licensure examination immediately following the conclusion of the semester as part of the program requirements. All program requirements must be met before a student can be certified as completing their degree requirements with the State of Michigan Licensing Board.

Scholarship

1. All students must maintain a satisfactory (2.0) grade point average in both: a) cumulative grades (general education and nursing); and b) professional nursing courses.

2. Students must achieve a 2.0 g.p.a. in each nursing course. A student may not continue in subsequent courses for which the failed course is a prerequisite until a minimum of 2.0 has been achieved.

3. A grade below 'C' (2.0) in a nursing course is unsatisfactory for progression.

4. Students may apply to repeat a nursing course, as space is available, only once to raise the grade to the 2.0 level or above.

5. A maximum of one nursing course within the program may be repeated.

6. No nursing course for which a student has received a passing grade may be repeated without written approval of the Associate Dean for Academic and Clinical Affairs.

7. A student receiving a 'C-minus' (1.67 g.p.a.) grade or less in either the theory or the clinical portion of any nursing course will have recorded no higher than a 'C-minus' for the total course and will be required to successfully complete the re-entry process to repeat it before progressing to the next clinical course.

8. The mark of 'I' is appropriate if the student encounters a catastrophic situation which prevents completion of the final requirements of a course. The mark of 'I' is not appropriate for unsatisfactory scholastic performance. In the event a mark of 'I' is given, the time limit for completion will be determined by the instructor, but may not exceed one year. In the event the mark of 'I' is received for a prerequisite course, the 'I' must be removed prior to enrollment in the subsequent course. After one year, if the incomplete is not completed the grade will automatically change to an "F" (failure) and be treated as a failing grade.

Probation

Probationary status is a warning to a student to improve his/her academic performance in order to remain in the program.

1. A student is placed on probation if he/she does not maintain a minimum cumulative grade point average of 2.0.

2. A student is placed on probation if he/she does not maintain a minimum grade point average of 2.0 in professional nursing courses.

3. A grade point average must be returned to a minimum of 2.0 to remove probationary status. Probationary status must be removed within one calendar year.

4. Students on probation are not eligible to represent the College in any student activity.

Exclusion

A student will be excluded from the College if any of the following conditions occur:

1. Failure to satisfactorily complete a nursing course after two attempts;

2. Failure of more than one professional nursing course;

3. Failure to remove probationary status within one calendar year;

4. Irresponsible attendance or irresponsible performance/behavior at any time while enrolled in the program;

5. Failure to meet any special conditions required by the College Scholastic Policy and Admissions Committee for the student's continuation in the program;

6. Failure to complete the program within the time limitations outlined above, unless granted an extension by the Scholastic Policy and Admissions Committee.

7. A student may be excluded from the College for unsafe practice and/or unethical conduct in the program without having been previously warned.

Graduation Residency Requirement

The last thirty semester credits of the degree must be taken in residence at Wayne State University.

Graduation With Distinction

A candidate eligible for the bachelor's degree may receive a special diploma with *Cum Laude, Magna Cum Laude*, or *Summa Cum Laude* indicated. For the University guidelines regarding these distinctions, see page 23.

Dean's List and Honors List

Students completing twelve semester credits in study at Wayne State University are eligible for appointment to academic recognition lists each semester. The semester grade point average at Wayne State must be 3.75 or above in order to qualify for the Dean's List, or a 4.0 g.p.a. for students registered for six to eleven credits. The Honors List requires a minimum grade point average of 3.50. Lists of students on the Dean's List and Honors List will be posted in the College of Nursing. Students who receive marks of 'I' or 'W' or 'X' and grades of 'N' or 'U' are not eligible. (For explanation of grades and marks, see page 40.)

Student Rights and Responsibilities

Continuance in the College is contingent upon compliance with official rules, regulations, requirements, and procedures of the University and the College of Nursing. *The student is responsible for reading the contents of this bulletin pertinent to the College of Nursing and otherwise becoming informed and fulfilling all course and degree requirements in proper sequence with satisfactory scholarship*. In case of doubt regarding any matter affecting his or her standing as a student, the student should consult with an adviser. The faculty reserves the right to amend or revise the policies and requirements set forth in the College of Nursing section of this bulletin.

A student may be required to withdraw from the College when, in the judgment of the faculty, behavior demonstrates that the student is unsuited for nursing, for unsafe practice, and/or for unethical conduct in the program without having been previously warned. (See also Exclusion, above.)

Student Rights and Responsibilities for the University: see page 38.

Financial Assistance

The University Office of Student Financial Aid, located in the Welcome Center (see page 34), administers scholarships, grants, loans and emergency funds available to all University students and funds provided especially for College of Nursing students. Early application is encouraged.

The College of Nursing offers both scholarship and loan funds. Application materials and deadline dates can be obtained from the Office of Student Affairs, College of Nursing, 10 Cohn. The deadline for application for College of Nursing scholarships is July 15. A complete list of Colleg of Nursing scholarships is available at the OSA website after April 1.

Organizations

The College of Nursing Council is composed of elected representatives of students and faculty. Its purpose is to reflect the concerns of the student members to the University and the larger community.

W.S.U. Chapter of the National Student Nurses' Association provides a means of professional development for students and for direct participation by students in the continuing development of nursing.

Chi Eta Phi Sorority, Inc., is a national professional nurses' organization with a focus on African American nursing issues.

Sigma Theta Tau, International Honor Society of Nursing, installed Lambda Chapter on the Wayne State University campus in 1953. Its purposes include recognition of superior scholastic achievement and leadership potential. Candidates for membership are elected annually from baccalaureate and graduate programs.

The Alumni Association of the College of Nursing is composed of graduates, faculty and former students of the College. This group is part of the general University Alumni Association, but has its own organization. Its purpose is to keep members in close touch with College activities and with professional developments, and to work for the welfare of the College of Nursing.

Employment Opportunities for Students

Part-time employment opportunities are available both on and off campus for students. Information about these and other opportunities may be obtained from Career Planning and Placement, 1001 Faculty/Administration Building. An annual Nursing Employment Information Day is sponsored by the College of Nursing Office of Student Affairs. Check with the Office of Student Affairs at (313) 577-4082 for the event date.

Nursing Courses (NUR)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

2010 Health Assessment: History Taking and Physical Examination. Cr. 0-3

Prereq: admission to the College of Nursing or RN licensure in Michigan; anatomy and physiology course. Foundational learning experiences for understanding and performing the health assessment of the individual; includes systematic history-taking and physical examination. Holistic health assessment from health promotional, cultural, nutritional, mental health, and developmental perspectives. Assessment approaches of various nurse theorists. (F)

2030 Pathophysiology Related to Nursing Practice. Cr. 3

Prereq: an anatomy and a physiology course, including laboratory. No credit after IHS 3100 and IHS 3200. Exploration of processes by which disease occurs, body responses, and effects of diseases on normal physiology. Diseases explored in terms of definition, diagnosis, etiology, epidemiology, clinical manifestations, cultural and socioeconomic factors, and contemporary research. (F)

2050 Supportive Measures for Basic Care Needs. Cr. 0-5

Prereq. or coreq: NUR 2010, 2030, 2060; CPR-PR certification, liability insurance, health clearance required. Supportive nursing care strategies for individuals in the context of family and community. Emphasis on scientific basis of supportive care, critical thinking and nursing process, development of basic nursing care skills, therapeutic communication, and understanding of cultural context. (F,W)

2060 Nursing Implications of Drug Administration. Cr. 3

Prereq: BIO 2870. Concepts of pharmacotherapeutics across the life cycle: theories of drug actions mediating physiological processes, variables affecting drug actions, and unusual and adverse reactions. Development of nursing role incorporating principles of safe, therapeutic, legal, and ethical principles. Psychological and cultural variations addressed. Contemporary research explored. Pharmacological math competency required. (F)

2070 Professional Nursing in the Future: Strategies for Health Promotion. Cr. 3

Prereq: admission to College of Nursing, R.N., BCLS, liability insurance, health clearance. Preparation for professional practice; emphasis on developing knowledge and skills for health promotion within the context of groups and the community. Impact of nursing theories and research on practice, directed toward health promotion issues. Strategies for health promotion; focus on group process and teaching/learning. (F)

2995 Special Topics in Foundations of Professional Nursing. Cr. 3

Prereq: admission to the College of Nursing; PSY 2400. Characteristics of nursing as a profession: ethical, legal, and professional governing structures; foundation for effective communication and documentation. Nursing process as it applies to health promotion; problem-based care in the health care arena. The phenomenon of health as experienced by individuals across the lifespan in family, group, and community. (F)

3010 Restorative Care of Adults and Elders with Acute Illness. Cr. 0-5

Prereq: NUR 2050, NFS 3230 (or former NFS 2210); prereq. or coreq: ENG 3010. CPR-PR certification, liability insurance, health clearance required. Theory and practice in providing nursing care to adults throughout the lifespan experiencing acute disruptions in living

patterns within the context of their families and in a community-based systems of health care. Emphasis on practice within a theoretical framework using research-based interventions. (F,W)

3015 Restorative Care: Psychiatric Mental Health Nursing Across the Lifespan. Cr. 0-5

Prereq: junior standing; CPR-PR certification; liability insurance; health clearance. Nursing care to individuals experiencing emotional crises and/or acute chronic psychiatric illnesses within the context of their families and communities. Biosocial theories of mental health and illness, determinants of mental illness; cultural and socioeconomic factors and psychotherapeutic modalities. Public and private systems of care for mental health promotion, restoration, and rehabilitation. (F,W)

3020 Restorative Care of Adults and Elders with Chronic Illness. Cr. 0-5

Prereq. or coreq: NUR 3010; CPR-PR certification; liability insurance and health clearance. Theory and practice in providing nursing care to adults throughout the adult lifespan experiencing chronic disruptions in living patterns within the context of their families in a community based system of healthcare. (F)

3025 Restorative Care of Adults and Elders with Complex Health Needs. Cr. 10

Prereq: NUR 2050, 2040, NFS 3230 (or former NFS 2210), or equiv.; BCLS certification, liability insurance, health clearance. Provision of care of individuals within the family context, across community-based systems of health care. Students care for clients experiencing acute and chronic complex health problems. (W)

3400 Introduction to Nursing Research. Cr. 2

Prereq: NUR 2050 or RN license; computer literacy or NUR 1110. Introduction to the research process and research utilization in nursing practice. Research problems, access and retrieval of research literature and databases, reading and critiquing research studies, and individual and organizational strategies to promote research-based practice. (W,S)

4010 Integrative Care of Children and Their Families Cr. 0-5

Prereq: senior standing; CPR-PR certification; liability insurance; health clearance. Theory and practice in care of children in various states of health in the context of their families. Emphasis on knowledge of age-appropriate normal biological, physical, psychosocial, cognitive, moral, spiritual, and social development as a basis for implementing health promotion, supportive, and restorative practices with children of all ages in the context of their families in community-based systems of health care. (F,S)

4020 Integrative Care of the Perinatal Family. Cr. 0-5

Prereq: senior standing; CPR-PR certification; liability insurance; health clearance. Theory and practice in care of the perinatal family: woman, fetus, newborn, and other members from preconception to postpartum and newborn in the first month of life. Emphasis on integrative care: health assessment, risk assessment, health promotion, supportive and restorative care of the woman and the family. Exploration of ethical and consumer movement effects on prenatal care. (F,S)

4040 Leadership and Management in Nursing Practice. Cr. 0-4

Prereq: senior standing; CPR-PR certification; liability insurance; health clearance. Theory and skill development in leadership processes in nursing practice. Assessment of a health care system, analysis of nurses' roles, organizational design systems theory, leadership and management theory, culture, decision-making, delegation, conflict management, and planned change. (F)

4050 Transition to Professional Nursing Practice. Cr. 0-5

Prereq: senior standing; CPR-PR certification; liability insurance; health clearance. Theory and practice in care of groups of patients with complex acute and chronic illness needs. Advanced critical thinking, clinical knowledge and judgment, and nursing skills. Organizational and interpersonal skill development for micro and macro management of groups of patients in a multidisciplinary environment. (F,W)

4060 Synthesis of Core Nursing Knowledge. Cr. 2

Prereq: senior standing. Integration of knowledge of ethics, standards, and expectations of professional nursing roles; emphasis on critical thinking. (F,W)

4120 (WI) Community Focused Nursing Practice. Cr. 0-6

Prereq: senior standing. CPR-PR certification, liability insurance, health clearance required. Analysis of role of professional nurse in community settings: caring for individuals and groups from diverse cultural backgrounds at various developmental stages and at any point on the health-illness continuum. Satisfies the University General Education Writing-Intensive Course in the Major requirement. (F,W)

4290 Special Topics in Community Health Nursing. Cr. 2-4 (4 req.)

Prereq: senior standing. BCLS-C certification, liability insurance, health clearance required. Provides students with an in-depth community health nursing experience. Special topics include: community health problems; interdisciplinary collaboration in health care; transcultural nursing, theory and practice; families in crisis. (Y)

4300 Nursing Informatics. Cr. 3

Prereq: NUR 1110 or equiv.; senior standing or consent of instructor. Opportunity for nursing students or registered nurses to develop knowledge and skills in nursing informatics. (W)

4800 (FC) Transcultural Health Through the Life Cycle. Cr. 3

Prereq: junior standing; completion of sixty credits. Transcultural health differences and similarities in selected Western and non-Western cultures, from birth through old age. Use of theories and research methods from the health and social sciences and humanities in study and analysis of different cultures. (W)

4990 Directed Study. Cr. 1-4

Prereq: admission to College of Nursing; written consent of Associate Dean for Academic and Clinical Affairs. (T)

EUGENE APPLEBAUM COLLEGE of PHARMACY and HEALTH SCIENCES

DEAN: LLOYD Y. YOUNG

Foreword

History of the College

In 1890, the Detroit College of Pharmacy was founded as a program in the Detroit Medical College, the forerunner of the Wayne State University School of Medicine. The Detroit College of Pharmacy later separated from its parent institution, operated independently for two years, and in 1907, affiliated with the Detroit Institute of Technology. In response to the urging of Detroit area pharmacists another program was developed from the six-year course in pharmacy established at Cass Technical High School into a new College of Pharmacy organized by the Detroit Board of Education in 1924. This College of Pharmacy and the Detroit Board of Education's Colleges of Medicine, Education, Liberal Arts, Engineering and Graduate School were united in 1933 into a university called the College of the City of Detroit and named Wayne University in 1934. In 1957, one year after Wayne University became Wayne State University, the College of Pharmacy at the Detroit Institute of Technology joined the College of Pharmacy at Wayne by merging into Wayne State University's system of schools and colleges.

In 1974, Pharmacy merged with the Division of Allied Health to form a college devoted to educating the modern health care team. Mortuary Science, which was started as a unit of the School of Business Administration in 1943, evolved into a separate department and eventually became part of the College of Pharmacy and Allied Health Professions in 1985. In 2002 the College changed its name to the Eugene Applebaum College of Pharmacy and Health Sciences to recognize the contributions of Eugene Applebaum, a 1960 alumnus of the college's pharmacy program, and occupied the new facility which opened in 2002. In 2003 the College reorganized from nine departments to the four departments that exist today.

Location

The College occupies a state-of-the-art facility, located on the campus of the Detroit Medical Center, one of the Midwest's leading centers for healthcare, research, and education. The Center boasts a high concentration of health professionals including the faculty and students of the Wayne State University School of Medicine, one of the nation's largest medical schools. The Eugene Applebaum College of Pharmacy and Health Sciences is designed to provide students with the latest tools to prepare them for health careers in the new economy.

College Organization

The Eugene Applebaum College of Pharmacy and Health Sciences is organized into four academic departments: Fundamental and Applied Sciences, Health Care Sciences, Pharmacy Practice and Pharmaceutical Sciences. Academic programs exist within each department as follows: clinical laboratory science, mortuary science and anatomic pathologists' assistant are in Fundamental and Applied Sciences. The programs of: nurse anesthesia, occupational and environmental health sciences, occupational therapy, physician assistant studies, physical therapy, radiation therapy technology, radiologic technology and radiologist assistant studies are in Health Care Sciences. The Doctor of Pharmacy program is administered by the departments of Pharmacy Practice and Pharmaceutical Sciences.

Mission and Vision

The College mission is to advance the health and well-being of society through the preparation of highly-skilled health care practitioners, and through research to discover, evaluate, and implement new knowledge to improve models of practice and methods of treatment in pharmacy and health sciences in ways of both local and global relevance.

Our vision is to serve as a preeminent model for learning, scholarship, and engagement impacting health, safety, and well being worldwide through leadership, innovation, and the interconnectedness of our disciplines.

The College offers a variety of graduate-professional and graduate programs designed to provide advanced-level professional training, basic research, and scholarly activities in the various health science fields. Detailed information on each program may be found in the Departmental sections.

Accreditation

The North Central Association accredits Wayne State University and professional programs in this College are accredited by their respective agencies:

CLINICAL LABORATORY SCIENCE:

National Accrediting Agency for Clinical Laboratory Science (NAACLS), 8410 W. Bryn Mawr Ave., Suite 670, Chicago IL 60631 (http://www.naacls.org/)

MORTUARY SCIENCE:

Funeral Director Program: American Board of Funeral Service Education (ABFSE), George P. Connick, Ph.D., Executive Director, 38 Florida Ave., Portland ME 04103 (http://www.abfse.org/)

Pathologist's Assistant Program: National Accrediting Agency for Clinical Laboratory Science (NAACLS), 8410 W. Bryn Mawr Ave., Suite 670, Chicago IL 60631 (http://www.naacls.org/)

NURSE ANESTHESIA:

Council on Accreditation of Nurse Anesthesia Education Programs (COA), 222 S. Prospect Ave., Suite 304, Park Ridge IL 60068-4010 (http://www.aana.com/)

OCCUPATIONAL AND ENVIRONMENTAL HEALTH SCIENCES SPECIALIZATION IN INDUSTRIAL HYGIENE:

Related Accreditation Commission of the Accreditation Board of Engineering and Technology (ABET), 11 Market Place, Suite 1050, Baltimore MD 21202 (http://www.abet.org/)

OCCUPATIONAL THERAPY:

Accreditation Council for Occupational Therapy Education (ACOTE), 4720 Montgomery Lane, P.O. Box 31220, Bethesda MD 20824-1220 (http://www.aota.org/nonmembers/area13/)

PHARMACY:

The Accreditation Council for Pharmacy Education (ACPE), originally founded as the American Council on Pharmaceutical Education: 20 North Clark Street, Suite 2500, Chicago, IL 60602-5109; Phone: (312) 664-3575; FAX: (312) 664-4652 or (312) 664-7008; website: http://www.acpe-accredit.org

PHYSICAL THERAPY:

Commission on Accreditation in Physical Therapy Education (CAPTE) ATPA, Attn: Accreditation Dept., 1111 N. Fairfax St., Alexandria VA 22314-1488 (http://www.apta.org/)

PHYSICIAN ASSISTANT PROGRAM:

Accreditation Review Committee on Education for the Physician Assistant (ARC-PA), 1000 N. Oak Ave., Marshfield WI 54449 (http://www.arc-pa.org/)

RADIATION THERAPY TECHNOLOGY:

Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago IL 60606-3182; telephone: 312-704-5300; Fax: 312-704-5304; website: http://www.jrcert.org/

.

Degree and Certificate Programs

Upon completion of the requirements listed in each of the programs, the Eugene Applebaum College of Pharmacy and Health Sciences grants the following degrees and certificates:

BACHELOR OF SCIENCE in Clinical Laboratory Science

BACHELOR OF SCIENCE in Radiation Therapy Technology

BACHELOR OF SCIENCE in Radiologic Technology

BACHELOR OF HEALTH SCIENCE with concentrations in: Cytotechnology and Occupational Therapy

BACHELOR OF SCIENCE in Mortuary Science

BACHELOR OF SCIENCE in Pathologists' Assistant

POST-BACHELOR'S CERTIFICATE in Forensic Investigation

POST-BACHELOR'S CERTIFICATE in Clinical Laboratory Science

DOCTOR OF PHARMACY

MASTER OF SCIENCE with majors in:

Occupational and Environmental Health Sciences with concentrations in: Industrial Hygiene, Industrial Toxicology, and Occupational Medicine

Pharmaceutical Sciences with concentrations in: Medicinal Chemistry, Pharmaceutics, and Pharmacology/Toxicology

MASTER OF SCIENCE in Anesthesia

MASTER OF OCCUPATIONAL THERAPY

MASTER OF SCIENCE in Physician Assistant Studies

MASTER OF SCIENCE in Radiologist Assistant Studies

DOCTOR OF PHYSICAL THERAPY

DOCTOR OF PHILOSOPHY with a major in Pharmaceutical Sciences with concentrations in: Medicinal Chemistry, Pharmaceutics, and Pharmacology/Toxicology

GRADUATE CERTIFICATE in Analytical Toxicology

GRADUATE CERTIFICATE in Occupational Safety

POST-MASTER'S CERTIFICATE in Pediatric Anesthesia

POST-MASTER'S CERTIFICATE in Industrial Toxicology

College Directory

APHS: Eugene Applebaum College of Pharmacy and Health Sciences

Dean
Lloyd Y. Young:, 2627 APHS; 313-577-7597

Interim Associate Dean, Health Sciences:
Howard Normile; 2627 APHS; 313-577-7597

Assistant to the Deans:
Susan Christie: 2621 APHS; 313-577-1709

Associate Dean, Research
Deepak Bhalla; 4148 APHS; 313-577-4376

Associate Dean, Pharmacy:
Richard Slaughter; 2190 APHS; 313-577-3230

Assistant Dean, Office of Student and Alumni Affairs and Graduate Officer:
Mary K. Clark: 1637 APHS; 313-577-1716

Academic Services Officers:
Moira Fracassa: 1621 APHS; 313-577-1716
Michael G. Koltuniak: 1613 APHS;313-577-1716
Carol Meier: 1619 APHS; 313-577-1716
Durand V. Miller: 1621 APHS; 313-577-1716
Shauna Reevers: 1619 APHS; 313-577-1716
Kaprice Williams: 1631 APHS; 313-577-1716

Senior Affairs Specialist
Jennifer Moore: 1621 APHS; 313-577-1716

Business Services Manager:
Kathleen Blumberg: 2601 APHS; 313-577-1578

Information Technology Manager:
Michele Farrell: 4th Floor APHS; 577-1171

DEPARTMENTS

Fundamental and Applied Sciences:
Peter Frade: 333 Mortuary Science; 313-577-1384

Health Care Sciences
Thomas Birk: 2248 APHS; 313-577-1435

Pharmaceutical Sciences:
George B. Corcoran: 3615 APHS; 313-577-5147

Pharmacy Practice:
David Edwards: 2190 APHS; 313-577-0824

PROGRAMS

Anatomic Pathologists' Assistant:
Peter D. Frade: 5439 Woodward Ave.; 313-577-2050

Anesthesia:
Prudentia A. Worth: 2342 APHS; 313-577-5467

Clinical Laboratory Science:
Janet Brown: 5439 Woodward Ave.; 313-577-55264

Mortuary Science:
E. David Ladd: 5439 Woodward Ave.; 313-577-2050

Occupational and Environmental Health Sciences:
Edward Kerfoot: 5148 APHS; 313-577-1210

Occupational Therapy:
Doreen Head: 2210 APHS; 313-577-5884

Physical Therapy:
Susan Talley: 2246 APHS; 313-577-4643

Physician Assistant Studies:
Stephanie Gilkey: 2590 APHS; 313-577-1369

Radiation Therapy Technology:
Adam F. Kempa: 1130 APHS: 313-577-1137

Radiologic Technology
Kathy Kath: Office: 1130 APHS: 313-577-1435

Radiologist Assistant Studies:
Kathy Kath: Office: 1130 APHS; 313-577-1435

Website: http://www.cphs.wayne.edu/

Mailing address for all offices: Eugene Applebaum College of Pharmacy and Health Sciences, Wayne State University, 259 Mack Avenue, Detroit, Michigan 48201.

Academic Regulations

For complete information regarding academic rules and regulations of the University, students should consult the General Information section of this bulletin, beginning on page 18. The following additions and amendments pertain to health sciences students.

Academic Regulations Terminology:

1. *Professional course* means any course required in the Pharm.D., D.P.T. or M.O.T curriculum and any course approved for professional elective credit and elected by the student for that purpose.

2. *Satisfactory grade* means a grade of 'C' or above, or a grade of 'S.'

3. *Unsatisfactory grade* means a grade of 'C-minus' or below 2.0 grade points, or a mark of 'X' or unauthorized 'W.' Marks of 'X' or marks of 'W' which have not been authorized will be treated as an 'E.'

4. *Probation* means a restricted status in the program (see below).

5. *Dismissal* from the program means that the student may no longer register in the program, or elect professional course work. Continued registration in the University requires that a Change of Status to another program be effected.

Academic and Professional Progress

The College expects its students to develop professional competence and to satisfy the same high standards of exemplary character, appearance, and ethical conduct expected of health care professionals. To merit confidence and esteem, both personally and in the health care professions, appropriate dress and demeanor are expected of each student in their respective academic and professional program.

Each program has a process or committee in place to review student performance regularly and makes decisions concerning probationary status. A student may be dismissed from the College at any time for an unsatisfactory academic or professional record, for irresponsible attendance, or other failures to diligently pursue the academic and professional program.

Outside Employment

The curriculum has been arranged with the presumption that the student will devote full time and energy to their academic program. Internships, fieldwork and other pharmaceutical employment are recognized as an integral part of the academic and professional growth of a pharmacy or health science student. The student, however, is responsible for maintaining the appropriate balance between such activity and satisfactory achievement in the classroom.

Attendance

Regularity in attendance and performance is necessary for success in college work. At the beginning of each course the instructor will announce and/or include in the syllabus the specific attendance required of students as part of the successful completion of the course.

Admission to Preprofessional Programs

Preprofessional programs in clinical laboratory science, mortuary science, occupational therapy, pharmacy, physical therapy, radiation therapy technology and radiologic technology are taken in the College of Liberal Arts and Sciences and students apply for admission to that College, and fulfill requirements for general undergraduate admission to the University, see page 24. The Office of Admissions is located in the University Welcome Center, Wayne State University, Detroit, Michigan 48202; telephone: 313-577-3577. Admissions counselors are available for personal conferences to aid the prospective student.

Admission to Professional Programs

All professional programs in the College are limited in the number of applicants that can be accepted. This limitation is created not only by the number of faculty members available but also by the number of positions available in health care facilities where much of the field work experience is conducted at a 1:1 or 1:2 faculty-to-student ratio.

Students are admitted to the professional program annually. Since each program has special requirements for admission, students are urged to attend one of the monthly Information Meetings (mandatory for some programs) for advising and application deadline dates a year before they plan to enter. Individuals can register for the free monthly Information Meetings by going to the online address: http://www.cphs.wayne.edu/meetings.php. Students are to check with each program to verify the deadline date for admission to that program.

For admission to the professional programs in the College, applicants must have completed all equivalent preprofessional courses and other requirements. Students admitted to the professional program usually have a grade point average of 2.5 ('A' = 4.0) or better.

Although academic achievement is important, personal qualities and professional behaviors are considered of equal importance since the students selected will eventually be working as members of a team in the delivery of health care. Therefore, criteria for selection are also based on such qualities as maturity, motivation, knowledge of the profession, ability to communicate, personal integrity and empathy for others. Consequently, evaluations from faculty and academic advisers, as well as a personal interview, are given great weight in the selection of candidates by admissions committees.

HealthPro Start Program

HealthPro Start is a unique collaborative program for highly qualified incoming freshman leading to a professional degree in one of the following disciplines: clinical laboratory science, mortuary science, occupational therapy, pharmacy, physical therapy, radiation therapy technology and radiologic technology. The physician assistant studies program is no longer accepting HealthPro Start applications from newly admitted freshman class that begins Fall 2011.

Acceptance into HealthPro Start guarantees admission to the professional program of choice within the College as long as continuation criteria are met. **This program is only open to freshman.** More information on this program can be found at http://www.honors.wayne.edu/.

Academic Advising

A staff of academic advisers is available in the University Advising Center, 1600 Adamany Library, for students interested in health sciences professions.

Students, during their sophomore year, should confer with the professional program adviser of the health sciences profession of their choice, during attendance at one of the Monthly Information Meetings, whenever they have questions about degree requirements, academic regulations, course elections, programs of study, or difficulties in their academic work. Course elections are arranged in consultation with the professional program advisers.

Normal Program Load

The requirements for graduation are based upon a normal program of fifteen credits per semester for eight to ten semesters. Because courses are of varying length, students cannot always arrange programs of exactly fifteen credits; hence the normal load is fourteen to eighteen credits.

Grade Appeals

At the beginning of each term the instructor will inform students (in writing where feasible and appropriate) of the criteria used in arriving at grades for the class, including the relative importance of prepared papers, quizzes and examinations, class participation, and attendance. Where student performance in other practical and structured activities is relevant in evaluating professional competency, criteria used in such evaluations will be stated. Written materials will be graded in a timely manner and such materials, together with comments and an explanation of grading criteria will be made available to students by appropriate means. Students are encouraged to discuss with the instructor any class-related problems.

Instructors evaluate student work according to sound academic standards. Equal demands are required of all students in the class (although more work is expected from graduate students than from undergraduates), and grades are assigned without departing substantially from announced procedures. It is the instructor's prerogative to assign grades in accordance with his/her academic/professional judgment, and the student assumes the burden of proof in the appeals process.

Grounds for appeal are: 1) the application of non-academic criteria in the grading process, as listed in the University's non-discrimination and affirmative action statute citing: race, color, sex, national origin, religion, age, sexual orientation, marital status, or handicap; 2) sexual harassment; or 3) evaluation of student work by criteria not directly reflective of performance relative to course requirements.

Questions regarding grades, whether a grade on an individual course component or a final grade, should be directed to the instructor for resolution. The formal appeal of the grade in question must be submitted in writing within twenty-one calendar days following the student's receipt/knowledge of the grade (e.g., return of marked paper, posting of marks, and official report of grades). The instructor and each appeal officer in the College shall respond in writing within ten days, and any appeal of that response to the next level shall be made in writing by the student within ten calendar days. If any appeal is not resolved at the instructor's level, further appeals may be directed to the department chair. If the department chairperson agrees with the instructor's determination the student may appeal, upon the same basis, to the Dean of the College.

Academic Dishonesty

In any instance of academic dishonesty occurring in any course offered by the Eugene Applebaum College of Pharmacy and Health Sciences, as defined in section 3 of the University Due Process Statute, the provisions of Section 10.1 of the Statute will be implemented as follows:

The grade for the course will be reduced to an 'E.' In addition, charges may be filed, as provided for in Section 10.2 of the Statute, which may lead to further sanctions up to and including expulsion from the College and/or the University.

Academic dishonesty policies of individual programs may vary from the above. Please see individual program information.

Probation

If a student's work falls below the required cumulative g.p.a. for professional studies, he/she will be placed on probation. If a student incurs a serious grade point deficiency in a semester, or remains on probation for more than one semester, he/she will not be allowed to re-register in the College unless he/she obtains permission from an Academic Services Officer in the Office of Student and Alumni Affairs. Such permission will be granted only after an appraisal of the student's situation and some assurance from the student that the previous causes of failure will not prevail in the proposed program.

Program Probation: A student whose semester g.p.a. falls below the required average will be placed on program probation. Each student must meet the academic and probationary requirements of his or her program.

Removal of Probation: The student will be removed from probation at the end of any semester in which he/she achieves a satisfactory overall g.p.a. as determined by the program.

Please see individual programs for more detailed information on program probation and dismissal policies.

Academic Honesty: Students are expected to abide by the principle of honesty which is fundamental to the life of a scholarly community. If any act of academic dishonesty (cheating or plagiarism) is discovered, the instructor is expected to take appropriate action, which can include one or more of the following: reprimand, repeat of assignment, a failing grade for the assignment, a failing grade for the course. Serious acts of dishonesty can lead to suspension or dismissal. The instructor will notify the student of the alleged violation and inform him/her of any action being taken. Both the student and the instructor are entitled to academic due process should the instructor's action be contested.

Further information can be obtained from the College's Office of Student and Alumni Affairs.

Student Conduct

Students are expected to abide by the principle of honesty. Dishonesty in the academic community is a deliberate attempt to deceive the educational process by submitting work which is not the product of one's own intellect and diligence. Attempts to give a false impression of academic performance may take many forms, such as the unauthorized use of notes, direct copying from another's examination paper or collusion between students to exchange information during an examination. Acts of deception may also include plagiarism, or the submission under the guise of personal achievement of any material or idea resulting from unauthorized assistance.

Academic dishonesty or cheating not only tends to destroy an individual's character and integrity, but also diminishes confidence in the educational system on the part of persons who exert honest effort. Students, faculty, and support staff all have a duty to eliminate dishonesty from the educational system.

A faculty member has inherent responsibility for the academic conduct and moral character of each course he/she teaches. If the teacher suspects academic dishonesty within a class, appropriate steps should be taken to ascertain the facts in the matter, consistent with the rights of the parties involved, before invoking sanctions commensurate with the nature of the offense. A copy of the complete conduct policy is included in the student handbook.

Student Rights and Responsibilities

The College and its faculty reserve the right to dismiss at any time a student who does not appear to be suited for the work or whose conduct or academic standing is regarded as unsatisfactory. Students are urged to review the specific policies of their respective program or department.

Bachelor's Degree Requirements

Specific requirements for the several bachelor's degrees offered by the College are enumerated in the departmental and program sections of this bulletin. Following are general College and University policies governing baccalaureate programs.

Recommended High School Preparation

Students who plan to enter the University as freshmen should have included in their high school programs at least three years of English, one year of algebra, one year of plane geometry, at least one course in a laboratory science, and at least two years of a foreign language. Some programs require additional work in mathematics and science. High school students and their parents are encouraged to attend the "High School Information Meetings" held on the first Tuesday of October, November, December, February, March and April at 6pm. See the website for more information: http://www.cphs.wayne.edu/highschool.php.

University General Education Requirements

For complete description, see page 18.

All undergraduate students who register for the first time at Wayne State University are required to demonstrate proficiency in English and mathematics competency by the time they have earned sixty semester credits toward a bachelor's degree.

Residence

The last thirty credits of work applicable to the degree, exclusive of credit by special examination, must be completed in an undergraduate college or school of Wayne State University.

Time Limitations

It is the policy of the College that preprofessional science courses must be completed within six years just prior to admission to a professional program. Exceptions to this policy may be made on a case-by-case basis at the sole discretion of the program faculty. Documentation of competency during post-graduation/pre-admission employment must be provided by the applicant requesting the exception. There is no appeal for this exception request of this policy.

Support Services and Organizations

OFFICE OF STUDENT AND ALUMNI AFFAIRS

The Office of Student and Alumni Affairs provides program information, monthly information meetings, and advising support to prospective and current students for the degree and certificate programs offered by the College. From this office prospective students can obtain advice about admission requirements and program prerequisites and have their transcripts evaluated for transfer equivalencies. Additionally, Information on registration and financial aid; enrollment verification required for financial aid, internship licensing, or other purposes is processed through this office. The Office also audits student records for completion of general education requirements and program requirements prior to graduation. It coordinates and participates in the College's academic activities with the main campus, including graduation, new student convocations, support College student organizations, and the HealthPro Start program. College-wide Alumni Affairs activities and programs, including the Alumni Reunions, career and networking expos and alumni receptions are managed by this office. For information, call (313) 577-1716 or consult the website: http://www.cphs.wayne.edu/.

STUDENT ORGANIZATIONS

There are many student organizations within the College that allow a student to be active in professional and extracurricular activities. Please contact individual program offices for more information regarding these student organizations.

Dean's Student Activities Committee (DSAC)

The Dean's Student Activities Committee (DSAC) is dedicated to improving the organization within each student association in the College. They strengthen the relationship among students in all programs, and between students and the College administration and faculty. DSAC plans activities and events that will make a significant and consistent contribution to the College and the University. Membership consists of a President, Vice-President and the president of every student organization and graduating class in each of the programs within the College.

Financial Aid, Scholarships, and Loans

Federal financial aid awards are available to pharmacy and health science students who demonstrate exceptional financial need as defined by the federal government. Students in good academic standing may apply directly for federal financial aid (both scholarship and/or loan programs) at the University Office of Student Financial Aid, Welcome Center (Telephone: 313-577-3378 or Fax: 313-577-6648; Website: http://www.financialaid.wayne.edu.) Additional financial aid information may be found in the General Information section of this bulletin (page 34).

