WAYNE STATE UNIVERSITY
Undergraduate Bulletin
2007-2009
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#### Spring/Summer Term, 2007

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<thead>
<tr>
<th>Event</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Term Begins</td>
<td>Fri., Aug. 17, 2007</td>
</tr>
<tr>
<td>Fall 2007 Open Registration Ends</td>
<td>Mon., Aug. 20, 2007</td>
</tr>
<tr>
<td>Classes Begin</td>
<td>Mon., Aug. 27, 2007</td>
</tr>
<tr>
<td>Final Examinations</td>
<td>Fri., Dec. 14 - Thu., Dec. 20</td>
</tr>
<tr>
<td>Degree Conferral</td>
<td>Fri., Dec. 21</td>
</tr>
<tr>
<td>Term Ends</td>
<td>Mon., Jan. 31, 2007</td>
</tr>
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</table>

#### Fall Term, 2007

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
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<tbody>
<tr>
<td>Term Begins</td>
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</tr>
<tr>
<td>Degree Conferral</td>
<td>Fri., Dec. 21</td>
</tr>
<tr>
<td>Term Ends</td>
<td>Mon., Jan. 31, 2007</td>
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#### Spring/Summer Term, 2008

<table>
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<tr>
<th>Event</th>
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<tr>
<td>Term Begins</td>
<td>Wed., April 30, 2008</td>
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<tr>
<td>Spring/Summer Term 2008 Open Registration Ends</td>
<td>Mon., May 3, 2008</td>
</tr>
<tr>
<td>Spring and Spring/Summer Classes Begin</td>
<td>Mon., May 5, 2008</td>
</tr>
<tr>
<td>Spring Session End</td>
<td>Mon., May 5 - Sat., May 17</td>
</tr>
<tr>
<td>Memorial Day Recess</td>
<td>Mon., May 26</td>
</tr>
<tr>
<td>Day Scheduled as Monday for Spring and</td>
<td></td>
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<tr>
<td>Spring/Summer Sessions</td>
<td>Fri., May 30</td>
</tr>
<tr>
<td>Last Day for Filing Degree Applications</td>
<td>Mon., May 18</td>
</tr>
<tr>
<td>Spring Session Class End</td>
<td>Fri., June 20</td>
</tr>
<tr>
<td>Spring Session Study Day</td>
<td>Sat., June 21</td>
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<tr>
<td>Spring Session Final Examinations</td>
<td>Mon., June 23 - Tue., June 24</td>
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<tr>
<td>Summer Session Begins</td>
<td>Wed., June 25</td>
</tr>
<tr>
<td>Summer Session Late Registration</td>
<td>Wed., June 25 - Thu., July 1</td>
</tr>
<tr>
<td>Term Census Date</td>
<td>Tue., July 1</td>
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<tr>
<td>Spring/Summer Sessions</td>
<td>Fri., July 6</td>
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<tr>
<td>Spring/Summer Session Classes End</td>
<td>Fri., July 27</td>
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<tr>
<td>Spring/Summer Session Study Day</td>
<td>Sat., July 28</td>
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<tr>
<td>Spring/Summer Session Final Examinations</td>
<td>Mon., July 30 - Thu., Aug. 2</td>
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<tr>
<td>Summer Session End</td>
<td>Tue., Aug. 14</td>
</tr>
<tr>
<td>Summer Session Study Day</td>
<td>Wed., Aug. 15</td>
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<tr>
<td>Summer Session Final Examinations</td>
<td>Thu., Aug. 16 - Fri., Aug. 17</td>
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<tr>
<td>Fall 2007 Priority Web Registration Ends</td>
<td>Sat., Aug. 18</td>
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<tr>
<td>Fall 2007 Open Registration</td>
<td>Mon., Aug. 20 - Mon., Sept. 3</td>
</tr>
<tr>
<td>Degree Conferral</td>
<td>Fri., Aug. 17</td>
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<td>Spring/Summer Term Ends</td>
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#### Fall Term, 2008

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<tr>
<th>Event</th>
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<tr>
<td>Term Begins</td>
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</tr>
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<td>Fall 2008 Open Registration Ends</td>
<td>Mon., Sept. 1, 2008</td>
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<tr>
<td>Classes Begin</td>
<td>Mon., Sept. 2, 2008</td>
</tr>
<tr>
<td>Fall 2008 Late Registration</td>
<td>Mon., Sept. 2 - Mon., Sept. 15</td>
</tr>
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<td>Term Census Date</td>
<td>Mon., Sept. 15</td>
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<tr>
<td>Last Day for Filing Degree Applications</td>
<td>Fri., Sept. 26</td>
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<tr>
<td>Day Scheduled as a Thursday</td>
<td>Thu., Nov. 25</td>
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<tr>
<td>Thanksgiving Recess</td>
<td>Thu., Nov. 27 - Sat., Nov. 29</td>
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<tr>
<td>Day Scheduled as a Friday</td>
<td>Wed., Nov. 26</td>
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<tr>
<td>Study Day</td>
<td>Thu., Dec. 11</td>
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<tr>
<td>Final Examinations</td>
<td>Fri., Dec. 12 - Thu., Dec. 18</td>
</tr>
<tr>
<td>Degree Conferral</td>
<td>Fri., Dec. 19</td>
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<tr>
<td>Term Ends</td>
<td>Wed., Dec. 31, 2008</td>
</tr>
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#### Winter Term, 2009

<table>
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<tr>
<th>Event</th>
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<tr>
<td>Term Begins</td>
<td>Mon., Jan. 1, 2009</td>
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<tr>
<td>Winter 2009 Open Registration</td>
<td>Mon., Jan. 5 - Sat., Jan. 10</td>
</tr>
<tr>
<td>Martin Luther King Holiday Recess</td>
<td>Mon., Jan. 19</td>
</tr>
<tr>
<td>Term Census Date</td>
<td>Mon., Jan. 26</td>
</tr>
<tr>
<td>Last Day for Filing Degree Applications</td>
<td>Fri., Feb. 6</td>
</tr>
<tr>
<td>Spring/Summer 2009 Priority Web Registration</td>
<td>Mon., Feb. 9 - Sat., May 2</td>
</tr>
<tr>
<td>Spring Recess</td>
<td>Mon., March 16 - Sat., March 21</td>
</tr>
<tr>
<td>Fall 2009 Priority Web Registration Begins</td>
<td>Mon., March 23</td>
</tr>
<tr>
<td>Classes Begin</td>
<td>Mon., April 27</td>
</tr>
<tr>
<td>Study Day</td>
<td>Thu., April 28</td>
</tr>
<tr>
<td>Final Examinations</td>
<td>Wed., April 29 - Thu., May 5</td>
</tr>
<tr>
<td>Spring/Summer 2009 Open Registration Begins</td>
<td>Mon., May 4</td>
</tr>
<tr>
<td>Degree Conferral</td>
<td>Fri., May 8</td>
</tr>
<tr>
<td>Commencement</td>
<td>Thu., May 7</td>
</tr>
<tr>
<td>University Year Appointments End</td>
<td>Fri., May 15, 2009</td>
</tr>
</tbody>
</table>

### 4 General Information

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.
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

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DEBBIE DINGELL
EUGENE DRIKER
IRVIN D. REID, Chairperson of the Board of Governors
JACQUELIN E. WASHINGTON
DEBBIE DINGELL
ANNETTA MILLER
RICHARD BERNSTEIN
PAUL E. MASSARON
TINA ABBOTT
DIANE L. DUNASKISS
JULIE MILLER, Secretary to the Board of Governors
and Executive Assistant to the President
IRVIN D. REID, Ex Officio

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IRVIN D. REID, President of the University
EUGENE DRIKER, Chairperson of the Board of Governors
RICHARD BERNSTEIN, Vice Chairperson of the Board of Governors
JULIE MILLER, Secretary to the Board of Governors
and Executive Assistant to the President
JOHN L. DAVIS, Vice President, Treasurer
and Chief Financial Officer

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GLORIA HEPPNER, Ph.D., Interim Vice President for Research
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JULIE MILLER, M.A., Secretary to the Board of Governors, and Executive Assistant to the President
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HILARY H. RATNER, Ph.D., Associate Provost and Dean of the Graduate School
BARBARA K. REDMAN, Ph.D., Dean of the College of Nursing
ANDREA ROUMELL DICKSON, J.D., Executive Vice President and Chief of Staff
BEVERLY J. SCHMOLL, Ph.D., Dean of the Eugene Applebaum College of Pharmacy and Health Sciences
HOWARD N. SHAPIRO, Ph.D., Associate Vice President for Undergraduate Programs and General Education
ROBERT L. THOMAS, Ph.D., Dean of the College of Liberal Arts and Sciences
SHARON L. VASQUEZ, M.F.A., Dean of the College of Fine, Performing and Communication Arts
PHYLLIS I. VROOM, Ph.D., Dean of the School of Social Work
PAULA C. WOOD, Ph.D., Dean of the College of Education
FRANK H. WU, J.D., Dean of the Law School
SANDRA G. YEE, Ed.D., Dean of University Libraries and Library and Information Science

University Mission

As an urban research university, our mission is 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.

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 220,000 living alumni. More than 165,789 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.
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.
1974 — The Eugene Applebaum College of Pharmacy and Health Sciences was formed from merger of the College of Pharmacy and the Division of Allied Health Professions, School of Medicine.
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.

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 the heart 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 480.)

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 administrative 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 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 A center (term used inclusively for center or institute) is defined as a college-wide or university-wide academic grouping of individuals that is supported financially, in whole or in part, by the University and is administered as a separate administrative unit with a separate operating budget. A center generally engages in activities that advance the mission of the University and that generally involve more than one of the traditional academic disciplines. In general, a center is either a “University Center” or a “College Center.” A University Center is a center that is engaged in academic activities that involve more than one college (school) and that is subject to the direct administrative supervision of the President or designee. A College Center is a center that is engaged in academic activities that primarily involve one college (school) and that is under the direct administrative supervision of the dean of that college (school). University Centers are established by the Board of Governors on recommendation by the President for the purpose of conducting college- or university-wide interdisciplinary teaching, research and service activities. The principal centers, both University and college, are:

Bioengineering Center
Center for Arts and Public Policy
Center for Automotive Research
Center for Chicanx-Boricua Studies
Center for Health Research
Center for Molecular Medicine and Genetics
Center for Peace and Conflict Studies
Center for the Study of Citizenship
Center for Urban Studies
Center to Advance Palliative-Care Excellence
Cohn-Haddow Center for Judaic Studies
C. S. Mott Center for Human Growth and Development
Developmental Disabilities Institute
Douglas A. Fraser Center for Workplace Issues
Humanities Center
Institute for Information Technology and Culture
Institute for Learning and Performance Improvement
Institute for Manufacturing Research
Institute for Organizational and Industrial Competitiveness
Institute of Environmental Health Sciences
Institute of Gerontology
Labor Studies Center
Ligon Research Center for Vision
Institute of Mental Health
Manufacturing Information Systems Center
Merrill-Palmer Institute and Skillman Center for Children

Extension Services and Non-Credit Offerings
The Division of Metropolitan Programs and Summer Sessions provides extension services for the off-campus credit programs of the Colleges and Schools, as well as University-wide Spring/Summer sessions. Since the University does not have a separate evening program, the Colleges, Schools and instructional divisions have comprehensive responsibility for degrees and degree programs whenever they are offered. For further information, see page 54.

Non-credit courses, seminars and programs are offered primarily through the Professional Development Division, the Division of Metropolitan Programs and Summer Sessions, the McGregor Memorial Conference Center, and the various schools, colleges, centers and institutes.

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)


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)

Vocational Rehabilitation Counseling (graduate only): Council on Rehabilitation Education, Inc. (CORE)

Physical Education Programs: Michigan Department of Education

ENGINEERING

Division of Engineering (undergraduate): B.S. degrees 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 and Technology (undergraduate):
B.S. degrees 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

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
American 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
(NASPA)
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
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)
Midwifery Program Pre-accreditation: American College of Nurse
Midwives (ACNM)
Advanced Practice Nursing with Women, Neonates & Children:
Pediatric Nursing Certification Board

EUGENE APPLEBAUM COLLEGE OF
PHARMACY AND HEALTH SCIENCES
Clinical Laboratory Science: National Accrediting Agency for
Clinical Laboratory Sciences (NAACLS)
Cytotechnology: 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 Anesthetists
(Council on Accreditation of Nurse Anesthesia
Educational Programs)
Occupational Therapy: American Council on Occupational
Therapy Education (ACOTE)
Pathologists’ Assistant Program: National Accrediting Agency
for Clinical Laboratory Sciences (NAACLS)
Pharmacy: American Council on Pharmaceutical Education
(ACPE)
Physical Therapy: American Physical Therapy Association (APTA)
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)

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 opportuni-
ties, educational programs and related activities.

This policy embraces all persons regardless of race, gender, color,
national origin, religion, age, sexual orientation, marital status or dis-
ability. It expressly forbids discrimination, sexual harassment or any
form of harassment in hiring, terms of employment, tenure, promo-
tion, placement and discharge of employees, admission, training and
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 or being a party to a com-
plaint of discrimination.

Wayne State University complies with the 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 Rehabilita-
tion 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 poli-
cies or complaints may be made to Equal Opportunity, Policy Devel-
opment and Analysis, 3660 Academic/Administration Building,
Wayne State University, Detroit Michigan 48202; Telephone 313-577-
2280 or http://www.deo.wayne.edu.

Non-Discrimination for the Handicapped
In accordance with federal requirements of the Rehabilitation Act of
1973, there shall be no discrimination on the basis of handicap in
Wayne State University’s programs, operations and activities, in the
hiring, terms and conditions or privileges of employment or any mat-
ter directly or indirectly related to such employment, or in the admis-
sion, education and treatment of students. (See page 46 for
accessibility 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 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 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 objects 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 or carried out on University property. Any individual who has obtained a personal protection order that identifies the workplace as a protected area should notify Public Safety.
Academic Programs and Degrees
— Symbols and Abbreviations

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.

Degree Categories (Columns)

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

Degree Abbreviations

Au.D. . . . . . . Doctor of Audiology
B.A. . . . . . . . . Bachelor of Arts
B.A.S. . . . . . . Bachelor of Applied Studies
B.F.A. . . . . . . Bachelor of Fine Arts
B.H.S. . . . . . . Bachelor of Health Science
B.I.S. . . . . . . Bachelor of Interdisciplinary Studies
B.Mus. . . . . . . Bachelor of Music
B.P.A. . . . . . . Bachelor of Public Affairs
B.S. . . . . . . . . Bachelor of Science
B.S.C.T. . . . . Bachelor of Science in Computer Technology
B.S.E.T. . . . . Bachelor of Science in Engineering Technology
B.S.M.F.T. . . Bachelor of Science in Manufacturing Engineering Technology
B.S.N. . . . . . . Bachelor of Science in Nursing
B.S.W. . . . . . . Bachelor of Social Work
B.T.I.S. . . . . Bachelor of Technical & Interdisciplinary Studies
D.P.T. . . . . . . Doctor of Physical Therapy
Ed.D. . . . . . . Doctor of Education
E.S.C. . . . . . . Education Specialist Certificate
G.C. . . . . . . . . Graduate Certificate
J.D. . . . . . . . . Juris Doctor
LL.M. . . . . . . Master of Laws
M.A. . . . . . . . . Master of Arts
M.A.D.R. . . . . Master of Arts in Dispute Resolution
M.A.I.R. . . . . Master of Arts in Industrial Relations
M.A.T. . . . . . . Master of Arts in Teaching
M.B.A. . . . . . . Master of Business Administration
M.D. . . . . . . . . Doctor of Medicine
M.Ed. . . . . . . Master of Education
M.F.A. . . . . . . Master of Fine Arts
M.I.S. . . . . . . Master of Interdisciplinary Studies
M.L.I.S. . . . . Master of Library and Information Science
M.Mus. . . . . . . Master of Music
M.O.T. . . . . . . Master of Occupational Therapy
M.P.A. . . . . . . Master of Public Administration
M.P.H. . . . . . . Master of Public Health
M.S. . . . . . . . . Master of Science
M.S.E.T. . . . . Master of Science in Engineering Technology
M.S.N. . . . . . . Master of Science in Nursing
M.S.W. . . . . . . Master of Social Work
M.U.P. . . . . . . Master of Urban Planning
P.B.C. . . . . . . Post-Baccalaureate Certificate
Pharm.D. . . . . Doctor of Pharmacy
Ph.D. . . . . . . Doctor of Philosophy
P.M.G.C. . . . . Post Master’s Graduate Certificate
S.C.P. . . . . . . Specialist Certificate Program
S.P.L. . . . . . . Specialist in Library and Information Science
T.C. . . . . . . . . Teaching Certificate

Foreword 11
## Academic Programs and Degrees

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

### School/College and Major

<table>
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<tr>
<th>School/College and Major</th>
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Basic Medical Sciences ................................................................. M.S.
Biochemistry and Molecular Biology ........................................... M.S.  Ph.D.
Cancer Biology ............................................................................... M.S.  Ph.D.
Cellular and Clinical Neurobiology ................................................ Ph.D.
Genetic Counseling ........................................................................ M.S.  Ph.D.
Immunology and Microbiology ...................................................... M.S.  Ph.D.
Medical Physics ............................................................................ Ph.D.
Medical Research ........................................................................... M.S.
Medicine .......................................................................................... M.D.  Ph.D./M.D.
Pathology ........................................................................................... Ph.D.
Pharmacology ................................................................................... M.S.
Physiology ........................................................................................ Ph.D.
Psychiatry and Behavioral Neurosciences ........................................ M.S.
Public Health .................................................................................... M.P.H.
Public Health Practice ...................................................................... G.C.
Radiological Physics ......................................................................... G.C.
Radiology, Pediatric ........................................................................ Ph.D.