Additionally, the College offers private scholarship and short-term emergency loan funds for students. Private scholarships are awarded for outstanding achievement to students in good academic standing based on criteria determined by the contributors and recommendations of the faculty within each program. Students in good academic standing may be eligible for scholarship funds and should inquire with their program administrators regarding the application process. Students should contact the College Office of Student and Alumni Affairs (313-577-1716) for information concerning emergency loan funds. Short-term emergency loans are limited to one request per EACPHS student per 12 month period.

INTERDISCIPLINARY HEALTH SCIENCES COURSES (IHS)

The following courses are offered for undergraduate credit. For interpretation of numbering system, signs and abbreviations, see page 504.

2000 Introduction to Health Careers. Cr. 2

Offered for S and U grades only. Introduction to careers in health sciences: presentations by health care professionals; career explorations and options for health science students. (F,W)

2200 HealthPro Start Professional Development Course I. Cr. 1

Open only to Health ProStart students. Once-a-month class to convene HealthPro Start students in their second to final preprofessional course work, to learn profession-specific and health care oriented topics while developing learning and critical thinking skills. (F)

2300 HealthPro Start Professional Development Course II. Cr. 1

Open only to Health ProStart students. Once-a-month class to convene HealthPro Start students in their second to final preprofessional course work, to learn profession-specific and health care oriented topics while developing learning and critical thinking skills. (W)

3100 Pathophysiology I. Cr. 2

Prereq: BIO 1510 or equiv. First in a two-semester sequence focusing on the pathology and pathophysiology of human organ systems. Material Fee As Indicated In The Schedule of Classes (F)

3200 Pathophysiology II. Cr. 3

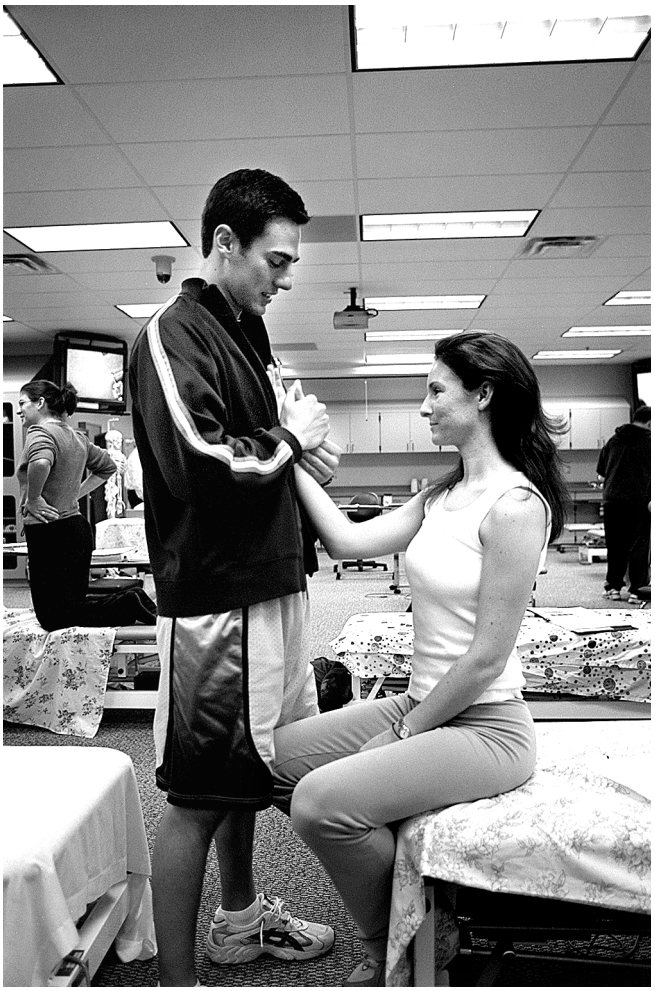
Prereq: IHS 3150. Second in a two-semester sequence focusing on the pathology and pathophysiology of human organ systems. Material Fee As Indicated In The Schedule of Classes (W)

3210 Basic Mechanisms of Human Disease: Laboratory. Cr. 1

Prereq: IHS 3100; coreq: 3200. Prosections to understand anatomical relationships. (W)

3300 Pharmacology for Health Sciences. Cr. 1

Prereq: IHS 3100, 3200 or equiv. Open only to health sciences students. Basic course for health sciences students in mechanisms of drug action (pharmacodynamics), and the use of drugs in the prevention and treatment of disease (pharmacotherapeutics). (S)



Fundamental and Applied Sciences

Department Office: 5439 Woodward; 313-577-2050

Program Directors

Anatomic Pathologists' Assistant
Peter D. Frade
Office: Suite 333, 5439 Woodward; 313-577-2050

Clinical Laboratory Science
Janet Brown
Office: Suite 333, 5439 Woodward; 313-577-1384

Mortuary Science
E. David Ladd
Office: Suite 333, 5439 Woodward; 313-577-2050

Fundamental and Applied Sciences Programs

The Department of Fundamental and Applied Sciences represents the following programs: Clinical Laboratory Science, and Mortuary Science.

Clinical Laboratory Science: Students in clinical laboratory science learn the scientific principles and theories behind many laboratory tests performed to aid in the diagnosis of disease. During the latter part of the curriculum students become proficient in the performance of these tests and familiar with practical aspects of the clinical laboratory. This work is indispensable to effective patient care because results of laboratory analysis often establish a basis for diagnosis which must be made before treatment can be instituted.

Cytotechnology: Students in the clinical laboratory science cytotechnology concentration enter a challenging field involving the microscopic inspection and evaluation of slide preparations of various human cells and/or organs. A cytotechnologist practices under the direction of a pathologist in identifying changes in the body's cells. While the majority of cytotechnologists work in hospitals, graduates of this program are also prepared for positions in research laboratories, private and clinical laboratories, and cytotechnology education.

Forensic Investigation: This is a post-bachelor's certificate program designed for students who have obtained a degree in another discipline from an accredited college or university who wish to acquire competence in the area of forensic investigation. The program is not designed to train forensic investigators; rather, its aim is to educate personnel whose professional scope and practice interface with the criminal justice system.

Mortuary Science: The program in mortuary science prepares students for a career in funeral service. The curriculum provides the study of the fundamentals of applied biological and physical sciences as background for understanding techniques and procedures applicable to the preparation and disposition of human bodies and to public health and safety measures. Other areas of study include a thorough understanding of the theory and a proficiency in the practice of the technical skills pertinent to funeral service and the instillation of high standards of ethical conduct required to foster and uphold the dignity of funeral service.

Pathologists' Assistant: The pathologists' assistant program trains personnel to assist the pathologist in the performance of postmortem examinations and in the preparation of surgical specimens for study. Additional training prepares the student to take responsibility for tasks designated by a supervising pathologist such as budgetary, superintendence, and teaching duties.

Clinical Laboratory Science

Office: 401 Mortuary Science Building; 313-577-1384
Program Director: Janet M. Brown

Website: http://cphs.wayne.edu/cls

Associate Professors

Dorothy M. Skinner Brown (Emerita), Karen Krisher

Assistant Professors

Karen Apolloni, Janet Brown, Jean Garza, M. Ann Wallace (Emerita)

Adjunct Associate Professor

Barbara Anderson

Adjunct Assistant Professors

Linda Cardine, Sue Kozlowski, Joyce Salancy, J. Lynne Williams

Adjunct Instructors

Tina Anchor, Deborah Chapman, Michelle Chludzinski, Nancy Curtin, Eric Emme, Keith Fusinski, Kristin Murphy, Sheri Nabozny, Joy Raymond, Kareem Rofoo,Kathy Sobanski, Beverly Smith, Denise Smith, Dawn Taylor, Bernarda Wroblewski, Ziad Yousif

Senior LabTechnician

Brandi Palm

Degree Programs

BACHELOR OF SCIENCE in Clinical Laboratory Science

BACHELOR OF HEALTH SCIENCE
with concentration in cytotechnology

BACHELOR OF HEALTH SCIENCE with concentration in laboratory science

Clinical laboratory science is a health profession offering challenging opportunities for men and women with aptitudes in the basic sciences and interest in a health care career. The profession is for individuals dedicated to providing accurate diagnostic information to medical practitioners. The clinical laboratory science (medical technology) program at Wayne State University provides students with the technical knowledge and specialized skills necessary for this profession. Success in the program requires manual dexterity and visual acuity. The work of the clinical laboratory scientist involves:

1. Provision of accurate diagnostic information to the physician through performance of a vast array of laboratory tests.

2. Comparative evaluation and utilization of the best possible methods of performance of these tests.

3. Operation of sophisticated laboratory equipment.

4. Effective teaching and supervision of students and auxiliary laboratory personnel.

While the majority of clinical laboratory scientists work in hospitals or other clinical laboratories, graduates are also prepared for positions in federal, state and local public health departments, in industrial or research laboratories and in clinical laboratory science education.

The programs offered in clinical laboratory science utilize the facilities of the Eugene Applebaum College of Pharmacy and Health Sciences, the faculty of the Department of Fundamental and Applied Sciences and the clinical laboratories and pathology departments of

hospitals affiliated with the clinical laboratory science medical technology program.

Accreditation: The In Clinical Laboratory Science Program is accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS), 5600 N. River Road, Suite 720 Rosemont, IL 60018 (773-714-8880).

Bachelor of Science in Clinical Laboratory Science

The program leading to the Bachelor of Science in Clinical Laboratory Science prepares graduates to take a national certification examination in this discipline. The program consists of a preprofessional and a professional curriculum. The freshman and sophomore years constitute the preprofessional program comprising courses taught by the faculty of the College of Liberal Arts and Sciences. The professional program begins with the junior year and is taught by the faculty of the Department of Fundamental and Applied Sciences. The senior year may consist of didactic course work and/or clinical experience in the laboratories in one of the affiliated hospitals.

Preprofessional Program

Preprofessional Admission: Students seeking admission to the preprofessional program in the College of Liberal Arts and Sciences should refer to the admission requirements of the University on page 24. High school prerequisites for applicants pursuing the Bachelor of Science in Clinical Laboratory Science are:

High school units
- Biology: 1
- Chemistry: 1
- Algebra: 1.5
- Geometry: 1
- Trigonometry: 0.5

Recommended: One to two units of a foreign language, one to two units in advanced English, and computer use skills.

Although the College of Liberal Arts and Sciences does not offer course work in the first unit of algebra, some mathematics deficiencies can be remediated by taking Mathematics 0993 or 0995 (see page 370). Students with no preparedness in mathematics will have to correct this deficiency at a high school. Before the first course in college chemistry or college mathematics can be taken, the student must pass a placement test in these subjects.

A deficiency of any of the above high school units may extend the time required for completion of the courses prerequisite to beginning the professional curriculum in the junior year, or it may restrict the electives that may be taken. Any entrance deficiencies should be made up as early as possible, preferably in the first year.

Preprofessional Curriculum

Preprofessional sciences courses must be completed within the six years just prior to admission to a professional program. Exceptions to this policy may be made on a case-by-case basis at the discretion of the program faculty. Documentation of competency must be provided by the applicant requesting the exception. There is no appeal for an exception request of this policy.

These courses are taken under direction of the College of Liberal Arts and Sciences

FIRST YEAR
- BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
- CHM 1220 -- (PS) General Chemistry I: Cr. 4
- CHM 1230 -- General Chemistry I Laboratory: Cr. 1
- CHM 1240 -- Organic Chemistry I: Cr. 4
- CHM 1250 -- Organic Chemistry I Laboratory: Cr. 1
- CLS 2080 -- Clinical Laboratory Science Seminar: Cr. 1
- COM 1010 -- (OC) Oral Communication: Basic Speech: Cr. 3
- CSC 1000 -- (CL) Intro. to Computer Science: Cr. 3
  (or Competency Examination)
- ENG 1020 -- (BC) Introductory College Writing: Cr. 4
- MAT 1800 -- Elementary Functions: Cr. 4
- HS, VP, FC, SS, AI, or PL General Education Requirement: Cr. 3-4
- HS, VP, FC, SS, AI, or PL General Education Requirement: Cr. 3-4
- Total credits: 32-37

SECOND YEAR
- BIO 2200 -- (LS) Introductory Microbiology: Cr. 4
- BIO 2870 -- Anatomy and Physiology: Cr. 5
- CHM 2220 or CHM 2280
  -- Organic Chemistry II: Cr. 3 (recommended)
  -- General Chemistry II: Analytical Chemistry: Cr. 3
- CHM 2230 or CHM 2290
  -- Organic Chemistry II Lab: Cr. 2
  -- General Chemistry II: Analytical Lab: Cr. 2
- ENG 3010 or ENG 3050
  -- (IC) Intermediate Writing: Cr. 3
  -- (IC) Technical Communication I: Cr. 3
  -- or any Intermediate Composition (IC) course
- PHI 1050 -- (CT) Critical Thinking: Cr. 3
  (or Competency Examination)
- STA 1020 -- Statistics: Cr. 3
- HS, VP, FC, SS, AI, or PL General Education Requirement: Cr. 3-4
- HS, VP, FC, SS, AI, or PL General Education Requirement: Cr. 3-4
- HS, VP, FC, SS, AI, or PL General Education Requirement: Cr. 3-4
  (may be taken during the professional program)
- Total credits: 29-35

Professional Program

Professional Program Admission: The junior class is admitted to the professional curriculum in the Fall Semester only. An application for admission to the program must be submitted to the Clinical Laboratory Science Program by April 1 of the year one wishes to enter the professional curriculum.

The Admissions Committee is composed of clinical laboratory scientists on the faculty and adjunct faculty from clinical affiliates. The Admissions Committee will interview and consider for admission all students who have:

1. The following cumulative grade point averages by the end of the second semester of the year preceding admission to the professional program:

(a) 2.5 or greater overall average; and

(b) 2.5 or greater combined science average (biology, chemistry, computer science, mathematics).

2. A grade of 'C' or better in ALL preprofessional courses.

3. No more than two marks of 'R' or two marks of 'W' or 'WF' in science courses. (If all courses are withdrawn in a single semester, it counts as one 'W.')

4. Completed all preprofessional courses (see above) by the end of the summer semester prior to admission to the professional program.

5. Submitted, in addition to the application, the following:

(a) Two references (reference forms available in the CLS/CT application packet) from: one employer and one science faculty member (If there is no employer, two science faculty references may be submitted).

(b) If the student has transferred to Wayne State University, submitted official transcripts from all former undergraduate schools.

Since clinical positions are limited, the Admissions Committee must consider each applicant individually. A sound academic background, a familiarity with the profession and its demands, together with a desire to advance the field of clinical laboratory science through research, teaching or service are important factors for consideration. Emotional stability, maturity and the ability to communicate are among the criteria used in considering students.

The decision of the Admissions Committee will be: 1) Accepted, 2) Denied, or 3) Conditional Acceptance. (If applicants are taking prerequisite courses during the application process, acceptance will not be final until satisfactory completion of the requirements.)

All requests for additional information should be addressed to the Department of Fundamental and Applied Sciences, Clinical Laboratory Science Program, Eugene Applebaum College of Pharmacy and Health Sciences.

Professional courses and/or professional program admission requirements are subject to change without notification. The curriculum is subject to change due to adjustments in requirements for entry into professional practice, which may be separate from academic requirements. It is the student's responsibility to obtain current information regarding the Clinical Laboratory Science Program.

Degree Requirements

Candidates for the Bachelor of Science in Clinical Laboratory Science must complete 123-134 credits in course work, including sufficient credits to fulfill the University General Education Requirements (see page 18) not satisfied by either required courses or the student's choice of electives in the preprofessional program. The distribution of the total credits for the degree will be between the preprofessional program (see above) and the following professional program:

CLS Professional Curriculum

Basic science courses in this program are taken under the direction of the faculty of Clinical Laboratory Science in cooperation with the faculty of the Department of Fundamental and Applied Sciences and the staff of affiliated clinical institutions.

THIRD AND FOURTH YEARS

CLS 3020 -- Hematology Lecture/Lab: Cr. 4
CLS 3040 -- Immunohematology Lecture/Lab: Cr. 4
CLS 3080 -- Instrumentation Lecture/Lab: Cr. 4
CLS 3090 -- Professional Practice I: Cr. 1
CLS 3100 -- Basic Techniques: Microscopy: Cr. 3
CLS 3280 -- Clinical Chemistry Lecture/Lab: Cr. 4
CLS 3330 -- Medical Terminology: Cr. 1
CLS 4040 -- Professional Practice II: Cr. 2
CLS 4230 -- Hemostasis/Special Hematology: Cr. 3
CLS 4800 -- Professional Practice III: Cr. 2
CLS 4990 -- Professional Directed Study: Cr. 1 (if needed)
CLS 5500 -- Immunology and Serology: Cr. 3
CLS 5510 -- Bacteriology: Cr. 5
CLS 5520 -- Virology, Mycology, and Parasitology: Cr. 3
CLS 5550 -- Molecular Diagnostics: Cr. 3
CLS 5993 -- (WI) Writing Intensive Course in CLS: Cr. 0
M S 5020 -- Biochemical Basis of Pathophysiology: Cr. 3
HS, VP, FC, SS, AI, or PL General Education Requirements: Cr. 3-4 (if needed)

SIX-MONTH CLINICAL EXPERIENCE
(Second Semester/Senior Year):

CLS 4000 -- Clinical Hematology: Cr. 5
CLS 4010 -- Clinical Chemistry: Cr. 3
CLS 4020 -- Clinical Blood Bank: Cr. 2
CLS 4030 -- Clinical Microbiology: Cr. 5
CLS 4050 -- Clinical Immunology: Cr. 1
CLS 5070 -- Clinical Pathology Correlation: Cr. 2

CLS 4000, 4010, 4020, 4030, and 4050 will be taken at a hospital affiliated with the Eugene Applebaum College of Pharmacy and Health Sciences.

Academic Standing: Students must demonstrate sufficient skills and knowledge to be placed in a clinical experiential sequence. No student will be admitted to the clinical experiential courses with an overall g.p.a. of less than 2.5 in the professional courses. Students must achieve a 'C' (73%) or better in all professional courses before advancing to clinical courses. No senior student will be graduated with a grade of less than 'C' in any clinical course.

Dismissal and Readmission: Any student with a semester g.p.a. less than 2.0 is subject to dismissal. The student who receives a final grade of 'F' and/or a second 'D' in a junior (first professional) or senior year course is automatically dismissed from the program. Any student who fails to achieve a 'C' or better in a clinical course may be dismissed from the program

Students who have been dismissed for academic reasons and wish to be readmitted to the clinical laboratory science professional curriculum will have the opportunity to do so only once. Students must receive a 'C' or above in all repeated courses in order to continue in the program. The decision to readmit a student will be on a competitive basis and readmission is not guaranteed. If, upon readmission, the student fails to meet the academic standards of the Program he/she will be dismissed and not readmitted any time thereafter.

Any student who has been dismissed for academic reasons during the first admission to the program but has successfully completed clinical laboratory science or cytotechnology course work with a grade of 'C' or better need not repeat these courses upon final readmission. All courses receiving a final grade less than 'C' ('C-minus,' 'D,' or 'F') must be repeated. It may be necessary for the student to change status from full-time to part-time in order to repeat the academically substandard work. If more than one year elapses from the time these courses were successfully completed, and the student is readmitted, it may be necessary to repeat the entire course of study. The faculty reserves the right to recommend repetition of courses for any student who is readmitted to the professional program and, in specific cases, may alter this policy and assign a directed study.

Change of Status: Any student wanting to have their status changed from full-time to part-time must comply with the following guidelines:

1. Request the status change no later than the ninth week of classes from the Clinical Laboratory Science Program Director.

2. Present a reason or reasons acceptable to the Clinical Laboratory Science Program as determined by the faculty, realizing that this decision will be final.

3. Continue as a part-time student under the predetermined curriculum as set forth by this Program.

4. Understand that this option may be limited by current and future enrollment; again, the decision of the faculty on this basis is final.

Health and Liability Insurance: Clinical instruction may be provided throughout the professional program along with didactic course work. A portion of the Senior Year may be spent in one or more assignments in selected clinical facilities throughout the metropolitan Detroit area and Michigan. Patient care involves inherent risk of exposure to potential diseases, particularly blood-borne pathogens, and the risk of possible mishaps in patient care. Therefore, all students are required to maintain health insurance coverage and liability insurance, both of which must be in effect prior to and during all periods in which the student is involved in clinical education. The student is responsible for the cost of these insurances and all other costs (such as travel, meals, and living expenses) associated with the clinical education portion of the program.

Bachelor of Health Science — Cytotechnology Concentration

Cytotechnology is a challenging field involving the microscopic inspection and evaluation of slide preparations of various human cells and/or organs. A cytotechnologist identifies changes in the body's cells and practices under the direction of a pathologist. Microscopic examinations of specially stained slides are made to detect cytoplasmic or nuclear changes of cells that may differentiate healthy cells from those suspected of being cancerous or of having other structural abnormalities. While the majority of cytotechnologists work in hospitals, graduates are also prepared for positions in research laboratories, private and clinical laboratories and in cytotechnology education.

The freshman and sophomore years constitute the preprofessional curriculum with courses taught by the faculty of the College of Liberal Arts and Sciences (or equivalent courses at another accredited institution). The professional curriculum begins with the junior year and is taught by the faculties of Clinical Laboratory Science and the College of Liberal Arts and Sciences. The senior year consists of an eleven-month clinical experience in the laboratory of an affiliated hospital.

Accreditation: The degree program in cytotechnology is four years in duration, culminating in the degree Bachelor of Health Science with a concentration in cytotechnology. The four-year program fulfills the requirements for cytotechnology education of the National Accrediting Agency for Clinical Laboratory Science in collaboration with the American Society of Cytology. A graduate from Wayne State University with this degree is eligible to take a national certification examination in cytotechnology.

Admission — Pre-professional

Admission requirements are the same as for the Bachelor of Science in Clinical Laboratory Science; see page 449.

Pre-professional Program

BIO 1500 is required in addition to the preprofessional requirements for the Bachelor of Science in Clinical Laboratory Science; see page 449.

Professional Program

Professional Program Admission: The junior class is admitted to the professional curriculum in the Fall Semester only. An application for admission to the program must be submitted to the Department of Fundamental and Applied Sciences, Clinical Laboratory Science, by March 1 of the year one wishes to enter the professional program. Professional program admission requirements are the same as for the general Bachelor of Science in Clinical Laboratory Science; see page 449. For further information, write: Department of Fundamental and Applied Sciences, Clinical Laboratory Science Program, Eugene Applebaum College of Pharmacy and Health Sciences, Wayne State University, Detroit, Michigan 48202.

Professional courses and/or professional program admission requirements are subject to change without notification. The curriculum is subject to change due to changes in requirements for entry into professional practice, which may be separate from academic requirements. It is the student's responsibility to obtain current information regarding the program from the Department of Clinical Laboratory Science.

Degree Requirements

Candidates for the Bachelor of Health Science with a concentration in cytotechnology must complete at least 120 credits in course work, plus sufficient credits to fulfill the University General Education requirements (see page 18) not satisfied by either required courses or the student's choice of electives in the preprofessional program. The distribution of the total credits for the degree will be between the preprofessional program (see page 449) and the professional program as follows:

Professional Curriculum

Basic science courses in this program are taken under the direction of the faculty of the Department of Fundamental and Applied Sciences in cooperation with the College of Arts and Sciences and the staff of the affiliated clinical institutions. The third year begins ONLY in Fall Semester.

THIRD YEAR

BIO 2600 -- Introduction to Cell Biology: Cr. 3
BIO 3070 -- Genetics: Cr. 5
CLS 3020 -- Hematology Lecture and Laboratory: Cr. 4
CLS 3090 -- Professional Practice I: Cr. 1
CLS 3100 -- Basic Techniques: Microscopy: Cr. 3
CLS 3380 -- Basic Cytotechnology Technique and Research: Cr. 3
CLS 4040 -- Professional Practice II: Cr. 2
CLS 4490 -- Cytotechnology Technique: Female Genital Tract: Cr. 4
CLS 5550 -- Molecular Diagnostics: Cr. 3
CLS 5500 -- Immunology & Serology: Cr. 3
CLS 5560 -- Human Histology: Cr. 4
CLS 5993 -- (WI) Writing Intensive Course in CLS: Cr. 0
M S 4150 - Histochemistry: Cr. 3
HS, VP, FC, SS, AI, or PL General Education Requirement: Cr. 3-4 (If needed)

FOURTH YEAR

CLS 4500 -- Cytotechnology Non-Gynecological Technique I: Cr. 13
CLS 4510 --Cytotechnology Non-Gynecological Technique II: Cr. 16

Bachelor of Health Science — Laboratory Science Concentration

This degree is for students interested in entering a graduate program after graduation. The curriculum allows flexibility in course selection to meet the prerequisites for the Pathology Assistants Program, Physician Assistants Program, or graduate school in a basic medical science. This degree does not include any clinical experiential courses. Admission to the CLS Program is required.

REQUIRED COURSES

CLS 3020 -- Hematology Lecture and Laboratory: Cr. 4
CLS 3040 -- Immunohematology Lecture/Lab: Cr. 4
CLS 3080 -- Instrumentation Lecture and lab.: Cr. 4
CLS 3090 -- Professional Practice I: Cr. 1 (or approved elective)
CLS 3100 -- Basic Techniques: Microscopy: Cr. 3
CLS 3280 -- Clinical Chemistry Lecture/Lab: Cr. 4
CLS 3330 -- Medical Terminology: Cr. 1
CLS 4040 -- Professional Practice II: Cr. 2 (or approved elective)
CLS 4230 -- Hemostasis/Special Hematology: Cr. 3
CLS 4800 -- Professional Practice III: Cr. 2 (or approved elective)
CLS 4990 -- Professional Directed Study: Cr: 1-7
CLS 5500 -- Immunology & Serology: Cr. 3
CLS 5510 -- Bacteriology: Cr. 5
CLS 5520 -- Virology, Mycology, and Parasitology: Cr. 3
CLS 5550 -- Molecular Diagnostics: Cr. 3
CLS 5993 -- (WI) Writing Intensive Course: Cr. 0
M S 5020 -- Biochemical Basis of Pathophysiology: Cr. 3

APPROVED ELECTIVES: Cr. 18-24 Electives must be approved by the CLS Program and may include (list is not all inclusive):

CLS 4990 -- CLS Professional Directed Study: 1-7
Ethics (PHI 1110 or 2320)
Genetics
Advanced Physiology
Nutrition
Cell Biology
General Physics
Advanced Psychology

CREDITS NEEDED TO GRADUATE: 125 CREDITS

Student Aid

The University offers opportunities to students in need of financial assistance to meet the expenses of their education. Information about scholarships and loans is available from the University Office of Student Financial Aid, located in the Welcome Center.

The Katherine M. Beatty Scholarship is awarded to two CLS students as they begin the clinical experiential in the senior year. For further information and applications, contact the Department secretary.

The Christine A. Ford Memorial Scholarship is available to students as they begin the clinical laboratory science or cytotechnology program. For further information, contact the Department secretary.

The Medical Technology/Clinical Laboratory Science Alumni Association has established a scholarship fund available to junior year full-time clinical laboratory science and cytotechnology students. Information is available through the Fundamental and Applied Sciences Department secretary.

The Dr. Alexander Wallace III and M. Ann Wallace Endowed Scholarship is available to a junior year clinical laboratory science or cytotechnology student. For further information, contact the Department secretary.

Professional societies and manufacturers of laboratory equipment and reagents also offer scholarships to senior year CLS students. Contact the Program Director for more information.

Medical Technology/ Clinical Laboratory Science Alumni Association

Organized in 1978, the Medical Technology/Clinical Laboratory Science Alumni Association was established for the purpose of developing and maintaining rapport between the graduates and the faculty of the Clinical Laboratory Science Program. In addition to being supportive of the University, one of the main functions of the Alumni Association is to provide continuing educational opportunities and social activities for alumni, faculty and students of the Clinical Laboratory Science Program.

Student Professional Activities: All CLS students may participate in the local, state and national organizations of the American Society for Clinical Laboratory Science. Cytotechnology students have the opportunity to join the national Cytotechnology Society during their senior year.

CLINICAL LABORATORY SCIENCE COURSES (CLS)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

2080 Clinical Laboratory Science Seminar. Cr. 1
Offered for S and U grades only. Introduction to clinical laboratory sciences. Opportunities and responsibilities. (F,W)

2990 Pre-professional Directed Study. Cr. 1-3
Prereq: enrollment in pre-clinical laboratory science program. Offered for S and U grades only. Independent study under faculty supervision. (F,S)

3020 Hematology Lecture and Laboratory. Cr. 2-4
Prereq: junior in clinical laboratory science program or consent of instructor. Basic study of blood-forming organs and components of blood; explanation of basic hematological procedures. Material Fee As Indicated In The Schedule of Classes (W)

3040 Immunohematology Lecture and Laboratory. Cr. 2-4
Prereq: junior in clinical laboratory science or consent of instructor. Principles of immunology and theory of procedures employed in the clinical blood bank. Organization and operation of a blood bank. Material Fee As Indicated In The Schedule of Classes (S)

3080 Instrumentation Lecture and Laboratory. Cr. 2-4
Prereq: junior standing in clinical laboratory science or consent of instructor. Introduction to fundamental laws of electronics, the theoretical basis of instrument design, and quality control in laboratory testing. Application of instrumental methods, including spectrophometric, flurometric, electroanalytical, and chromatographic methods to the clinical laboratory. Material Fee As Indicated In The Schedule of Classes (F)

3090 Professional Practice I. Cr. 1-2
Prereq: junior in clinical laboratory science program. LIS systems, computers in laboratories, pre- and post-professional practice, ethics, critical thinking in the lab. (F)

3100 Basic Techniques: Microscopy. Cr. 2-3
Prereq: junior in clinical laboratory science program or consent of instructor. Specimen collection, preparation, and examination of urine and other body fluids such as spinal fluid, semen, and synovial fluid. Material Fee As Indicated In The Schedule of Classes (F)

3280 Clinical Chemistry Lecture and Laboratory. Cr. 4
Prereq: junior in clinical laboratory science program or consent of instructor. Methodologies and interpretations of results of clinical chemistry diagnostic tests. Material Fee As Indicated In The Schedule of Classes (W)

3330 Medical Terminology. Cr. 1
Study of medical terms in a body system approach. Review of anatomy and physiology. (F)

3380 Basic Cytotechnology Technique and Research. Cr. 3
Prereq: junior standing in clinical laboratory science, cytotechnology concentration. Introduction to basic laboratory methodology including microscopy, laboratory safety, pipetting, quality control/assurance, specimen collection and handling, laboratory statistics and calculations, selected laboratory instrumentation, and related carcinoma topics. Field work includes in-depth study of cytopathology topic. Material Fee As Indicated In The Schedule of Classes (F)

4000 Clinical Hematology. Cr. 5
Prereq: senior standing in clinical laboratory science program. Theory and principles for evaluation of the quantity, morphology and function of cellular components of blood. (T)

4010 Clinical Chemistry. Cr. 2-4
Prereq: senior standing in clinical laboratory science program. Biochemical analysis of blood and other body fluids to determine values of various chemical substances, using routine methods and automation. (T)

4020 Clinical Blood Bank. Cr. 1-4
Prereq: senior standing in clinical laboratory science program. Theory and principles involving antigen-antibody reactions of blood. Obtaining, storage and preparation of whole blood or blood components for infusion. (T)

4030 Clinical Microbiology. Cr. 5-6
Prereq: senior standing in clinical laboratory science. Obtaining, culturing, identification and antibiotic sensitivity of microorganisms causing infection or infestation. (T)

4040 Professional Practice II. Cr. 2
Prereq: junior standing in clinical laboratory science. Lab management, lab education, principles of lab research, applied lab problem solving. (W)

4050 Clinical Immunology. Cr. 1

Prereq: senior standing in clinical laboratory science program. Study of diseases related to diagnostic immunology. (T)

4060 Clinical Serology. Cr. 1

Prereq: senior standing in clinical laboratory science. Theory and procedures for identification of antibodies produced as a result of infection by microorganisms and collagen diseases. (W)

4070 Special Chemistry. Cr. 4-5

Prereq: senior standing in clinical laboratory science program. Areas of analysis including hormonal studies, electrophoretical determinations, tumor markers, drug analysis, other esoteric component measurements. (Y)

4080 Clinical Coagulation. Cr. 1

Prereq: senior standing in clinical laboratory science program. Study of process that maintains flowing blood in a fluid state and prevents loss of blood from sites of vascular disruption. (Y)

4090 Special Microbiology. Cr. 1

Prereq: senior standing in clinical laboratory science program. Study of diseases related to diagnostic medical microbiology. (Y)

4230 Hemostasis/Special Hematology. Cr. 3-4

Prereq: student in clinical laboratory science or consent of instructor. Normal and abnormal blood coagulation including platelet function. Introduction to hematologic neoplasms. Application of laboratory methods for diagnosis and treatment. Material Fee as given in Schedule of Classes. (F)

4250 Laboratory Techniques. Cr. 2-4

Prereq: junior in clinical laboratory science program or consent of instructor. Basic techniques common to testing in clinical laboratory disciplines. Safety policies and regulations. Calculations necessary for preparation of solutions. Specimen collection and handling. Preparation of blood and fluid smears and staining techniques. Microscope use. Material Fee As Indicated In The Schedule of Classes (F)

4490 Cytotechnology Technique: Female Genital Tract. Cr. 4

Prereq: junior standing in clinical laboratory science, cytotechnology concentration. Study and analysis of cells in the female genital tract that are spontaneously exfoliated, mechanically dislodged by irritation, brushing or scraping, or forcibly removed by needle aspiration for detection and diagnosis of cancer. (S)

4500 Cytotechnology Non-Gynecologic Technique I. Cr. 4-17

Prereq: senior standing in clinical laboratory science, cytotechnology concentration. Study and analysis of cells from the respiratory tract, breast, urinary and GI tract. Cytotologic emphasis on detection and diagnosis of cancerous cells. (F)

4510 Cytotechnology Non-Gynecologic Technique II. Cr. 1-16

Prereq: CLS 4500. Study and analysis of cells from effusion, the eye and CSF including cytopreparatory methodology. Cytologic emphasis on detection and diagnosis of cancerous cells. (W)

4800 Professional Practice III. Cr. 1-2

Case studies, poster and presentation. (F)

4990 Professional Directed Study. Cr. 1-8

Prereq: enrollment in clinical laboratory science program. Offered for S and U grades only. Independent study under faculty supervision. (T)

5070 Clinical Pathology Correlation. Cr. 1-2

Prereq: senior standing in clinical laboratory science or consent of instructor. Correlation of laboratory data and clinical history through the analysis of case studies. (T)

5330 Clinical Cytogenetics. Cr. 1-10 (Max. 30)

Prereq: B.S. degree in applied science, clinical laboratory science, statistics, genetics, or molecular diagnostics. Clinical training in diagnostic cytogenetics laboratory/ies. (T)

5500 Immunology and Serology. Cr. 3

Open only to clinical laboratory science students; others by written consent of instructor. Lecture and laboratory; applications of immunology and serology in a lab setting, including relevance to human medicine. Material Fee As Indicated In The Schedule of Classes (F)

5510 Bacteriology. Cr. 2-6

Open only to clinical laboratory science students; others by written consent of instructor. Lectures and laboratory exercises in the fundamentals of microbiology, focusing on bacteria and their role in human disease. Material Fee As Indicated In The Schedule of Classes (W)

5520 Virology, Mycology, Parasitology. Cr. 3

Prereq: CLS 5510. Open only to clinical laboratory science students; others by written consent of instructor. Lecture and laboratory course in diagnostic and clinical virology, mycology, and parasitology. Material Fee As Indicated In The Schedule of Classes (F)

5550 Molecular Diagnostics. Cr. 3

Prereq: senior in CLS Program or consent of instructor. Review of molecular biology applicable to current testing systems. Laboratory techniques to elucidate molecular structure and disease states; DNA hybridization, agarose gel electrophoresis; southern and western blot techniques; DNA sequencing. Material Fee As Indicated In The Schedule of Classes (F)

5560 Human Histology. Cr. 4

Characteristics and identification of human tissue microanatomy. Functional interpretation of human microstructure. (F)

5993 (WI) Writing Intensive Course in Clinical Laboratory Science. Cr. 0

Prereq: junior standing, satisfactory completion of the IC requirement, consent of instructor; coreq: any 3000-level or higher course in the department and written consent of chairperson. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Course must be elected in conjunction with designated corequisite; see Schedule of Classes for corequisites available each term. Satisfies University General Education Writing Intensive Course in the Major requirement. (T)

Mortuary Science

Office: 5439 Woodward Ave.; 313-577-2050
Program Director: Peter D. Frade

Associate Professor

Peter D. Frade

Assistant Professors

David Ladd

Part-Time Instructors and Instructional Assistants

Gail Bentley, Connie Billiter, Shirley Brogan, Jamye Cameron, John Canine, Sharon Gee, Debra Green, Roger Husband, Mark Kachar, Michael Kusluski, , Amanda Oberlee-Clouse, Diane Pepper, Trina Sherlitz, Michael Wilk, Robert Wilk, Robert Will, Stamatina Ziemba

Adjunct Professor

David J. Grignon

Adjunct Associate Professors

Gilbert Herman, Edward J. Kerfoot, Eugene V. Perrin

Adjunct Assistant Professor

Daniel Spitz

Degree Programs

BACHELOR OF SCIENCE in Mortuary Science

BACHELOR OF SCIENCE in Anatomic Pathologists' Assistant

POST-BACHELOR'S CERTIFICATE in Forensic Investigation

GRADUATE CERTIFICATE in Analytical Toxicology for Forensic and Environmental Health Scientists

Mortuary Science offers professional curricula within degree and certificate programs designed to enable public health personnel to deal effectively with personal and practical matters attendant on death and dying, achieve competency and standards of practice in surgical and autopsy pathology as required in hospital and medicolegal facilities, and to provide training of individuals who desire a foundation in forensic investigative modalities.

The Bachelor of Science in Mortuary Science degree meets the educational requirements for mortuary science licensure in the State of Michigan, and meets or exceeds the educational licensure requirements of most other states. The program is accredited by the American Board of Funeral Service Education (ABFSE), 3432 Ashland Avenue, Suite G, St. Joseph, MO 64506, (816) 233-3747, FAX (816) 233-3793, www.abfse.org. The annual passage rate of first-time takers of the National Board Examination (NBE) for the most recent three-year period for this institution and all ABFSE accredited funeral service education programs is posted on the ABFSE website: http://www.abfse.org.

The Anatomic Pathologists' Assistant program trains highly qualified professionals in all aspects defined by the American Association of Pathologists' Assistants (AAPA) in clinical and surgical pathology and as required by the Board of Registry Examination of the American Society for Clinical Pathology (ASCP). The Bachelor of Science in Pathologists' Assistant degree program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N.River Rd., Suite 720, Rosemont, IL 60018-5119; 773-714-8880, FAX 773-714-8886, www.naacls.org.

The Post-Bachelor Certificate in Forensic Investigation program offers individuals career enhancement or educational development formats. The program is designed for students with a bachelor's degree from a four-year regionally accredited institution who wish to gain competence in the area of forensic investigation.

The services and facilities characteristic of a major university are available to students in these programs. In addition to its own full-time faculty, the instructional staff is selected from the various departments of the University as well as from the core of experienced practitioners in the community. The professional programs offer extensive opportunity to participate in clinical/practicum training.

Prospective students should direct inquiries to: Department of Fundamental and Applied Sciences, Mortuary Science Program, 5439 Woodward Ave., Detroit, Michigan 48202; telephone: 313-577-2050; Fax: 313-577-4456; http://mortsci.wayne.edu.

ACADEMIC REGULATIONS

For complete information regarding academic rules and regulations of the University and of the College, students should consult the sections in this bulletin, page 24 and page 444. The following additions and amendments pertain to the Mortuary Science programs.

Attendance

Students are expected to adhere to departmental and program attendance requirements. Anticipated absence from lecture or laboratory classes should be reported to the appropriate faculty member.

Leaves of Absence

Leaves of absence may be granted to students with documented health problems or extenuating circumstances as well as to those pursuing appropriate educational opportunities outside the college.

Promotion/Dismissal

Evaluation of students is primarily the responsibility of teaching faculty who make recommendations to the Promotion and Advancement Committee. These recommendations may include: promotion, reexamination, repetition of all or part of the curricula, interruption or suspension or probation of a student's program, or dismissal.

The Promotion and Advancement Committee is chaired by the Chairperson of the Department and consists of six members selected from appropriate programs. The Promotion and Advancement Committee is available to meet at the close of each semester, as required.

A student may be excluded from a program for irresponsible attendance and/or irresponsible performance in clinical/practicum assignments. Students must demonstrate traits of character, stamina, and emotional stability appropriate to the professions. Students may be required to withdraw from the program if, in the judgment of the Promotion and Advancement Committee, they fail to maintain appropriate standards of conduct and academic progress.

Students have the right to appeal decisions by direct petition to the Promotion and Advancement Committee. In the event of such an appeal, the Committee may gather evidence and hear witnesses. The student has the right to be heard by the Committee and has the right to call a reasonable number of witnesses to testify on his/her behalf. The Promotion and Advancement Committee is the final decision-making body with regard to the promotion process.

Appellate Procedure for Course Grade Review

Following the Departmental submission of grades in a professional course area and in the event of a student's objection to the submitted grade, the student is advised to utilize the published grade appeal

process of the Eugene Applebaum College of Pharmacy and Health Sciences. The appellate procedure should be initiated by directing a letter of request for such a review to the Chairperson, Department of Fundamental and Applied Sciences.

Financial Aid

Students in the mortuary science funeral service professional curriculum are eligible for the Gordon W. Rose Scholarship, the Michigan Mortuary Science Foundation Scholarship, the International Order of the Golden Rule Scholarship, the American Board of Funeral Service Education Scholarship, the Summit Scholarship, Key Memories Scholarship, and the York Great Lakes Merchandising Scholarship as well as other scholarships and loans available to all University students. Inquiries should be directed to the University Office of Student Financial Aid, located in the University Welcome Center, and/or the Department.

Students enrolled in the third year of the mortuary science program are eligible to apply for scholarships made available by the Michigan Mortuary Science Foundation and the American Board of Funeral Service Education. Inquiries should be directed to the Mortuary Science Program Director.

The application for financial aid from the Office of Student Financial Aid is January 15. For further information, contact: the Office of Student Financial Aid; telephone: 313-577-3378.

Vocational Guidance and Placement

Students contemplating careers in mortuary science or as pathologists' assistants may take advantage of the Department and University counseling services. Every effort is made by the Departmental staff to acquaint the applicant with the vocational aspects of the professions.

Advanced Placement

Applicants wishing to transfer professional course work from other accredited institutions must submit the catalog description of each course, and a copy of each course syllabus. In addition, applicants may be required to successfully complete with a grade of 'C' or better an equivalency examination administered by the specific program of interest.

Bachelor of Science in Mortuary Science

The program leading to the Bachelor of Science in Mortuary Science fulfills the requirements for licensure in the State of Michigan and most other states. The degree program consists of a preprofessional and professional component as follows:

Preprofessional Program: This program incorporates course work required to satisfy University General Education Requirements, see page 18.

Students entering as freshmen and intending to pursue a degree in mortuary science must complete the preprofessional program (see below) offered through the College of Liberal Arts and Sciences. For admission requirements to this college see the regular undergraduate admission to the University, page 24.

Preprofessional Program (Minimum sixty credits)

Specific mortuary science professional curriculum prerequisites completed with a grade of 'C' or better.

PROGRAM-SPECIFIC PREREQUISITES:

- Accounting (ACC 3010 or equivalent): Cr. 3
- Biology (BIO 1510 or equivalent) (LS): Cr. 4
- Anatomy (BIO 2870 or equivalent): Cr. 5
- Microbiology (BIO 2200 or equivalent) (LS): Cr. 4
- Chemistry (CHM 1020 or equivalent) (PS): Cr. 4
- Chemistry (CHM 1030 or equivalent): Cr. 4
- English (IC) (ENG 1020 or equivalent): Cr. 4
- English (ENG 3010 or equivalent): Cr. 3
- Psychology (LS) (PSY 1010 or equivalent): Cr. 4
- Psychology (PSY 2410 or equivalent): Cr. 4
- Computer Science (CL) (CSC 1000 or equivalent): Cr. 3
- Communication (OC) (COM 1010 or equivalent): Cr. 3

UNIVERSITY GENERAL EDUCATION REQUIREMENTS:

- Historical Studies (HS): Cr. 3
- Critical and Analytic Thinking (CT): Exam or coursework: Cr. 3
- Philosophy and Letters (PL): Cr. 3
- American Society & Institutions (AI): Cr. 3
- Visual & Performing Arts (VP): Cr. 3
- Social Sciences (SS): Cr. 3
- Foreign Culture (FC): Cr. 3
- Math Competency (MC) -- Exam or coursework

Electives to complete the sixty-eight credit requirement for admission to the Mortuary Science program are authorized in consultation with the Office of Student Affairs in the Eugene Applebaum College of Pharmacy and Health Sciences and the Program Director of the Mortuary Science program.

Applicants with a prior baccalaureate degree will be deemed to have satisfied all of the General Education requirements and the sixty-eight credits of prerequisite course work. However, the applicant must satisfy the above mortuary science curriculum specific prerequisites if they are not part of the prior degree program.

No more than sixty-four credits may be transferred from a two-year college program. Applicants with a prior Associate Degree, certified by the Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO), will be deemed to have satisfied all of the General Education Group requirements. See Office of Student Affairs in the Eugene Applebaum College of Pharmacy and Health Sciences for additional information.

Credit granted by examination (e.g., CLEP) is acceptable. For information on CLEP examinations, contact: Testing, Evaluation, and Student Life Research Services: 313-577-3400.

Professional Program Admission

Admission: The Mortuary Science Program will consider for admission applicants who have:

1) Completed a minimum of sixty-eight credits in pre-professional course work including all pre-requisites, University General Education Requirements and program specific requirements taken at an accredited college of University with a grade of 'C' or better as defined in the pre-professional program description above.

2) Attained an overall cumulative grade point average of 2.5.

3) Been Admitted to Wayne State University.

4) Completed a test of English as a Foreign Language (TOEFL) if English is not the applicant's first language.

5) Submitted a completed application to the Department of Fundamental and Applied Sciences, Mortuary Science Program, by May 15 of the year one wishes to enter the program (http://www.cphs.wayne.edu/stuaff/index.php).

Conditional/Probationary Admission

Applicants who submit a *Plan of Work* indicating that all admission requirements will be satisfied prior to August 20th of the year one wishes to enter the program may be admitted on the 'condition' of completion of the *Plan of Work*.

Applicants to the professional program in mortuary science having less than 2.5 g.p.a. may, at the discretion of the Mortuary Science Program Admissions Committee, be admitted on a probationary basis for the semester of initial registration. A student admitted in this

category must earn a minimum g.p.a. of 2.5 to qualify for subsequent semesters of professional program enrollment.

Physical Examination

All applicants, including transfer students from Colleges within Wayne State University, are required to submit to the Mortuary Science Program the results of a TB test administered within six months preceding their entrance into the program and a copy of their immunization history. Immunization against Hepatitis B Virus (HBV) is strongly advised; enrollees declining immunization are required to do so in writing.

Time Limitations

While students are strongly encouraged to enroll full-time for three consecutive semesters, part-time enrollment will be limited to six consecutive semesters and is permitted only at the discretion of the Mortuary Science Program Admission Committee. There is a two year time limitation for completion of the mortuary science and the anatomic pathologists' assistant programs.

Professional Mortuary Science Curriculum

THIRD YEAR

Fall Semester

M S 3100 -- Chemistry: Cr. 3
M S 3500 -- Embalming I: Cr. 3
M S 3600 -- Restorative Art and Modeling I: Cr. 2
M S 3800 -- Mortuary Management I: Funeral Directing: Cr. 3
M S 3830 -- Psychology of Death and Dying: Cr. 3
M S 4050 -- Human Anatomy and Physiology: Cr. 3
M S 5996 -- (WI) Senior Seminar: Cr. 2
Total credits: 17

Winter Semester

M S 0999 -- Practicum: Cr. 0
M S 3300 -- Religions, Values, and Death: Cr. 3
M S 3400 -- Mortuary and Business Law I: Cr. 3
M S 3510 -- Embalming II: Cr. 3
M S 3610 -- Restorative Art and Modeling II: Cr. 2
M S 3810 -- Mortuary Management II: Administration: Cr. 3
M S 4250 -- Microbiology for Mortuary Science: Cr.2
M S 5350 -- Applied Grief Counseling: Aftercare: Cr. 2
Total credits: 18

Spring/Summer Semester

M S 3410 -- Mortuary and Business Law II: Cr. 3
M S 3620 -- Presentation and Cosmetizing: Cr. 2
M S 3760 -- Past and Future Trends in Funeral Service: Cr. 2
M S 3840 -- Psychosocial Aspects of Grief: Cr. 3
M S 3980 -- Professional Practice: Cr. .2
M S 4300 -- Introduction to the Study of Disease: Cr. 3
M S 4450 -- Small Business Financial Management: Cr. 3
Total credits: 18

Degree Requirements

The candidate for the Bachelor of Science in Mortuary Science must satisfactorily complete, with a grade point average of at least 2.5 a minimum of 120 credits, including the following:

1. Sixty-eight General Education credits as listed in the preprofessional program (see above).

2. Fifty-five credits in the basic mortuary science professional program curriculum.

3. The National Board Examination as provided by the International Conference of Funeral Service Education is a requirement for the completion of the accredited degree program

Completion of this program satisfies all departmental subject area group requirements, as well as the University General Education Requirements (see page 18).

Michigan State Licensure in Mortuary Science

To become eligible for licensure in the State of Michigan, one must fulfill the following educational requirements:

1. Complete an accredited program of academic instruction in mortuary science as defined by the American Board of Funeral Service Education.

2. Pass examinations as determined by the State Board.

3. Fulfill the requirements for resident training.

Direct inquiries for further information to: State of Michigan Department of Commerce, Bureau of Occupational and Professional Regulation, 2501 Woodlake Circle, Okemos MI 48864-5955 (telephone: 517-241-9252; Fax: 517-241-9280).

Bachelor of Science — Pathologists' Assistant Program

The Pathologists' Assistant program educates students to attain predescribed competencies as outlined by the American Association of Pathologists' Assistants (AAPA) and NAACLS accreditation agency. Graduates from the Pathologists' Assistant program assist the pathologist in variety of functions including but not limited to the performance of postmortem examinations and in the preparation of surgical specimens for microscopic evaluation, as well as to take responsibility for certain tasks delegated by supervising pathologists such as budgetary, superintending, and teaching duties. The Bachelor of Science in Pathologists' Assistant degree is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Rd, Suite 720, Rosemont, IL 60018-5119; 847.939.3597; 773-714-8880, FAX 773-714-8886, www.naacls.org. Please note that the current bachelor's level program is in transition to a graduate level program.

Admission — Preprofessional Program: Courses in this program are taken in the College of Liberal Arts and Sciences. Students seeking admission to the college should refer to the admissions requirements of the University as stated on page 24. Students must pass the required preprofessional courses with a grade of 'C' or better.

Admission — Professional Program: The junior class is admitted to the professional program in September ONLY. An Application for Admission to the program must be submitted to the Department Fundamental and Applied Sciences, Pathologists' Assistant Program, by May 15 of the year one wishes to enter the professional program. Applications are available from the Department of Fundamental and Applied Sciences, Pathologists' Assistant Program Director, 5439 Woodward Ave., Detroit, MI 48202; telephone: 313-577-2050; Fax: 313-577-4456 or may be downloaded off the program's websites at:

http://www.mortsci.wayne.edu or
http://www.cphs.wayne.edu/program/apa-bs-apply.php

The Admissions Committee, composed of faculty, admission officers, clinical coordinators, the medical director and chaired by the program director interview and consider for admission all students who: 1) have a cumulative g.p.a. of 2.5 or better overall, 2.5 or better in science and a 2.5 or better in program specific pre-requisites; 2) have completed all preprofessional courses by the time of admission and include a plan of work for any outstanding coursework in progress; 3) demonstrated the required level of proficiency in English; 4) admissible to Wayne State University and 5) have submitted a completed application to the Office of Student and Alumni Affairs, 259 Mack Avenue, Suite 1600, Detroit MI 48201 (e-mail: cphsinfo@wayne.edu) by April 15 of the year one wishes to enter the program. Please note that all science coursework and science course requirements must have been taken within the previous six years.

In addition, if the prospective applicant will be transferring to Wayne State, application for admission must be made to the University. Pre-

professional coursework taken at an accredited college of university is acceptable.

This is a competitive program limited by available clinical teaching affiliations. In reviewing applications, work experience, letters of evaluation/recommendation, science grades, program specific pre-requisites and overall g.p.a. will be considered. Although academic achievement is important, knowledge of the profession, ability to communicate, and personal qualities of maturity, motivation and integrity are equally important. Consequently, evaluations from faculty advisers and employment supervisors as well as personal interviews are given great weight in selection of candidates by the Admissions Committee.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Science in Pathologists' Assistant degree must satisfactorily complete 130 credits including the preprofessional and professional programs as outlined below, with a minimal grade point average of 2.5. Completion of this program satisfies all program subject area group requirements as well as the University General Education Requirements (see page 18). Graduates of the program are eligible to sit for the Board of Registry examination administered by the American Society for Clinical Pathology (ASCP) www.ascp.org/bor resulting in ASCP Certification.

PROGRAM-SPECIFIC SCIENCE and MATH PREREQUISITES:

BIO 1500 -- Basic Life Diversity: Cr. 4
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
BIO 2200 -- (LS) Introductory Microbiology: Cr. 4
BIO 2600 -- Introduction Cell Biology: Cr. 3
BIO 2870 -- Anatomy & Physiology: Cr. 5
BIO 3070 -- Genetics: Cr. 5
CHM 1020 -- Survey of General Chemistry: Cr. 4
CHM 1030 -- Survey of Organic / Biochemistry: Cr. 4
MAT 1800 -- Elementary Functions

PREPROFESSIONAL PROGRAM

FIRST YEAR

BIO 1500 -- Basic Life Diversity: Cr. 4
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
CHM 1020 -- (PS) Survey of General Chemistry: Cr. 4
CHM 1030 -- Survey of Organic/Biochemistry: Cr. 4
COM 1010 -- (OC) Oral Communication: Basic Speech: Cr. 3
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
MAT 1800 -- Elementary Functions: Cr. 4
PHI 1050 -- (CT) Critical Thinking: Cr. 3
Social Science (SS) elective: Cr. 3
Total credits: 33

SECOND YEAR

BIO 2200 -- (LS) Introductory Microbiology: Cr. 4
CSC 1000 -- (CL) Introduction to Computer Science: Cr. 3
ENG 3050 -- (IC) Technical Communication I: Cr. 3
Historical Studies (HS) elective: Cr. 4
Visual and Performing Arts (VP) elective: Cr. 4
PHI 2320 -- (PL) Introduction to Ethics: Cr. 3
Foreign Culture (FC) elective: Cr. 4
American Society and Institutions (AI) elective: Cr. 4
Total credits: 30

Professional Program: Courses in this program are taken under the direction of the faculty of the Department of Fundamental and Applied Sciences, Mortuary Science Department, Pathologists' Assistant Program, in cooperation with the School of Medicine, the Detroit Medical Center and affiliates. The third year begins only in September.

PROFESSIONAL PROGRAM

THIRD YEAR

Fall Semester

CLS 5560 -- Human Histology: Cr. 4
M S 5020 -- Biochemical Basis of Pathophysiology: Cr. 3
M S 5060 -- Human Anatomy and Physiology: Pathologists' Assistant: Cr. 4
M S 5200 -- Medical Microbiology for Technical Professionals: Cr. 3

Winter Semester

M S 4100 -- Medical Photography: Cr. 3
M S 4150 -- Histochemistry: Cr. 3
M S 4420 -- Laboratory Management: Cr. 3
M S 5061 -- Vertebrate & Human Embryology.: Pathologists' Assistant: Cr. 4
M S 5420 -- Future Trends in Pathology Practice: Cr. 2

Spring/Summer Semester

M S 4200 -- Introduction to Forensic Anatomic Pathology: Cr. 3
M S 5250 -- (WI) Applied General Pathology: Cr. 4
M S 5050 -- Clinical Terminology & Methodology: Cr. 3

FOURTH YEAR

M S 4500 -- Clinical Autopsy Pathology: Cr. 6
M S 4550 -- Clinical Histopathologic Technique: Cr. 3
M S 4600 -- Clinical Forensic Pathology: Cr. 5
M S 4650 -- Clinical Surgical Pathology: Cr. 5
M S 4700 -- Clinical Pathology: Cr. 3
M S 4800 -- Clinical Photography: Cr. 2
M S 4850 -- Clinical Academic Pathology: Cr. 6

These courses are taken at facilities affiliated with the Eugene Applebaum College of Pharmacy and Health Sciences.

Time Limitations: Students must complete the preprofessional program within six years and the professional program within three years. Students who interrupt their academic program must apply for reinstatement on an individual basis. Examinations may be required for readmission.

Physical Examination: Prior to clinical rotation, all applicants are required to submit a completed physical examination form to the program, which must include a complete immunization record, evidence of HBV antibody titre and TB status.

Scholarship: Students in this program are subject to high academic and professional standards. A grade of 'C' or above is required in each professional course. All didactic course requirements must be completed prior to clinical rotation. Students dismissed for academic reasons seeking readmission to the Pathologists' Assistant professional program will have the opportunity to do so only once. Decisions to readmit students are made on an individual basis, and readmission is not guaranteed. Perspective students should address inquiries to the Department of Fundamental and Applied Sciences, Pathologists' Assistant Program, 5439 Woodward Ave., Detroit MI 48202; 313-577-2050; website: http://mortsci.wayne.edu; e-mail: cphsinfo@wayne.edu.

Post-Bachelor's Certificate in Forensic Investigation

The Certificate Program in Forensic Investigation is designed for students who have earned a four-year bachelor's degree in another discipline from an accredited college or university who wish to acquire competence in the area of forensic investigation. This program is not designed to train forensic investigators; rather, its aim is to educate personnel whose professional scope and practice interfaces with the criminal justice system. This program can assist students as a foundation in their pursuit of advanced degrees in forensic specialties including physical / forensic anthropology and forensic psychology among others. The Program is offered by the Department in cooperation with the Department of Criminal Justice (W.S.U.), the Department of Biomedical Engineering (W.S.U.), the offices of the Wayne County Medical Examiner, the Oakland County Medical Examiner, and the Bureau of Alcohol, Tobacco and Firearms (ATF), among others.

Admission: The program is open to graduates of four-year baccalaureate programs in any accredited college or university who have a grade point average of 2.50 or better. Students whose degree is from Wayne State should apply directly to the program through the Office

of Student and Alumni Affairs, 259 Mack Avenue, Suite 1600, Detroit MI 48201 (http://www.cphs.wayne.edu/program/forensic-post-apply.php); those from other institutions must submit the Application for Undergraduate Admission (see page 24). All application materials must be received by June 1 for Fall admission only. Student informational interviews are conducted by members of the admissions committee prior to placement in the fall semester. All students admitted to the post-bachelor certificate program are expected to complete a Plan of Work during their first semester in the program.For information and application forms, contact the Department of Fundamental and Applied Sciences, Forensic Investigation Program, 5439 Woodward Ave., Detroit MI 48202; 313-577-2050; Fax: 313-577-4456; website: http://www.mortsci.wayne.edu/forensics.php; e-mail: cphsinfo@wayne.edu

For information and application forms, contact the Department of Mortuary Science, 5439 Woodward Ave., Detroit MI 48202; telephone 313-577-2050; Fax: 313-577-4456.

CERTIFICATE REQUIREMENTS: The candidate for the post-baccalaureate Certificate in Forensic Investigation must complete the following program with a grade point average of 2.50 or above and have earned a minimum of eighteen semester credits at Wayne State University. All coursework must be completed with a minimum of a 'C'. Total credits for completion is 24-26 semester credits.

Required Courses:

ANT 5180 or CRJ 5150
-- Forensic Anthropology: Cr. 3
-- Criminalistics: Cr. 4
M S 4010 -- Basic Forensic Analysis: Cr. 3
M S 4011 -- Interview and Interrogation Techniques: Cr. 3
M S 4200 -- Introduction to Forensic Anatomic Pathology: Cr. 3
M S 5010 -- Advanced Forensic Analysis: Cr. 2
M S 5011 -- Forensic Invest. of Firearms, Ballistics, and Explosives: Cr. 4

Electives

In addition, the candidate must complete a minimum of six semester credits from the following electives:

Internship
M S 4600 -- Clinical Forensic Pathology: Cr. 3

Expert Witness
M S 5550 -- Special Topics: Cr. 1

Independent Study
M S 5990 -- Directed Study: Cr. 3

Loss, Grief and Stress
M S 5550 -- Special Topics: Cr. 1

Advanced Case Studies in Forensics
M S 5550 -- Special Topics: Cr. 1
M S 5996 -- (WI) Senior Seminar Cr. 2

MORTUARY SCIENCE COURSES (M S)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

NOTE: Admission to the Professional Curriculum is a required prerequisite to all M S courses.

0999 Practicum. Cr. 0
Prereq: admission to department, consent of practicum coordinator; prereq. or coreq: M S 3510, 3810, 3840. No certificate or degree credit. Student placement in a licensed funeral service facility to acquire practical experience in basic funeral service skills. Enrollees work a minimum of eight hours a week. (S)

3100 Chemistry. Cr. 0-3
Prereq: CHM 1020, CHM 1030. Open only to students in the Mortuary Science program. Discussion, problem solving, and application of general inorganic, organic and biochemistry to postmortem changes, biologic preservation, and embalming chemistry. Course includes a problem-based laboratory and case studies with correlations to embalming chemistry. (F)

3300 Religions, Values, and Death. Cr. 3
Various religious, secular, and philosophical views regarding the value of life, the meaning of death, and life after death. (W)

3400 Mortuary and Business Law I. Cr. 3
Business law and legal environment affecting practice of mortuary science. Introduction to American legal system, court structure, and contract law. Survey of tort law; regulation of businesses with emphasis on mortuary practice regulation; property law including zoning and mortuary practice regulations; personal property and insurance law. (W)

3410 Mortuary and Business Law II. Cr. 3
Prereq: M S 3400. Business and legal principles affecting mortuary practice with special emphasis on forms of business organization, law of sales, federal disclosure rules, legal responsibilities of the funeral service provider, probate law, and related federal/state laws. (S)

3500 Embalming I. Cr. 0-3
Prereq: consent of instructor of record; prereq. or coreq: M S 3100. Open only to funeral service enrollees. Theories, practices, and techniques of biologic preservation and disinfection of human remains; case analyses; methods of application of embalming chemicals; use of special instruments and equipment; special case embalming. Laboratory teaching of all practical aspects of embalming. Material Fee As Indicated In The Schedule of Classes (F)

3510 Embalming II. Cr. 3
Prereq: M S 3500. Dynamics of decomposition; influence of disease and its treatment on the embalming process; public health considerations; anatomical embalming; disaster response; evaluation of embalming techniques. Material Fee As Indicated In The Schedule of Classes (W)

3600 Restorative Art and Modeling I. Cr. 2
Prereq: M S 3500. Theories, methods, and techniques used in the restoration of superficial tissues and features; color theory, cosmetology, facial proportions, skin tones correlated with reconstruction; clay and wax modeling; actual restorations performed on human remains. Material Fee As Indicated In The Schedule of Classes (F)

3610 Restorative Art and Modeling II. Cr. 2
Prereq: M S 3600. Continuation of M S 3600. Material Fee As Indicated In The Schedule of Classes (W)

3620 Presentation and Cosmetics. Cr. 2
Open only to students admitted to mortuary science program. Prereq: M S 3610. Advanced restorative art techniques and strategies for professional mortuary science students. (S)

3760 Past and Future Trends in Funeral Service. Cr. 2-3
Basic human need to memorialize the dead, examined throughout history. Funeralization as a process affected by social and religious change. The funeral service professional in a socio-temporal context. Possible future practices based on understanding of historical record and current trends. (S)

3800 Mortuary Management I: Funeral Directing. Cr. 3
Funeral service operations. Practical applications including field trips. From first call to final disposition. Terminology, government regulations, ethics, professional conduct, vital statistics records, necessary forms. Religious, ethnic, fraternal and military variations. Computer technologies and applications. (F)

3810 Mortuary Management II: Administration. Cr. 3

Prereq: M S 3800. Continuation of M S 3800. Marketing, merchandising, public relations, pre-need planning, personnel management, job-seeking skills, licensing requirements; planning, building and establishing of funeral home. Government regulations. (W)

3830 Psychology of Death and Dying. Cr. 3

Various social and cultural perspectives; psychosocial changes related to death, dying, and disposition; special cases: sudden, violent or unexpected death. (F)

3840 Psychosocial Aspects of Grief. Cr. 3

Prereq: M S 3830. Psychology of funeral service practices; social role of funeral service practitioner in the dynamics of grief; psychosocial interpretations of changing attitudes toward death; normal and abnormal grief responses. (S)

3980 Professional Practice. Cr 2.

Prereq. or coreq: MS 0999, M S 3510, 3810, 3840 and admission to the mortuary science program. Expanded experience for students placed in a licensed funeral service facility to acquire additional practical experience in funeral service skills. Enrollees work a minimum of eight hours a week. (S)

4010 Basic Forensic Analysis. Cr. 3

Prereq: admission to post-bachelor forensic investigation program. The forensic lab, its organization, accreditation, and regulation; quality control, safety, and documentation; discussion and demonstration of methods for collection and processing of specimens. Specimen extraction techniques and analyte-specific analytical instrumentation used in forensic laboratory. Basis for the forensic logic tree. (F)

4011 Interview and Interrogation Techniques. Cr. 3

Prereq: enrollment in post-bachelor certificate program in forensic investigation. Appropriate and effective techniques for conducting interviews in forensic investigations. Effective and efficient techniques for interviewing witnesses and interrogating defendants. Legal issues surrounding investigations; strategies in gathering information and obtaining confessions. (F)

4050 Human Anatomy and Physiology. Cr. 3

Open only to students seeking funeral service licensure. Prereq: BIO 2870. Detailed systemic study of human anatomy and physiology. Laboratory work consists of demonstrations and selected dissections; emphasis on vascular anatomy and adjacent structural relationships; anatomic guides. Material Fee As Indicated In The Schedule of Classes (F)

4100 Medical Photography. Cr. 3

Theory and behavior of light and lenses; principles of exposure, color, and filters; macro- and microphotography. (W)

4150 Histochemistry. Cr. 3

Prereq: M S 4050; prereq. or coreq: CLS 5560. Study of techniques involved in the preparation of tissues prior to microscopic examination. Material Fee As Indicated In The Schedule of Classes (W)

4200 Introduction to Forensic Anatomic Pathology. Cr. 3

Role of medical examiner, early signs of death, medical investigation of cause of death, methods for identification of remains, medicolegal aspects of forensic science, toxicology specimen techniques, legal issues in anatomic/forensic pathology. (S)

4250 Microbiology for Mortuary Science. Cr. 2

Open only to students in the Mortuary Science program. Prereq: BIO 2200. Discussion and application of pathogenic microbial agents; host-parasite relationships; disinfection-decontamination; immunology; epidemiology of infectious disease, public health issues; and problem-based case studies. Lecture and problem-based laboratory/case studies. (W)

4300 Introduction to the Study of Disease. Cr. 3

Prereq: M S 4050, 4250. Causes of disease; basic epidemiology; tissue reactions to injury, gross and microscopic; neoplasia; select systemic pathologies; comparative roles of various specialties in pathology. (S)

4420 Laboratory Management. Cr. 3

Interpersonal and technical management techniques for the laboratory setting. Quality management techniques, policies and protocols for anatomic pathologists' assistants. (W)

4450 Small Business Financial Management. Cr. 3

Prereq: ACC 3010. Financial aspects of starting and operating a small business; dealings with fellow professionals and government agencies. (S)

4500 Clinical Autopsy Pathology. Cr. 6

Prereq: senior standing in pathologist assistant program. Autopsy procedures, including data retention, dissection techniques, selection of tissue for microscopic examination, and methods of body restoration prior to release. Course addresses clinical Gross Anatomy Techniques and Gross Pediatric Pathology techniques. (T)

4550 Clinical Histopathologic Technique. Cr. 3

Prereq: senior standing in pathologist assistant program. Organization of a histology laboratory, proper handling of specimens for processing, available procedures and techniques. (T)

4600 Clinical Forensic Pathology. Cr. 3-5

Prereq: senior standing in pathologists' assistant program or consent of department chairperson/program director. Students in PBFI Certificate program internship must elect course for 3 credits in order to participate in internship at forensic sites. Assisting pathologist in determining cause of death; basic methods for identifying remains with regard to age, sex, and race; techniques of photographic record keeping. (T)

4650 Clinical Surgical Pathology. Cr. 5

Prereq: senior standing in pathologist assistant program. Principles, theories, and clinical practices related to gross surgical dissections. (T)

4700 Clinical Pathology. Cr. 3

Prereq: senior standing in pathologist assistant program. Fundamental processes in benign and malignant hematopathology and lymphoid tissue; interpretation of clinical chemistry values, tumor markers, laboratory values, and the evolution of clinical and pathology case studies. (T)

4800 Clinical Photography. Cr. 2

Prereq: senior standing in pathologist assistant program. Techniques required to photographically record gross and microscopic specimens as presented from surgery. (T)

4850 Clinical Academic Pathology. Cr. 6

Prereq: senior standing in pathologist assistant program. Principles and theories of surgical diagnostic pathology and mechanisms of disease. (T)

5010 Advanced Forensic Analysis. Cr. 2

Prereq: M S 4010; admission to post-bachelor forensic investigation program. New developments in the forensic laboratory; current areas of research and potential applications. Forensic logic trees and forensic case applications; novel techniques in crime scene investigation and analysis. (W)

5011 Forensic Investigation of Firearms, Ballistics, and Explosives. Cr. 4

Prereq: M S 4010 or M S 6010; consent of instructor. Introduction to firearm operation, identification, ballistics and explosive materials and devices from the perspective of forensic evaluation. Principles of forensic evidence collection and analysis discussed in lab. Offered in collaboration with Bioengineering Center Ballistic

Research Laboratory. Material Fee As Indicated In The Schedule of Classes (W)

5020 Biochemical Basis of Pathophysiology. Cr. 3

Prereq: BIO 1510, CHM 1030; coreq: BIO 2870 or M S 4050. Review and discussion of the structural biochemical nature of carbohydrates, lipids, proteins/enzymes, and hormones; correlation of disease and pathophysiology resulting from certain important biochemical disorders; discussions of clinical case studies. (F)

5050 Clinical Terminology and Methodology. Cr. 3

Clinical terminology and surgical methods for analysis and treatment of human disease. (S)

5060 Human Anatomy and Physiology: Pathologists' Assistant. Cr. 4

Prereq: admission to pathologists' assistant program; BIO 2870. Detailed systemic study of human anatomy and physiology; emphasis on cranial, thoracic, and abdominal structures. Laboratory: full human dissection. Material Fee As Indicated In The Schedule of Classes (F)

5061 Vertebrate and Human Embryology: Pathologists' Assistant. Cr. 4

Prereq: BIO 1500, BIO 1510, M S 5060; admission to pathologists' assistant program. Comparative fundamental processes in vertebrate/human systems, with human embryological correlations to clinical settings. (W)

5200 Medical Microbiology for the Technical Professional. Cr. 3

Prereq: BIO 2200 and admission to pathologists' assistant program. Detailed study of commensal organisms of the human and mechanisms of resistance. Identification, by anatomical location, of organisms likely to cause infection; methods required for collection and transportation of microbiological specimens; case studies. Material Fee As Indicated In The Schedule of Classes (F)

5250 Applied General Pathology. Cr. 4

Prereq: M S 4050, BIO 4630 or former BIO 5630. Principles of general pathology with special emphasis on clinical correlation, including pediatric pathology. (S)

5350 Applied Grief Counseling: Aftercare. Cr. 2

Prereq: M S 3830, M S 3840. Specific factors in the dynamics of grief; grief manifestations in death and in states of chronic diseases; development of general counseling and referral skills; communication skill-building and self-care practices for the death-field professional. (W)

5420 Future Trends in Pathology Practice. Cr. 2

Discussion of changing parameters of clinical pathology practice. Trends associated with healthcare, patient care, technology, legal issues; educational methodology, licensure and accreditation issues; medical ethics and quality management in anatomic pathology. Students present research findings via PowerPoint delivery systems. (W)

5550 Special Topics in Mortuary Science. Cr. 1-3 (Max. 3)

Prereq: consent of instructor. Lectures and discussions; invited speakers on current topics in the profession. Topics to be announced in Schedule of Classes. (Y)

5990 Directed Studies. Cr. 3

Open only to Mortuary Science Department or Program enrollees. Library and/or laboratory study of current or pending professional development; study of an existing problem, study or development of new procedures or techniques. Assigned project under the guidance of departmental/program faculty member. (T)

5996 (WI) Senior Seminar. Cr. 2

Open only to Mortuary Science Program enrollees. Contemporary topics impacting modern funeral homes and funeral service professionals. PowerPoint presentations of research findings to communities of interest. (S)

6010 Forensic Analysis for the Toxicologist. Cr. 3

Prereq: admission to Graduate Certificate Program in Analytical Toxicology or consent of instructor. Introduction to the field for the analytical toxicologist. Design, organization, quality control, quality assurance, safety, documentation in forensic laboratory; specimen collection; handling of biological and other evidentiary specimens. (F)

6020 Current Research in Forensic Analysis. Cr. 3

Prereq: M S 6010. Physical analysis of materials, substances, chemicals, documents, images and biological evidence, using integrated technologies; introducing current areas of research and development into the forensic laboratory. Students evaluate peer-reviewed research in application of direct or indirect analytical laboratory procedures, techniques, and methodologies in forensic investigation. (W)

6150 Human Histopathology. Cr. 3

Prereq: BIO 4630 or former BIO 5630. Standard methodologies and procedures for study of tissue structure and composition; introduction to histology. Laboratory includes performance of standard procedures for study of tissue structure and composition. Collection and processing of selected forensic tissue samples. Material Fee As Indicated In The Schedule of Classes (W)

6200 Forensic Pathology. Cr. 3

Role of the medical examiner; scope of forensic pathology: science of recognizing and interpreting diseases of and injuries to the human body as the basis for medico-legal examination. Medical examiner system and duties of the office, signs of death and investigation of the circumstances, anatomic autopsy protocol, legal issues, ancillary studies and analytical techniques. (S)

6335 Laboratory Approaches to Analytical and Forensic Toxicology. Cr. 3

Prereq: PHY 2140, CHM 2200, BIO 1510, or consent of instructor. Open to upper level undergraduates only with consent of instructor. Evaluating organic and inorganic samples in biological matrices, from perspective of analytical toxicologist / forensic scientist. Principles of analytic methods; their application in laboratory experiments. Material Fee As Indicated In The Schedule of Classes (W)

Health Care Sciences

Department Office: 2548 APHS; 313-577-1368
Chairperson: Thomas Birk

Program Directors

Nurse Anesthesia
Prudentia A. Worth
Office: 4605 APHS; 313-993-7168

Occupational and Environmental Health Sciences
Edward Kerfoot
Office: 5148 APHS; 313-577-1210

Occupational Therapy
Doreen Head
Office: 2226 APHS; 313-577-1435

Physical Therapy
Susan Ann. Talley
Office: 2210 APHS; 313-577-4643

Physician Assistant Studies
Stephanie Gilkey
Office: 2590 APHS; 313-577-1368

Radiation Therapy Technology
Adam F. Kempa
Office: 1130 APHS: 313-577-1435

Radiologic Technology
Kathy Kath
Office: 1130 APHS: 313-916-1348

Radiologist Assistant Studies:
Kathy Kath: Office:1130 APHS: 313-916-1348

Health Care Sciences

The Department of Health Care Sciences represents programs in nurse anesthesia, occupational therapy, occupational and environmental sciences, physical therapy, and physician assistant studies radiologic technology, radiologist assistant studies and radiation therapy technology.