COLLEGE OF NURSING
Adult Acute Care Nursing ................................................................ M.S.N.
Adult Primary Care Nursing ............................................................ M.S.N.
Advanced Practice Nursing: Women, Neonates, Children ............... M.S.N.
Community Health Nursing ............................................................. M.S.N.
Nurse Midwifery .............................................................................. G.C.
Nursing ............................................................................................ B.S.N.  Ph.D.
Nursing Education ........................................................................... G.C.
Psychiatric Mental Health Nurse Practitioner ................................. G.C.  M.S.N.
Transcultural Nursing ...................................................................... G.C.

EUGENE APPLEBAUM COLLEGE OF PHARMACY AND HEALTH SCIENCES
Analytical Toxicology ....................................................................... G.C.
Anesthesia, Pediatric ......................................................................... M.S.
Anesthesia, Pediatric ......................................................................... P.M.G.C.
Clinical Laboratory Science ............................................................. B.S.  P.B.C.
Environmental Health & Hazardous Material Control ...................... G.C.
Forensic Investigation ....................................................................... P.B.C.
Health Science .................................................................................... B.S.H.S.
Industrial Toxicology ......................................................................... P.M.G.C.
Mortuary Science ............................................................................... B.S.
Occupational and Environmental Health Sciences ........................... M.S.
Occupational Safety .......................................................................... G.C.
Occupational Therapy ....................................................................... M.S., M.O.T.
Pathologists' Assistant .................................................................. B.S.
Pharmaceutical Sciences ................................................................... M.S.  Pharm.D.
Pharmacy ............................................................................................ B.S.
Physical Therapy ............................................................................... P.B.C.
Physician Assistant Studies ............................................................. M.S.
Public Health ..................................................................................... M.P.H.
Radiation Therapy Technology ......................................................... B.S.
Radiologic Technology ...................................................................... B.S.

SCHOOL OF SOCIAL WORK
Disabilities ....................................................................................... G.C.
Social Work ....................................................................................... B.S.W.  M.S.W.  Ph.D.
Social Work Practice with Families and Couples .............................. G.C.
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 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.

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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) Not more than sixty-four credits transferred from a two-year institution may be applied toward graduation.

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 first day of classes for the term in which the students expect 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.
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.

A new program for general education was recommended by the Provost and Senior Vice President for Academic Affairs, approved by the Academic Senate, and adopted by the Board of Governors in March of 2005. The General Education Requirements for students matriculating or graduating under the 2007-2009 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/Analytical 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.

NATURAL SCIENCE
- Physical Science
- Life Science

HUMANITIES
- Visual and Performing Arts
- Philosophy and Letters

SOCIETY AND INSTITUTIONS
- Social Science
- American Society and Institutions
- Historical Studies
- Foreign Culture

Exposure Areas

Learning Objectives: Exposure Areas will enable students to acquire broad-based understanding of topical issues of importance to contemporary American society.
- Cultural Diversity
- Ethical Inquiry
- Science, Technology, and Society

All curricula at the University include some common elements in general education and other requirements that are specific to particular majors, minors, and cognates as determined by the individual Colleges and Schools. In addition, many programs provide students with opportunities to choose elective courses to suit their interests and needs. University-wide General Education Requirements apply to all undergraduate students seeking baccalaureate degrees from Wayne State University, irrespective of the College or School in which they may be enrolled. Since the various Colleges and Schools may have additional programmatic requirements and/or specify particular courses which their students must select to fulfill their general education requirements, it is essential that all students work with their academic program advisors in selecting courses. Students should consult the College and School curricula listed elsewhere in this bulletin concerning all curriculum-specific General Education Requirements. Information is available in the Bulletin, on-line, and in College and School offices. It is ultimately the responsibility of the student to use the resources available and satisfy all University, College/School and program requirements.

In the following program description, only those courses which are in effect as of the date of publication of this bulletin are cited as satisfying General Education Requirements. As courses are under continuing review by the General Education Oversight Committee, students and advisors should consult the University Bulletin website at http://www.bulletins.wayne.edu for the most current information.

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, Group Requirements, and Exposure Areas 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
(CD) — Cultural Diversity Exposure
(CL) — Basic Computer Literacy Competency
(CT) — Critical and Analytical Thinking
(EI) — Ethical Issues and Society Exposure
(EP) — English Proficiency
(FC) — Foreign Culture
(HS) — Historical Studies
(IC) — Intermediate Composition Competency
(LS) — Life Sciences Competency
(MC) — Mathematics Competency
(OC) — Oral Communication Competency
(PL) — Philosophy and Letters Competency
(PS) — Physical Sciences
(SS) — Social Sciences Requirement
(ST) — Science, Technology and Society Exposure
(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 com-
pletion 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, Group, or Exposure Area 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 or Exposure Area Requirements.

**Written Communication (BC, IC, EP, 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 reflect the important notion of "writing across the curriculum." This requirement contains the following four 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; earning advanced placement credit for basic composition; or, passing a prescribed placement examination.

All students must demonstrate competence in basic composition by:

- a) Completing successfully an approved course in basic composition: ENG 1020, 1050; ISP 1510 (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 taken 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. Courses currently approved for intermediate composition are: AFS 2390; ENG 2050, 2100, 2110, 2120, 2210, 2310, 2390, 2570, 3010, 3050; HUM 2000; I H 210; ISP 3510, 4991. (Students should consult College/School listing for the specific requirement in their curriculum.)

**English Proficiency Requirement (EP):** All students must demonstrate proficiency in composition prior to completion of seventy-five credits by passing the Wayne State University English Proficiency Examination. Students posting an unsatisfactory score on this proficiency examination must satisfactorily pass the prescribed English course (currently ENG 1080).

**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. (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 college careers, to manage their personal finances, and to understand mathematical elements relevant to public issues.

**Oral Communication (OC)**

Educated persons should be comfortable in situations which require them to make oral presentations, 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 determined by satisfactory completion of a designated basic speech course, or by demonstrating equivalency by:

- a) Completing successfully an approved course in oral communication: COM 1010; ENG 3060; ISP 1560 (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 com-
mand fundamental skills to perform simple online data retrieval and manipulative operations. (2) Advanced proficiency is relevant to the major field of study, and involves developing the skills and knowledge necessary to use computers effectively in ways appropriate to the discipline.

**Basic Computer Competency (CL):** Prior to the completion of thirty credits at Wayne State University, the basic requirement may be achieved through one of the following three options:

a) Successfully completing a basic computer competency course such as B E 1200; COM 3210; CSC 1000, 1050, 1100, 1140, 1500, 2110, or any higher-level CSC course; IST 2710; MED 5590; MUA 5610; NUR 1110 (students should consult College/School listing for the specific requirement in their curriculum); OR

b) Passing the basic computer competency examination; OR

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

**Advanced Computer Proficiency:** Prior to graduation, all students must demonstrate that they have developed the ability to critically evaluate electronic resources in their major subject and to use effectively discipline-major/program-specific hardware, software, and scholarly electronic resources. All programs have been reviewed by the General Education Oversight Committee to insure that advanced computer proficiency has been integrated appropriately into their curriculum. Consequently, all students completing the degree requirements for their major will have achieved the necessary advanced proficiency.

**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 determined by passing a prescribed test on critical thinking, or by satisfactory completion of a designated course or its equivalent.

a) Completing successfully an approved course in critical thinking: B A 1010; COM 2110; ISP 3260; 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 areas outside their fields of special interest 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 elect no more than TWO courses from a single subject area as defined by the University system of Subject Area Codes. (Subject Area Codes are the letter-prefixes to course numbers.) Majors in the Interdisciplinary Studies program are exempt from this limitation and may take more than two courses in the Subject Area Codes of I H, ISP, IST and ISS to satisfy Group Requirements. This exemption also applies to courses coded AFS for Africana Studies majors; to 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.

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; IST 2420*; PHY 1020*, 1040, 1070, 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; IST 2310; 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 the means by which knowledge about the past is acquired. Such 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; COM 2010, 2020; DNC 2000, 2310; ENG 2450, 2460; HON 4240; HUM 1010, 1020, 1030; I H 2730, 3730; MUH 1340, 1350, 1370; SLA 3710; SLP 1500; THR 1010, 1030. 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; COM 2160; ENG 2200, 2500, 2720, 3110, 3120, 3140; FRE 2700; GER 2310, 2700, 2991; HON 2100, 4200; HUM 2100, 2200; I H 2710, 3710; ITA 2700; LIN 2720; PHI 1010, 1020, 1030, 1040, 1100, 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; HIS 1000, 1300, 1400, 1600, 1610, 1800, 1810, 1995; HON 4250; I H 3810; ISP 3160; N E 2030, 2040. (Students should consult College/School listing for the specific requirement in their curriculum.)