Nurse anesthesia, occupational therapy, physical therapy, and physician assistant studies, radiologic technology, radiological assistant studies and radiation therapy technology are health sciences which contribute in vital ways to the practice of medicine and provision of health care. These fields of study lead to interesting and rewarding careers.

Nurse Anesthesia: The nurse anesthetist is a specialist with extensive education and training in Nurse Anesthesia leading to a Master of Science degree in Anesthesia. Graduates must take and pass a national certification examination to be granted a specialty license and title of Certified Registered Nurse Anesthetist (CRNA) and are recertified every two years. CRNAs are qualified to provide all types of anesthesia services to adults, children, and infants for any type of surgical interventions. They are employed in major teaching, and tertiary care institutions, trauma, community, and rural hospitals. CRNAs also function as a key member on the cardiopulmonary resuscitation team and are responsible for care of patients in respiratory distress to establish and secure a patent airway. This program is offered only at the graduate level and students should consult the Graduate Bulletin and program website (http://www.cphs.wayne.edu/anesth/) for details.

Occupational Therapy: The occupational therapy program prepares the student to assume clinician, researcher, educator, and consultative roles that assist individuals who are limited in the ability to perform tasks required in normal routines of daily living: self-care, work, and play/leisure. The entry level Master's Degree in Occupational Therapy incorporates undergraduate and graduate education. Students learn theoretical concepts and their application related to the restoration, development, and maintenance of physical, psychological, social, emotional, and cognitive functions. The theory-based curriculum includes instruction in the use of specific evaluative procedures; the application of a wide variety of activities related to daily living tasks, including creative and manual skills; and the procedures for functioning as a member of a health care team. The occupational therapist's goal is to promote meaningful occupations and maximize functional independence in collaboration with the client. This program is offered only at the graduate level and students should consult the Graduate Bulletin for details.

Occupational and Environmental Health Sciences: The complex industrial environment of today exposes the worker to many physical and chemical factors capable of provoking stress or irreversible damage to health. The profession of industrial hygiene, devoted to the prevention of occupational illness, is founded on the belief that safe and healthful working conditions can be established by proper control of environmental stresses. Industrial toxicology, upon which industrial hygiene is largely based, concerns itself with determining the amounts of potentially toxic substances which may be safely tolerated and the mechanisms by which these substances cause harm.

Engineers, physicians, chemists, physicists, biologists and other scientists will find these disciplines stimulating with increasing opportunities for basic research. The scarcity of well-trained professionals in these fields and the heightened interest of federal, state, and local legislators in health problems have resulted in excellent employment prospects for qualified persons with good remuneration and opportunities for advancement.

The Occupational and Environmental Health Sciences program at Wayne State University is offered only at the graduate level (see the Graduate Bulletin for requirements) leading to the Master of Science with concentration in industrial hygiene or industrial toxicology.

Physical Therapy is a dynamic health profession that develops, coordinates and utilizes selected knowledge, skills and techniques in planning, organizing and directing programs for the care of individuals whose ability to function is impaired or threatened by disease or injury. The practice of physical therapy includes: examination, evaluation, diagnosis, prognosis, intervention, and analysis of outcomes. Physical Therapists provide services to patients/clients who have impairments of body function and structure, activity limitations or participation restrictions or changes in physical function and health status resulting from injury, disease or other causes. Physical therapists must be able to collaborate with a variety of professionals, address risk factors to health, be leaders and providers in the areas of prevention and promoting health, wellness and fitness, serve as educators, consultants, administrators and advocates, utilize critical inquiry skills and direct and supervise the provision of physical therapy services (Guide to Physical Therapist Practice, APTA, 2003).

Some examples of diagnoses of individuals who might be seen by a physical therapist include stroke, low back pain, ACL knee injury, Parkinson's Disease, spinal cord injury, amputation, heart attack, athletic injury, arthritis, cerebral palsy, rotator cuff (shoulder) injury, total joint replacement, spina bifida, general health and personal training, congestive heart failure, emphysema, cancer, head injury, multiple sclerosis, learning disabilities, speed and agility training, and many more. This program is offered only at the graduate level and students should consult the Graduate Bulletin for details. Wayne State students may apply to the program with 90 undergraduate credit hours if all other pre-requisite courses are completed.

Physician Assistant Studies: The mission of the physician assistant studies program is to train highly-qualified physician assistants for primary care in inner-city and other under-served areas of the State of Michigan. This is a graduate-level program designed to meet the need for qualified medical professionals; it is two years in length, and classes begin in May of each year. Interested students should consult the Graduate Bulletin for details.

Radiation Therapy Technology: This health care discipline utilizes ionizing radiation for the treatment of malignant disease. This field requires a basic understanding of and interest in science, especially mathematics and physics, as well as emotional maturity and a desire to assist in the management of patient care. The program is a four-year curriculum consisting of two years of preprofessional and two years of professional course work.

Radiologic Technology is a health care discipline that utilizes ionizing radiation for the diagnosis of disease processes in the human body. This field requires a basic understanding of mathematics and science and a desire to serve patients. As a radiographer, one has the opportunity to combine interpersonal and patient assessment skills while employing highly technical equipment. A diagnostic radiologic technologist is able to formulate exposure factors dependent on procedure, pathology and individual patient dynamics; assist radiologists in more invasive procedures such as fluoroscopic studies; evaluate images for quality and accuracy; and provide support to patients anxious about their health. These technologists are typically employed in hospitals, clinics, educational institutions, and commercial equipment corporations as staff radiographers, clinical supervisors, administrators, educators, marketing personnel and applications specialists.

Radiologist Assistant Studies is an advanced-level radiologic technology which enhances patient care by extending the capacity of the radiologist in the diagnostic imaging environment. The radiologist assistant is an ARRT-certified radiographer who has completed an advanced academic program encompassing a nationally recognized radiologist assistant curriculum and a radiologist-directed clinical preceptorship. With radiologist supervision, the radiologist assistant performs fluoroscopy and selected radiology procedures, patient assessment, patient management and initial evaluation of diagnostic images, but does not provide an official interpretation (final written report) as defined by the ACR Standards for Communication:Diagnostic Radiology.

Occupational Therapy

Office: Room 2226 APHS: 313-577-5884
Program Director: Doreen Head
Graduate Coordinator: Regina Parnell
Fieldwork Education Level II: Nancy Vandewiele-Milligan
Department Secretary: Marlene Kaniarz

Website: http://cphs.wayne.edu/ot/

Professors Emerita

Miriam C. Freeling, Suesetta McCree, Martha E. Schnebly

Professors

Catherine L. Lysack

Assistant Professors

Gerry Conti, Doreen Head, Nancy Vandewiele-Milligan, Rosanne DiZazzo-Miller, Regina Parnell

Part-Time Faculty

Susan Koziatek, Tina Savich, Preethy Samuel, Kim Banfill, Donna Case, Bob Erlander,Mary Tracy Bee, James Montante

Cooperating Faculty

Merle Ekstrom, Mary Tracy-Bee

Degree Programs

BACHELOR OF HEALTH SCIENCE
with a concentration in occupational therapy

MASTER OF OCCUPATIONAL THERAPY

Occupational therapy helps people enhance wellness at any stage of life and their ability to perform in activities important to them. With the assistance of a qualified therapist, patients learn how to prevent, overcome, or manage, physical and/or psychological impairments and to maintain health. Using exercise, activity and daily tasks, occupational therapists show patients how to live life to its fullest potential. The vision of the Occupational Therapy program encompasses education, research, and service excellence, in the promotion of occupations of meaning within a multicultural urban community.

Bachelor of Health Science – Occupational Therapy Concentration

Degree Requirements: The program offers coursework leading to the Bachelor of Health Science degree with a concentration in occupational therapy. This degree, awarded upon completion of between 120 and 125 semester credits (approximately 71-73 preprofessional semester credits and 52 professional program credits), is a prerequisite for entry into the graduate component of the professional program, leading to the entry-level professional Master of Occupational Therapy.

The Eugene Applebaum College of Pharmacy and Health Sciences must formally accept students before admission to the professional courses. Students who successfully complete the Bachelor of Health Science occupational therapy concentration and meet the requirements for admission to the Graduate School at Wayne State University, are eligible to continue into the graduate component of the program. Students who already hold an undergraduate degree are eligible to receive a second bachelor's degree.

The professional program is designed primarily for full-time or part-time enrollment; although part-time enrollment is possible.

Accreditation: Wayne State University offers courses of study which are accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) c/o AOTA, 4720 Montgomery Lane PO Box 31220 Bethesda, MD 20824-1220 www.acoteonline.org 301-652-2682, and the accrediting body of the American Occupational Therapy Associa-tion (AOTA), which prepare the student to take the national certification examination. (The degree Bachelor of Health Science does not qualify the holder for certification.). The MOT program at Wayne State University has accreditation status.

Preprofessional Program Admission

Preprofessional Program: Applicants must complete two years of preprofessional study including the General Education Requirements of the university (see page 18), and prerequisite courses for the occupational therapy professional program. Decisions regarding the fulfillment of program prerequisites are made by the Department of Occupational Therapy.

The following curriculum is required of all degree candidates for subsequent admission to professional study in the Department of Occupational Therapy. Core courses (see below) must be completed by the end of the fall semester prior to application for admission to the professional program. The courses listed under Additional General Education Requirements, below, may be completed during the winter semester, while making the application.

PREPROFESSIONAL PROGRAM: CORE COURSES

BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
BIO 2870 -- Anatomy and Physiology: Cr. 5
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
ENG 3010 -- (IC) Intermediate Writing: Cr. 3
PHY 2130 -- (PS) General Physics: Cr. 4
PHY 2131 -- General Physics Lab: Cr. 1
PSY 1010 or 1020
-- (LS) Introductory Psychology: Cr. 4
-- (LS) Elements of Psychology: Cr. 3
PSY 2400 -- Developmental Psychology: Cr. 4
Political Science Course (AI): Cr. 3-4
Social Sciences (SS) course: Cr. 3-4
Statistics course (STA 1020 or PSY 3010 or other): Cr. 3
Total: 44- 46 credits

ADDITIONAL GENERAL EDUCATION REQUIREMENTS:

COM 1010 -- (OC) Oral Communication: Basic Speech: Cr.3
PHI 1050 -- (CT) Critical Thinking: Cr. 3
PHI 2320 -- (PL)Introduction to Ethics (or another PL course): Cr. 3
Critical Thinking (CT) competency requirement: Cr. 3
Foreign Culture (FC) course: Cr. 3-4
Historical Studies (HS) course: Cr. 3
Mathematics Competency (MC) requirement: Cr. 3
Visual and Performing Arts (VP) course: Cr. 3

Professional Program

Professional Program Admission: The professional program in occupational therapy is eight semesters in length and consists of an under graduate component and a graduate component. Progression to the graduate component is achieved only through successful completion of the undergraduate component. Applications to the professional programs may be obtained each November through February 28 on-line from the Eugene Applebaum College of Pharmacy and Health Sciences Office of Student and Alumni Affairs at http://www.cphs.wayne.edu/program/ot-ms-apply.php. Other general information can be obtained at www.admissions.wayne.edu and www.cphs.wayne.edu and questions can be addressed via email to cphsinfo@wayne.edu. Students are admitted once per year during the spring/summer semester prior to Fall enrollment. In addition to the application, the student must:

1. Hold a minimum cumulative grade point average of 3.0 (on a 4.00 scale) for the preprofessional courses listed above. All prerequisite courses must be completed with a 'C' or better. A maximum of two core prerequisite courses may be repeated to improve grades.

2. Complete a minimum of twenty hours contact with a registered occupational therapist. These contact hours may be in one facility with one therapist, or within a variety of facilities and with more than one therapist. The therapist(s) with whom the student had the contact experience(s) must complete documentation on the form provided by on-line at http://www.cphs.wayne.edu/program/ot-ms-apply.php.

3. Complete a Personal/Professional Statement.

4. Submit a letter of recommendation from a current or former supervisor.

Students transferring from another institution should meet with a representative at the Office of Student and Alumni Affairs to ensure their credits are equivalent to Wayne State University courses. Equivalency guides are available on-line at www.wayne.edu or through the Office of Student and Alumni Affairs by calling 313-577-1716.

Graduate (M.O.T.) Requirements

The Entry-Level Master of Occupational Therapy (M.O.T.) degree requires a minimum of fifty-seven credits in course-work including preprofessional study (see above), and professional courses as outlined below. The professional program consists of seven semesters of full-time academic work followed by six months of full-time fieldwork experience. During the professional program the student must complete the following courses in the basic and medical sciences, and occupational therapy theory and practice, as well as related health sciences courses. Upon satisfactory completion of the degree, the graduate is eligible for examination and certification through the National Board of Certification in Occupational Therapy (NBCOT), and state regulation.

PROFESSIONAL PROGRAM

UNDERGRADUATE LEVEL COURSES

O T 3000 -- Intro. to Occupation, Health, and Wellness: Cr. 4
O T 3070 -- Occupational Therapy Research I: Cr. 3
O T 3200 -- Therapeutic Media: Cr. 3
O T 3300 -- Movement Assessment (with lab): 3
O T 3400 -- Health Conditions I: Physical Disabilities: Cr. 4
O T 4050 -- Life Occupations I: Cr. 3
O T 4280 -- O T Assessments: Cr. 5
O T 4400 -- Health Conditions II: Mental Health: Cr. 4
O T 4280 -- OT Assessment and Intervention: Musculosketeal and Ortho: Cr 5
O T 4050 -- Life Occupations I: Cr. 3
O T 4600 -- Group Dynamics (Fieldwork I Mental Health): Cr. 5
O T 5000 -- O T Assessment and Intervention (Neuro) I
(Fieldwork I Physical Disabilities): Cr. 5
O T 5050 -- Life Occupations II: Cr. 3
O T 5200 -- Human Anatomy for Health Sciences: Cr. 4
O T 5210 -- Human Anatomy for Health Sciences: Laboratory: Cr. 1-2
O T 5400 -- Neuroanatomy and Neurophysiology for Health Sciences: Cr. 3
O T 5650 -- Pathophysiology for Health Sciences: Cr. 3
O T 5993 -- (WI) Writing Intensive Seminar in O T: Cr. 0
O T 6070 -- Occupational Therapy Research II: Cr. 3 (project required)
TOTAL: 54-56 credits

(Upon completion of this part of the program students may apply for the degree: Bachelor of Health Science.)

GRADUATE LEVEL COURSES

O T 5040 -- Environmental Influence on Disability and Health: Cr. 3
O T 6000 -- Interventions and Outcomes II (Fieldwork I Schools): Cr. 5
O T 6230 -- Motor Control: Cr. 3
O T 7120 -- Topics in Assistive Technology: Cr. 3
O T 7200 -- Program Administration and Entrepreneurship: Cr. 3
O T 7898 -- Level II Fieldwork A: Medical: Cr. 8

OT 7899 - Level II Fieldwork B: Community: Cr 8
Elective I - (with Department approval): Cr. 3
Total: 36 credits

Fieldwork: While enrolled in the course work outlined above, students participate in Level I fieldwork experiences that are designated to meet course objectives in O T 4600, 5000, and 6000. In the final portion of the curriculum, students must participate in two full-time three-month field experiences (O T 7898, 7899). Regarding Level I Fieldwork, The Accreditation Council of Occupational Therapy Education (ACOTE), 2008 Standards state: "The goal of Level I Fieldwork is to introduce students to the fieldwork experience, and develop a basic comfort level with an understanding of the needs of clients. Level I fieldwork shall be integral to the program's curriculum design and include experiences designed to enrich didactic coursework through direct observation and participation in selected aspects of the occupational therapy process. The focus of these experiences in not intended to be independent performance. Qualified personnel for supervised Level I fieldwork include, but are not limited to, occupational therapy practitioners initially certified nationally, psychologists, physician assistants, teachers, social workers nurses, and physical therapists." Each student will be responsible for one week in a psychosocial setting and one week in a physical disabilities setting in the fall semester and one week in a pediatric setting in the winter semester of their second year of the program.

Regarding Level II Fieldwork, The Accreditation Council of Occupational Therapy Education (ACOTE) states: "The goal of Level II fieldwork is to develop competent, entry-level, generalist occupational therapists. It provides opportunities for students to study, model, plan, and apply theories/concepts/interventions of occupational performance. It is designed to include an in-depth experience in delivering occupational therapy services to clients, focusing on the application of purposeful and meaningful occupation and/or research, administration and management of occupational therapy services." The purpose of fieldwork is to integrate the theoretical aspects of occupational therapy with practical application under the supervision of qualified therapists. These field experiences may take place within and outside the Detroit metropolitan area. Students may be required to take one fieldwork placement out-of-state. All placements are carefully selected to provide experiences essential to enhance the application of the students' knowledge of the profession.

Academic Regulations — Professional Program: Once a student is enrolled in the professional program, a minimum cumulative grade point average (g.p.a.) of 3.0 or above must be maintained. A student must achieve an undergraduate g.p.a. of 3.00 to be eligible for regular graduate admission to the graduate component of the degree. Students apply for graduation and Graduate status during the fourth semester of the undergraduate component of the curriculum. Once admitted to Graduate School, students must maintain a g.p.a. of 3.0 in all graduate level courses.The student will apply for graduation and Graduate status during semester four.The student must maintain a g.p.a. of 3.0 in all graduate level courses.

Undergraduate Probation: A student whose g.p.a. falls below 3.0 in an academic semester is placed on curriculum probation for the following semester. The student must raise his/her g.p.a. in that semester, and must reach at least a 3.0 cumulative average at the end of the following semester; failure to accomplish this will result in dismissal from the program. A student is allowed a maximum of two semesters of probation during his/her entire enrollment in the occupational therapy program.

Repeating Courses: A grade of 'C-minus' or below in a prerequisite to a professional course, or in a professional course, indicates unsatisfactory performance, and the course must be repeated. No more than two professional courses may be repeated.

A course from which a student withdraws prior to the end of the semester, and in which he/she has maintained a 'C-minus' average, is counted as one of the two courses which the student is allowed to repeat. A failing grade ('F') in a professional course is unacceptable, and the student is automatically dismissed from the occupational therapy program. Failure in a Level I or Level II field experience will also result in dismissal from the program. If a student fails, he/she may, with the help of an occupational therapy faculty advisor, petition for readmission to the program.

Student Aid

The University offers opportunities to students in need of financial assistance to meet the expenses of their education. Information about scholarships and loans is available from the University Office of Student Financial Aid, University Welcome Center.

Honors and Awards

The H. Barbara Jewett, the Dr. Martha E. Schnebly Endowed Scholarship, and the Kaye J. Schlomer Awards are made each year to any undergraduate student enrolled in the undergraduate program. Students selected will have prepared a short essay that articulates a clear vision for their professional endeavors and future goals.

Student Professional Activities

All professional level students are encouraged to become members of the American Occupational Therapy Association, as well as the Michigan Occupational Therapy Association, and any of the local professional organizations: the Detroit District, the North Metro, and the Huron Valley Occupational Therapy Associations.

The Student Occupational Therapy Association at Wayne State University is open to all preprofessional and professional level occupational therapy students and faculty. Meetings provide opportunities to develop professional understanding, to participate in service projects and to enjoy contact with other occupational therapy students and faculty.

The Multicultural Occupational Therapy Student Caucus: The primary effort of this caucus is to introduce minority students to the field of occupational therapy, and, most specifically, to take necessary measures to retain minority students within the program. This organization contributes service and support to community health care organizations.

Pi Theta Epsilon, Eta Chapter, is the national occupational therapy honor society. To be eligible, a student must 1) be in the top twenty percent of the class, 2) have achieved a 3.5 cumulative grade point average, and 3) be in the second or third semester or more in the program. High academic standing is recognized and opportunities are provided for members to participate in service projects and professional activities in the community and the college.

OCCUPATIONAL THERAPY COURSES (O T)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

Upon completion of these undergraduate courses, a Bachelor in Health Science (B.H.S.) with a concentration in Occupational Therapy will be awarded. Please refer to the Graduate Bulletin for more information about entry-level M.O.T. graduate level course work. Please note that students must complete both the undergraduate and graduate level course work to be awarded the Master of Occupational Therapy (M.O.T.) degree

3000 Introduction to Occupation, Health, and Wellness. Cr. 4

Prereq: admission to the occupational therapy professional program; coreq: O T 5993. Introduction to the processes and procedures utilized by the occupational therapist: observation, interview, communication and skills gained through interaction with normal individuals from infancy through senescence. Material Fee As Indicated In The Schedule of Classes (F)

3070 Occupational Therapy Research I. Cr. 3

Prereq: admission to occupational therapy program. Basic concepts and principles of research, terminology used to describe research, and effective use of research information for evidence-based practice in occupational therapy. Didactic and experiential components. (S)

3200 Therapeutic Media. Cr. 3

Open only to OT Professional Program students; others by consent of instructor. Performance, adaptation and utilization of processes involved in selected creative and manual tasks and activities which have therapeutic value. Principles and methods of teaching appropriate to the therapist. Material Fee As Indicated In The Schedule of Classes (W)

3300 Movement Assessment. Cr. 3

Prereq: PHY 2130, O T 5200. Lecture and laboratory on human movement concepts prerequisite to the understanding of occupational therapy procedures applicable to patients with physical or sensory-integrative dysfunction. Material Fee As Indicated In The Schedule of Classes (F)

3400 Health Conditions I: Physical Disabilities. (P T 3400) Cr. 4

Prereq: consent of adviser. A series of interdisciplinary presentations on the clinical manifestations and management of selected problems due to disease states or injury; includes etiology, assessment, course and medical specialty management of the problems. Material Fee As Indicated In The Schedule of Classes (F)

4050 Life Occupations I. Cr. 3

Prereq: admission to OT program. Examination of areas of occupation: daily living activities, work/school, play, leisure and social participation. Tools and techniques for analysis of occupations; development of intervention strategies; effective documentation. First of two courses. (S)

4280 Occupational Therapy Assessments and Intervention: Musculoskeletal and Ortho. Cr. 5

Tools and techniques for conducting assessments; documenting, observing, and interviewing. Course format: didactic, case presentation, and experiential. (W)

4400 Health Conditions II: Mental Health. Cr. 4

Prereq: O T 3400. Major categories of psychiatric conditions, young adult through elderly. Diagnostic criteria; treatment strategies in hospital and community settings with fieldwork requirements. Guest lecturers from medical and community settings. Second of two courses. (W)

4600 Group Dynamics. Cr. 5

Experiential approach to learning group dynamics and achieving skills necessary for conducting effective therapeutic groups for a variety of settings. Development of self-awareness and social skills necessary in building practical group skills. Level I fieldwork. (F)

4990 Directed Study. Cr. 1-2 (Max. 5)

Prereq: consent of adviser. (T)

5000 Occupational Therapy Assessment and Intervention: Neuro I. Cr. 5

Prereq: admission to OT program. Occupation-based therapeutic activities, intervention strategies, documentation skills, and discharge planning that promote client-centered outcomes; focus is on children, through the teen years. First of two courses. (F)

5050 Life Occupations II. Cr. 3

Prereq: O T 4050. Open only to Pharmacy and Health Sciences students. Role of leisure in health, wellness, prevention and rehabilitation; focus: across the life span. Explores and develops assessment tools, treatment plans for diverse populations; includes experiential learning. Second of two courses. (S)

5200 (P T 5200) Human Anatomy for Health Sciences. Cr. 4

Prereq: admission to Physical Therapy or Occupational Therapy professional program, or consent of instructor; coreq: P T 5210 or O T 5210. Knowledge of basic human anatomy for students in health science professional programs; foundation for further study in clinical sciences. (F)

5210 (P T 5210) Human Anatomy for Health Sciences: Laboratory. Cr. 1-2

Prereq: admission to professional OT program or consent of instructor; coreq: O T 5200 or P T 5200. Examination of prosections, dissection of human cadavers; didactic study. Material Fee As Indicated In The Schedule of Classes (F)

5400 (O T 5400) Neuroanatomy and Neurophysiology for Health Sciences. (P T 5400) Cr. 3

Prereq: O T 5200. Open only to students admitted to EACPHS professional program. Study of the human central nervous system; emphasis on sensory and motor systems and structures that contribute to normal movement. Material Fee As Indicated In The Schedule of Classes (W)

5650 (R T 5650) Pathophysiology for Health Sciences. (P T 5650) Cr. 3

Prereq: admission to professional Occupational Therapy program, or consent of instructor; O T 5200. Fundamental knowledge of the nature of disease for the health sciences student; physiologic and morphologic changes accompanying disease processes; mechanisms of repair and recovery. (W)

5993 (WI) Writing Intensive Seminar in Occupational Therapy. Cr. 0

Prereq: enrollment in occupational therapy program; coreq: O T 3000. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with designated corequisite; consult Schedule of Classes for corequisites available each term. Satisfies University General Education Writing Intensive Course in the Major requirement. (T)

6000 Interventions and Outcomes II. Cr. 5

Prereq: O T 5000. Occupation-based therapeutic activities, intervention strategies, documentation skills, and discharge planning that promote client-centered outcome; focus is on young adult, adult years, life span. Second of two courses. (Y)

6070 Occupational Therapy Research II. Cr. 3

Prereq: O T 3070. Application of research principles and methods to solving occupational therapy problems. (F)

6090 Directed Research. Cr. 1-4 (Max. 8)

Prereq: O T 6070 or equiv., and consent of instructor. Opportunity to conduct supervised research and to participate in research activities of a mentor. (T)

6150 (ELE 6010) Family Centered Collaboration in Early Childhood Intervention and Special Education. (PSY 6010) (S W 6010) Cr. 3-4

Theories, concepts and practices of family centered intervention services for young children with special needs. Team-building and cross-disciplinary communication and collaboration with families. (F)

6230 Motor Control. Cr. 3

Prereq: O T 5200, O T 5400, O T 7300; or consent of instructor. Current theories of motor control and motor learning; recovery of function and normal movement across the lifespan. (W)

6320 (PPR 6300) Patient Perspectives of Health, Illness and Culture. (P T 6320) Cr. 2

Prereq: enrollment in Pharmacy and Health Care Sciences college or other health care program. People from various cultures (religious, ethnic, sexual orientation, disability, chronic illness, economic status) discuss in small groups how these cultures influence living with a chronic illness. Students also discuss readings on health culture and keep a journal on their course experience. (S)

6620 (ECE 6100) Enabling Technology. (BME 6500) Cr. 4

Prereq: consent of instructor. Principles of application of enabling technology: across life stages, for differing ethnic and cultural backgrounds, for individuals with varying functional abilities. (Y)

Physical Therapy

Office: 2248 EACPHS; 313-577-1432
Chairperson: Thomas Birk
Director: Susan Ann Talley, Physical Therapy Program

Website: http://www.pt.cphs.wayne.edu/

Associate Professor

Thomas Birk, Moh Malek

Assistant Professors

Diane Adamo, Christine Carlson, Kim Dunleavy, Allon Goldberg, Vicky Pardo, Fredrick Pociask, Kristina Reid, Martha Schiller, Susan Ann Talley

Part-Time Faculty

Sara Arena, Mary Tracy Bee, Cynthia Bell, Kurt Biebuyck, Robin Firby, Tracey Fleck, Kathleen Jakubiak Kovacek, Heike Krause, Cathy Larson, Lisa Mikitch, James Montante, Jon Nettie, Katie Palazzolo, Christopher Wilson

Cooperating Faculty

Merlin Ekstrom, Randall Greteback

Center Coordinators of Clinical Education

Judith Aikman, Jeff Alaska, Manjula Amarnath, Annamarie Asher, Rachel Atanosian, Curtis J. Best, Kurt Biebuyck, Marcia Boileau, Katie Bowser, Jan Brock, Marj Bryen, Dan Cady, Alicia Carr, Amanda Chilton, Michelle Cowell, Karen Crute, Deanna Cueny, Janet Downey, Franz D'Souza, Timothy L. Fifer, Anna Fiorito, Laura Freeman, Judy Goik, Gregg Golden, Miriam Goldstein, Jackie Grabinski, Sharon Grogg, Stan Guest, Maryann Herman, Brad Jackson, Pam Jasinski, Yvonne Katharopoulos, Mary Kaye, Jaime Kenny, Muhammad U. Khan, Julie Kiefer-Eaman, Greg Kopp, Ed Kornacki, Martha Kramer, Shankar Krishnan, Beth Kuzma, Elizabeth Lauhoff, Ted Lezotte, Connie Machnacki, Valerie McPherson, Chaka Mathika, Maureen Mattiello, Alice Maxon, Todd May, Paulette Mazzara, Jodi Meclude, Burton Moon, Kevin Moore, Theresa Moyer, Jaime Myers, Adele Myszenski, Lee Ann Odom, Mary Pawlicki, Ann Pollzzie, Lisa Ragusa, Karen Reyhl, Rose Sager, P. Cindi Schuer, Cindy Schutt, Kim Schwartz, Karen Smith, Ken Soave, Ron Sorgeloos, Ellen Steudle, Derek Stevenson, Lisa Stogner, Cheryl Strong, Laurie Templeton, Bindu Thamman, Jim Turnipseed, Lori Walker, Brooke Wayman, Carl P. Weaver, Brian Whalen, Jan Zehms-Stankrauff

Degree Programs

DOCTOR OF PHYSICAL THERAPY

The Physical Therapy Profession

Physical Therapists provide services to patients/clients who have impairments of body function and structure, activity limitations and participation restrictions or changes in physical function and health status resulting from injury, disease, or other causes. Physical therapists collaborate with a variety of professionals, address risk factors to health, are leaders and providers in the areas of prevention and promoting health, wellness and fitness, serve as educators, consultants, administrators and advocates, utilize critical inquiry skills and direct and supervise the provision of physical therapy services. Physical Therapy services include examination, evaluation, diagnosis, prognosis and intervention primarily for individuals with musculoskeletal, neuromuscular, cardiopulmonary and/or integumentary conditions. Physical therapists practice in a wide variety of settings including hospitals, outpatient clinics, private practice, schools, academia, home care, industrial clinics, sports clinics, rehabilitation centers and health and wellness programs. For additional information

about Physical Therapy as a profession see the website of the American Physical Therapy Association (http://www.apta.org).

The physical therapy curriculum at Wayne State University is a professional degree program leading to the Doctor of Physical therapy degree. The entire program involves a preprofessional component: ninety credits of undergraduate course work; a first year of Physical therapy courses taken under qualfiied graduate status; and the final two and one half years of Physical Therapy courses taken under regular graduate status. Only those portions of the program that may be completed during the first four years of what is usually construed as an undergraduate matiriculation are presented in this Bulletin. The balance of the program is presented in the Graduate Bulletin.

The program of study in physical therapy is accredited by the Commission on Accreditation in Physical Therapy Education for the Doctor of Physical Therapy program, (http://www.apta.org). Graduates who receive a Doctor of Physical Therapy degree are eligible to take the national physical therapy licensure examination and the Canadian licensure examination and for active membership in the American Physical Therapy Association.

Admission

Preprofessional Program: The applicant must satisfy the undergraduate admission requirements to the University (see page 24). Applicants to the professional program must also apply for Qualified Graduate Admission, fulfill all prerequisite courses for the physical therapy program, the Wayne State University General Education Requirements (see page 18) and have completed a minimum of ninety undergraduate semester credits. Applicants who already hold an undergraduate degree are exempt from the General Education Requirements and minimum semester credit requirement. Decisions regarding the fulfillment of program prerequisites are made by the Physical Therapy Program. Persons interested in applying to the Doctor of Physical Therapy program must apply through the Physical Therapy Centralized Application Service (PTCAS), www.ptcas.org/ AND for Qualified Graduate Admission to the Graduate School at Wayne State University. Please see the physical therapy admissions website for more information at http://www.pt.cphs.wayne.edu/admissions.php.

NOTE: The earning of a baccalaureate degree is not part of the normal matirculation leading to the Doctor of Physical Therapy. If a student decides to use any or all of the ninety credits earned as physical therpy preprofessional coursework he/she must enroll in another undergraduate degree program. If the student has changed his/her status by virtue of obtaining Qualified Graduate Admission status, he/she must re-enroll as an undergraduate student in order for the preprofessional coursework to be accrued to an undergradaute degree.