**Social Science (AI, SS):** Studying the social sciences assures that students are introduced to several bodies of knowledge which shed light on contemporary social problems and are exposed to theories
and 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. All courses which satisfy the requirements in social science must introduce the methodology of modern, empirical social science.

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

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; ISP 3420; ISS 1510; 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; ISP 3480; ISS 2710; P S 1000, 2000, 2240; PSY 1500; 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; ARM 3410, 4750; CBS 2410, 2420; DNC 2400; ENG 2670; FRE 2710, 2720; GER 2710, 2720, 3410; GPH 2700; GRK 3710; HIS 2440, 2700; HON 4260; ISP 3600, 3610, 3620; ITA 2710, 2720; JPN 4550, 4560; N E 2000, 3550; NUR 4800; POL 2710, 3410; P S 2700; RUS 2710, 3410; SLA 3410; UKR 3410; or 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.)

Exposure Areas

Exposure areas provide students with broad-based understanding of topical areas of societal importance that a college educated individual should have. No more than TWO courses may be elected from a single subject area as defined by the University system of Subject Area Codes. (Subject Area Codes are the letter-prefixes to course numbers.) Prior to graduation, one course in each of the following exposure areas is required.

Cultural Diversity (CD): An important aspect of a college education is to develop and promote awareness and appreciation of diversity of the human experience. Courses providing this exposure examine the cultural, social, aesthetic, historical, or scientific contributions of diverse groups and their impact on culture. To meet this objective, all undergraduate students at Wayne State University are required to successfully complete a course from a list of approved options which may be found on the University Bulletin site at http://www.bulletins.wayne.edu.

Ethical Issues in Society (EI): As part of the undergraduate educational experience at Wayne State University, all undergraduate students should acquire the skills to identify ethical issues in various situations. Courses providing this exposure will explore ethical and moral questions in various venues and contexts. Students are required to successfully complete one course selected from an approved list of options which may be found on the University Bulletin site at http://www.bulletins.wayne.edu.

Science, Technology, and Society (ST): The needs of society have often shaped and directed the development of scientific and technological advances, resulting in profound changes in our daily lives and in the foundation of society. These courses will assist students in understanding the interplay that occurs among social, scientific, and technological advances and in becoming aware of the contemporary issues surrounding the development and application of science and technology. Students will develop an understanding of how society has influenced the direction of scientific discovery and how scientific advances have altered the development and structure of society. To meet this objective, all undergraduate students at Wayne State University are required to successfully complete a course from a list of approved options which may be found on the University Bulletin site at http://www.bulletins.wayne.edu.

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 in the University Honors Program: a University-wide Honors Curriculum; and a College or Department Honors Curriculum.

Dual Recognition: Students who complete the requirements of both the University-wide Honors Program 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.

For information in addition to the summaries provided below, students should contact the Director of the Honors Programs, who is responsible for overall administration of the University's honors curricula, or their program advisor, about College or Departmental programs.

University-wide Honors Curriculum

The University-wide Honors Program allows undergraduate students in any college or school to pursue individually-designed Honors Programs which complement their majors. Students may pursue the University-wide Honors Curriculum only, or a College/Departmental Honors curricula in conjunction with the University-wide Honors Curriculum.

Admission: Students with excellent academic records are eligible to apply to the University's Honors Program. 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 freshmen 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 admission to the Honors Program.
Matriculated Students: Students who have a cumulative grade point average of 3.3 or above at Wayne State University for twenty-four successive credits, and who have satisfied the English Proficiency and Mathematics Competency Requirements, may apply for admission to the Honors Program.

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 program. 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. No more than half of the total required credits of honors work may be transferred from another institution.

Program Requirements: The program requires honors-designated course work to constitute at least twenty per cent of the required credits for the baccalaureate program the student is pursuing. In no case may the Honors credits be less than twenty-four credits. Students in this program must satisfy the General Education Requirements (see page 17), but the approved General Education courses may, with prior approval, differ for the Honors Program. The Honors Advisor shall develop with the student an individual program of study which must be approved by the College in which the student is enrolled. Students must complete a minimum of sixty credits in residence at Wayne State University.

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

a) to pursue a course of study consistent with the objectives of the Honors Program, 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 Program, may reapply when his/her cumulative g.p.a. is 3.3 or higher.

Graduation: For graduation, students must have a minimum cumulative grade point average of 3.3, and 3.3 in Honors course work, and must complete a minimum of twenty per cent of their degree credits (but no less than twenty-four credits) in honors-designated courses k (including credits in an independent research project, essay or thesis) with a minimum cumulative grade point average of 3.3 for University Honors. Students must complete a minimum of sixty credits in residence at Wayne State University. Graduates of the University-wide Honors Program will be so recognized on the transcript and diploma.

College or Department Honors Curricula

Undergraduate programs in Colleges and Schools have developed programs leading to honors degrees. College or Department Honors 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 usually require no more than 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 have a minimum grade point average of 3.3; but College or Department Honors Programs may establish a higher g.p.a. Normally, the grade point average of honors graduates should be among the top twenty-five per cent of the seniors in a particular College.

Graduation with Distinction

Wayne State University bestowed 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.)
Admission is assured if the cumulative high school grade point average is between 2.00 and 2.74, providing 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 assured if the cumulative high school grade point average is 2.75 (B-minus) or above; and 2) admission is granted 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: Project 350, Chicano-Boricua Studies, Division of Community Education, and Interdisciplinary Studies have programs for which special admission criteria apply. Contact the Office of Undergraduate Admissions for information. See also descriptive information under the headings of Project 350 (page 48), Chicano-Boricua Studies (page 282), Division of Community Education (page 47), and Interdisciplinary Studies (page 333) in this bulletin.

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 less 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.

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 will transfer; however, many major departments will require a 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 Course Work Graded ‘D’: Wayne State University will accept for transfer credit course work carrying the grade of ‘D,’ provided the cumulative grade point average earned by the transfer student meets admission standards. (Acceptance of transfer credit carrying the grade of ‘D’ in fulfillment of major program requirements will follow the current policy governing acceptance of ‘D’ grade credits earned by native students.) No transfer grades apply in computing Wayne State grade point averages.

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-five 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 17) 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 17). 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 36.
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 67; Engineering — page 132; Engineering Technology — page 164; Fine, Performing and Communication Arts — page 184; Nursing — page 413; Pharmacy and Health Sciences — page 426; Social Work — page 465.

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 non-refundable 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 52. For information on international student admission to the Graduate School, see the Wayne State University Graduate Bulletin and page 28 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 strongly recommended that students who left in good standing report to the College of their choice for any special instructions regarding their return to classes. Students should obtain a copy of their records before meeting with advisors.

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. 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. Participants in this program pay tuition and fees at the home institution and receive credit for course(s) only at the home institution. Interested students should consult the University Advising Center.

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 17) 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.

Presidential/Wayne State Scholarship Program (Competitive)

1. FRESHMEN
a) The Freshman Presidential Scholarship consists of full tuition for four years of full-time attendance. Candidates are selected based on academic ability.

b) The Freshman Wayne State Scholarship consists of tuition support of $6,000 ($1,500 per year for four years). Candidates are selected on the basis of academic achievement late in January from the admitted pool of students.

2. COMMUNITY COLLEGE TRANSFERS
a) The Community College Presidential Scholarship consists of full tuition for two years of attendance. Candidates are chosen for their academic ability at a community college.

b) The Community College Wayne State Scholarship consists of tuition support of $3,000 ($1,500 per year for two years). Candidates are chosen for their academic ability at a community college.
New Student Orientation

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

Graduate School Admission

Office of Graduate Admissions
4th Floor, Welcome Center, 42 W. Warren Avenue, PO Box 2759, Detroit MI 48202
Telephone: 313-577-3577; Fax: 313-577-0321
E-mail: gradadmissions@wayne.edu
Website: http://www.gradadmissions.wayne.edu

Following are the rules and regulations governing admission to the Wayne State University Graduate School. For information on all degrees and programs, consult the Wayne State University Graduate Bulletin.

Regular Graduate Admission

To be considered for graduate admission, an applicant must hold or be completing 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.

A completed Application for Graduate Admission form, the graduate application fee ($50.00) and an official transcript from each college or university attended are required before any student can be considered for admission to graduate study. 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 Admissions, 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 the Graduate Bulletin for variants), a regular admission may be authorized for the master's degree applicant upon the Department's recommendation, if the applicant's grade point average is 2.6 ('C'=2) 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 Mich-
igan 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 2.25 and 2.6 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, in writing, 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 Admissions 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 Admissions 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 assured a decision 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 Admissions Office 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 Admissions 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. 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 the student 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. PRE-MASTER’S: A student with an acceptable grade point average and an earned bachelor's degree from an accredited institution may apply for this rank.

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

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

Graduate Guest Admission: Graduate students from 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 Office of Graduate Admissions or their 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 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 form is required, and students are advised to consult their advisors and the Office of Graduate Admissions. 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 additionally 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 granted to applicants with incomplete applications for graduate admission, upon presentation of evidence of an earned baccalaureate degree with an acceptable grade point average. 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 Admissions.

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 Admissions 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

Accelerated Graduate Enrollment: 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 52.

Students from other countries must contact the Office of Graduate Admissions 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).

28 General Information
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 Admissions.

Tuition and Fees

Listed below are the Tuition and Fees per semester in effect at the time of publication of this Bulletin. 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. The most current information is available on our website at: http://www.classschedule.wayne.edu

Undergraduate Tuition and Fees

Freshmen and Sophomores:

- **Resident**: Registration Fee plus $200.40 per credit.
- **Non-Resident**: Registration Fee plus $459.00 per credit.

Juniors, Seniors and Post-Bachelors:

- **Resident**: Registration Fee plus $236.30 per credit.
- **Non-Resident**: Registration Fee plus $543.30 per credit.

Student Fees

**Omnibus Fee:** Undergraduate students are assessed a $16.75 fee per credit. Graduate, Law School, and Pharmacy and Health Sciences students are assessed a $25.20 fee per credit per term. M.D. students are assessed a flat $501.60 fee per year. 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 Fee:** Students newly enrolled as of the Fall Term 2003 and thereafter are assessed a $25.00 Fitness Center Fee for each term of enrollment. Beginning in 2007 all students will be charged this fee. 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 invited to submit additional material (secondary application), must pay a non-refundable fee of $30.00 for the processing of the secondary application.

**Registration Fee:** There is a $123.50 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 in 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](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.

**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.

**Certificate Fee:** There is a $40.00 non-refundable fee for students who apply for a certificate.

**Transcript Fees:** Transcripts are issued free-of-charge, up to ten copies. 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 picked up or mailed out the same day as requested.

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

**Bowling Fee:** Students electing a course in bowling must pay a bowling lane rental fee. This fee is paid at the first meeting of the class and is not refundable.

**Payment of Tuition and Fees**

**Checks, Money Orders, and Cash:** Wayne State University accepts personal and certified checks, money orders, and cash as payment for tuition and fees. Payment can be mailed; however, DO NOT MAIL CASH. Checks or money orders should be made payable to Wayne State University. Student’s name and AccessID number should be written on the check or money order. Fee-free ACH payments are also accepted. Returned checks are subject to collection fees.

**Credit Cards and Other Payment Options:** For students wishing to pay by credit card, this form of payment is accepted and processed on behalf of the University by a third party processor, CASHNET SmartPay. CASHNET SmartPay will assess a convenience fee on all credit card payments. Specific information about this convenient and optional service and about ACH and other fee-free, web-based options is available by clicking Current Students and then Online Tuition Payment, on the WSU Website. Telephone payments are accepted at: 1-866-520-7786.

**Other Payment Options:**

- **Installment Payment Plans:** Wayne State University offers interest free installment plans for the semester or on an annual basis through two companies:
  - Academic Management Services (AMS)
    - 1-866-884-8466
    - www.tuitionpay.com
  - Tuition Management Systems (TMS)
    - 1-800-722-4867
    - www.afford.com

**Delinquent Prior Term Balances:** Students who register for classes owing a prior term balance are subject to course cancellation if payment if full is not received by the last day of the term for which the balance is due. Personal checks will not be accepted for prior term balances. Payment must be made by cash, certified check, or money order.

Students who do not officially drop their courses within 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 Schedule of Classes Website at: [http://www.classschedule.wayne.edu](http://www.classschedule.wayne.edu) for tuition and fee deadline dates applicable to a particular term.

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 must be paid in advance 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.

**Sponsored Tuition Programs:** If an employer participates in direct tuition billing as part of an employee benefits program, the student should contact the Student Accounts Receivable Office for information: 313-577-6837.

**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-advice 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 (or an authorized representative in the case of death or serious illness) 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. Student grades may be recorded but are not considered as being earned nor is a degree earned until the student has satisfied all unpaid tuition as well as money borrowed from student loan programs.

**Tuition Cancellation**

Tuition, not including the non-refundable Registration Fee, may be canceled in accordance with the following schedule when students officially drop the classes by the Web, 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 to drop a course or courses sent through the U.S. Postal Service shall be considered effective by the U. S. Postal Service postal cancellation date, provided the date is legible. If the postal cancellation is dated Saturday or Sunday, it will be accepted as of the preceding Friday. The Registration Fee will be refunded when students officially withdraw from 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 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.

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 the 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 the 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 the 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 the 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 the 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 purposes.

— Regulations

1. No student is eligible for residence classification unless (s)he or, if (s)he is a minor, the person from whom (s)he derives residence (pur-suant to paragraph six below), meets the qualifications prescribed herein for residence and has lived in this state continuously for at least six months immediately prior to the first day of classes of the term for which resident classification is being sought, save for temporary absences as defined in paragraph two below.

2. For the purposes of these regulations, the terms ‘residence’ and ‘domicile’ are synonymous. 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 principal establishment and to which, whenever (s)he is temporarily absent, (s)he has the intention of returning. Full-time attendance at school outside Michigan and initial enlistment in a military service are examples of temporary absences. Other absences for more than six months will be presumed to be non-temporary. The fact of physical presence at the dwelling-place and the intention to make it a home must concur and the intention must be to make a home in fact in a certain place, and not an intention to acquire a domicile in order to obtain the benefit of the legal consequences of having a domicile there. A person may have but one domicile at a time, and a domicile, once established, continues until it is superseded by a new domicile.

3. Normally, the sojourn in this state of a student from another state for the primary purpose of attending school is not residence and 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 his or her previous domicile has been abandoned and a new one established. 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.

4. 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 therein while absent; economic or 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.

5. 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; or continued presence in Michigan during vacation periods.

6. For purposes of these regulations, the age of majority is 18 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.

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7. 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.

8. 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 residency status as if (s)he were of majority age.

9. An alien student may apply for resident status under one or more of the following regulations in the same manner as a citizen, if he/she is in the United States for other than a temporary purpose. In order to demonstrate that he/she is here for other than a temporary purpose, the alien student must be either a permanent resident alien with an I-151 or I-551 Alien Receipt Card or an applicant for adjustment to permanent resident alien status whose application has been approved by the Immigration and Naturalization Service; OR an alien with a G-4 visa; OR an alien with an I-94 Arrival-Departure Record Card, endorsed either ‘refugee’ or ‘applicant for adjustment’; OR an alien with documentation from the Immigration and Naturalization Service that he/she has been granted asylum in the United States; OR an alien with other documentation from the Immigration and Naturalization Service that reflects status equivalent to one of the above denominated categories.

— Review Procedures

1. Initial Classification and Appeal

(a) Registering under proper residence and advising the Office of Admissions of changes in circumstances which might affect residency classification is the responsibility of the student. Questions concerning a student's residency should be raised initially with the Office of Admissions.

(b) A student may challenge the initial classification by filing an Application for Residence Classification with the Registration and Scheduling Office, where such forms are available. Except for delays caused by University personnel, Applications for Residence Classification must be filed within the term for which resident classification is claimed.

(c) A student may appeal from the administrative classification by filing a written notice of appeal with the Registrar's Office within sixty calendar days after the student is notified of the administrative classification. 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 calendar days shall constitute a waiver of the right to appeal from the administrative classification.

(d) The Office of the General Counsel shall review the appeal and render a decision. A student may appeal an adverse decision by filing a written notice of appeal with the Office of the General Counsel within fifteen calendar days from the date of the decision. Failure to file a written notice of appeal with the Office of the General Counsel shall constitute a waiver of the right to appeal to the President or his designee. While the student has the right to consult the University Ombudsperson at any time, the student may particularly want to utilize the Ombudsperson's services at this point in the review procedure.

(e) After a student appeal, the President or his designee shall review the student's appeal on the record and render a final decision.

(f) If an erroneous classification has occurred, a refund for the appropriate period and amount will be made.

2. Reclassification and Appeal

(a) A student, having been initially classified as a non-resident and having decided that (s)he has since become a resident may initiate action in the same manner as for challenging an initial classification pursuant to 1(b) above.

(b) If the petitioner is dissatisfied with the finding of the Registrar's Office, (s)he may appeal to the Office of the General Counsel in the same manner as prescribed for appeals from administrative classification as in 1(c) above.