Prior to admission to the professional program, the following prerequisites, or their equivalent, must be completed:

PREPROFESSIONAL PROGRAM

Science Pre-Requisite Courses

BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
BIO 2870 -- Anatomy and Physiology: Cr. 5
BIO 3200 -- Human Physiology: Cr. 3
CHM 1220 -- (PS) General Chemistry I: Cr. 4
CHM 1230 -- General Chemistry I Lab: Cr. 1
CHM 1240 -- Organic Chemistry I: Cr. 4
CHM 1250 -- Organic Chemistry I Lab: Cr. 1
KIN 3570 -- Physiology of Exercise 1: Cr. 3
MAT 1800 -- Elementary Functions: Cr. 4
PHY 2130 -- (PS) General Physics: Cr. 3
PHY 2131 -- General Physics Lab: Cr. 1
PHY 2140 -- General Physics: Cr. 3
PHY 2141 -- General Physics Lab: Cr. 1

Non-Science Pre-Requisite Courses

ENG 1020 -- (BC) Introductory College Writing: Cr. 4
ENG 3050 or ENG 3010 (ENG 3050 is the preferred election)
-- (IC) Technical Communication I: Reports: Cr. 3
--(IC) Intermediate Writing: Cr. 3
HEA 2330 -- First Aid and CPR: Cr. 3 (or equiv.)
PSY 1010 -- (LS) Introductory Psychology: Cr. 4
PSY 2400 -- Developmental Psychology: Cr. 4
PSY 3010 -- Statistical Methods in Psychology: Cr. 4

Upper-Level Concentration (six credits minimum)

If the applicant does not have a bachelor's degree the student must also take at least six additional credits in upper division undergraduate courses (3400 and above) concentrated in one of the following areas: Biology, Chemistry, Physics, Psycholog, or Exercise Science

Electives (twenty-five credits)

University General Education Requirements

In addition (or as part of) the above, the following General Education Requirements (see page 18) must also be satisfied:

(AI) American Society and Institutions
(CL) Computer Literacy Competency
(CT) Critical Thinking Competency
(FC) Foreign Culture Group Requirement
(HS) Historical Studies Group Requirement
(OC) Oral Communication Competency
(PL) Philosophy and Letters Group Requirement
(SS) Social Studies Group Requirement
(VP) Visual and Performing Arts Group Requirement

Professional Program Admission requires application through the Physical Therapy Centralized Application Service (PTCAS), www.ptcas.org/ AND to the Graduate School at Wayne State University. Please see the physical therapy admissions website for more information at http://www.pt.cphs.wayne.edu/admissions.php. The deadline for application is November 1 for admission to the program the following Fall Term. Completion of prerequisites with minimum requirements does not guarantee admission.

Applicants to the professional program must satisfy the following requirements:

1. Be admitted to the Graduate School of Wayne State University (see page 24 for admission requirements).

2. complete all but one of the science prerequisite classes by January 1 of the year for which admission is sought.

3. Submit proof of completion of all Wayne State University General Education Requirements, or their equivalent, by May 1 of the year for which admission is sought.

4. Have a minimum grade point average of 3.0 in all preprofessional course work, and prerequisite science and mathematics courses; and a minimum cumulative grade point average of 3.0. Grades of 'D' in required preprofessional courses will not be accepted by the Program. Science courses must be completed within the six years prior to admission to the professional program.

5. Possess the qualifications necessary for the professional responsibilities of a physical therapist.

6. Successful completion of Mathematics Competency requirements by May 1. (Information on these examinations may be obtained from Testing, Evaluation, and Student Life Research Services: 313-577-3400.)

7. A minimum score of 550 TOEFL, 5.5 Oral, and 5.5 TWE are required of applicants whose first language is not English. If taking the computer-based TOEFL, a minimum score of 213, in addition to a 5.5 Oral score, is required.

A personal or written interview may be scheduled for qualified applicants. The interview will assist the Program in determining whether the applicant possesses the personal qualifications and characteristics necessary for the profession by assessing maturity, motivation, professional behaviors and communication skills. Students will also

be expected to be able to articulate their knowledge of self, physical therapy, and health care in general.

Professional courses and/or professional program admission requirements are subject to change without notification. The curriculum is subject to change due to changes in requirements for entry into professional practice, which may be separate from academic requirements. It is the student's responsibility to obtain current information regarding the program from the Office of Student Affairs in the Eugene Applebaum College of Pharmacy and Health Sciences. Interested students are encouraged to attend one or more Information Meetings which are scheduled on the first Tuesday of each month at 6:00 pm. The meeting is held in the auditorium, located on the lower level of the Eugene Applebaum College of Pharmacy and Health Sciences, 259 Mack Ave.

Differential Tuition

The physical therapy program charges differential tuition at the same rate as for any program in the College of Pharmacy and Health Sciences.:

Resident Tuition: $284.90 per credit

Non-resident Tuition: $629.10 per credit

Omnibus Fees: $21.60 per credit

Registration Fee: $98.50

Degree Requirements

The Doctor of Physical Therapy degree requires a minimum of 126 credits of Physical therapy courses. Complete requirements for the degree may be found in the Wayne State University Graduate Bulletin.

Persons interested in the physical therapy program should obtain information on admission from the Office of Student Affairs, Eugene Applebaum College of Pharmacy and Health Sciences, 259 Mack Ave., Wayne State University, Detroit, MI 48201 or by visiting the Physical Therapy website at http://www.pt.cphs.wayne.edu/

Health and Liability Insurance: Clinical Education is provided throughout the professional program along with didactic courses. The final twenty-eight weeks of the program is spent in one or more assignments in selected clinical facilities throughout the metropolitan Detroit area, Michigan and other parts of the State and country. Patient care involves inherent risk of exposure to potential diseases, particularly bloodborne pathogens, and the risk of possible mishaps in patient care. Therefore, all students are required to maintain health insurance coverage and liability insurance, both of which must be in effect prior to and during all periods in which the student is involved in the physical therapy program. The student is responsible for the cost of these insurances and all other costs (such as travel, meals, living expenses) associated with the clinical education portion of the program.

Academic Regulations: The Department of Physical Therapy has strict regulations regarding academic performance and progress. Copies of the most recently revised policies, which reflect the undergraduate and graduate components of the program, are available from the Department Office.

Financial Aid

The University offers opportunities to students in need of financial assistance to meet the expenses of their education. Information about scholarships and loans is available from the University Office of Student Financial Aid, University Welcome Center. In addition, the Physical Therapy Emergency Student Loan fund has been established to assist physical therapy students in good standing in this discipline. Information regarding this and other financial aids for physical therapy students may be obtained from the Department Office.

PHYSICAL THERAPY COURSES (P T)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

3400 (O T 3400) Health Conditions I: Physical Disabilities. Cr. 4

Prereq: IHS 3100; coreq: IHS 3200 or consent of instructor. A series of interdisciplinary presentations on the clinical manifestations and management of selected problems due to disease states or injury; includes etiology, assessment, course and medical specialty management of the problems. Material Fee As Indicated In The Schedule of Classes (W)

4840 Seminar in Physical Therapy. Cr. 2

Prereq: P T 5020, P T 5320 (or former P T 4020, 4320), or consent of instructor. Offered for S and U grades only. Exploration of contemporary issues in physical therapy and health care. Student application of principles of teaching and group dynamics. (S)

5010 Clinical Applications I. Cr. 1

Prereq. or coreq: P T 5320. Offered for S and U grades only. First part-time supervised clinical experience for physical therapy students. Orientation to clinical education; practice to develop professional behaviors, observation skills, communication, basic examination and intervention. Two half-days per week in seven-week term. (S)

5020 Introduction to Physical Therapy. Cr. 4

Prereq: admission to professional curriculum. Sociological and historical ground in PT profession. Basic physical therapy care procedures, documentation, patient education, care in medical emergencies. Material Fee As Indicated In The Schedule of Classes (S)

5070 Clinical Applications II. Cr. 2

Offered for S and U grades only. Prereq. or coreq: P T 5010 or consent of instructor. Second part-time supervised clinical experience for physical therapy students. Orientation to clinical education including basic and intermediate examination and intervention skills, professional behavior, communication, documentation. (F,W)

5100 Therapeutic Exercise I. Cr. 3

Prereq: P T 5430, P T 5500; or consent of instructor. Fundamental principles and techniques of therapeutic exercise. Physiological, neuromuscular processes; adaptation of selected physical dysfunction pertinent to therapeutic exercise. Development of treatment protocols for specific patient physical problems. Material Fee As Indicated In The Schedule of Classes (Y)

5120 Human Growth and Development. Cr. 4

Prereq: P T 5020, consent of instructor. Theories and basic principles in prenatal, physical, sensorimotor, perceptual, cognitive, social, emotional and language growth and development. Implications for physical therapy evaluation and treatment of children with developmental disabilities, adults with disabilities, and the aging population. Material Fee As Indicated In The Schedule of Classes (F)

5200 (P T 5200) Human Anatomy for Health Sciences. (O T 5200) Cr. 4

Prereq: admission to Physical Therapy or Occupational Therapy professional program, or consent of instructor; coreq: P T 5210 or O T 5210. Knowledge of basic human anatomy for students in health science professional programs; foundation for further study in clinical sciences. (F)

5210 (P T 5210) Human Anatomy for Health Sciences: Laboratory. (O T 5210) Cr. 1-2

Prereq: admission to professional OT program or consent of instructor; coreq: O T 5200 or P T 5200. Examination of prosections, dis-

section of human cadavers; didactic study. Material Fee As Indicated In The Schedule of Classes (F)

5300 Surface Anatomy. Cr. 1

Coreq: P T 5200, P T 5210; or consent of instructor. Laboratory-based course teaching skills for soft tissue palpation, identification of surface anatomy landmarks, soft tissue mobilization and massage. (F)

5320 Basic Evaluation Procedures. Cr. 3

Prereq. or coreq: P T 5400, P T 5500; or consent of instructor. Basic principles and techniques of manual muscle testing, goniometry, and anthropometric measurements. Posture and gait evaluation. Laboratory. Material Fee As Indicated In The Schedule of Classes (W)

5400 (O T 5400) Neuroanatomy and Neurophysiology for Health Sciences. Cr. 3

Open only to students admitted to EACPHS professional program. Study of the human central nervous system; emphasis on sensory and motor systems and structures that contribute to normal movement. Material Fee As Indicated In The Schedule of Classes (Y)

5410 Clinical Medicine I. Cr. 2

Prereq: admission to Physical Therapy program or consent of instructor. Disease processes, medical and surgical interventions. Role of physical therapist and other health care professionals: physician, occupational therapist, speech pathologist, psychologist, nurse, others. (Y)

5430 Clinical Medicine II. Cr. 2

Prereq: P T 5410. Continuation of P T 5410. Disease processes, medical and surgical interventions. Role of physical therapy as part of comprehensive health care team. (Y)

5500 Kinesiology and Biomechanics. Cr. 3

Prereq: P T 5200, P T 5210, P T 5400. Normal movement and biomechanics applied to the human body. Material Fee As Indicated In The Schedule of Classes (F)

5650 (R T 5650) Pathophysiology for Health Sciences. (O T 5650) Cr. 3

Prereq: admission to Physical Therapy program or consent of instructor. Fundamental knowledge of the nature of disease for the health sciences student; physiologic and morphologic changes accompanying disease processes; mechanisms of repair and recovery. (W)

5660 Pathokinesiology. Cr. 2

Prereq: P T 5500. Continuation of P T 5500. Additional depth and breadth. Material Fee As Indicated In The Schedule of Classes (W)

5800 Clinical Education I. Cr. 3

Prereq: P T 7120 or P T 7220 or consent of instructor. Offered for S and U grades only. Full-time supervised clinical experience for physical therapy students. Six-week experience. First in a two-course clinical education sequence. (S)

5820 Clinical Education II. Cr. 3

Offered for S and U grades only. Prereq: P T 5800. Full-time supervised clinical experience for physical therapy students. Six-week experience. Second in a two-course clinical education sequence. (S)

6100 Therapeutic Exercise II. Cr. 2

Prereq: P T 5100 or consent of instructor. Advanced application of principles and techniques of therapeutic exercise; evaluation and modification of therapeutic exercise plan of care, based on physical and functional responses and characteristics of patients or clients. Material Fee As Indicated In The Schedule of Classes (F)

6200 Diversity in Health Care. Cr. 2

Prereq: P T 5120 or consent of instructor. Impact of diversity on role of health care professionals. Issues in cultural awareness, cultural sensitivity and cultural competence in personal. professional and societal contexts. Self-analysis of personal attitudes, values and beliefs. Service learning project. (F,W)

6300 Critical Thinking and Inquiry for Health Professions. Cr. 2-3

Prereq: admission to DPT or tDPT program or consent of instructor. Transitional DPT students must elect three credits; transitional course is Web-based. Introduction to evidence-based practice and clinical reasoning and decision making. Identification, location, critique and analysis of evidence. Evidence-based case report appropriate for publication required, if elected for three credits. Transitional DPT students must elect three credits; transitional course is Web-based. (T)

6310 (PSL 6010) Physiology of Exercise II. (KIN 6310) Cr. 3

Prereq: KIN 3570 or consent of instructor. Metabolic, neuromuscular, cardiovascular, and respiratory adjustments to acute and chronic exercise in health and disease, including body composition and weight control, nutritional considerations, and the effects of different environments on exercise performance. (F)

6320 (PPR 6300) Patient Perspectives of Health, Illness and Culture. (O T 6320) Cr. 2

Prereq: enrollment in Pharmacy and Health Care Sciences college or other health care program. Transitional DPT students must elect three credits; transitional course is Web-based. People from various cultures (religious, ethnic, sexual orientation, disability, chronic illness, economic status) discuss in small groups how these cultures influence living with a chronic illness. Students also discuss readings on health culture and keep a journal on their course experience. (S)

6400 Teaching and Learning in Health Care. Cr. 2-3

Prereq: admission to DPT or tDPT program or consent of instructor. Transitional DPT students must elect three credits; transitional course is Web-based. Exploration of theoretical and practical issues pertinent to physical therapy profession: educational methods, adult learning theories, instructional design methodologies, evaluation, instructional management. Additional project required if elected for three credits. (W)

6500 Pharmacology. Cr. 2

Prereq: P T 5430, P T 7400 or consent of instructor. Effects of drug distribution, absorption and excretion as pertaining to physical therapy. Major drug categories, OTC, and nutritional supplements, pertinent to acute and chronic responses to physical therapy; indications, mechanisms, effects. (F)

6600 Ethics and Legal Issues. Cr. 2

Prereq: P T 5020, P T 6200, P T 5820, or consent of instructor. Impact of legal practice standards, including federal, state, and institutional regulations related to patient care and fiscal management of health care practice. Ethics and ethical decision making. (W)

6700 Motor Learning and Motor Control. Cr. 2-3

Prereq: P T 5400; or admission to DPT or tDPT program; or consent of instructor. Transitional DPT students must elect three credits; transitional course is Web-based. Current theories and concepts in processes of motor skill acquisition and performance, from a behavioral objective. Transitional DPT students must elect three credits; transitional course is Web-based. Additional evidence-based case reports required if elected for three credits. (W)

6750 Complementary and Alternative Health Care. Cr. 2

Prereq: P T 5430, P T 5650, or consent of instructor. Definition and scope of complementary and alternative health care practice. Techniques include physical, psychological, and nutritional applications relevant to practice of physical therapy. (W)

Radiation Therapy Technology

Office: 1130 APAHSA: 313-577-1137

Website: http://cphs.wayne.edu/rtt/index.php

Program Director: Adam F. Kempa

Chairperson, Health Care Sciences: Tom Birk

Academic Director

Adam F. Kempa

Assistant Professor (Clinical)

Rosann Keller

Cooperating Faculty

Merlin E. Ekstrom, Michael C. Joiner, Philip L. Pokorski

Medical Adviser

Harold E. Kim

Undergraduate Degree Program

BACHELOR OF SCIENCE in Radiation Therapy Technology

Radiation therapy technology is a health care discipline which utilizes ionizing radiation for the treatment of malignant diseases. This field requires a basic understanding of and interest in science, especially mathematics and physics, as well as emotional maturity and a desire to assist in the management of patient care. A radiation therapist has the unique opportunity to blend knowledge and skills of mathematics, medical science and psychology in his or her everyday work. The therapist comes to know patients over a period of several months and becomes an important presence in their health care, a continued contact that is the source of much satisfaction and professional pride. The Bachelor of Science Degree program in Radiation Therapy Technology at Wayne State University is designed to prepare students for the technical, theoretical and psychological aspects of this career.

Radiation therapists are typically employed in hospitals, clinics, educational institutions, and commercial equipment corporations as staff therapists, clinical supervisors, administrators, educators and technical marketing personnel. A radiation therapist is able to:

– operate sophisticated radiation equipment to deliver a planned course of radiation therapy;

– assist the physicist in quality assurance and in treatment planning procedures, and in the calibration of equipment;

– observe the clinical progress of the patient undergoing radiation therapy, and recognize when a patient's condition requires the attention of a physician; and

– assist in providing psychosocial support for patients who are dealing with the stress of their illness.

Bachelor of Science in Radiation Therapy Technology

The Bachelor of Science in Radiation Therapy Technology is a four-year degree program consisting of two years of preprofessional courses and two years of professional courses. The program is accredited by the Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Drive, Suite 900, Chicago IL 60606-2901; (312) 704-5300. The program complies with the professional curriculum of the American Society of Radiologic Technologists. Upon completion of the program, the student receives a Bachelor of Science Degree in Radiation Therapy Technology and is eligible to take the national certification examination administered by the American Registry of Radiologic Technologists.

Admission to Preprofessional Program

The first two years (preprofessional program) are taken in the College of Liberal Arts and Sciences, the admission requirements of which are satisfied by general admission to the University; see page 24. Application forms are available from the Office of Admissions, University Welcome Center. Students should consult with the University Advising Center, 1600 Adamany Library, regarding course selection. Students are urged to seek additional career advisement by contacting the office of Student and Alumni Affairs in the Eugene Applebaum College of Pharmacy and Health Sciences, for registration in a 'College Information Night.'

Recommended High School Preparation: Students interested in a career in radiation therapy technology should take as many of the following high school courses as possible: biology, chemistry, mathematics, physics, computer science, keyboarding, speech and composition.

Preprofessional Program

Each of the following required preprofessional courses (or its equivalent) must be completed with a minimum grade of 'C' (2.00 g.p.a., where A = 4.0)

FIRST AND SECOND YEARS

BIO 1500 -- Basic Life Diversity: Cr. 4
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
BIO 2870 -- Anatomy and Physiology: Cr. 5
CHM 1020 -- (PS) Survey of General Chemistry: Cr. 4
COM 1010 -- (OC) Oral Communication: Basic Speech: Cr. 3
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
ENG 3010 -- (IC) Intermediate Writing: Cr. 3
MAT 1800 -- Elementary Functions: Cr. 4
PHY 2130 -- (PS) General Physics: Cr. 3
PHY 2131 -- General Physics Laboratory: Cr. 1
PHY 2140 -- General Physics: Cr. 3
PHY 2141 -- General Physics Laboratory: Cr. 1
PSY 1010 -- (LS) Introductory Psychology: Cr. 4
PSY 2300 -- Psychology of Everyday Living: Cr. 4
American Society & Institutions (AI) Elective: Cr. 3
Computer Literacy (CL) by Competency Exam or course: Cr. (3)
Critical Thinking (CT) by Competency Exam or course: Cr. (3)
Foreign Culture (FC) Elective by Competency Exam or course: Cr. (3)
Historical Studies (HS) Elective: Cr. 3
Humanities (VP,PL) Electives: Cr. 6
Total credits: 59

Admission to Professional Program

Admission to the professional program requires completion of the above preprofessional course requirements and satisfaction of specific admission requirements listed below. The application deadline is on or about April 1 for matriculation into the professional program for the subsequent fall term.

Students should contact the University Advising Center (313-577-2680) prior to each fall term to obtain an updated list of preprofessional course and program admission requirements. The program faculty provides career advisement at the Eugene Applebaum College of Pharmacy and Health Sciences 'College Information Night;' attendance is an admission requirement.

Since applicants who are admitted will eventually be working as a member of a health care team, the admissions committee evaluates candidates based on their personal qualities as well as their academic achievement. Therefore, throughout the interview and the completion of other application requirements, such criteria as a student's maturity, motivation, knowledge of the profession, interpersonal skills, personal integrity, and empathy for others is evaluated.

Professional Program Admission Requirements: The student applying to the professional program must meet the following admission requirements:

1. Completion of all preprofessional courses (or their equivalents) by the fall term in which admittance is desired. See Preprofessional Program, above.

2. Hold a combined cumulative grade point average of 2.50 or above ('A' = 4.00) for all college-level work at all institutions attended.

3. Completion of a professional program application and two reference forms which may be found online at www.cphs.wayne.edu. Additional application information may be found at this site.

4. Submission of official transcripts from all college institutions attended (other than Wayne State).

5. Attendance at a 'College Information Night' at the Eugene Applebaum College of Pharmacy and Health Sciences. Registration information for the 'College Information Night' may be found by calling 313-577-1716

6. Completion of two clinical visits to affiliate institutions for the program. Call 313-577-5711 to make an appointment.

7. Submission of two reference forms (forms may be downloaded from the online application site): one from an employer/supervisor and one from a college professor/adviser.

8. Satisfaction of the University Mathematics proficiency and competency in English requirements (documentation is required).

The information requested in requirements 3, 4, 7, and 8, above, should be submitted to the Eugene Applebaum College of Pharmacy and Health Sciences, Office of Student and Alumni Affairs, 259 Mack, Suite 1600, Detroit, Michigan.

Applications, including an application form, reference forms, and current procedural guidelines, are available online at: www.cphs.wayne.edu .

Application Deadline: The deadline for applications is on or about April 1. Applications which are incomplete by the deadline or are submitted after that date will be considered only with the approval of the Program Director. Prospective students are urged to submit applications as early as possible after the fall term. Specific directions for submitting the various application materials are found online at www.cphs.wayne.edu.

Application Review: All applications will be reviewed for completeness. The Admissions Committee will review all qualified applicants with completed applications submitted by the deadline date. The Admissions Committee will notify applicants of their interview status. Admission interviews are typically conducted in May of each year. A number of criteria will be evaluated, including academic achievement and personal qualities. The Radiation Therapy Technology Program typically notifies each applicant of the final admission decision in June.

Degree Requirements

Candidates for the degree Bachelor of Science in Radiation Therapy Technology must complete a minimum of 125 credits, plus sufficient credits to fulfill the University General Education Requirements (see page 16) not satisfied by either required courses or the student's choice of electives. The total course work will be distributed between two years of preprofessional courses (see above) and the two-year professional program as outlined below. Courses in the professional program are taken in the Eugene Applebaum College of Pharmacy and Health Sciences. Enrollment requires full-time student status for six consecutive terms (twenty-four months), during which time students take didactic and clinical courses. The clinical program includes approximately twenty hours per week of clinical education at multiple affiliate institutions in the greater metropolitan Detroit area. Such institutions include urban and suburban hospitals.

A required elective in the senior year encourages a student to take a course in the areas of management, education, humanities or social studies. The course selected may be used to fulfill the social science requirement of the University General Education Requirements.

While most required courses are scheduled during usual daytime hours, students are required to attend some courses or individual class sessions in early evening.

Professional courses and/or professional program admission requirements are subject to change without notification. The curriculum may change because of professional practice requirements which may be separate from academic requirements. It is the student's responsibility to obtain updated information from the Radiation Therapy Technology Program, Department of Health Sciences, Wayne State University; telephone: 313-577-1137; Fax: 313-577-0908.

Professional Program

THIRD YEAR

R T 3000 -- Concepts of Clinical Care: Cr. 3
R T 3010 -- Introductory Radiation Physics: Cr. 3
R T 3020 -- Clinical Radiation Physics: Cr. 3
R T 3110 -- Clinical Aspects of Radiation Therapy: Cr. 3
R T 3140 -- Topographic Anatomy and Medical Imaging: Cr. 3
R T 3200 -- Therapeutic Interactions in Oncology Care: Cr. 2
R T 3310 -- Clinical Practicum I: Cr. 3
R T 3320 -- Clinical Practicum II: Cr. 4
R T 3330 -- Clinical Practicum III: Cr. 4
R T 5650 -- Pathophysiology for Health Sciences: Cr. 3

Total credits: 31

FOURTH YEAR

R T 4110 -- Clinical Radiation Oncology: Cr. 4
R T 4120 -- Basic Clinical Dosimetry: Cr. 4
R T 4140 -- Oncologic Pathology: Cr. 2
R T 4150 -- Radiobiology of Radiation Oncology: Cr. 2
R T 4220 -- Radionuclide Physics: Cr. 3
R T 4240 -- Radiation Therapy Technology Seminar: Cr. 3
R T 4300 -- Quality Assurance: Cr. 2
R T 4350 -- Clinical Practicum IV: Cr. 4
R T 4360 -- (WI) Clinical Practicum V: Cr. 4
R T 4370 -- Clinical Practicum VI: Cr. 4
RT 5990 -- Directed Study in Radiation Therapy Technology: Cr. 1-5 (Max 5)
Elective: Cr. 3
Total credits: 35

Scholarship: Students in the professional program are subject to high academic and professional standards. A grade of 'C' (2.00) or above is required in each professional course, and the student must maintain a term grade point average of 2.50 throughout the program. A grade of 'C-minus' (1.67) in a professional course indicates unsatisfactory performance; repetition of the course is required, and review by the Academic Committee will occur. A second grade of 'C-minus' or below, or a single grade of 'D' or less (1.00 or less) will result in immediate dismissal from the professional program. Academic standards and program probation policies are subject to change. Academic standards and policies are published annually; copies are available upon request from the Radiation Therapy Technology Program.

Liability Insurance: Each student is required to have professional liability insurance during the entire length of the professional program. Neither the clinical affiliates, nor Wayne State University, assume liability for student actions during clinical education.

UNIVERSITY GENERAL EDUCATION REQUIREMENTS

In addition to the current course and academic requirements outlined by the Program, the student must complete the University General Education Requirements (see page 16) in order to receive a Bachelor of Science degree in Radiation Therapy Technology. Electives in the preprofessional or professional program may be used to complete these additional course requirements.

RADIATION THERAPY TECHNOLOGY COURSES (R T)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

3000 Concepts of Clinical Care. Cr. 3

Procedures and ethics related to the care and examination of the radiation oncology patient. Topics include: basic pharmacology, drug administration, pain management, treatment side effects and their management. Material Fee As Indicated In The Schedule of Classes (F)

3010 Introductory Radiation Physics. Cr. 3

Basic introduction of radiation physics including the x-ray machine, physical principles and circuitry; principles of mathematics. (F)

3020 Clinical Radiation Physics. Cr. 3

Prereq: R T 3010. Principles of radiation exposure; radiation producing and measuring devices; clinical application of radiation physics. (W)

3110 Clinical Aspects of Radiation Therapy. Cr. 3

Basic concepts in oncology and radiation therapy technology. Topics include: cancer statistics, neoplasia, and principles of treatment and dosage. (F)

3140 Topographic Anatomy and Medical Imaging. Cr. 3

Procedures for imaging human structure and their relevance to radiation therapy; topographic and cross sectional anatomy, identification of anatomic structures as demonstrated through various imaging modalities and human anatomy lab sessions; fundamentals of radiographic exposure techniques and film processing. Material Fee As Indicated In The Schedule of Classes (W)

3200 Therapeutic Interactions in Oncology Care. Cr. 2

Open only to radiation therapy technology students. Issues related to professional interaction with oncology patients. Impact of cancer diagnosis on patient and family; subsequent role of radiation therapist. Approaches to effective communication. Material Fee As Indicated In The Schedule of Classes (S)

3310 Clinical Practicum I. Cr. 3

Introduction to clinical radiation therapy. Closely supervised patient-related activities. Emphasis on development of interpersonal communication skills in the clinical setting; medical terminology. (F)

3320 Clinical Practicum II. Cr. 4

Prereq: R T 3310. Closely supervised practice in the delivery of prescribed doses of radiation utilizing common radiation equipment. Observation and performance of clinical care procedures; Development of communication skills in patient/therapist relationships. Correlation of medical imaging techniques to diagnostic workup and treatment planning. Completion of clinical competency requirements. (W)

3330 Clinical Practicum III. Cr. 4

Prereq: R T 3320. Expanded supervised practice in the delivery of radiation therapy treatments. Submission of essay on radiation oncology topic. Completion of clinical competency requirements. (S)

4110 Clinical Radiation Oncology. Cr. 4

General presentation of malignant conditions, their etiology and methods of treatment; specific radiation treatment methodology including technical parameters of field size and direction, dosage, blocking, and patient positioning. Material Fee As Indicated In The Schedule of Classes (F)

4120 Basic Clinical Dosimetry. Cr. 4

Prereq: R T 4110; admission to Radiation Therapy Technology program. Basic concepts of clinical dosimetry and treatment planning; various external beam techniques, depth dose data, and summation of isodose curves. Material Fee As Indicated In The Schedule of Classes (W)

4140 Oncologic Pathology. Cr. 2

Basic principles of neoplasia, including types of growth, causative factors, biological behavior, and significance of staging procedures. Pathology of radiation injury. Material Fee As Indicated In The Schedule of Classes (F)

4150 Radiobiology of Radiation Oncology. Cr. 2

Biological effects of ionizing radiation on living tissue. Cell and tissue radiosensitivity; radiation syndromes and related effects. Basic radiobiological principles of radiation oncology and radiation protection. (W)

4220 Radionuclide Physics. Cr. 3

Prereq: R T 3020. Natural radioactivity; isotopes and nuclear structure; techniques of radiation measurement. The clinical use of radionuclides. Radiation safety. (F)

4240 Radiation Therapy Technology Seminar. Cr. 3

Open only to radiation therapy technology students. Issues relevant to the practice and profession of radiation therapy technology explored through group discussion and case studies. Topics include: psychosocial, cultural, economic, physical, and educational factors which affect the patient; professional, administrative, legal, and bioethical issues which influence professional practice. Material Fee As Indicated In The Schedule of Classes (W)

4300 Quality Assurance. Cr. 2

Open only to radiation therapy technology students. Principles and application of a comprehensive quality assurance program, addressing general clinical and physics factors. Contents include: tasks to be performed, with their frequency and acceptable limits; model implementation program; and legal implications. Lecture and laboratory settings. Material Fee As Indicated In The Schedule of Classes (S)

4350 Clinical Practicum IV. Cr. 4

Prereq: R T 3330. Continued supervised practice in a wide spectrum of clinical activities. Submission of a critical bibliography from current literature of radiation therapy, cancer management and related areas. Completion of clinical competency requirements. (F)

4360 (WI) Clinical Practicum V. Cr. 4

Prereq: R T 4350. Continued clinical practice under limited supervision. Submission of essay on radiation oncology topic. Completion of clinical competency requirements. Satisfies the University General Education Writing Intensive Course in the Major requirement. (W)

4370 Clinical Practicum VI. Cr. 4

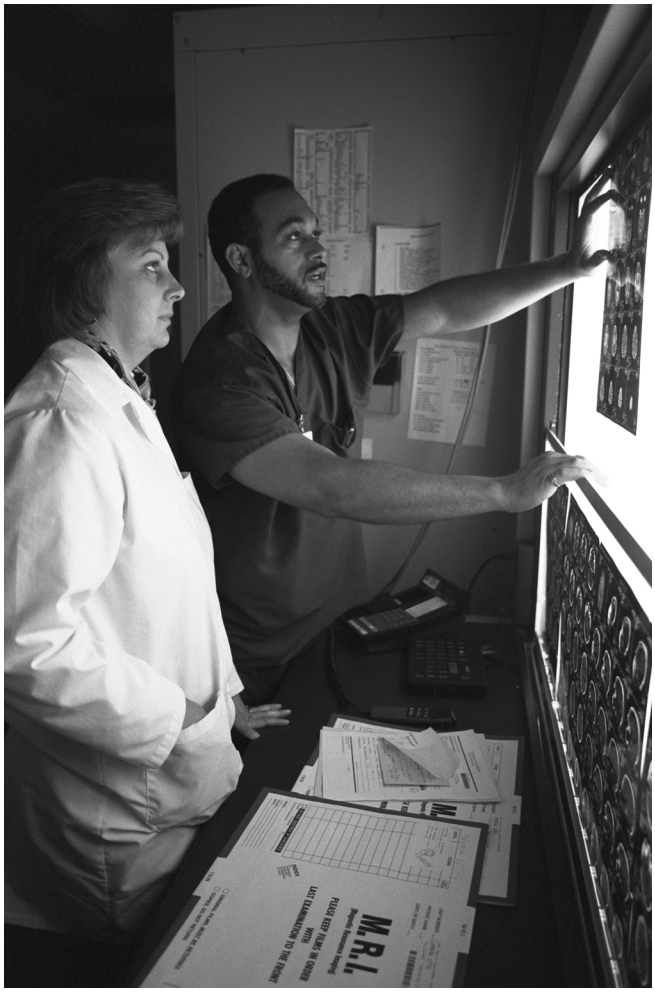
Prereq: R T 4360. Continued clinical practice under minimal supervision. Practice of procedures related to the development of various treatment plans and methods of treatment planning. Submission of report on quality assurance activities. Completion of clinical competency requirements. Material Fee As Indicated In The Schedule of Classes (S)

5650 Pathophysiology for Health Sciences. (O T 5650 (P T 5650)) Cr. 3

Prereq: admission to professional Physical Therapy, Occupational Therapy, or Radiation Therapy Technology program. Fundamental knowledge of the nature of disease for the health sciences student; physiologic and morphologic changes accompanying disease processes; mechanisms of repair and recovery. (W)

5990 Directed Study in Radiation Therapy Technology. Cr. 1-5 (Max. 5)

Open only to students admitted to the radiation therapy technology program. Production of a paper, written assignment, or presentation to develop critical thinking, research, writing and presentation skills. Focus on career options within the field. (T)



Radiologic Technology

Office: 1130 APHS; 313-577-1435

Program Director: Kathy Kath

Chairperson, Health Care Sciences: Thomas Birk

Assistant Professor

Kathy Kath

Bachelor of Science in Radiologic Technology

The Bachelor of Science in diagnostic radiologic technology is a four-year degree program consisting of two years of preprofessional courses and two years of professional courses. The program complies with the professional curriculum of the American Society of Radiologic Technologists. Upon completion of the program, a student receives a Bachelor of Science Degree in Radiologic Technology and is eligible to take the national certifying examination administered by The American Registry of Radiologic Technologists.

Radiologic Technology Degree Completion Program: The Radiologic Technology Program offers a degree completion program for individuals employed as a Radiologic Technologist who have an interest in seeking a bachelor's degree in radiologic technology. Please contact the Program Office (313-916-1348) for information concerning this program.

Admission to Preprofessional Program

The first two years (preprofessional program) are taken in the College of Liberal Arts and Sciences, the admission requirements of which are satisfied by general admission to the University. Application forms are available on-line at www.wayne.edu or through the Office of Admissions, University Welcome Center. Students should consult with an Academic Advisor regarding course selection. Students are urged to seek additional career advisement from the Diagnostic Radiologic Technology program faculty early in their preprofessional program.

RECOMMENDED HIGH SCHOOL PREPARATION: Students interested in a career in diagnostic radiologic technology should take as many of the following courses as possible: biology, chemistry, mathematics, physics, computer science, keyboarding, speech and composition.

Preprofessional Curriculum

Each of the following required preprofessional courses (or its equivalent) must be completed with a minimum g.p.a. of 2.80 in the non-science required courses and a minimum g.p.a. of 3.00 in the science required courses. An asterisk (*) below indicates courses or requirements that may be satisfied by examination or course work. Contact the WSU Office of Testing, Evaluation & Research at 313-577-3400 for further information.

FIRST AND SECOND YEARS

BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3-4
BIO 2870 -- Anatomy & Physiology: Cr: 5
BIO 3200 -- Human Physiology: Cr: 3
COM 1010 -- (OC) Oral Communication: Basic Speech: Cr. 3
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
ENG 3050 -- (IC) Technical Communication I: Cr. 3
MAT 1800 -- Elementary Functions: Cr. 4
PHI 1050 -- (CT) Critical Thinking: Cr. 3*
PHI 2320 -- (PL) Introduction to Ethics: Cr. 3-4
PHY 1020 --(PS) Conceptual Physics: Cr. 3-4
PSY 1010 -- (LS) Introductory Psychology: Cr. 4
PSY 2400 -- Developmental Psychology: Cr. 4

STA 1020 -- Elementary Statistics: Cr. 3
Computer Literacy Requirement*
Plus courses to satisfy General Education Requirements in the following areas:
Historical Studies (HS)
American Society & Institutions (AI)
Visual & Performing Arts (VP) Elective
Social Sciences (SS)
Foreign Culture (FC)

Admission to Professional Program

Admission to the professional program requires completion of the above preprofessional course requirements and satisfaction of specific admission requirements listed below. The application deadline is November 30 for matriculation into the professional program for the subsequent Spring/Summer term. Prospective students are urged to contact the program as early as possible in their University studies (313-916-1348).