3. Erroneous Classification

If any student having been classified as a resident student shall be determined to have been erroneously so classified, (s)he shall be reclassified as a non-resident student, and 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 fees which would have been charged except for such erroneous classification and shall be subject also to appropriate discipline in accordance with University 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. Classification Date

These procedures became effective November 9, 1979.
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.financialaid.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 Enrollment Services 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. Appointments with Financial Aid Administrators can be scheduled by phone or at the website (see above). June through August, appointments and walk-in services end at 5:00 p.m. Monday through Friday.

Application Deadlines

To apply for need-based grants, loans, and work-study, complete the FAFSA. After January 1, apply online at www.fafsa.ed.gov or obtain a paper FAFSA from high school guidance counselors, public libraries, or OSFA.

To apply for WSU scholarships, complete the online application at http://scholarships.wayne.edu. Note: Some scholarships have need as a criterion, which requires submission of the FAFSA.

Fall/Winter Application Priority Date: The application priority date for financial aid consideration at WSU is March 1 for fall and winter semesters. The priority date is the date by which your FAFSA should be submitted to facilitate determination of your eligibility for financial aid before the beginning of the fall semester. The priority date is not a deadline. You may submit the FAFSA after the priority date.

Spring/Summer Application Priority Date: A spring/summer Loan Consideration Request Form and Work-study Consideration Request Form are required in addition to the FAFSA. In late February, the spring/summer supplemental forms are available on the OSFA Website at www.financialaid.wayne.edu. The priority date for submitting each supplemental form is March 30.

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. The Spring/Summer semester is a separate part of the school year to which the fall and winter semesters belong. Examples: The Spring/Summer semester 2007 is part of the 2006-2007 school year. The Spring/Summer semester 2008 is part of the 2007-2008 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 Application Procedures

Assistance: For assistance in completing the FAFSA (either electronic or paper), 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.

Process: Approximately fourteen to twenty-one business days after filing your paper FAFSA, the federal processor will mail a Student Aid Report (SAR) to you. If you provide an e-mail address on your paper or electronic FAFSA, and if you signed your application, you will receive an e-mail message from the federal processor within one to five business days that contains a secure link to your online SAR.

Paper FAFSA filers who do not receive a SAR within the stated time frame should telephone the Federal Student Aid Information Center at 1-800-4-FED-AID [1-800-433-3243]. FAFSA on the Web filers who do not receive an e-mail message within the stated time frame should return to Section 3 of www.fafsa.ed.gov and select "Check the Status of a Submitted FAFSA."

You are not required to submit your SAR to OSFA. The FAFSA processor will electronically transmit your SAR data to OSFA if you list the WSU federal code, 002329, on your application.

Financial Aid Types

Financial aid at Wayne State University is awarded in the form of a ‘package,’ or combination of aid, and generally consists of four types: 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 you cease to be enrolled on at least a half time basis. Non-need-based loans are available.

Work-Study: Many students work while attending college; at Wayne State, Work-Study is a formal program by which students work for the University (on or off-campus) in jobs funded by the State or Federal Government. Such jobs pay at least the minimum hourly wage and may be taken for as many as twenty hours per week. Since there are more requests for work-study jobs than there are funds available, work-study employment is awarded on a first-come, first-served basis; it is awarded on the basis of financial need as determined from the FAFSA and thus requires formal enrollment. Interested students should consult 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, which is located in Room 1001 of the Faculty/Administration Building, and online at: www.stuaffrs.wayne.edu/StudentEmploymentGuide.ms.pdf/

Purposes of the Student Aid Report (SAR)

The Student Aid Report lists the information reported on the FAFSA. The SAR either will identify the Expected Family Contribution (EFC) or instruct applicants to take additional action, which will allow the EFC to be determined. The EFC is a measure of a family's financial strength, and it is used in determining financial need. It appears as a five-digit number (00000-99999). The SAR also states whether or not the application has been selected for a process called verification, which is explained below.

Verification is 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 FAFSA for verification, the applicant 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.

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NOTE: If an application is selected for verification, the applicant must complete the verification process before eligibility for financial aid can be determined, and therefore, before financial aid can be awarded.

Financial Need
To determine financial need, OSFA subtracts the Expected Family Contribution (EFC) from the average Cost of Attendance (COA) for the student’s program at Wayne State University: COA minus EFC = financial need.

Cost of Attendance (COA)
The cost of attendance (COA), or 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 estimated average on-campus and off-campus COA for the 2006-2007 academic year are:

Off-Campus COA
The average total costs for the 2006-2007 academic year were $18,458 for a Michigan resident undergraduate student enrolled full-time and living off-campus.

| Tuition and Fees:                  | $6,776² |
| Books and Supplies:               | $859    |
| Room and Board:                   | $7,217  |
| Transportation:                   | $1,161  |
| Miscellaneous:                   | $1,995  |
| Total Cost (Budget):              | $18,458 |

On-Campus COA
The average total costs for the 2006-2007 academic year were $18,135 for a Michigan resident undergraduate student enrolled full-time and living on-campus.

| Tuition and Fees:                  | $6,776² |
| Books and Supplies:               | $859    |
| Room and Board:                   | $6,894  |
| Transportation:                   | $1,161  |
| Miscellaneous:                   | $1,995  |
| Total Cost (Budget):              | $18,135 |

Special Circumstances
The Office of Student Financial Aid recognizes that students and their families may have extenuating financial circumstances that the standard need analysis form, the FAFSA, does not consider. You may request a review of extenuating circumstances that you believe affect your financial aid eligibility by submitting a Special Circumstances Appeal Form, which is available on the "Forms" page of the OSFA website: www.financialaid.wayne.edu.

Enrollment Criteria
With the exceptions of the Federal Pell Grant, the Michigan Adult Part-time Grant, and the Indian Tuition Grant, to receive financial aid from OSFA you must enroll at least half time. At the undergraduate level, enrollment for twelve credit hours or more each semester is considered full-time; enrollment for six to eleven credit hours is considered half time. Enrollment must be in a program that leads to a degree or certificate, and you must maintain satisfactory academic progress within the program. The Satisfactory Academic Progress Policy is available online: www.financialaid.wayne.edu/faq_sap.html.

Eligible Program Exceptions (Financial Aid)
A student 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.

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 which is granted with status as a 'Guest Student,' 'Permit to Register,' or admission to the University in the English Language Institute.

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.

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 (see 'Work-Study,' above) 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 Payroll, which authorizes payment of Work-Study earnings.

NOTE: Only half of an academic year (fall and winter) work-study award can be earned each semester; the total amount of a work-study award may not be earned during a single 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. See the Withdrawal and Return of Title IV (Federal) Funds Policy for a detailed explanation of the circumstances for which these federal regulations apply: www.financialaid.wayne.edu/pdf/title_iv_policy.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. Upon withdrawing from all classes, students who are financial aid recipients must notify the Office of Student Financial Aid immediately.
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 sixteen 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

Audit means the registration for and attendance of a course’s meetings without receiving academic credit or a grade or mark. Students must indicate their intent to audit a particular course at the time of registration. Registration to audit a course is subject to the following regulations:

Students who wish to attend classes in audit status must first obtain the necessary approvals on the Register/Add/Closed form. The form must be submitted in person to the department offering the class for approval and then taken to the Registration Office; Web or telephone registration for audited classes is not permitted. Students receive no grades or credits for classes that are audited. The tuition assessment for the course is the same as if it were taken for academic credit. Students are not permitted to take quizzes and examinations in audited courses. Students may not normally change to or from audit status after registering for the course.

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: An undergraduate student in his/her senior year who has a 3.0 or higher upper division g.p.a., and who desires to earn a limited number of graduate credits, may receive in his/her final semester a temporary Senior Rule admission for one semester only to a graduate program. Students who desire this status must file an Application for Graduate Admission and be admitted. A completed Senior Rule/Dual Enrollment Form, distinguishing the courses for graduate and undergraduate credit, must be submitted to Student Records within the first two weeks of classes. For further information, see Senior Rule Admission, page 27.

Dual Enrollment: Graduate students may register for undergraduate courses by requesting Dual Enrollment registration status. Courses elected under this status for graduate credit will be recorded on the graduate transcript, and those elected for undergraduate credit will be recorded on an undergraduate transcript. All courses elected under this status will be assessed at the graduate rate. At the time of registration, the student must ensure that the completed Senior Rule/Dual Enrollment Form is on file in Student Records in the Office of the Registrar.

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 repetition will be included in the student’s grade point average computation.
3. The original grade in the course repeated under this rule 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.

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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 registering to repeat a course, a Repeat Form must be filed in Student Records.

After a degree has been granted, no grade computed in that grade 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

Effective Fall Term 1988, 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;

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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 main-
tain a scholarly atmosphere.