Since each program has special requirements for admission, students are urged to attend one of the Monthly Information Meetings, held on the first Tuesday of each month, for advising and application deadline dates a year before they plan to enter. Individuals can Registration for the free monthly Information Meetings by going to http://www.cphs.wayne.edu/meetings.php.

Since applicants who are admitted will eventually be working as a member of a health care team, the admissions committee evaluates candidates based on their personal qualities as well as their academic achievement. Therefore, throughout the interview and the completion of other application requirements, such criteria as a student's maturity, motivation, knowledge of the profession, interpersonal skills, personal integrity, and empathy for others is evaluated.

Admission Requirements: The student wishing to apply to the professional program must meet the following admission requirements:

1. Completion of all preprofessional courses (or their equivalents) by the Spring/Summer term in which admittance is desired. See Preprofessional Program above.

2. Hold a grade point average of 2.80 or above in non-science required courses and 3.00 in science required courses ('A' = 4.00) for all college level work at all institutions attended.

3. Completion of the professional program application form (www.cphs.wayne.edu) and associated requirements and submission of official transcripts to:

Eugene Applebaum College of Pharmacy and Health Sciences
Office of Student and Alumni Affairs
259 Mack Avenue, Suite 1600
Detroit, MI 48201

APPLICATION DEADLINE: The deadline for applications is November 30. Applications which are incomplete by the deadline or are submitted after that date will be considered only with the approval of the Program Director. Prospective students are urged to submit applications as early as possible. Specific directions for submitting various application materials are indicated on the website.

APPLICATION REVIEW: All applications will be reviewed for completeness. The Admissions Committee will interview qualified applicants with completed applications submitted by the deadline date. A number of criteria will be evaluated, including academic achievement and personal qualities. Upon completion of all admission interviews, applicants will be notified of the final admission decision. This typically occurs in February.

Professional Curriculum

Spring/Summer Semester, Year II
RDT 3100 -- Introduction to Radiologic Technology: Cr. 2
RDT 3200 -- Radiation Biology: Cr. 3
RDT 3400 -- Clinical Education I: Cr. 6

Fall Semester, Year III
P T 6500 -- Pharmacology: Cr. 2
RDT 3090 -- Directed Study: Medical Terminology: Cr. 1
RDT 3300 -- Radiographic Procedures I: Cr. 3
RDT 3600 -- Clinical Education II: Cr. 6

Winter Semester, Year IV
RDT 3500 -- Patient Care: Cr. 3
RDT 3700 -- Radiographic Procedures II: Cr. 3
RDT 3900 -- Clinical Education 3: Cr. 6

Spring/Summer Semester, Year 3
RDT 3800 -- Cross Sectional Anatomy: Cr. 3
RDT 4300 -- Clinical Education IV: Cr. 6

Fall Semester, Year IV
RDT 4100 -- Radiographic Quality/Exposure: Cr. 3
RDT 4200 -- Radiation Physics and Circuitry: Cr. 3
RDT 4500 -- Clinical Education V: Cr. 6
RDT 4800 -- Independent Study: Cr. 1

Winter Semester, Year IV
PPR 3120 -- Pharmacy Jurisprudence: Cr. 2
RDT 4400 -- Radiographic Pathology: Cr. 3
RDT 4600 -- Radiology Seminar: Cr. 1
RDT 4700 -- Clinical Education VI: Cr. 6
RDT 4900 -- Jurisprudence for Radiographers: Cr.3

RADIOLOGIC TECHNOLOGY COURSES (RDT)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

3090 Directed Study. Cr. 1
Prereq: acceptance in radiation technology program; RDT 3100, RDT 3200, RDT 3300, RDT 3400, RDT 3600; P T 6500. Independent study of medical terminology and related vocabulary. Instructor-directed online course. (F)

3100 Introduction to Radiologic Technology. Cr. 2
Prereq: acceptance to RDLT Program. Introduction to radiology and hospital procedures. Role of radiographer as a member of the health care team. (S)

3200 Radiation Biology and Advanced Protection. Cr. 3
Prereq: RDT 3100; coreq: RDT 3400. Radiation protection procedures; radiation interaction with matter and dosage problem solving. (S)

3300 Radiographic Procedures I. Cr. 3
Prereq: RDT 3100, RDT 3200 and RDT 3400. Instruction and practical experience in procedures of positioning for the skeletal system with correlation to related anatomy in medical images. (F)

3400 Clinical Education I. Cr. 6
Prereq: RDT 3100 and RDT 3200. Clinical course. Student participates in supervised practice of radiographic procedures, studied in conjunction with didactic coursework. (S)

3500 Patient Care. Cr. 3
Prereq: admission to RDLT program, RDT 3600, PHI 1110. Practical application of patient handling: patient assessment, implication of medications and contrast media. BLS certification. Material Fee As Indicated In The Schedule of Classes (W)

3600 Clinical Education II. Cr. 6

Prereq: admission to RDLT program, RDT 3500, PHI 1110. Application of didactic theory in practice on patients/clients under supervision of qualified technologists in a clinical setting. Material Fee As Indicated In The Schedule of Classes (F)

3700 Radiographic Procedures II. Cr. 3

Prereq: admission to RDLT Program; RDT 3900. Continuation of RDT 3300. Additional advanced procedures, including skull, mammography, and gastrointestinal studies. Material Fee As Indicated In The Schedule of Classes (W)

3800 Cross-Sectional Anatomy. Cr. 3

Open only to students in RDLT program. Prereq: RDT 3700, RDT 3900. Presentation of anatomical structures in sectional format, as encountered in computed tomography or magnetic resonance imaging. (S)

3900 Clinical Education III. Cr. 6

Prereq: admission to RDLT Program; RDT 3700, RDT 3800. Minimally supervised clinical experience. Skills practice to proficiency level; additional complex skills. Material Fee As Indicated In The Schedule of Classes (W)

4100 Radiographic Quality/Exposure. Cr. 3

Prereq: admission to RDLT Program; RDT 4200, RDT 4300. Practical application of technical exposure factor formulation; imaging systems and subsequent effects of of equipment manipulation of images. Material Fee As Indicated In The Schedule of Classes (F)

4200 Radiation Physics and Circuitry. Cr. 3

Open only to students in RDLT program. Prereq: RDT 4100, RDT 4300. Radiation physics; tubes and circuits of radiographic equipment. (F)

4300 Clinical Education IV. Cr. 6

Prereq: admission to RDLT Program; RDT 4100, RDT 4200. Continuation of RDT 3900. Material Fee As Indicated In The Schedule of Classes (S)

4400 Radiographic Pathology. Cr. 3

Open only to students in RDLT program. Prereq: RDT 4500. Disease process and how they manifest in imaging modalities. Clarification of modality preference. (W)

4500 Clinical Education V. Cr. 1-7 (Max. 7)

Prereq: admission to RDLT Program; RDT 4400. Supervised clinical experience in performing radiographic procedures on patients in clinical setting. Evaluation of outcomes; application of knowledge at a progressive level. Material Fee As Indicated In The Schedule of Classes (F)

4600 Radiology Seminar. Cr. 1

Open only to students in RDLT program. Prereq: RDT 4700, RDT 4800. Introduction to imaging modalities beyond the scope and practice of the general radiographer; emphasis on interventional procedures. (W)

4700 Clinical Education VI. Cr. 6

Prereq: admission to RDLT Program; RDT 4600, RDT 4800. Continuation of RDT 4500. Material Fee As Indicated In The Schedule of Classes (W)

4800 Independent Study. Cr. 1

Open only to students in RDLT program. Prereq: RDT 4600, RDT 4700. Independent research in radiology. (F)

4900 Jurisprudence for Radiographers. Cr. 3

Prereq: acceptance in RDLT Program; PHI 2320 or equiv. Ethical and legal case studies; research and discussion correlated to philosophical theory and accepted best law practice for general situations in health care and those specific to radiography. (W)

Pharmacy Practice

Office: 2190 APHS; 313-577-0824
Chairperson: David J. Edwards
Website: http://cphs.wayne.edu/practice

Professors

David J. Edwards, Linda A. Jaber, Richard L. Lucarotti, Douglas A. Miller, Michael J. Rybak, Richard L. Slaughter, Maureen Smythe, Jesse C. Vivian

Associate Professors

David S. Bach, Pramodini B. Kale-Pradhan, Paul J. Munzenberger, Mary Beth O'Connell, Denise Rhoney, Thomas Taylor, Victoria Tutag-Lehr

Assistant Professors

Hossam Ashour, Helen Berlie, Raymond Cha, Sara Dadayan, Susan Davis, Candice Garwood, Christopher Guiliano, Justine Gortney, Kathryn Hurren, Emily Martin, Lynette Moser, Carrie Nemerovski, Dennis Parker, Anthony Pattin, Nicole Pinelli, Francine Salinitri, Paul Schiavi, Geralynn B. Smith, Sheila Wilhelm

Senior Lecturer

Carol Bugdalski-Stutrud

Doctor of Pharmacy Program

The WSU Doctor of Pharmacy program educates students to become valued providers of health care services. Our graduates use evidenced-based practice to ensure optimal health of the patient and of the public and will provide leadership in advancing pharmacy practice and health policy.

The practice of pharmacy has experienced profound changes during the past three decades as its traditional role in drug distribution has increasingly expanded to incorporate the concept of pharmaceutical care. This philosophy charges pharmacists with the responsibility for providing drug therapy that achieves defined results and improves a patient's quality of life. Pharmacists are expected to interact with patients and other health care providers to assure that the drug therapy prescribed is appropriate and is being administered in a way that assures achieving the desired outcomes.

The ability of pharmacists to play an increasingly active role in drug therapy is being recognized at the state and national levels. At the state level pharmacists have been recognized as having the ability to initiate or modify drug therapy, either through collaboration with a physician or by independent authority. In Michigan pharmacists are allowed to prescribe under delegated authority of a licensed practitioner. Examples of services provided by pharmacists include: disease state screening (examples are: blood pressure monitoring for hypertension, glucose monitoring for diabetes, cholesterol monitoring, bone densitometry for osteoporosis), monitoring and adjusting anticoagulation therapy, monitoring and adjusting antibiotic therapy.

A major impetus for these changes is a result of the realization of the added value of pharmacists input into therapeutic decision making in a manner that can result in cost reduction through prevention of problems arising from adverse drug experiences, drug-drug and drug-food interactions, errors in prescribing or administering medications, and patient noncompliance.

The Doctor of Pharmacy program at Wayne State University is offered through the Departments of Pharmacy Practice and Pharmaceutical Sciences. The preprofessional components of the program are described in the following section (Pharmaceutical Sciences). The professional curriculum is described in detail in the Wayne State University Graduate Bulletin.

Pharmaceutical Sciences

Office: 3610 APHS; 313-577-1747
Chairperson: George B. Corcoran
Website: http://www.cphs.wayne.edu/psc/index.php

Professors

Hanley N. Abramson, Martin Barr (Emeritus), Deepak K. Bhalla, George B. Corcoran, Raymond J. Dauphinais (Emeritus), Melvin F. W. Dunker (Emeritus), Aloke K. Dutta, Fusao Hirata, Anjaneulyu Kowluru, Robert T. Louis-Ferdinand, Janardan B. Nagwekar (Emeritus), Paul M. Stemmer, Henry C. Wormser

Adjunct Professors

Jacob V. Aranda, David J.P. Bassett, Michael R. Bleavins, Robert A. Levine

Associate Professors

Fei Chen, Randall L. Commissaris, Steven M. Firestine , David Oupicky, David K. Pitts, Duska M. Separovic (Research), Zhengping Yi

Adjunct Associate Professors

Merlin E. Ekstrom, Peter D. Frade, Ladislau C. Kovari, Howard J. Normile, Timothy Stemmler

Assistant Professors

Anna B. Moszczynska, Philip L. Pokorski (Clinical), Joshua J. Reineke, David M. Thomas

Adjunct Assistant Professors

Hossam Ashour, Amit Banerjee, Bradford R. Hepler, Daniel S. Isenschmid, Jing Li, Bonita G. Taffe, Hani Zaher

Adjunct Instructor

Aiko Hirata

Degree Programs

BACHELOR OF HEALTH SCIENCE
—Pharmaceutical Sciences Concentration

DOCTOR OF PHARMACY

Doctor of Pharmacy

Preprofessional Admission

Admission requirements: The preprofessional program is taken in the College of Liberal Arts and Sciences for which admission requirements are satisfied by the general requirements for undergraduate admission to the University; see page 24. Counselors are available in the Office of Admissions for personal conferences to aid the prospective student.

Recommended High School Preparation: Fifteen units of high school work are required for admission. The following units are recommended:

English: 4 units
Foreign Language: 1-2 units
Mathematics: 4 units
Laboratory Science: 3 units
Social Studies and History: 2 units

Students will find it advantageous to have had at least one year each of algebra, biology, chemistry, and physics. English, mathematics, and science are strongly recommended.

Applicants whose first language is not English must pass the Test of English as a Foreign Language (TOEFL) with a minimum score of 550. Applicants who have taken classes outside the United States must supply a detailed report evaluation of foreign educational credentials completed by Educational Credential Evaluators, Inc. (ECE). Contact ECE at 414-289-3400 for evaluation applications.

Preprofessional Course Requirements

The following courses (or their equivalents) may be taken at Wayne State University, another university, or a community college. Students are advised that no more than sixty-four community college credits may be transferred as applicable to the Doctor of Pharmacy degree. Requirements to be completed prior to admission to the pharmacy curriculum are:

1. Completion of fifty-eight credits in core courses (see below), plus any General Education credits required to demonstrate competency in computer literacy, computer proficiency, critical and analytic thinking, and oral communication.

2. Completion of each of the following core courses (or their equivalents) with the grade of 'C' (2.0 g.p.a.) or better. Grades of 'C-minus' or below, or numerical grades below 2.0 g.p.a., are not acceptable.

PREPROFESSIONAL CORE
- BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
- BIO 2200 -- (LS) Introductory Microbiology: Cr. 4
- CHM 1220 -- (PS) General Chemistry I: Cr. 4
- CHM 1230 -- General Chemistry I Lab: Cr. 1
- CHM 1240 -- Organic Chemistry I: Cr. 4
- CHM 1250 -- Organic Chemistry I Lab: Cr. 1
- CHM 2220 -- Organic Chemistry II: Cr. 3
- CHM 2230 -- Organic Chemistry I Lab: Cr. 2
- CSC 1000 -- (CL) Intro. to Computer Science: Cr. 3
- ECO 1000 or 2010 or 2020
  - -- (SS) Survey of Economics: Cr. 4
  - -- (SS) Principles of Microeconomics: Cr. 4
  - -- (SS) Principles of Macroeconomics: Cr. 4
- ENG 1020 or ENG 1050
  - -- (BC) Introductory College Writing: Cr. 4
  - -- (BC) Freshman Honors: English I: Cr. 4
- ENG 3010 or ENG 3050
  - -- (IC) Intermediate Writing: Cr. 3
  - -- (IC) Technical Communication I: Reports: Cr. 3
- ENG 3060 or COM 1010
  - -- (OC) Technical Communication II: Presentations: Cr. 3
  - -- (OC) Oral Communication: Basic Speech: Cr. 3
- MAT 2010 -- Calculus I: Cr. 4
- PHI 1050 or COM 2110
  - -- (CT) Critical Thinking: Cr. 3
  - -- (CT) Argumentation and Debate: Cr. 3
- PHY 2130 -- (PS) General Physics: Cr. 3
- PHY 2131 -- General Physics Lab: Cr. 1
- P S 1010 -- (AI) American Government: Cr. 4
- Other General Education Requirements:
- Historical Studies (HS): Cr. 3
- Foreign Culture (FC): Cr. 3
- Visual and Performing Arts (VP): Cr. 3
- Philosophy and Letters (PL): Cr. 3

Minimum total credits: 62

Basic Composition (BC) Competency: ENG 1020, 1050. This requirement may be met by earning an appropriate score on the University English Qualifying Examination, or by earning credit through Advanced Placement or CLEP examinations.

English Intermediate Composition (IC): ENG 3010, 3050 preferred; or ENG 2050, 2100, 2110, 2120, 2210, 2310, 2390, 2570.

Competency Examinations: Contact Testing, Evaluation, and Student Life Research Services, 698 Student Center, 313-577-3400, for details on competency examinations, test costs, dates and times.

Computer Literacy (CL) Competency: CSC 1000. This competency may be demonstrated by successfully completing an approved course, passing the Computer Literacy Competency Examination, or having successfully completed a suitable high school course.

Critical and Analytic Thinking (CT) Competency: PHI 1050, COM 2110. This competency may be demonstrated by successfully completing an approved course or passing the Critical Thinking Competency Examination.

Mathematics Competency Requirement: Transfer students may fulfill this competency by transferring credit for the equivalent of MAT 2010.

Oral Communication (OC) Competency: ENG 3060, COM 1010. This requirement may be met by successfully completing an approved course, passing the Oral Communication Competency Examination, or having successfully completed suitable high school courses.

The Pharmacy College Admission Test (PCAT) is required for admission. This standardized examination is offered in major cities three times a year, in June, October, and January. Applicants may obtain PCAT information by calling: (800) 622-3231, or at http://www.pcatweb.info.

Time Limitation: Because of rapid changes in technology, preprofessional science credits must be completed within five years prior to admission to the professional program.

General Education Requirements: Students must complete additional University General Education Requirements (see below, and page 16), for a total of sixty-two to seventy-four credits. The following requirements apply to students who do not have bachelor's degrees from accredited institutions:

Some pre-pharmacy courses with parenthetical prefixes to course titles fulfill University General Education Requirements (for an index to these abbreviations, see page 19. To complete the General Education Program, students must take one course in each of the following areas:

Historical Studies (HS): Cr. 3
Foreign Culture (FC): Cr. 3
Visual and Performing Arts (VP): Cr. 3
Philosophy and Letters (PL): Cr. 3

Professional Program - Admission

Admission to the Doctor of Pharmacy Curriculum is granted only for the Fall semester. Enrollment in this curriculum is limited to applicants who have met the general University admissions requirements by the stipulated deadline, who satisfy the admission criteria stated below, and who present evidence of professional admissibility and promise of academic and professional competence in pharmacy.

Application: Admission applications to the Doctor of Pharmacy curriculum are available through the Pharmacy College Application Service (PharmCAS). For applications and information, contact PharmCAS at: http://www.PharmCAS.org

Application Deadline: Deadline for submission of complete application materials to PharmCAS is December 1.

Admission Criteria: Admission to the Doctor of Pharmacy curriculum is competitive and the following criteria are used to evaluate applications from prospective students. Admission decisions are made by the Admissions Committee of the College.

1. Minimum core grade point average (g.p.a.) of 3.0 (4-point system) calculated on the final grades earned in the required preprofessional courses. Completion of prerequisites with minimum grades does not guarantee admission.

2. Science grade point average (g.p.a.) of 3.0 (4-point system) calculated on the final grades earned in the required preprofessional science courses (biology, chemistry, physics, and mathematics). Completion of science prerequisites with minimum grades does not guarantee admission.

3. Promise of success in a professional curriculum. Transcripts are evaluated for continued success in a full-time, science-based curriculum. Patterns of course repetition and excessive withdrawals are considered. It is recommended that applicants have repeated not more than two mathematics and science courses in order to improve grades.

4. Two completed professional recommendations must accompany the completed application form. Recommendation forms are available on the College website at http://www.cphs.wayne.edu. The applicant is encouraged to solicit the recommendations from two faculty members or one faculty member and one employer.

5 All applicants must include a personal resume, outlining community or vocational activities, honors, employment, extracurricular and volunteer activities.

6. All applicants must take the Pharmacy College Admissions Test (PCAT). Applicants may obtain PCAT information by calling: (800) 622-3231, or at http://www.pcatweb.info.

7. Applicants whose first language is not English must pass the Test of English as a Foreign Language (TOEFL) with a minimum score of 550.

8. A personal interview with a member of the Pharmacy Admissions Committee is required.

Further information concerning the Doctor of Pharmacy Program can be found in the Wayne State University Graduate Bulletin.

UNDERGRADUATE COURSES

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

UNDERGRADUATE and GRADUATE COURSES: The following PPR, PSC and PHA courses, numbered 3000-7999, are offered for professional credit.

PROFESSIONAL CURRICULUM ADMISSION: Professional pharmacy courses (PSC, PHA, PPR) require admission to the professional curriculum as a prerequisite. It is recommended that prepharmacy students do not take IHS 3100, 3200 and 3210 prior to admission to the professional program.

PHARMACEUTICAL SCIENCES COURSES (PSC)

3110 Pharmaceutical Biochemistry. Cr. 3

Prereq: admission to pharmacy program. Survey of biochemistry for pharmacy students, metabolism, and drug effects in the maintenance of normal human biochemistry and homeostasis. (Formerly PSC 3300) Material Fee As Indicated In The Schedule of Classes (F)

3120 Dosage Form Design and Biopharmaceutics. Cr. 4

Prereq: admission to pharmacy program. Principles of dosage form design and introduction to biopharmaceutics. (Formerly PSC 3100) Material Fee As Indicated In The Schedule of Classes (F)

3210 Biotechnology in Therapeutics. Cr. 2

Prereq: PSC 3110. Continuation of PSC 3110. (Formerly PSC 3400) Material Fee As Indicated In The Schedule of Classes (W)

3310 Principles of Drug Disposition. Cr. 3

Prereq: PSC 3110, IHS 3100, completion of pharmacy calculations requirement; coreq: IHS 3200, PSC 3210, PPR 3060, PPR 3070. Basic principles and applications of pharmacokinetics, drug metabolism, and pharmacogenetics. Material Fee As Indicated In The Schedule of Classes (Y)

4320 Principles of Drug Action. Cr. 3

Prereq: PSC 3210 and IHS 3200; prereq. or coreq: PSC 3310. General principles of pharmacology and medicinal chemistry. (Y)

5600 Drugs of Abuse. Cr. 3-4

Prereq: P3 standing in Doctor of Philosophy program. Pharmacology and toxicology, both clinical and animal, associated with recreationally-used agents; treatment of acute and chronic problems associated with these agents; concept of chronic drug administration and abuse as disease state. (Formerly PCL 5310) (Y)

5870 Seminar in Pharmacology. Cr. 1 (Max. 2)

Prereq: consent of instructor. Open only to undergraduates in good academic standing. Reports and discussions on current literature and recent advances in the field. Assigned topics presented by students. (Formerly PCL 5890) (T)

5990 Directed Study in Medicinal Chemistry. Cr. 2

Prereq: consent of instructor. No credit after election of two credits in any of PSC 5991, PSC 5992, PPR 5990, except by consent of department chair. (Formerly M C 5990) (T)

5991 Directed Study in Pharmaceutics. Cr. 2

Prereq: consent of instructor. No credit after election of two credits in any of PSC 5990, PSC 5992, PPR 5990, except by consent of department chair. (Formerly PHA 5990) (T)

5992 Directed Study in Pharmacology. Cr. 2

Prereq: consent of instructor. No credit after election of two credits in any of PSC 5990, PSC 5991, PPR 5990, except by consent of department chair. (Formerly PCL 5990) (T)

6000 Fundamentals of Drug Design. Cr. 2

Prereq: last professional year, graduate, or graduate professional standing; consent of instructor. Discussion of practical applications of theoretical consideration in the design of new drug molecules. Topics include quantitative structure-activity relationships, metabolic antagonism, enzyme inhibition, and pro-drugs. (Y)

6800 Introduction to Research. Cr. 2

Prereq: last professional year, graduate, or graduate professional standing. Introduction to research in the pharmaceutical sciences for students contemplating or beginning graduate study. (Y)

6890 Toxicology and Adverse Drug Reactions. Cr. 3

Prereq: last professional year, graduate, or graduate professional standing. Study of toxicology and adverse drug reactions including metabolism, hypersensitivity, carcinogenicity, drug-drug interactions, and other factors hazardous to human health. (Y)

PHARMACY COURSES (PHA)

3030 Pharmacy Calculations and Descriptive Biostatistics. Cr. 1

Prereq: first professional year standing. Basics of pharmacy weights and measures; conversions between English, metric, and avoirdupois systems. Basic concepts in biostatistics: means, medians, modes. (F)

3040 Medical Informatics. Cr. 2

Prereq: first professional year standing. Essential elements of pharmacy practice; comparative biostatistics, including t-tests, ANOVA, regression analysis; non-parametric testing. (W)

3150 Pathophysiology I. Cr. 2

Prereq: BIO 1510 or equiv. First in a two-semester sequence focusing on the pathology and pathophysiology of human organ systems. Material Fee As Indicated In The Schedule of Classes (F)

3250 Pathophysiology II. Cr. 3

Prereq: PHA 3150. Second in a two-semester sequence focusing on the pathology and pathophysiology of human organ systems. (W)

4010 Principles of Pharmacotherapy I: Self-Care and Alternative Healthcare. Cr. 3

Prereq: second professional year standing. Role of self-care and complementary and alternative medicines in healthcare; providing analytical advice to patients and health care providers. (F)

4110 Principles of Pharmacotherapy II. Cr. 4

Prereq: PSC 3310, PSC 4320, second professional year status. Pharmacotherapeutic principles of immunologic and hematologic disorders, fluid and electrolytes. (F)

4210 Principles of Pharmacotherapy III. Cr. 5

Prereq: PSC 3310, 4320, second professional year status. Pharmacotherapeutic principles in infectious diseases and respiratory diseases. (W)

4260 Principles of Pharmacotherapy IV. Cr. 5

Prereq: PSC 3310, PSC 4320, second professional year status. Pharmacotherapeutic principles of cardiovascular diseases. (F)

5155 Principles of Pharmacotherapy V. Cr. 5

Prereq: PSC 3310, 4320, third professional year status. Pharmacotherapeutic principles in neurology, psychiatry, and drug abuse. (W)

5165 Principles of Pharmacotherapy VI. Cr. 5

Prereq: third professional year standing. Pharmacotherapeutic principles of endocrine, renal, and gastrointestinal diseases. (F)

5270 Principles of Pharmacotherapy VII. Cr. 5

Prereq: third professional year standing. Pharmacotherapeutic principles in oncology, toxicology, dermatology, and drug-induced diseases. (W)

5280 Principles of Pharmacotherapy VIII. Cr. 3

Prereq: third professional year standing. Pharmacotherapeutic principles of special populations, men's and women's health, patient problem solving. Material Fee as given in Schedule of Classes. (W)

PHARMACY PRACTICE COURSES (PPR)

3020 Introduction to Patient Care I. Cr. 2

Prereq: admission to pharmacy program. Concepts in pharmaceutical care, introduction to the health care system and pharmacist's roles, communication techniques and inter-professional communication. Material Fee As Indicated In The Schedule of Classes (F)

3040 Patient Care Laboratory I. Cr. 1

Prereq: admission to pharmacy program. Hands-on training in the compounding and dispensing of pharmaceutical products, role playing in the interaction of pharmacists with patients and other professionals. Material Fee As Indicated In The Schedule of Classes (F)

3060 Introduction to Patient Care II. Cr. 2

Prereq: PPR 3040. Second course in the patient care aspects of the pharmacy profession. (W)

3070 Patient Care Laboratory II. Cr. 1

Prereq: PPR 3060. Introduction to concepts in patient communication, prescription dispensing and compounding. Material Fee As Indicated In The Schedule of Classes (W)

3120 Pharmacy Jurisprudence. Cr. 2

Prereq: P S 1010; PPR 3020, 3040; admission to professional curriculum in pharmacy. Various state and federal regulations affecting pharmacy practice and drug control. (F)

3130 Introductory Pharmacy Practice Experience I. Cr. 1

Offered for S and U grades only. Prereq: admission to Doctor of Pharmacy program. Experiential education designed to provide student pharmacists admitted to the Doctor of Pharmacy program with introductory practical training experiences in the various settings where pharmacists practice. (T)

4110 Patient Education and Counseling. Cr. 2

Prereq: admission to professional curriculum. Pharmacy-related communication skills; health beliefs and adherence behaviors; oral and written patient counseling techniques. Modes of instruction include lectures, group discussions and workshops, role-playing with videotaping. (F)

4120 Patient Care Laboratory III. Cr. 1

Prereq: PPR 3040, 3070. Early patient care experiences in pharmacy practice. Material Fee As Indicated In The Schedule of Classes (F)

4130 Introductory Pharmacy Practice Experience II. Cr. 1

Offered for S and U grades only. Prereq: second professional year standing in Doctor of Pharmacy program. Early experiential training designed to foster and develop appreciation and application of professional, empathic, and ethical pharmacy practice. Material fee as indicated in Schedule of Classes. (F)

4190 Health Care I: Delivery and Finance. Cr. 3

Prereq: PPR 3120, PHA 3040, PPR 3060. Management, delivery and financial aspects of pharmacy services within the context of the health care delivery system. (F)

4210 Pharmacy Management. Cr. 4

Prereq: PPR 3210. Principles of management as applied to the hospital/institutional organization and community pharmacy practice. (W)

4220 Patient Care Laboratory IV. Cr. 1

Prereq: PPR 4120. Early patient care experiences in pharmacy practice. Material Fee As Indicated In The Schedule of Classes (F)

4230 Introductory Pharmacy Practice Experience III. Cr. 1

Offered for S and U grades only. Prereq: second professional year standing in Doctor of Pharmacy program. Continuation of PPR 4130. (Y)

4290 Health Care II: Professional Practice and Development. Cr. 2

Student professionalism in pharmacy practice. Knowledge, skill sets, and professional demeanor necessary to conduct and develop pharmacy practice within health systems. (W)

5135 Hospital Practice Introductory Experience. Cr. 2

Offered for S and U grades only. Prereq: third professional year standing in Doctor of Pharmacy program. Material fee as indicated in Schedule of Classes. (Y)

5235 Community Practice Introductory Experience. Cr. 1

Offered for S and U grades only. Prereq: third professional year standing in Doctor of Pharmacy program. (Y)

5990 Directed Study in Pharmacy Practice. Cr. 2

Prereq: consent of instructor. No credit after election of two credits in any of PSC 5990, PSC 5991, PSC 5992, except by consent of department chair. (T)

6070 Principles of Pharmacoeconomics. Cr. 3

Prereq: consent of instructor. Principles and tools used in economic evaluation of medications and technologies used in pharmacoeconomic research. Material Fee As Indicated In The Schedule of Classes (F)

6110 Drug-Induced Diseases. Cr. 2

Prereq: third professional year standing. Understanding the pathology associated with the use of drugs. Mechanisms and examples of how drugs damage different organ systems. Material Fee As Indicated In The Schedule of Classes (Y)

6180 (WI) Advanced Ethics and Professional Responsibility. Cr. 0-2

Prereq: third professional year standing or admission to Pharm.D. program. Advanced concepts in health care provision. Students required to submit a written paper, manuscript length and style, on an ethics in pharmacy project conducted as a course requirement. Satisfies the Writing Intensive requirement for Pharm.D. students. (F)

6290 Population-Based Medication Management. Cr. 2

Prereq: third professional year standing in Doctor of Pharmacy program. Evaluation of medication use within selected populations. Discussions include therapeutic, humanistic, and economic outcomes and drug utilization review. (Y)

6300 (PPR 6300) Patient Perspectives of Health, Illness and Culture. (O T 6320) (P T 6320) Cr. 2

Prereq: enrollment in Pharmacy and Health Care Sciences college or other health care program. People from various cultures (religious, ethnic, sexual orientation, disability, chronic illness, economic status) discuss in small groups how these cultures influence living with a chronic illness. Students also discuss readings on health culture and keep a journal on their course experience. (S)

6720 Pharmacotherapeutics of Diabetes Mellitus. Cr. 2

Prereq: PHA 5165. Multidisciplinary course. Knowledge and skills required to effectively manage patients with diabetes. (F)

6860 Principles of Pediatric Pharmacy. Cr. 2-3

Prereq: last professional year, graduate, or graduate professional standing. Common pediatric problems and diseases including poisonings, cystic fibrosis, sickle-cell anemia, placental transfer of drugs and teratology. (Y)

Pharmacy Student and Alumni Activities

The College has a Chapter of the *Academy of Students in Pharmacy (ASP)*, an affiliate of the American Pharmaceutical Association (APhA). The purpose of ASP is to encourage an early respect for pharmacy as a profession, and to promote student activities on a professional level. The Chapter accomplishes these goals by supporting professional functions at the College, by encouraging student attendance at local, state, and national conventions, and by promoting membership in professional associations.

The Alpha Chi Chapter of *Rho Chi* is the national honor society of pharmacy, with a fundamental objective of promoting the advancement of the pharmaceutical sciences through the encouragement and recognition of academic excellence. High standards of scholarly attainment are required for selection to membership. Students ranking in the top twenty percent of the class and having at least a 3.0 g.p.a. are eligible for selection, which takes place in the beginning of the second and third professional years (P2 and P3).

Pharmaceutical Fraternities

The following national professional pharmaceutical fraternities maintain active chapters at the College: Kappa Psi, Phi Delta Chi, and Lambda Kappa Sigma.

Kappa Psi Fraternity (Mu Omicron Pi Chapter) is the largest and oldest professional fraternity in pharmacy with over 100 years experience in assisting the pharmacy student to grow professionally and socially. Kappa Psi is a training ground of leadership and maintains resident housing, study accommodations, and recreational facilities.

Lambda Kappa Sigma (Omicron Chapter) is an international professional fraternity that promotes women in pharmacy and promotes professionalism within the College. Through publications, meetings and conventions, members maintain the ties of good fellowship and understanding.

Pharmacy and Health Science Alumni Association

The W.S.U. Eugene Applebaum College of Pharmacy and Health Sciences Alumni Association was reestablished in Fall of 2006 to advance and promote the general welfare of the College alumni collectively as well as to establish a mutually beneficial relationship between the current students of this college and its alumni.

The Alumni Association is committed to building loyalty and support among students, graduates and former students of Eugene Applebaum College of Pharmacy and Health Sciences, to promoting a positive image of the University, to sponsoring programs and activities that will enhance feelings of identity between alumni and the university, and to provide opportunities for alumni to voluntarily serve the university and the Alumni Association.

The Association achieves this purpose through a membership organization that provides a variety of services and benefits for alumni, encourages good fellowship among alumni, sponsors programs that benefit students, faculty and the University in general, and provides a forum for the expression of alumni interests, advice, and counsel to the University.

SCHOOL OF SOCIAL WORK

DEAN: Phyllis I. Vroom

Foreword

Social Work

The School of Social Work is an integral part of Wayne State University, an urban university in a culturally diverse, industrialized, metropolitan area. The School is committed in its teaching, research, and service activities to address the problems of people living in this environment. Through applied research, work in the classroom and placements in human service organizations that are the sites for field education, students learn how to provide effective social services and to influence social policies.

The specific mission of the School lies in teaching the knowledge, values, and skills of the social work profession. Graduates of the School should understand the needs of vulnerable populations and those for whom the quality of life is threatened. Through research on practice, faculty and doctoral students contribute to the knowledge base of the social work profession. Both faculty and students serve the community by participating in professional societies, civic and community groups, and human service organizations.

The school prepares professionals to alleviate the condition of those affected by poverty, racism, sexism, ageism, homophobia, unemployment, and those with emotional disturbances, or physical or developmental impairments, or both. Students learn methods of intervention with individuals, families, groups, communities, and organizations. Doctoral students learn the advanced research competencies required to engage in applied research for social work practice and social welfare policy. Consistent with its emphasis on serving people in the Detroit metropolitan area, the School shares with the University a commitment to recruiting students of minority ethnic backgrounds.

The School of Social Work offers opportunity for study at the undergraduate and graduate levels to prepare students for practice in the profession of social work. Its principal programs lead to the Bachelor of Social Work degree and the Master of Social Work degree.

The Bachelor of Social Work degree program prepares students for entry-level generalist practice. Course work in this program includes University-wide General Education Requirements as well as the core competencies for social work practice.

The School offers an introductory course S W 1010 - Introduction to Social Work and Social Welfare - which is available to freshman and sophomore students. Non-degree elective courses are available to those who have been awarded the bachelor's and master's degrees. The Master of Social Work degree program includes concentrations in interpersonal practice and community practice and social action. The School conducts special institutes and workshops for persons working in the fields of social work and social welfare.