Responsibilities of Students
1. To inform themselves of and to fulfill all requirements of the Univer-
sity 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 keep-
ing 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 pro-
cedures 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
Attendance may form the basis for a portion of a course grade. In
such cases, students must be provided with explicit written informa-
tion 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 permit-
ted 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 activ-
ities. Examples of such activities include formal participation on Uni-
versity 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 atten-
dance policy. At this time, the student should provide the instructor
with a schedule of planned absences, preferably signed by the Uni-
versity 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 incom-
patible 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.

This policy shall be applicable to all courses within the University.

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 expecta-
tions 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 prohib-
ited 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, unau-
thorized 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/codeofcon-
duct.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 Uni-
versity (Faculty) Council, the President-Deans Conference and the
President, the Board of Governors, in January, 1967, 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.

Student Due Process
A high standard of student conduct plays a major role in creating an
environment of excellence, and the Student Due Process Policy is
used to maintain these high standards. The policy 1) establishes the
expectations that students are accountable for their behavior; 2) de-
dcribes acceptable student conduct, both academic and non-acad-
emic; 3) describes disciplinary policies and procedures; 4) specifies
the rights of students and other parties; 5) specifies prohibited con-

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duct and sanctions to be imposed if such conduct occurs. Examples of prohibited conduct subject to the Student Due Process Policy include, but are not limited to: academic dishonesty, knowingly furnishing false information to the University, disorderly behavior, theft, damage of property, illegal drugs, weapons on campus, false report of emergency, unauthorized entry, violation of criminal law, etc.

The University Judicial Officer, housed in the Office of the Vice President for Student Development and Campus Life, 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 Due Process Policy are available from the Office of the Vice President for Student Development and Campus Life, 470 Student Center, or from the Offices of the Deans of each School and College.

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 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 a situation 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

5707 Woodward; Telephone: 313-577-3550, Fax: 313-577-3769
Website: http://sdcl.wayne.edu/registrar/registrarhome

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: Student Records, Registration and Scheduling, and Student Systems Technical Support. Student Records maintains academic and personal student data, grades, transcripts, graduation applications, and diplomas and certifies enrollment, including athletic eligibility. 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. 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

REGISTRATION AND SCHEDULING
313-577-3541; Fax: 313-577-7870

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


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, ‘Registration’ (from the

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Student Records and Registration

Student Services Menu listed on the left; and once inside Registration, follow the prompts on each web page.

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 calling Registration and Scheduling, 313-577-3541.

WSU Pipeline

Website: http://pipeline.wayne.edu

WSU Pipeline is an Internet gateway that provides single signon and secure access to Wayne State information, self-services, and computing systems. This comprehensive Web environment is a one-stop location where WSU students, faculty, and staff can conveniently use online self-services and easily access many computing systems, such as WSU WebMail and the Blackboard Learning System. Using Pipeline, each of these groups also has access to information specific to their roles and helpful tools needed for communication, collaboration, teaching and learning, and University business. Wayne State applicants are able to check admissions status through WSU Pipeline. Current students access Pipeline to 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 orientation or training workshops, and more.

Accessing WSU 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 someone applies for admission or is hired, a unique AccessID is automatically created and made available. Information about looking up an AccessID and finding the initial password needed for full access to WSU computing services and resources is available from the following Website: http://computing.wayne.edu/accessid.

Blackboard Courses on the Web: see page 57.

Drop/Add — Adjusting Your Schedule

Registered students may drop and/or add classes on the date(s) indicated on the Registration Calendar (see: http://sdcl.wayne.edu/RegistrarWeb/Calendars/registration). 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 may drop (not add) courses after the deadline to drop using the Web, by sending a letter to Registration, 5057 Woodward, Fifth Floor, Detroit, MI 48202, or a Fax to 313-577-7870. The effective date of such drops, for tuition cancellation and grading purposes, is determined by the postal cancellation date or Fax date stamp.

4. Students who officially drop 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.

5. 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 included on students' academic records with a mark of 'WP' (Withdrawal Passing), 'WP' (Withdrawal Failing), and 'WN' (Withdrawal Non-Attendance or No Graded Work to Date).

6. Students are not permitted to add courses after the second week of the term.

7. Students are required to officially request withdrawal from an enrolled class on Campus Pipeline. Failure to request withdrawal will result in a failing grade for the class.

8. Students are not permitted to drop courses after the final examination period begins.

9. Classes for which a grade has been earned cannot be dropped.

College of Engineering: Students are not permitted to drop courses after the fifth week of classes without written approval of their advisor. Some departments have more stringent restrictions on dropping 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

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

'IP' — Course in Progress. The mark of ‘IP’ will be reported for current term classes on a student’s transcript when a transcript is generated during that term.

'NR' — No grade reported by the instructor. This mark does not appear on the transcript; it may appear on the grade mailer for a particular term. However, the mark of ‘IP’ will remain on the student’s record until such time as the instructor submits a grade.

'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', 'SNC', 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: The mark of ’I’ 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: 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.

Change of Grade and Mark

Once recorded in the Office of the Registrar, grades/marks will be changed only if an official Change of Grade form, properly completed and signed by the instructor, is submitted to the school or college Grade Coordinator, and is received by Student Records within three semesters (one calendar year) after the end of the term for which the relevant course was originally graded/markred.

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 which the student has 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), ‘WFN’ (Withdrawal Non-Attendance), or ‘WF’ (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. A fee of $20.00 is assessed for each emergency transcript. An emergency transcript is one which is picked up or mailed out the same day it is requested.

Students may request transcripts via Pipeline: http://pipeline.wayne.edu (using their Access ID). A transcript may also be requested by e-mail (using your Access ID) addressed to transcripts@wayne.edu, via postal mail, by faxing your 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 5101, 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 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.

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 that the University not release it, by completing the Release of Directory Information form, available from the Office of the Registrar and on the Office website: http://sccd.wayne.edu/registrar/registrarhome/.

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.

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 fourth 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. 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 must be accompanied by a $40.00 non-refundable graduation fee.

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.

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. 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 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 the Internet (http://lumprod.wayne.edu/cp/home/login/) 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, Shiffman Library, State Hall, The David Adamany Undergraduate Library, University Tower Apartments, Law School Library, Matthaei Building, Ghaafari Hall, Oakland Center, Welcome Center, The Towers Residential Suites and WSU Bookstore.

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Student Success Services

University Advising Center
1600 David Adamany Undergraduate Library; 313-577-2680
Fax: 313-577-5020; Appointments: 313-577-8889;
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 preprofessional 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 curricula are advised on procedures for applying to post-baccalaureate institutions. 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 at the end of fourth 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 Academic Success Center (ASC) is to assist undergraduate students in becoming self-determined, motivated, and independent learners. The ASC provides instruction and services that support students in the development of skills to promote academic excellence and foster student retention.

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 develop a learning fitness plan. 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 vocabulary, reading speed, and comprehension.

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) offers group study 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

Technology Center: This Center has multi-media computers and computer software available to improve students’ reading, writing, and math skills.

Learning Video Library: Individual rooms may be reserved for viewing self-help instructional videos, which cover such topics as time management, test-taking strategies, preparation in mathematics proficiency, and other study skills areas.

Customized 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
Service hours: see Website: http://www.caps.wayne.edu

The goal of the Office of Counseling and Psychological Services (CAPS) is to assist in the development and maintenance of a positive and healthy university community. In order to do this, CAPS provides a variety of psychological services and educational programming that promotes students’ personal well being, i.e., individual counseling, psychotherapy, assessment, group counseling, workshops, and consultation to faculty and staff.

Eligibility: All currently enrolled students are eligible for counseling services. Alumni, children, or spouses are not eligible.
Crisis Services: In the case of an emergency, the student, faculty, or staff member 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 Public Safety Department at 313-577-2222 or call the Wayne County crisis hotline at 313-224-7000.

Career Services
1001 Faculty/Administration Building; 313-577-3390; Fax: 313-577-9943
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, it offers topical workshops, career-related events, and group and individual career/employment counseling. The Office 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 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.

Study Abroad and Global Programs Office
Student Academic Success Services, 5155 Gullen Mall; 1600 DavidAdamany Undergraduate Library; 313-577-3207
Website: http://www.global.wayne.edu and 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) coordination and support of internationally-themed events; and 3) development and coordination 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, faculty, and 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 twenty study abroad programs and other programs sponsored by American and foreign institutions.

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.

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, master’s 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, 1600 David Adanmany Undergraduate Library; 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.

World Bridge
385 Manoogian Hall; 313-577-0807
Website: http://www.worldbridge.wayne.edu/

World Bridge serves as the public affairs and outreach arm of WSU’s international programs. World Bridge builds linkages to and partnerships with international organizations and global businesses and supports the University’s mission of preparing globally-minded students, graduates and business leaders who can readily assume a
leadership role in the world economy. World Bridge also makes available to the global business community the vast research and educational resources of WSU.