Informational Meetings: The school holds informational meetings every two weeks to introduce its undergraduate and graduate programs. Informational meetings for the Ph.D. Program are held monthly during the fall semester of each academic year. Potential applicants are encouraged to attend one of these meetings prior to applying. Meeting schedules for the B.S.W. and M.S.W. programs may be obtained by calling the School's Office of Admissions and Student Services (313-577-4409). Meeting schedules for the Ph.D. Program may be obtained by calling the Ph.D. Program Office (313-577-4419). Meeting schedules for all programs are also posted on our website: http://www.socialwork.wayne.edu/

Accreditation

The undergraduate program leading to the Bachelor of Social Work degree and the graduate program leading to the Master of Social work degree are accredited by the Council on Social Work Education, the authorized accrediting body for social work education. There is no accreditation process for doctoral programs in social work, however, the School is a member of the Group for the Advancement of Doctoral Education in Social Work, the professional body that provides guidelines for and oversight to doctoral degree programs in social work.

Board of Visitors

The School of Social Work's Board of Visitors works with the faculty and staff to advance the goals of the School focusing on fund development, external relations, and alumni development, and helping to effect a close working relationship between the School and local and national leadership in the private and public sectors. The board consists of influential community leaders with varying backgrounds and ethnicity, many of whom are alumni or have other substantial connection to the goals and programs of the school. Members of the Board of Visitors are:

N. Charles Anderson; C. Patrick Babcock; Michael Brennen; Juanita Doss; Michael Earl; Phyllis Edwards; Annette S. Freedman; George D. Gaines, Jr.; Allan Gelfond; Shirley Mann Gray; Louise Guyton; Paul L. Hubbard; Angela G. Kennedy; Guadalupe G. Lara; Mohamed Okdie; V. Lonnie Peek, Jr.; Susan H. Rogers; Lenora Stanfield; Lillie Tabor; John H. Talick; Alice G. Thompson; Jacquelin E. Washington; Eloise C. Whitten; Angela Brown Wilson

Degree and Certificate Programs

BACHELOR OF SOCIAL WORK

MASTER OF SOCIAL WORK

DOCTOR OF PHILOSOPHY in Social Work

GRADUATE CERTIFICATE in Disabilities

GRADUATE CERTIFICATE in Gerontology

GRADUATE CERTIFICATE in Social Welfare Research and Evaluation

GRADUATE CERTIFICATE in Social Work Practice with Families and Couples

School of Social Work Directory

DEAN:
201 Thompson Home; 313-577-4400; Fax: 313-577-6555,
ASSOCIATE DEAN
302 Thompson Home; 313-577-4401; Fax: 313-577-8770,
GENERAL INFORMATION
105 Thompson Home; 313-577-4409,
ADMISSIONS AND STUDENT SERVICES
105 Thompson Home; 313-577-4409; Fax: 313-577-4266,
BACHELOR OF SOCIAL WORK PROGRAM COORDINATOR:
236 Thompson Home; 313-577-4433,
MASTER OF SOCIAL WORK PROGRAM COORDINATOR
237 Thompson Home; 313-577-4401,
SOCIAL WORK Ph.D. PROGRAM DIRECTOR
302 Thompson Home; Telephone: 577-8806,
DIRECTOR OF FIELD EDUCATION
144 Thompson Home; 313-577-4479,
STUDENT ORGANIZATION
32 Thompson Home
GREATER DETROIT ASSOCIATION
OF BLACK SOCIAL WORKERS-WSU
32 Thompson Home
STUDENT ORGANIZATION OF LATINO/A SOCIAL WORKERS:
32 Thompson Home
Website: http://www.socialwork.wayne.edu/

Mailing address for all offices: School of Social Work, Wayne State University, Detroit, Michigan 48202

Faculty and Administration

Dean: Phyllis I. Vroom
Associate Dean: Cheryl E. Waites
Associate Dean for Research and Director of the Center for SW Practice and Policy Research: Joanne Sobeck
B.S.W. Program Coordinator: Cassandra Bowers
M.S.W. Program Coordinator: Kim Jaffee
Ph.D. Program Director: Arlene Weisz
Assistants to the Dean: Loren Hoffman
Assistant to the Associate Dean: Marilynn Knall
Assistant Dean for Student Affairs: Janet M. Joiner
M.S.W. Academic Adviser: Julie Alter-Kay
Academic Services Officer and B.S.W. Academic Advisor: Sharon Moore
Administrative Officer: Curtis Brahm
Assistant to Administrative Officer: Juanitta D. Hill

Professors

Jerrold Brandell (Distinguished), Anna M. Santiago, Eileen Trzcinski, Arlene Weisz

Associate Professors

Kim Jaffee, Poco Kernsmith, Durrenda Onolemhemhen, Melvyn C. Raider, Phyllis I. Vroom, Cheryl Waites,

Assistant Professors

Cassandra Bowers (Clinical), Margaret O. Brunhofer (Clinical), Antonio Gonzolez-Prendes, Loren J. Hoffman (Clinical), Faith Hopp, Royce Hutson, Shawna Lee, Fayetta Martin, Bart Miles, Debra Patterson, Shirley Thomas

Emeriti Professors

Creigs Beverly, Leon W. Chestang (Distinguished), Betty Rusnack, Betty Welsh

Emeriti Associate Professors

Ralph Abramowitz, Theodore Goldberg, Carl Hartman, Alice E. Lamont, Thomas Melican, Edna P. Miller, Sandy G. Reid, Mavis M. Spencer

Bachelor of Social Work

The Bachelor of Social Work (B.S.W.) degree program prepares for entry-level generalist practice in social work during the junior and senior years. Approximately two-thirds of the curriculum is in professional courses in social work and about one-third is in corequisite courses and electives. Field work is an integral part of the B.S.W. curriculum. It is required that the student enroll in the entire professional component of the curriculum during any one semester. The B.S.W. program features full-time or extended part-time study. Instruction is face-to-face (traditional), hybrid and/or online.

Admission

Completed applications for admission to the program leading to the Bachelor of Social Work degree are given careful review in order to select those students best able to fulfill the requirements for professional education in social work. Applications may be submitted after the student has completed forty semester credits in course work or its equivalent at the freshman and sophomore levels. Each applicant must:

1) complete and forward to the Office of Admissions, Wayne State University, the form *Application for Undergraduate Admission* (for information on application fee, see 'Student Fees,' in the General Information section of this Bulletin on page 30);

2) submit to the Office of Admissions, Wayne State University, directly from colleges and universities of recognized standing, official transcripts of all credits previously earned, whether in one or several educational institutions;

3) complete the online *Application for Admission, Bachelor of Social Work Degree Program*;

4) have earned a minimum overall grade point average of 2.5;

5) show evidence to the Assistant Dean for Student Affairs of the School of Social Work of suitability and fitness for the profession of social work and the ability to pursue successfully undergraduate professional education in social work.

NOTE: Students who have already attended Wayne State University should omit steps one and two above.

Application Due Dates: Admission to the Bachelor of Social Work degree program is offered for enrollment in September to students who wish to attend classes on the WSU main campus in Detroit or at the Macomb University Center, located on the Macomb Community College Center Campus. Admission to the on-line B.S.W. program is offered for enrollment beginning in January (field work is offered in the live face-to-face format). Applications are reviewed only when all supporting materials have been received. The date for submission of initial and all supporting materials for priority processing for September enrollment (application decision in 30 days or less) is August 1. Applications received after the priority processing date will be processed within 30-60 days. Students wishing to enroll in the Bachelor of Social Work degree full-time program offered at the Macomb University Center may apply for September registration, but enrollment is limited. Applicants who begin their study at the Macomb University Center must complete their program at that site. The applicant may be required to attend an individual or group interview as part of the application process.

The responsibility for deciding whether a student shall or shall not be admitted rests with the School.

Once a student is admitted, admission to the B.S.W. program is conditional until all requirements are completed. The student must present a transcript verifying completion of sixty semester credits, his or her grade point average, and prerequisites completed. The letter of

admission does not constitute a contract; admission may be withdrawn if a student fails to meet requirements following entry to the School.

Transfer of Undergraduate Credit: No more than sixty-four semester credits from two-year colleges may be used toward the B.S.W. degree. A maximum of twelve Technical, Vocational, or Applied Practice credits (designated 'TVA') in the human service areas (for example, mental health, child care, gerontology, empathy training, human services and substance abuse) will count toward the degree. Any such transfer credits will be counted as general elective credit. Social work courses from programs not accredited by the Council on Social Work Education (CSWE) also will be transferred as 'TVA' general elective credit. See page 24 of this Bulletin for the University transfer policy.

Nondiscrimination Policies

The School is bound by and actively endorses University policies of nondiscrimination respecting all persons regardless of race, color, sex, national origin, religion, age, sexual orientation, marital status or physical or mental disability, and which expressly forbid sexual harassment or discrimination in hiring (see page 10 for these policies). The School prohibits discrimination against individuals because of political orientation. Copies of School and University nondiscrimination policies may be obtained in the Office of the Dean.

Work/Life Experience and Academic Credit

No academic credit for life experience or previous work experience will be awarded in the Bachelor of Social Work or Master of Social Work degree programs, in whole or in part, in lieu of the field practicum or of courses in professional foundation areas.

Student Leave of Absence

A student who is in good standing in the Bachelor of Social Work degree program may request a leave of absence from course and field work in the School for up to one year. In order to be considered in good standing, a B.S.W. student must maintain grades of 'C' or better in classroom courses in the professional component, and marks of Satisfactory in field work. Upon his or her return from an approved leave of absence, the student's plan of work will be based upon the time in the academic year when the leave of absence was granted. If a student leaves at or before mid-semester, then she or he will have to repeat course or field work. Specific information on the procedure for requesting a leave of absence is available in the Office of the Dean, or in the Office of Admissions and Student Services.

Withdrawal from Degree Programs

A student who has been admitted to the Bachelor of Social Work degree program or the Master of Social Work degree program shall be considered to have withdrawn if he/she is not enrolled in a course or field work during any semester of a planned program of study within the framework of the plan which has been approved. In order to withdraw in good standing, students who withdraw from any degree program, for whatever reason, must formalize their withdrawal with the Assistant Dean for Student Affairs. A copy of the procedure for withdrawal may be obtained from the Office of Admissions and Student Services, School of Social Work.

Readmission

Students who had been enrolled in a planned program leading to the Bachelor of Social Work degree, who have withdrawn from the program and who wish to be considered for readmission to complete degree requirements, must follow regular procedures for admission to the School. Generally, students are required to complete two continuous terms of field work; readmitted students who had previously completed one term of field work in the senior year will be required to repeat this term, and may be required to enroll concurrently in a course or courses in social work practice methods or directed study in social work. Students who have withdrawn and wish to be readmitted may be required to obtain an assessment of their physical or mental health from a health professional approved or selected by the School.

Pre-Social Work Preparation

To qualify for admission to the Bachelor of Social Work program in the School of Social Work sixty semester credits (or its equivalent) at the freshman and sophomore levels must be completed. Such course work must be distributed according to one of the curricular patterns cited below. The General Education Requirements of the University must be met at the same time.

Many pre-social work courses also help satisfy the University General Education Requirements. These courses are indicated by parenthetical two-letter prefixes to their titles. For a definition of the General Education Requirements and a list of courses that satisfy each of them, see page 18.

In the curriculum as outlined below students may also select elective credits at the freshman and sophomore levels from professional schools such as the School of Business Administration, the College of Education, the College of Nursing, and the School of Social Work.

Prerequisites

Some of the following subject areas are prefixed with two-letter parenthetical codes. These codes indicate General Education categories which may be satisfied (entirely or in part) by the corresponding requirement in the pre-social work curriculum. For a definition of the General Education Requirements and a list of courses which satisfy each of them, see page 18.

***A**. Social Sciences:* The following distribution of courses is required.

1. (SS) Anthropology—3-4 credits
   (Note: Physical Anthropology does not meet this requirement.)
2. (SS) Economics—4 credits (Survey of Economics, ECO 1000, recommended)
3. (HS) History—3-4 credits (HIS 1300 is a required pre-social work course)
4. (AI) Political Science—3-4 credits
5. (SS) Sociology—two courses

***B.** Natural Sciences:* The following distribution of courses is required, including a laboratory course in one of the LS or PS areas designated below.

1. (LS) Biology—3-4 credits
2. Psychology—three courses. Field practicum courses do not meet this requirement. A course in developmental psychology is required. Introduction to Principles of Psychology will NOT satisfy the LS (laboratory) requirement.
3. (PS) One course (3-4 credits) to be selected from the following: Physics, Chemistry, Geology, Astronomy.

***C**. Humanities:* The following distribution of courses is required.

1. (PL) Philosophy/Letters—3 credits
2. (VP) Humanities — 3 credits

***D.** English:* The following distribution of courses is required.

1. (BC) Freshman Composition—4 credits
2. (IC) English Elective (2000 level or above)—3 credits

***E.** (OC) Communications:* 2-3 credits

***F.** Electives:* Recommended: Select electives from General Education Requirements in Foreign Culture (FC), Computer Literacy (CL), and Critical Thinking (CT). Electives should be selected in conjunction with the School's Academic Services Officer.

Degree Requirements

The Bachelor of Social Work degree requires satisfactory completion of a minimum of one hundred twenty credits. These consist of sixty credits in the freshman and sophomore years, including prerequisite courses (see Pre-Social Work Preparation, above) for admission to

the professional component of the program and sixty credits in the junior and senior years, including fifty-one credits in field work and related courses and a minimum of nine credits in elective courses (see below).

Grade Point Average: To be awarded a Bachelor of Social Work degree, the student must achieve a cumulative grade point average of 2.0, and a grade point average of 2.0 during the junior and senior years. A minimum of thirty credits must be earned in residence in the School of Social Work, and the student must be in residence during the final semester prior to graduation.

General Education Requirements: University-wide General Education Requirements apply to all undergraduate students seeking baccalaureate degrees from Wayne State University. These requirements include group requirements in basic disciplines, and competency requirements in written communication, mathematics, oral communication, computer literacy, and critical thinking (competency examinations in each of these areas are available). For a detailed explanation of these requirements see the General Information section of this Bulletin, page 18; and consult an undergraduate adviser regarding the pre-Social Work pattern and General Education courses.

Suitability and Fitness for the Profession: Students must show suitability and fitness for the profession of social work. Any breach of the values and ethics of the profession embodied in the Code of Ethics established by the National Association of Social Workers may result in termination from the B.S.W. or M.S.W. program.

School of Social Work Honors Option

Social Work students of superior academic ability are eligible to participate in the University's Honor Option, available in connection with specified social work courses during the junior and senior years. All Honors Option course work is to be completed with a previously-approved social work professor, and will include work beyond normal course requirements. Students interested in the Honors Option must present a cumulative grade point average of 3.30 or better and develop an academic plan of work with the School of Social Work Academic Services Officer. Application forms for the Honors Option are available in the Office of Admissions and Student Services. The application form must be signed by the instructor and the Academic Services Officer and must be returned to the Office of Admissions and Student Services by the end of the second week of classes. It is the student's responsibility to make sure that the instructor receives and turns in near the end of the semester an additional form that includes the grade for the student, in both the course and on the specific Honors-level work agreed upon. Students are required to complete a minimum of twelve credits under the Honors Option and maintain a cumulative grade point average of at least 3.30. The Honors Option is available in designated sections of the following courses: S W 3710, 4710, 4810, and 4997. Additional information is available from the Academic Services Officer.

Curricula

The undergraduate social work curriculum is structured to provide the knowledge, values and skills essential for entry-level generalist social work practice. It is composed of five curricular areas: human behavior and the social environment, research, social work practice, social welfare policy and services, and field education. In addition, the following four themes will be found to intersect some or all curricular areas: values and ethics, social justice, oppression and discrimination, and populations at risk. The professional component of the curriculum is built upon a liberal arts foundation in the social and behavioral sciences, the humanities, English, mathematics, and the natural sciences. Students are required to enroll in selected courses in anthropology, economics, English, foreign culture, history, human biology, philosophy, political science, humanities, psychology, sociology and speech/communications.

Students in field education are placed in a wide variety of social service agencies and work with individuals, families, groups, organizations and communities. Emphasis is placed on working in urban areas with the poor and oppressed, persons of color, and other at-risk populations representing a variety of ethnic, racial and cultural groups. Field work stresses both amelioration and prevention of personal, interpersonal and social problems, as well as improvement of the human condition.

Students are required to file an educational *Plan of Work* with the School of Social Work Academic Services Officer and to update the plan periodically.

Required Professional Content

JUNIOR YEAR

First Semester

MAT 0993 -- Beginning Algebra: Cr. 3
S W 3010 -- Social Work Practice Method I: Cr. 3-4
S W 3110 -- Diversity, Oppression and Social Justice: Cr. 3
S W 3510 -- Human Behavior in the Social Environment: Cr. 3
S W 3710 -- Social Welfare & the Social Work Profession: History, Trends & Basic Concepts: Cr. 3

Second Semester

MAT 1000 -- (MC) Mathematics in Today's worldCr. 3
S W 3020 -- Social Work Practice Method II: Cr. 3
S W 3810 -- Research Methods, Data Analysis, & Practice Evaluation I: Cr. 3
S W 3998 -- Field Practice in Social Work I: Cr. 5
S W 3331 -- Field Education Seminar I: Cr.1

SENIOR YEAR

First Semester

S W 4010 -- Social Work Group Theory and Practice: Cr. 3
S W 4710 -- Social Welfare in the U.S.: Current Programs: Cr. 3
S W 4810 -- Research Methods, Data Analysis, & Practice Evaluation II: Cr. 3
S W 4998 -- Field Practice in Social Work II: Cr. 5
S W 4441 -- Field Education Seminar II: Cr.1

Second Semester

S W 4020 -- Social Work Macro Theory and Practice Cr. 3
S W 4997 -- (WI) Integrative Seminar in Social Work: Cr. 3
S W 4998 -- Field Practice in Social Work II: Cr. 5
S W 4442 -- Field Education Seminar III: Cr 1

Prerequisites and Electives

Electives: Electives must be selected in consultation with the School of Social Work Academic Services Officer.

Part-time Extended Study Option

Students interested in the part-time extended study option for the B.S.W. program must file a plan of work with the School's Academic Services Officer. The extended study option may be elected only if approved by the Coordinator of the B.S.W. program, or if the student is admitted to this option in the junior year.

SOCIAL WORK COURSES (S W)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 504.

1010 Introduction to Social Work and Social Welfare. Cr. 3

Survey of selected social welfare programs in the United States; history and development; focus on issues related to poverty and dependence. (Y)

3010 Social Work Practice Method I. Cr. 3-4

Prereq: junior standing; admission to the BSW program. First of four courses providing knowledge, skills and framework for entry level generalist practice including a service learning project. (F)

3020 Social Work Practice Method II. Cr. 3

Prereq: S W 3010; coreq: S W 3998. Continuation of four-course sequence. Introduction to a problem-solving guide for effecting situational change; emphases on assessment in the problem-solving process and on worker-client interactions during the middle and ending phases of service. Comparing and contrasting knowledge, skills and dynamics in work with individuals and small groups. Analysis of student experience in practicum. (W,S)

3110 Diversity, Oppression and Social Justice. Cr. 3

Prereq: admission to B.S.W. program. Diverse cultures, family structure, roles, immigration and assimilation experiences of marginalized groups; influence of dominant culture on these groups. (F,W)

3331 Field Education Seminar I. Cr. 1

Coreq: S W 3998. Understanding the learning experience through critical reflection on field and course work. (W,S)

3510 Human Behavior in the Social Environment. Cr. 3

Prereq: admission to the B.S.W. program. Ecological systems perspective presented. Knowledge and theories of human development across the life span. Human behavior studied within the context of the social systems in which people live, including families, peer groups, organizations, and communities. Emphasis on how social systems promote and deter human development and the influence of diversity on human development. (F)

3710 Social Welfare and the Social Work Profession: History, Trends and Basic Concepts. Cr. 3

Prereq: admission to the B.S.W. program. History of social welfare in the United States. Basic concepts of social welfare. The profession of social work in historical perspective. Current trends and issues in social welfare and in the profession of social work. (F)

3810 Research Methods, Data Analysis, and Practice Evaluation I. Cr. 3

Prereq: junior standing, admission to B.S.W. program. Descriptive research methods for social work concepts and skills of problem formulation; research design; description and critical analysis of research studies; integration of descriptive statistics and data analysis within social work context. (W)

3998 Field Practice in Social Work I. Cr. 5

Coreq: one course in social work practice methods. Minimum of five credits must be taken over one semester (or Spring/Summer, for part-time students); open only to junior B.S.W. students. Offered for S, M, and U grades only. The ratio of clock hours to credits is 46 to 1. Practicum of B.S.W. professional component interrelated with courses in social work methods, human behavior and the social environment, social welfare organization and policy, and research. Field placements assigned by the Coordinator of Field Education. (W,S)

4010 Social Work Group Theory and Practice. Cr. 3

Prereq: S W 3020; coreq: S W 4998. Social work practice related to groups; knowledge and theories related to groups. (F,S)

4020 Social Work Macro Theory and Practice. Cr. 3

Prereq: S W 4010; coreq: S W 4998. Emphasizes knowledge, theory, and practice related to service delivery and change within organizations, neighborhoods, and communities. (F,W)

4441 Field Education Seminar II. Cr. 1

Coreq: S W 4998. Understanding the learning experience through critical reflection on field and course work. (F,S)

4442 Field Education Seminar III. Cr. 1

Coreq: S W 4998. Understanding the learning experience through critical reflection on field and course work. (F,W)

4710 Social Welfare in the United States: Current Programs. Cr. 3

Prereq: S W 3710. Description and analysis of major social welfare programs in the United States. (F)

4810 Research Methods, Data Analysis, and Practice Evaluation II. Cr. 3

Prereq: S W 3810. Continuation of S W 3810. Integration of inferential statistics and components of quantitative and qualitative designs appropriate for evaluating service delivery and related policy. (F)

4990 Directed Study. Cr. 1-4 (Max. 4)

Prereq: written consent of adviser and graduate officer. Individual direction in reading and research on selected topics. (T)

4997 (WI) Integrative Seminar in Social Work. Cr. 3

Prereq: S W 4010; coreq: S W 4998, S W 4020. Integration of classroom learning and field experiences to promote student's understanding of social work knowledge, skills and values. Assessment of knowledge and experiential bases for generalist social work practice. Satisfies General Education Writing Intensive requirement. (F,W)

4998 Field Practice in Social Work II. Cr. 5 (Max. 10)

Coreq: one course per term in social work practice methods. Minimum of ten credits must be taken over not less than two semesters; open only to senior B.S.W. students. Offered for S, M, and U grades only. The ratio of clock hours to credits is 46 to 1. Field practicum for senior-level students in the B.S.W. program. Field placements assigned by the Coordinator of Field Education. (T)

5720 Social Services for Older Adults. Cr. 3

Identification, description and analysis of the problems associated with aging; development of social work services to address these needs. (Y)

5755 Introduction to Child Welfare. Cr. 2

Issues related to children and youth in care, or those in need of protection from abusive and/or neglectful caretakers. Information on legal processes. (Y)

6010 (ELE 6010) Family Centered Collaboration in Early Childhood Intervention and Special Education. (O T 6150) (PSY 6010) Cr. 3-4

Theories, concepts and practices of family centered intervention services for young children with special needs. Team-building and cross-disciplinary communication and collaboration with families. (F)

6500 Social Work and the Law. Cr. 2

Study of the relationship between law and social work practice. Emphasis on understanding the legal processes, the relationship and interdependence of law and social work practice and the knowledge and skill needed to help integrate law into social work practice. (W)

6510 (S W 6510) Social Work and the Black Community. (AFS 6510) Cr. 3

Policy and practice issues for social work assessment and intervention within the black community, including education and health care. (I)

6535 Juvenile Delinquency: Social Functioning. Cr. 2-4

Causes of juvenile delinquency from an ecological perspective; assessment of delinquents and their environment as basis for social work intervention. (I)

6540 Effects of Drugs and Alcohol on Physical and Social Functioning. Cr. 3

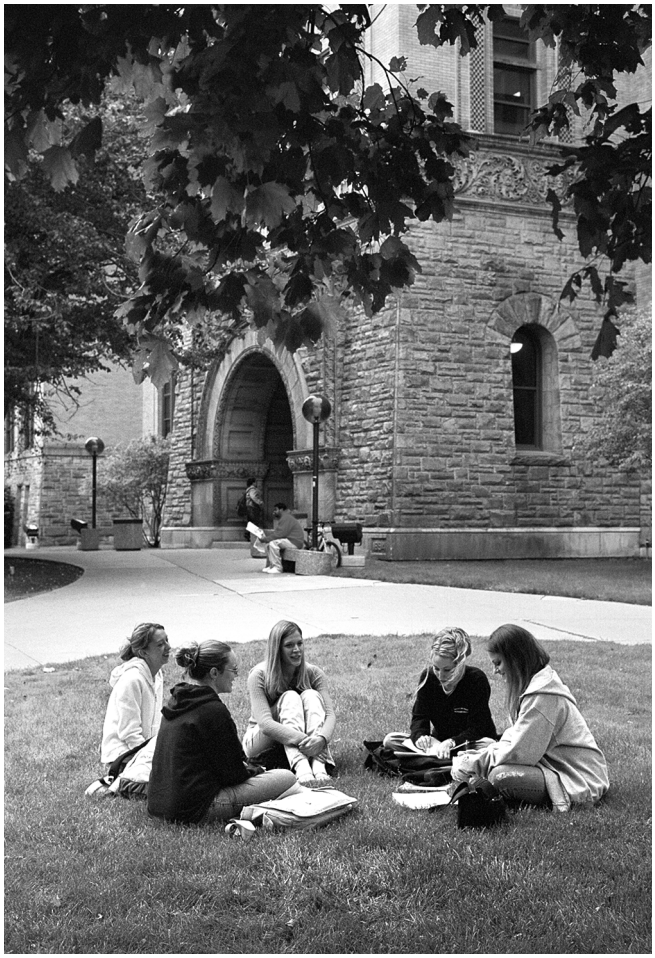
Prereq: senior or graduate standing. Types of substances most frequently abused, their effects on physiological, psychological, social and political functioning, and patterns of use among different age groups and populations. (T)

6550 Social Work Issues in the Work Place. Cr. 2

The nature and causes of occupational stress and other work-related behavior; existing and needed social work services in work settings, union programs, and community social agencies. (I)

6991 Special Topics in Social Work. Cr. 2-4

Topics of current interest to be announced in Schedule of Classes. (F,W)



Academic Regulations and Financial Aid

For complete information regarding academic rules and regulations of the University, students should consult the section of this Bulletin beginning on page 5. The following additions and amendments pertain to the School of Social Work.

Students in the School of Social Work are responsible for informing themselves of all rules, regulations and requirements, complying with all official procedures, and fulfilling all course and degree requirements in proper sequence with satisfactory scholarship. In case of doubt regarding any matter, the student should consult the School's Academic Services Officer. The primary responsibility rests with the student. All students are urged to file a *Plan of Work* with the School's Academic Services Officer, and to update the plan periodically. Electives should be selected in consultation with the School's Academic Services Officer.

The faculty of the School of Social Work has the responsibility to require a student to withdraw at any time prior to receipt of the degree when, in its judgment, the student fails to do satisfactory work. Such decisions may be based on deficiencies in performance in class or field or in personal fitness for the profession. The faculty has adopted a set of criteria and procedures for academic termination, copies of which may be obtained in the Dean's office.

Every effort is made to assist students whose work suffers as a result of conditions beyond their control such as personal illness, serious illness in the immediate family, or similar emergencies.

Attendance and Residency

Students are expected to attend all sessions of courses for which they are registered and to notify the instructors or their secretaries prior to the class session, if possible, when absence is necessary due to illness or similar emergency. Absence from the field practicum must be reported prior to the scheduled time, both to the agency and the faculty adviser. Consistent absence or tardiness in classes or the field practicum may have an adverse effect on the student's grade and may result in termination from the B.S.W. program.

A student must complete thirty semester credits in the School of Social Work and must be in residence during the final semester prior to graduation.

Maximum Hours

A student engaged in full-time or part-time study in the School of Social Work should plan a program in consultation with the Academic Services Officer, limiting it within a framework of required courses and electives in order to maintain a standard of scholarly attainment and academic excellence.

Field Education

All students enrolled in S W 3998 or 4998, Field Practice in Social Work I and II, are required to carry professional liability insurance as a condition of field placement.

The Field Education Manual contains a description of the field education program and the policies and procedures related to the program. Students are responsible for observing the procedures governing field work practice which are detailed in the manual. The manual is distributed to each student enrolled in S W 3998 and 4998.

Field Education Health Clearances Policy

The School may require students in field placement to obtain assessments of their physical or mental health from health or mental health professionals approved or selected by the School. The School of Social Work reserves the right to refuse to place or direct students in field education if their physical or mental health status indicates such action is warranted in order to safeguard clients, agencies, the students themselves, other students, or the School.

Degree Application

Application for the degree must be filed in the University Records Office no later than the Friday of the 4th week of classes for the semester in which the student expects to complete the requirements for the degree. The applicant must be recommended for the degree by the faculty. The applicant is requested and expected to attend the commencement at which the Bachelor of Social Work (B.S.W.) degree is conferred. For additional information on the WSU degree application process, please visit http://commencement.wayne.edu/graduation.php.

Financial Aid

Scholarships, fellowships, and other forms of financial aid are available on a limited basis for those students who cannot undertake study without some financial assistance. The School expects students to utilize their own resources as much as possible to cover the costs of professional education. Financial aid through University resources should be considered as supplementary.

Applications for student aid, submitted on the appropriate form, are evaluated by the University Office of Student Financial Aid based on financial need as reflected in the information provided by the students, their families, or both. All requests for applications should be sent to the Office of Student Financial Aid, Welcome Center, 42 W. Warren Avenue, P.O. Box 2340, Detroit MI. 48202; telephone: 313-577-3378; Fax: 313-577-6648; website: http://www.financialaid.wayne.edu. Information on Guaranteed Student Loans may also be obtained by contacting this Office.

When financial aid is necessary, the School of Social Work will cooperate with the University Office of Student Financial Aid (see page 34) to develop the best possible student aid plan from the various scholarships, stipends, grants, or loans available. Such financial assistance will not be assigned or awarded until the student has confirmed an intention to enroll after being notified of admission.

Some awards are administered directly by the Office of Admissions and Student Services, School of Social Work. Information and appropriate application forms may be obtained online at http://socialwork.wayne.edu/financialaid.php or by contacting the Office of Admissions and Student Services, School of Social Work.

Loan Funds

The following funds offer loans to eligible social work students:

Everett Beishlag Student Loan Fund, Charles Brink Loan Fund, Bette Kalichman Student Loan Fund, Elizabeth Livingston Student Loan Fund, Aaron Mendelson Memorial Trust Fund

Scholarships and Awards

For most financial aid opportunities at the School, application deadlines are: the first Monday in March for summer M.S.W. students in advanced standing; the final Friday in April for B.S.W. students admitted for the fall term.

The School of Social Work has a numerous scholarships available to undergraduate and graduate social work majors. Currently available scholarships include the following:

Shawn A. Abraham Memorial Endowed Scholarship

Carol Barron Memorial Endowed Scholarship

Virginia Baumgartner Kind Endowed Scholarship

Elizabeth N. Brehler Scholars Program

Arnette Burwell Memorial Endowed Scholarship

Emmie S. Chestang Memorial Scholarship

Rachel I. Coleman Endowed Scholarship

Patricia L. Dillick Memorial Endowed Scholarship

Cecille Y. Dumbrigue and Shirley P. Thrasher Endowed Memorial Scholarship

Annette Sniderman Freedman Endowed Scholarship

Emmesia Mathews Frost and Kenneth M. Frost Scholarship Fund

Allan and Harriett Gelfond Endowed Scholarship

Fred and Freda Gentsch Scholarship

Annie Louise Pitts Handy Endowed Scholarship

Anthony D. Holt Annual Scholarship

Joseph P. Hourihan Endowed Scholars Award

Shirley Doris Hupert Memorial Scholarship

Evangeline Sheibley Hyett Endowed Scholarship Fund

Rose Kaplan Endowed Scholarship

Vernon Edward Keye Memorial Endowed Scholarship

Alice E. Lamont Endowed Scholarship

James W. Leigh Scholarship Fund

Elizabeth and Reginald MacArthur Tribute Endowed Scholarship

Eileen M. Maceroni Endowed Scholarship

Maryann Mahaffey Endowed Scholarship

Lois J. McOsker Memorial Endowed Scholarship Fund

Edward J. Overstreet Endowed Scholarship

Carolyn Purifoy Patrick-Wanzo Endowed Scholarship

Donald J. Roberts Memorial Endowed Scholarship

Harold and Carolyn Robison Memorial Scholarship

School of Social Work Alumni Association Endowed Scholarship

School of Social Work Scholarship

School of Social Work Futures Endowment Fund

Raymond Snowden, Ph.D., Endowed Memorial Scholarship

Maldo Ellen Talick Memorial Scholarship

Mary Turner Scholarship Fund

Mavis M. Spencer Endowed Scholarship Fund

Beryl Zlatkin Winkelman Endowed Scholarship Fund

Ella Zwerdling Memorial Scholarship

Please visit the financial aid section of the Wayne State University School of Social Work Website for information on school-based scholarships and financial aid at: http://socialwork.wayne.edu/financialaid.php

School Activities

Student Organization

The Student Organization is a vital component in the programs of the School of Social Work. In existence since 1949, it is the students' voice in matters regarding school and profession. It is involved with School issues as well as broader educational and social issues. All students currently enrolled in undergraduate or graduate programs in the School of Social Work are members of the Student Organization.

Student Organization activities include: weekly meetings, participation on curriculum and policy committees of the School, social and recreational activities, and assistance in attendance at relevant conferences. Other student activities include participation in the National Association of Social Workers.

Special Interest Groups

Each year there are students with special interests who organize themselves into student activity groups. These have included the Arab/Chaldean student group, Jewish student group, and Christian student group.

Greater Detroit Association of Black Social Workers (student chapter)

The School chapter of the Greater Detroit Association of Black Social Workers (GDAB.S.W.-s) involves itself in educational, research and community service activities on a year-round basis. GDAB.S.W.-s assists African American students in making the adjustment to the School of Social Work and provides students with supportive educational services. GDAB.S.W.-s also sponsors forums, luncheons, conventions and fund raising events, as well as a schedule of social and leisure time activities.

Student Organization of Latino and Latina Social Workers (SOLASW)

The Student Organization of Latino and Latina Social Workers (SOLASW) is an organization for students interested in Hispanic affairs. SOLASW works to increase the number of Hispanic students and faculty in the School, to integrate the Hispanic experience into the School's program and academic settings, to link the Hispanic community needs with School resources, and to provide a Hispanic-related student forum in the University community. Membership in SOLASW is open to Hispanic and non-Hispanic students.

Coalition for Community Social Work (CCSW)

This group seeks to enhance the education and practice skills of its members while engaging in various community building, rebuilding and revitalization efforts. Historically its membership has collaborated to organize the annual WSU "Take Back the Night" event.

Bisexuals, Gays, Lesbians, and Allies in Social Work (B-GLAS-W)

The organization supports the social, academic and advocacy concerns of gay, lesbian and bisexual students in the School of Social Work at WSU. Its goal is to educate and inspire others at the school, and throughout the university population, regarding sensitivity and respect for people with different sexual orientations than their own.

International Social Work Organization (ISWO)

The ISWO is a student organization interested in enhancing public awareness of issues impacting the broader international community. The ISWO sponsors international guest speakers and activities designed to educate and inspire activism to improve the human condition domestically and abroad.

Alumni Association

The mission of the School of Social Work Alumni Association is to develop and provide a loyal and supportive network for the school by collaboration among alumni, students, faculty and staff. The association welcomes interested alumni to join the board, which organizes social and educational activities intended to foster a professional sense of community among alumni and students. The association also supports an endowed scholarship and provides additional financial support for the school by sponsoring various fund-raising activities. The school's newsletter, *Visions*, keeps graduates informed about activities of the alumni association and the school and all graduates begin receiving it upon graduation. For more information visit the School's website at: www.socialwork.wayne.edu.

Field Education

The following agencies and persons are representative of those who have worked with members of the Faculty in field instruction during recent academic years:

ABIGAYLE MINISTRIES: Janet Carpenter

ACCESS: Abdallah Boemediene

ACTS 29 FELLOWSHIP: Sharon Buttry

ADULT WELL-BEING SERVICES: Sara Gleicher

ADVANTAGE COUNSELING & EDUCATIONAL SERVICES, INC.: Jerry Hosterman

AFFIRMATIONS: Kathellen LaTosch

AIDS COMMITTEE OF WINDSOR: Lori Baxter

AIDS PARTNERSHIP OF MICHIGAN: Matthew Sweet

ALGONAC COMMUNITY SCHOOLS: Lisa Maedel

ALTERNATIVES FOR GIRLS: Marcia Phillips

ALZHEIMER SOCIETY OF WINDSOR & ESSEX COUNTY: Judith Carter

ALZHEIMER'S ASSOCIATION - GREATER MICHIGAN CHAPTER: Calte Schulz

AMERICAN INDIAN HEALTH: Joseph Webster

AMERICAN MONTESSORI ACADEMY: Catherine Hogans

AMERICAN RED CROSS: Jeff Hadwin

ANCHOR BAY SCHOOL DISTRICT: Mark Patyi

ANGEL CARE SERVICES, LLC: Kimberly Adams

ANGELA HOSPICE: Rebecca DeRaud

ANN ARBOR CENTER FOR INDEPENDENT LIVING: Carolyn Grawi

ARAB-AMERICAN AND CHALDEAN COUNCIL: Hala Meram

ARC OF DEARBORN/DEARBORN HEIGHTS, THE: Lisa Nygord

ARC OF NORTHWEST WAYNE COUNTY, THE: Christine Lerchen

ARC SERVICES OF MACOMB, INC.: Luanne DeGueisippe

AREA AGENCY ON AGING 1B: Natalie Pearce

BARBARA ANN KARMANOS CANCER INSTITUTE: Larmender Davis

BAY ARENAC BEHAVIORAL HEALTH: David Garcia

BAY COUNTY CHILD & SENIOR CITIZEN CENTER: Stacy McIntyre

BAY COUNTY HEALTH DEPARTMENT: Marilyn Laurus

BAY-ARENAC INTERMEDIATE SCHOOLS: Dawn Kanyo Roberson

BEHAVIORAL CENTER OF AMERICA - STONE CREST CTR.: Carl Catanese

BEHAVIORAL CENTER OF MICHIGAN: Melissa Koslowski

BERKLEY SCHOOL DISTRICT: Dennis McDavid

BETHANY CHRISTIAN SERVICES: Dawn Swanson

BETHANY VILLA SENIOR APARTMENTS: Gladys Murphy

BLACHE KELSO BRUCE ACADEMY: Dorothy Jenkins

BLACK FAMILY DEVELOPMENT, INC.: Kenyatta Stephens

BLOOMFIELD HILLS SCHOOLS: Gail LePage

BLUE CROSS BLUE SHIELD OF MICHIGAN: Margie Goslin

BLUE WATER CENTER FOR INDEPENDENT LIVING: Valorie Hudgens

BOARD OF LUCAS COMISSIONER'S OFFICE: David Mann

BOYS AND GIRLS REPUBLIC: Barbara McKenzie

BRADFORD ACADEMY: Tammy Mays-Winfrey

BRANDON SCHOOL DISTRICT: Erin Roddis

BRIDGING COMMUNITIES INC.: Phyllis Edwards

BRIGHTMOOR COMMUNITY CENTER: Peter Lisiecki

BULIMIA ANOREXIA NERVOSA ASSOCIATION: Jenni Cammaert

C.A.R.E.: Paul Daily

CANADIAN MENTAL HEALTH ASSOCIATION: Patricia Thomas

CAPUCHIN SOUP KITCHEN: Denise Johnson

CARE HOUSE: Cathy Gordon

CARE HOUSE OF OAKLAND COUNTY: Diane Bedenbaugh

CARE MATTERS: Wendy Hooker

CAREFIRST COMMUNITY HEALTH SERVICES: Daisy Barlow-Smith

CARROLLTON PUBLIC SCHOOLS: Susan Howard

CATHOLIC CHARITIES: Heather Hale

CATHOLIC SERVICES OF MACOMB: Lori Ruppel

CATHOLIC SOCIAL SERVICES OF OAKLAND CO.: Brenda Romanchik

CATHOLIC SOCIAL SERVICES OF OAKLAND CO. PONTIAC: Peggy Akrigg

CATHOLIC SOCIAL SERVICES OF OAKLAND CO.- WATERFORD: Kelly Teague

CATHOLIC SOCIAL SERVICES OF WAYNE CO.: Rita Campbell-McGee

CBC SERVICES, LLC: Celestine Brown

CEI COMMUNITY MENTAL HEALTH: Stephanie Tighe

CENTER FOR EXCEPTIONAL FAMILIES: Michelle O'Conner-Teklinski

CESAR CHAVEZ ACADEMY HIGH SCHOOL: Sonia Ponce de Leon

CHALDEAN AMERICAN LADIES OF CHARITY: Cheryl Madeja

CHANGE IS POSSIBLE COUNSELING SERVICES, LLC: Cynthia Zitny

CHARTER SCHOOLS ADMINISTRATIVE SERVICES: Moray Wehab

CHELSEA COMMUNITY HOSPITAL: Douglas Dault

CHESTER SURLINE ELEMENTARY SCHOOL: Gail Hughey

CHILDHELP MICHIGAN: Ann Marie Lesniak

CHILDREN AND YOUTH INITIATIVE INC., THE: Belinda Evans-Ebio

CHILDREN'S CENTER, THE: Valerie Warren

CHILDREN'S HOSPITAL OF MICHIGAN: Karen Gall

CHIPPEWA VALLEY SCHOOLS: Charlene McGunn

CHRIST CHILD HOUSE (THE): Landon Hill

CITIZENS FOR BETTER CARE: Ann Kraemer

CITY CONNECT DETROIT INC.: Dierk Hall

CITY OF SOUTHFIELD: Lisa Straske

CITY OF SOUTHFIELD - HUMAN SERVICES: Harold Shriman

CITY OF SOUTHFIELD-OLDER ADULT SOCIAL WORKER: Judith Ventura

CLARKSTON COMMUNITY SCHOOLS: Shelly Robertson

CLINTON COUNSELING CENTER: Rebecca maffetone

COMMON GROUND SANCTUARY: Barbara Broesamle

COMMUNITY & HOME SUPPORTS, INC.: Sharon Lapides

COMMUNITY CARE SERVICES: Cheryl Green, Lynn Turk

COMMUNITY HOUSING NETWORK, INC.: Jennifer Williams

COMMUNITY LIVING SERVICES: Joanne Nicholson

COMMUNITY NETWORK SERVICES: Amy Yashinsky

COMMUNITY PROGRAMS, INC.: Jo Calloway

COMPREHENSIVE YOUTH SERVICES, INC.: Sally Currie, Jane Reams

CONSORTIUM COLLEGE PREP HIGH SCHOOL: Rachael Hatcher

CONSUMER SERVICES, INC.: Kathy Taylor

CORNELL CENTER: Jane Diehl

CORPORATION FOR SUPPORTIVE HOUSING: Beverly Ebersold

COUNCIL ON AGING, INC.: Mary Taylor

COVENANT HOUSE MICHIGAN: Kathryn Doughlass, Herb Johnson

CROSSROADS FOR YOUTH: Chris Veihl

CROSSROADS OF MICHIGAN: Nicole Harris

DEARBORN PUBLIC SCHOOLS: Angela Burley, Rola Bazzi-Gates

DEPARTMENT OF HUMAN SERVICES: Sylvia Brown Jones

DEPARTMENT OF HUMAN SERVICES-MACOMB COUNTY: Karen Urquhart

DEPARTMENT OF HUMAN SERVICES-WAYNE CO.: Oswaldo Rivera

DEPARTMENT OF VETERANS AFFAIRS: Corey Buckley

DETROIT AREA AGENCY ON AGING: Gale Simmons

DETROIT BOARD OF EDUCATION: Kenneth Warren

DETROIT CENTRAL CITY CMH, INC.: Sandra Ware, Henriette Warren

DETROIT CITY COUNCIL: Saunteel Jenkins

DETROIT HEALTH DEPARTMENT: Olivia Ramsey

DETROIT URBAN LEAGUE, INC.: Cassndra Nelson-Pruitt

DEVELOPMENT CENTERS, INC.: Christel Danna

DMC-HARPER HOSPITAL: Barbara Presnell

DOCTORS' HOSPITAL OF MICHIGAN: Siv Crow

DON BOSCO HALL: Lawrence Abner

EAST CHINA SCHOOL DISTRICT: Linda Bruckner, Donna Galbraith

EASTER SEALS: Catherine McQuade

EASTWOOD CLINIC, ST. JOHN: Mariam Dowling, Daniel Grogan, Donald Healy

EASTWOOD CLINIC, ST. JOHN:

EMPOWERMENT ZONE COALITION, INC.: Karen Hinton

ENNIS CENTER FOR CHILDREN: Gary Wend

FAMILY AND CHILDREN'S SERVICES OF MIDLAND: Vicki Freer

FAMILY CARE NETWORK: Walter Horlings

FAMILY SERVICE, INC.: Virdell Thomas

FIRST STEP: Sally Coder

FISCHER & CARDAMONE, LLC: Laura Cardamone

FITZGERALD SCHOOLS: Laurie Vesey

FLINT COMMUNITY SCHOOL DISTRICT: Sam Dykstra

FOREVER FAMILIES: Heidi Nicewander

FOX RUN VILLAGE: Jan Bayer

FRASER PUBLIC SCHOOLS: Susan Waid

FRESENIUS MEDICAL CARE CHESTERFIELD: Gina Sikon

FRIENDSHIP HOUSE: Linnea Berg

GARDEN CITY COMMUNITY COALITION: Susan Nicholas

GENESSE COUNTY CMH: Kea Williams

GEORGE WASHINGTON CARVER ACADEMY: Andrea Richardson

GILDA'S CLUB METRO DETROIT: Michelle Warren

GLENGARDA CHILD AND FAMILY SERVICES: Renee Gilliam

GRAND BLANC COMMUNITY SCHOOLS: Sarah Hugo

GRANDMONT ROSEDALE DEVELOPMENT CORP.: Cathy Marshall

GREAT START COLLABORATIVE WAYNE: Toni Hartke

GUIDANCE CENTER, THE: Jessica Sapp

HAMTRAMCK CITY COUNCIL: Catrina Stackpoole

HAMTRAMCK PUBLIC SCHOOLS: Denise Litterio

HANDS ACROSS THE WATER: Kathleen Nelson

HARPER WOODS PUBLIC SCHOOLS: Jessica Zann

HAVENWYCK HOSPITAL: Carol Polly

HAWTHORN CENTER: Betty Esters

HAZEL PARK SCHOOLS: James Bellini

HEALTH SOURCE: Mark Kraynak

HEARTLAND HEALTHCARE CENTER: Jill Sims

HEARTLAND HOSPICE: Gayle Losinger, Mary Parmentier

HEGIRA PROGRAMS, INC.: Gale Chapman

HENRY FORD BI-COUNTY HOSPITAL: Tracey Chartier

HENRY FORD HEALTH SYSTEM: Kathy Ransome, Diane Tomazak, Kelly Warner

HENRY FORD HOME HEALTH CARE: Beth Newman

HENRY FORD HOSPITAL: Jacqueline Roman

HENRY FORD WYANDOTTE HOSPITAL: John Dubosh

HIGHLAND PARK SCHOOL DISTRICT: Kurtis Lamarr

HOTEL DIEU GRACE HOSPITAL: Nancy Hebert, Terry Kuhn

HURON VALLEY-SINAI HOSPITAL: Teri Sahn-Silver

IN HOUSE HOSPICE- Deborah Kokoszka

INKSTER PUBLIC SCHOOLS: Vicki Bohannon

INNER DOOR CENTER: Beverly Price

INSIGHT RECOVERY CENTER: Henry Tidwell

INTEGRATIVE COUNSELING SERVICES: Sheila Gunter

JEWISH FAMILY SERVICE: Erica Saum

JEWISH SENIOR LIFE OF METROPOLITAN DETROIT: Andrea Rosner-Najer

JOHN D. DINGELL VA MEDICAL CENTER: Christina Hall

JUDSON CENTER AUTISM CONNECTIONS: Sarah Bretz

JUDSON CENTER, INC.: Gail Lincoln

JVS SENIOR ADULT SERVICES: Peter Ostrow

KADIMA: Nancy Stein

KARMANOS CANCER CENTER: Kathleen Hardy

LACASA: Elizabeth Stahl

LAKERIDGE VILLAGE: David Ballenberger

LAPEER REGIONAL MEDICAL CENTER: Steve Gerwolds

LIGHTHOUSE PATH TEEN MOTHERS PROGRAM: Linda McAllister

LINCOLN BEHAVIORAL SERVICES: Joy Kornspan

LIVINGSTON FAMILY CENTER: Vickie Smith

LIVONIA PUBLIC SCHOOLS: David Stover

LUELLA HANNAN FOUNDATION: Cheryl Bukoff

LUTHERAN CHILD & FAMILY SERVICES: William Scott Cole

MACOMB COUNTY JAIL: Kelly Hedtke

MACOMB COUNTY JAIL CORRECTIONAL MEDICAL SERVICES: Valicia Wiggins

MACOMB FAMILY SERVICES: Laura Henderson

MACOMB INTERMEDIATE SCHOOL DISTRICT: Elizabeth Andrzejewski

MACOMB INTERMEDIATE SCHOOL DISTRICT: Nadine Lovell, Tony Woznicki

MARINER'S INN: David Sampson

MATRIX HUMAN SERVICES: Marcella Wilson

MCLAREN REGIONAL MEDICAL CENTER: Margie Peppler

MEDICAL SOCIAL WORK REHAB MANAGEMENT LLC: Dorothy Strong-Stokes

MELVINDALE-NORTH ALLEN PARK SCHOOL DISTRICT: Patricia Strauss

MICHIGAN PSYCHIATRIC BEHAVIORAL ASSOCIATION (MPBA): Bill Beard

MICHIGAN ROUNDTABLE FOR DIVERS: Steve Spreitzer

MICHIGAN TECHNICAL ACADEMY: Charla Ross

MID-MICHIGAN MEDICAL CENTER: Andrea Muladore

MONROE CO. INTERMEDIATE SCHOOL DISTRICT: Betsy Taylor

NATIONAL COUNCIL OF ALCOHOLISM & DRUG DEPENDENCE: Benjamin Jones, Linda Woodward

NATIONAL COUNCIL ON ALCOHOLISM/LRA., INC.: Michelle LaVoy

NATIONAL INSTITUTE FOR TRAUMA & LOSS IN CHILDREN: Caelan Kuban

NATIONAL KIDNEY FOUNDATION OF MICHIGAN, THE: Kristie Lewis

NEIGHBORHOOD SERVICE ORGANIZATION: David Kozlowski

NEW CENTER COMMUNITY MENTAL HEALTH SERVICES: Marilyn Sanders

NEW HAVEN COMMUNITY SCHOOLS: Sandra Avery

NORSERV GROUP, LTD.: Jeffrey Fraser

NORTHEAST GUIDANCE CENTER: Sherrry McRill, Miguel Weeks

OAKLAND CO. FRIEND OF THE COURT: Lori Klein-Shapiro

OAKLAND COUNTY CHILDREN'S VILLAGE: Victoria Ofiara

OAKLAND COUNTY YOUTH ASSISTANCE: Margo Clarfelt

OAKLAND FAMILY SERVICES: Linda Caspary

OAKWOOD HOSPITAL: Ann Caulfield-Cook

OAKWOOD SOUTHSHORE MEDICAL CENTER: Lulu Richards-Heller

ODYESSY HOUSE: Ron Brown

OFF THE STREETS: Celia Thomas

ORCHARDS CHILDREN'S SERVICES: Trudy Fortino

OZONE HOUSE: Karyn Boyce

OZONE HOUSE DROP-IN CENTER: Colleen O'Brien

PONTIAC SCHOOL DISTRICT: Renee Maxwell

PORT HURON HOSPITAL: Michele Fox

POSITIVE IMAGES: Maisha Kenyatta

POWER INC.: Carol Burrell-Jackson

PROACTION BEHAVIORAL HEALTH ALLIANCE: Kennyetta Schumake

PROMISE VILLAGE: HOME FOR CHILDREN: Lloyd Dockham

PROVIDENCE CANCER INSTITUTE: Jennifer Gillette

QUALITY BEHAVIORAL HEALTH: Naveed Sayed

REDFORD UNION SCHOOLS: Bryant Goulet

REHABILITATION INSTITUTE: Patrick Donnellon

RENEWAL CHRISTIAN COUNSELING CENTER INC.: Steve Fair

RESTAURANT OPPORTUNITIES CENTER OF MICHIGAN: Minsu Longiaru

RICHMOND COMMUNITY SCHOOLS: Nancy Laratonda

ROSCOMMON CO. DEPARTMENT OF HUMAN SERVICES: Kathy Freer

RUTH ELLIS CENTER: Laura Hughes

SACRED HEART REHABILITATION: Charlene Stier

SACRED HEART REHABILITATION CENTER: Rob Fetzer

SAGINAW COUNTY CMH: Nancy Erwin

SAGINAW PSYCHOLOGICAL SERVICES: Frances Erwin

SAGINAW PUBLIC SCHOOL DISTRICT: Lavarne White

SALVATION ARMY ADULT REHABILITATION CENTER: Joseph Cummings

SALVATION ARMY HARBOR-LIGHT MACOMB: Sharon Calhoun

SANILAC COUNTY COMMUNITY MENTAL HEALTH: Michele Vilas

SANILAC COUNTY INTERMEDIATE SCHOOL DISTRICT: Carla LeGere

SERVICES FOR OLDER CITIZENS: Sharon Maier

SEXUAL ASSAULT CRISIS CENTRE OF ESSEX CO.: Lydia Fiorini

SHAR, INC.: Dwight Vaughter

SINAI-GRACE HOSPITAL: Jennifer Tenorio

SOLID GROUND, INC.: LaWanda Jackdon

SOS COMMUNITY SERVICES: Faye Askew-King

SOUTH OAKLAND CITIZENS FOR THE HOMELESS: Roy Watson

SOUTHWEST COUNSELING SOLUTIONS: Roberta Walker

SPAULDING FOR CHILDREN: Jamie Bozarth

SPECTRUM CHILD AND FAMILY SERVICES: Jodi Luster

ST. CLAIR CO. CHILD ABUSE NEGLECT COUNCIL: Nancy Szlezyngier

ST. CLAIR COUNTY CIRCUIT COURT, FAMILY DIVISION: James Gilan

ST. CLAIR COUNTY COMMUNITY MENTAL HEALTH AUTHORITY: Patricia McLellan

ST. CLAIR COUNTY JUVENILE INTERVENTION CENTER: Monika Weaver

ST. JOHN COMMUNITY HEALTH: Ambra Redrick

ST. JOHN MACOMB OAKLAND HOSPITAL: Maryann Woodard

ST. JOSEPH MERCY OAKLAND HOSPITAL: Ahsley Robinson, Cynthia Zagar

STARFISH FAMILY SERVICES: Sherry Dees

STARR COMMONWEALTH: Ashley Gray

STATE COURT ADMINISTRATIVE OFFICE: James Novell

TAYLOR SCHOOL DISTRICT: Sandra Kluk

TEAM MENTAL HEALTH SERVICES: Abigail Wilson

TEEN HEALTH CENTRE: Domine Rutayisire

THIRD JUDICIAL CIRCUIT COURT: Michelle Esterbrook

TRAINING & TREATMENT INNOVATIONS, INC.: Jean Pfaendtner

TRENTON PUBLIC SCHOOLS: Michel DeJulian

TROY SCHOOL DISTRICT: Wendy Talan

TURNING POINT INC.: Renee Graham, Deborah McPeek

TURNING POINT RECOVERY CENTER: Kimberly Hillery

TUSCOLA INTERMEDIATE SCHOOL DISTRICT: Rebecca Ducham

TWH ENTITIES: Nancy Carter

UNITED WAY FOR SOUTHEASTERN MICHIGAN: Kristen Bolds

UNITED WAY/CENTRAIDE WINDSOR - ESSEX COUNTY: Lorraine Goddard

UNIVERSITY PSYCHIATRIC CENTERS: Elese Hairston

URBAN NEIGHBORHOOD INITIATIVES: Christine Bell

UTICA COMMUNITY SCHOOLS: Diane Redmond

VAN DYKE PUBLIC SCHOOLS: Mary Reilly

VAN ELSLANDER CANCER CENTER: Rebecca Palen

VICTIM'S ASSISTANCE CENTER: Felicia Jenkins

VISITING NURSES ASSOCIATION: Nicole Wilbur

VISTA MARIA: Wendy Kearney

VITAS INNOVATIVE HOSPICE CARE: Percy Key

WARREN WOODS PUBLIC SCHOOLS: Linda Hutchins, Alan Koshko

WARREN WOODS PUBLIC SCHOOLS:

WARREN/CONNER DEVELOPMENT COALITION: Christine Wilson

WASHINGTON WAY RECOVERY CENTER: Connie Gallagher

WASHTENAW COUNTY C.S.T.S.: James Svensson

WASHTENAW COUNTY SHERRIFF'S OFFICE: Carmelita Samuel

WATERFORD SCHOOL DISTRICT: Nancy Ristich, Denise Sokol

WAYNE CENTER: Yvette Davis

WAYNE COUNTY HEALTH AND HUMAN SERVICES: Julie Boggs

WAYNE COUNTY DEPT. OF PUBLIC HEALTH: Brenda Ozog

WAYNE COUNTY PROSECUTOR'S OFFICE: Karen Watts

WAYNE METRO COMMUNITY ACTION AGENCY: Shaun Taft

WAYNE-WESTLAND COMMUNITY SCHOOL DISTRICT: Vanessa Stafford

WHALEY CHILDREN'S CENTER: Holly White

WHITE PINE MENTAL HEALTH CENTER: Mark Kraynak

WHOLISTIC LIVING COMMUNITY DEVELOPMENT: Addie Harper

WILLIAM BEAUMONT HOSPITAL: Nancy Kirsch

WINDSOR ESSEX CHILDREN'S AID SOCIETY: Kim Brisebois

WINGS OF THE HARBOR: Tina Essmaker

WOLVERINE HUMAN SERVICES: Tom Krolicki

WOMEN'S CENTER OF SOUTHEASTERN MICHIGAN, THE: Marnie Leavitt

WOMEN'S RESOURCE CENTER OF LIVINGSTON COUNTY: Connie Dole

WOODHAVEN-BROWNSTOWN SCHOOL DISTRICT: Roberta Brown

WSU - CENTER FOR CHICANO-BORICUA STUDIES: Ethriam Brammer

WSU - UPWARD BOUND: William Tandy

YOUTHVILLE DETROIT: Anthony Thompson

ADDITIONAL ACADEMIC PROGRAMS

Academic Success Center

1600 Adamany Undergraduate Library; 577-3165; Fax: 577-9372
Service hours: see our Website: http://www.success.wayne.edu/

Academic Success Center offers non-credit courses to help students ensure successful education outcomes, develop skills for University and career life, and avoid commonly-encountered difficulties. For further information, see page 44.

UNIVERSITY COUNSELING SERVICES COURSES (UCS)

For interpretation of course numbering system and signs, see page 504.

0991 Designing Your Future. Cr. 0

Prereq: coregistration in at least one credit course. Offered for S and U grades only. No degree credit. Concepts of work and career; development of knowledge of world of work and related self-knowledge; exploration of educational and career options; decision-making strategy; establishment of personal career goals and career plan. (I)

0992 Launch Your Career. Cr. 0

Offered for S and U grades only. Prereq: declaration of major field of study; coreq: enrollment in one credit-bearing course. Students are encouraged to create and implement individual action plans for personal career goals, including resumes, networking, and interviewing. (T)

Aerospace Studies

The Air Force Officer Education Program at the University of Michigan provides Wayne State University students opportunity to earn a commission as a second lieutenant in the U.S. Air Force through the Air Force Reserve Officer Training Corps (AFROTC). Four-year and two-year programs are offered, and aerospace studies classes are conducted on the University of Michigan campus, Ann Arbor MI; registration is managed by the AFROTC. Interested students should contact AFROTC at (734) 764-2403 or visit Room 154 at North Hall on the Ann Arbor campus. Students who enroll as cadets in the Air Force Officer Education Program, successfully complete the program, and receive a university degree are commissioned as second lieutenants in the United States Air Force.

Admission to introductory-level courses in this program is open to anyone, but admission to junior-level standing is open only to students having matriculate status in a four-year degree program at one of the resident sponsoring institutions.

Career Opportunities: Men and women can serve in a wide range of flying duties as aircrew members or in many technical fields as well as in numerous other non-technical specialties. Advanced education or technical training for these career areas may be obtained on active duty at Air Force expense.

Four-Year and Two-Year Programs: The four-year program consists of eight terms (sixteen credits) of course work. The first four terms (freshman and sophomore years) comprise the General Military Course (GMC). During the summer following this sequence, each student is required to attend a four-week summer training session. After completing field training, students enroll in the last four terms (junior and senior years) of AFROTC called the Professional Officer Course (POC).

The two-year program is for junior-level college students or graduate students who have not participated in the GMC but want to enter the POC. These students must attend a six-week field training session prior to entering the POC. Application for the two-year program *must be made prior to* December 1st for students entering the POC in the fall term as juniors.

Financial Benefits and Scholarships: All students enrolled in the POC, whether or not on scholarship, receive a monthly stipend of $150.00 for each month of the academic school year. Uniforms, AFROTC books, and equipment are furnished free of charge. Pay and a travel allowance are provided to attend field training. AFROTC provides scholarships on a competitive basis for periods of two to three and one-half years. These scholarships provide tuition, laboratory fees, a book allowance, and the monthly $150.00 stipend. Room and board are not furnished.

Obligation to the Air Force: After graduation and commissioning, graduates are called to active duty in the Air Force. The period of service is four years for non-aircrew members, six years for navigators, and ten years for pilots. Obligations for aircrew members begin following graduation from aircrew training. A contractual obligation is incurred for non-scholarship students when they enter the POC. Scholarship students incur an obligation in their sophomore year.

Flight Activities: Mentally and physically qualified cadets who receive a pilot training slot receive four hours of flight and aircraft familiarization training This training usually takes place between the freshman and sophomore years.

Course of Study: Students enroll in one course of Aerospace Studies (ASC) during each term of participation in the program. In addition to the lecture, there is a mandatory one and one-half hour Leadership Laboratory with each of the eight terms, for those students who are eligible for the commissioning program.

Military Science (ROTC)

The College of Engineering currently sponsors the Army Reserve Officers Training Corps (AROTC) and provides Wayne State University students with an Officer Education Program through a partnership agreement with the University of Michigan. The Officer Education Program allows qualified applicants to receive commissions as Second Lieutenants in the United States Army. Other interested students throughout the University may select military science courses, offered as Basic Engineering credits, for elective credit without participating in leadership training or incurring any military obligation. Army ROTC offers both a four-year and a two-year program. The four-year program consists of a two-year basic course, a two-year advanced course, and a four-week summer camp known as the Leadership Development and Assessment Course (LDAC), normally attended between the junior and senior years at Joint Base Lewis-McChord, Washington. Students having prior ROTC, including Junior ROTC (JROTC), or prior military service may be given placement credit for part or all of the basic course at the Professor of Military Science's approval. The two-year program is by application only and consists of a four-week Leadership Training Course (LTC) in Fort Knox, Kentucky, a two-year advanced course, and LDAC. All students with a minimum of two years of school remaining (graduate or undergraduate) are eligible. Students must notify the department prior to February 15 of their sophomore year if they are interested in this program. ROTC cadets are eligible for four-, three-, and two-year scholarships which can be used to pay either tuition and fees, or room and board, as well as money for books. In addition, the advanced course students and all scholarship students receive a tax-free subsistence allowance during the school year. ROTC books and uniforms are furnished at no cost to students. Cadets who maintain high academic, fitness, and leadership standards are eligible to apply for Regular Army Commissions. Interested students can contact the Wayne State University Army ROTC program by telephone at 313.577.2374 or at www.wsuarmyrotc@wayne.edu.

BASIC ENGINEERING ROTC COURSES (B E)

The following courses in basic engineering are designed for instruction specifically applicable to the U.S. Army ROTC program and require admission to that program for registration. For a list of the regular College of Engineering B E courses, see page 140. For interpretation of numbering system, signs and abbreviations, see page 504.

1101 Introduction to Officership. Cr. 1

Prereq: admission to Army ROTC or permission of Army ROTC. Classroom introduction to leadership, and the experiential examination of leadership, followership, decision-making, and group accomplishment of tasks. (B)

1102 Introduction to Leadership. Cr. 1

Prereq: admission to Army ROTC or permission of Army ROTC; B E 1101. Continuation of B E 1101; focus on communications, leadership, and problem-solving. The light infantry platoon and the troop leading process. (B)

2201 Innovative Tactical Leadership. Cr. 1

Prereq: admission to Army ROTC; B E 1102; physical training, special events, and 48 field training. Military organizational leadership with focus on leadership development and interpersonal group dynamics. (B)

2202 Leadership in Changing Environments. Cr. 2

Prereq: admission to Army ROTC; B E 1102; physical training, special events, and 48 Field Training Exercise. Challenges of leading in complex contemporary operational environments. Cross-cultural challenges of leadership applied to practical Army leadership tasks and situations. (B)

3301 Leading Small Organizations I. Cr. 2

Prereq: admission to Army ROTC; physical training, special events, and 48 Field Training Exercise. Leadership development and interpersonal and group dynamics. Methods ov visualizing, planning and leading organizations to achieve set goals. (B)

3302 Leading Small Organizations II. Cr. 2

Prereq: B E 3301; admission to Army ROTC; physical training, special events, and 48 Field Training Exercise. (B)

4401 Leadership and Management. Cr. 3

Prereq: B E 3302; admission to Army ROTC; physical training, special events, and 48 Field Training Exercise; three and one-half hour of independent study with cadre mentor required per week. Multiple styles and theories of leadership; ethical decision making, especially as relating to changing organizational and individual behavior; accomplishing goals in resource-constrained enviromnents. (B)

4402 Military Professionalism and Professional Ethics. Cr. 3

Prereq: B E 4401; admission to Army ROTC; physical training, special events, and 48 Field Training Exercise; three and one-half hour of independent study with cadre mentor required per week. Evaluation and assessment of needs of subordinate units and individuals; near-term and short-term plans to address these needs. Analysis of a historical battle as well as analysis of moral and leadership dilemmas in history. (B)

CAMPUS MAPS
SIGNS and ABBREVIATIONS
INDEX

MAPS 1 SPACE . . . . . MAIN CAMPUS

MAPS 3 SPACE . . . . . .MED SCHOOL

Signs and Abbreviations

SUBJECT AREA CODES

Subject area codes are two- or three-letter prefixes to the numbers used to identify courses offered by the University. The following index identifies the subject content of these codes and indicates the page number on which courses may be found.

MAE —Mathematics Education 122
MAT —Mathematics 373
MBG —Molecular Biology and Genetics . . . (see Graduate Bulletin)
MCT —Mechanical Engineering Technology 180
M D —Medical Doctor . . . . . (see Graduate Bulletin)
MDR —Medical Research . . . . . (see Graduate Bulletin)
M E —Mechanical Engineering 166
MED —Music Education 232
MGT —Management 84
MIT —Manufacturing/Industrial Engineering Technology 180
MKT —Marketing 87
M S —Mortuary Science 458
MSE —Materials Science 149
MTX —Molecular and Cellular Technology (see Graduate Bulletin)
MUA —Applied Music — Classroom Instruction. 232
MUH —Music History 234
MUP —Music — Private Instruction 235
MUT —Music Theory 245

N E —Near Eastern Studies 317
NFS —Nutrition and Food Science 380
NUR —Nursing 438

OBG —Obstetrics and Gynecology . . . . . (see Graduate Bulletin)
OEH —Occupational & Environmental Health Sciences (see Graduate Bulletin)
O T —Occupational Therapy 464

PAS —Physician Assistant Studies . . . . . (see Graduate Bulletin)
PCS —Peace and Conflict Studies 384
PHA —Pharmacy 478
PHC —Pharmacology (Medicine) . . . . . (see Graduate Bulletin)
PHI —Philosophy 385
PHY —Physics 391
POL —Polish 319, 327
PPR —Pharmacy Practice 478
P S —Political Science 396
PSC —Pharmaceutical Sciences 477
PSL —Physiology 425
PSY —Psychology 402
P T —Physical Therapy 468
PTH —Pathology . . . . . (see Graduate Bulletin)
PYC —Psychiatry & Behavioral Neurosci. . (see Graduate Bulletin)

RAD —Radiology . . . . . (see Graduate Bulletin)
RCI —Rehabilitation Counseling & Community Inclusion (see Graduate Bulletin)
RDT —Radiologic Technology 474
RLL —Reading, Language & Literature 122
ROC —Radiation Oncology . . . . . (see Graduate Bulletin)
R S —Rehabilitation Sciences . . . . . (see Graduate Bulletin)
R T —Radiation Therapy Technology 472
RUS —Russian 319, 327

SCE —Science Education 123
SCI —Multidisciplinary Science . . . . . (see Graduate Bulletin)
SCP —Scientific Computing Program . . . . (see Graduate Bulletin)
SED —Special Education 123
SLA —Slavic 319
SLP —Speech-Language Pathology 331
SOC —Sociology 407
SPA —Spanish 320, 328
SSE —Social Studies Education 123
STA —Statistics 377
S W —Social Work 486
SWA —Swahili 330
SYE —Systems Engineering . . . . . (see Graduate Bulletin)

TED —Teacher Education Division 116
THR —Theatre 249

UCS —University Counseling Services 496
UKR —Ukrainian 320, 330
U P —Urban Planning 412
U S —Urban Studies 413

W S —Women's Studies 415

UNDERGRADUATE COURSE NUMBERING SYSTEMS

For the College of Education

0000-4999 —Undergraduate credit only.
5000-6999 —Undergraduate or graduate credit.

For Pharmacy Departments

0000-2999 — Preprofessional Courses.
3000-3999 — First Professional Year Courses.
4000-4999 — Second Professional Year Courses.
5000-5999 — Third Professional Year Courses.
6000-6999 — Undergraduate/Graduate Courses.

For All Other Schools and Colleges

0000-0999 — No degree credit; graded S and U.
— *School of Business Administration:* Elementary courses auxiliary to the usual academic program.
—*College of Engineering:* Orientation courses.
1000-1999 — Primarily freshman courses; open to all undergraduates.
2000-2999 — Primarily freshman and sophomore courses; open to all undergraduates who have completed course prerequisites.
—*School of Business Administration:* Primarily junior college courses.
—*College of Engineering:* Lower division courses; open to all undergraduates.
3000-4999 — Junior and senior courses; undergraduate credit. (Ordinarily freshmen and sophomores will not be permitted to register for these courses.)
—*College of Engineering:* Upper division courses.
5000-6999 — Junior and senior courses; undergraduate and graduate credit.

COURSE SYMBOLS and ABBREVIATIONS

Course Offering Frequency: Parenthetical letters at the end of course descriptions identify the term and frequency courses will be offered.

(T) — Offered every term
(Y)— Offered at least once every academic year
(Fall or Winter, not Spring/Summer)
(F) — Offered Fall Term
(W) — Offered Winter Term
(S) — Offered Spring/Summer Term
(B) — Offered every other year
(I) — Offered irregularly

Course Activity: The following abbreviations used in some Courses of Instruction sections indicate the basic instructional mode (or modes) of certain courses. The number following the abbreviation indicates the number of clock hours per week assigned to that mode:

CLN — Clinic
DSC — Discussion
FLD — Field
IND — Individual
LAB — Laboratory
LCT — Lecture
OTH — Other
QUZ — Quiz
SMR — Seminar
STD — Studio
T V — Television

Cr. Credit: The amount of credit indicated by the number or numbers following the abbreviation.
Max. Maximum: Course may be re-elected to the maximum credit indicated
Prereq. Prerequisite: Course must be preceded by the indicated course or courses or other requirements.
Coreq. Corequisite: Course must be accompanied by the indicated course or courses.
Cross-listed courses may be taken for major credit in more than one department, as indicated by cross-references which appear in parentheses either before or after the title. In registering for cross-listed courses, the student should be certain that he/she has designated the department and course number under which he/she wishes to earn the credit.

Index