Office of International Programs

4099 Faculty/Administration Building; Fax: 313-577-5666

The Office of International Programs (OIP) at Wayne State University is a department within the WSU Office of the Provost which provides services in international education to all students, to all faculty and staff members, and to the Detroit metropolitan community. OIP is comprised of the Office of International Students and Scholars; Study Abroad and Global Programs; World Bridge; the English Language Institute; and the Office of the OIP Executive Director.

Testing, Evaluation, and Research Services

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

Testing and Evaluation Services: 698 Student Center, 313-577-3400: This unit houses the official University testing programs. On the undergraduate level, testing and evaluation services are provided to students for entrance examinations, course credit by examinations via the computer-based College-Level Examination Program, qualifying and placement examinations for course selection, proficiency examinations, and test-out options for the many University General Education Requirements (see below and page 17).

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

This Office now houses Educational Testing Service (ETS), Thomson Prometric Computer-Based Testing (CBT) and internet Based Testing (iBT) for high stakes evaluations at the graduate, professional, and undergraduate levels, examples of which are the Graduate Record Examinations (GRE) General Test, National Board of Professional Teaching Standards (NBPTS), and the Test of English as a Foreign Language (TOEFL).

Course Evaluation Office: 684 Student Center, 313-577-0469: This office coordinates the University-wide Student Evaluation of Teaching (SET) Program, and compiles and distributes individual faculty and departmental level summary reports based on data collected during the evaluation process in both electronic and paper-based formats. This Office welcomes questions and/or suggestions about the evaluation process from students and faculty members.

Placement, Proficiency, and Competency Examinations

CHEMISTRY PLACEMENT EXAMINATION: In general, students enrolling in the following programs should take the Chemistry Placement Exam: Pre-Medicine, Pre-Veterinary Medicine, Pre-Clinical Laboratory Science, Pre-Pharmacy, Pre-Physical Therapy, Biology, Chemistry, Engineering or Science Education. Based on examination scores, the results will place students into one or more of the following courses:

CHM 1040 -- Chemistry Skills and Reasoning: Cr. 4
CHM 1220/1230 -- (PS) General Chemistry I / Lab: Cr. 5
CHM 1225/1230 -- (PS) General Chemistry I / Lab: Cr. 4
(Open only to students in the College of Engineering)
CHM 1410 -- Chemical Principles I: General/Organic Chemistry: Cr. 6

The examination is a forty-item, multiple-choice test based on a one-year high school chemistry course that included a laboratory, and is timed for sixty minutes; total administration time is approximately ninety minutes. A periodic table is provided and a silent, hand-held, non-graphing, non-programmable, non-alphanumeric calculator is permitted but not required. Review material is available at http://www.chem.wayne.edu. This examination may only be taken once per semester.

ENGLISH QUALIFYING EXAMINATION: Several basic courses at Wayne State University (WSU) are taught with the expectation that the student has attained a certain level of comprehension and skill in English usage, mechanics, and rhetorical skills. The American College Test (ACT) score in English is used to evaluate this competency and determine placement in the appropriate WSU Basic Composition course as needed (i.e., ENG 1010 or ENG 1020). An ACT English score of 21 or higher results in placement into ENG 1020. An ACT English score of 20 or below results in placement into ENG 1010. The ACT English score used for this purpose may not be from an exam taken more than two years prior to enrollment in the course.

Any student placing into ENG 1010 via the ACT English score may take the English Qualifying Exam if he/she wishes to attempt placement into ENG 1020. Students who have not taken the ACT, or have ACT scores more than two years old, must take the English Qualifying Exam. Those students who have received transfer credit for WSU ENG 1020, or credit for WSU ENG 1020 through the College Entrance Examination Board (CEEB) Advanced Placement (AP) or CEEB College-Level Examination Program (CLEP), do not need to take the exam.

The English Qualifying Examination is a computer-based impromptu essay, timed for 45 minutes. The total administration time is approximately 90 minutes.

ENGLISH PROFICIENCY EXAMINATION: The English Proficiency Requirement in Composition exists to insure that all students demonstrate a required level of proficiency in: 1) using English as an effective means of written communication; 2) writing with facility at the level of writing demanded by courses throughout the University; 3) supporting statements with specific details or relevant evidence; 4) presenting a recognizable point of view or aim; 5) adapting tone and style to the needs of the audience and to the demands of the occasion; 6) varying sentence structure, length, and style; 7) employing vocabulary appropriate to the subject matter; 8) exercising command over standard written English, especially in spelling, punctuation, inflections, mechanics and diction. The examination administered to evaluate these competencies is a constructive writing exercise in reading composition, critical thinking, and writing response. It is timed for two hours; total test administration time is approximately two hours. It is the policy of Wayne State University that only currently enrolled students, applicants to upper division undergraduate programs, and those planning to apply to graduate programs within the College of Education are eligible to take the WSU English Proficiency Examination.

MATHEMATICS PLACEMENT EXAMINATION is required for placement into the mathematics courses listed below. The examination has two levels, pre-calculus, and calculus. Students having taken three years of college preparatory math, including algebra and basic geometry, should attempt the pre-calculus level, a forty-item multiple-choice test covering arithmetic, algebra, and geometry, timed for eighty minutes. Students having taken four years of college preparatory math, including algebra, geometry, trigonometry, and elementary functions should attempt the calculus level, a fifty-five-item multiple-choice test covering arithmetic, algebra, geometry, trigonometry, and elementary functions, timed for 120 minutes.

Required mathematics courses are determined by specific majors or pre-professional curricula. An academic advisor will be able to assist students in choosing the correct course. Based on examination scores, the results will place students into one or more of the following courses:

MAT 0995 -- (MC) Beginning Algebra: Cr. 3
MAT 0995 -- Intermediate Algebra: Cr. 3
MAT 1000 -- (MC) Mathematics in Today's World: Cr. 3
MAT 1050 -- Algebra with Trigonometry: Cr. 2-7
MAT 1110 -- Mathematics for Elementary School Teachers I: Cr. 3
MAT 1120 -- Mathematics for Elementary School Teachers II: Cr. 3
MAT 1500 -- Finite Mathematics for the Social and Management Sciences: Cr. 3
MAT 1800 -- Elementary Functions: Cr. 4
MAT 2010 -- Calculus I: Cr. 4

For students who have taken the American College Test (ACT) within twenty-four months of the date they take the WSU examination, it is possible that their ACT Mathematics score, in combination with their placement examination score, may qualify them for a mathematics course for which the placement examination score alone is insufficient. Such students should bring their ACT score in Mathematics to the examination session. No aids (e.g., a calculator) are permitted. Total administration time is approximately two hours. Review material is available at http://www.math.wayne.edu.

MATHEMATICS COMPETENCY (MC) REQUIREMENT: All educated individuals should possess a basic mastery of mathematical skills in order to cope with academic subjects in which mathematical formulations form an integral part of the subject matter, deal with mathematical manipulations which might be required in their careers, manage their personal finances, and understand mathematical elements relevant to public issues. In the following paragraphs (A-D), requirements are stated based on students’ years of matriculation.

A. Students enrolled for the first time at Wayne State University beginning Fall Semester 1990 through Spring/Summer Semester 2005 must establish competency prior to the completion of thirty credits by one of the following methods:
1. Achieve an acceptable test score on the quantitative or mathematics section of one of the following tests: CEEB-AP, or CEEB-CLEP. (Go to http://www.transfercredit.wayne.edu/tests.php for specific information related to curricular course equivalencies.)
2. Transfer credit for successful completion of a course which is equivalent to WSU MAT 1800 or MAT 2010 or higher, taken at another college or university.
3. Take the WSU Department of Mathematics Placement Examination and place into any WSU mathematics course higher than MAT 0993.
4. Satisfactory completion of WSU MAT 0993 with a grade of ‘C’ or higher, or ‘S.’

B. Students enrolled for the first time at Wayne State University beginning Fall 2005 and thereafter must establish competency prior to the completion of thirty credits by one of the following methods:
1. Satisfactory completion of WSU MAT 1000 or any higher level WSU MAT course.
2. Satisfactory completion of other designated WSU courses that will be posted on the University Bulletin website at www.bulletins.wayne.edu.
3. Achieve an acceptable score on national standardized tests AP-CEEB, CLEP, or an American College Testing (ACT) Mathematics Score of 25 or higher (Go to http://www.transfercredit.wayne.edu/tests.php for specific information related to curricular course equivalencies.)
4. Take the WSU Mathematics Placement Examination and place into any WSU MAT course higher than MAT 1050.

C. During the 2006-2007 academic year, the policy under which transfer students satisfy Mathematics Competency varies according to the semester in which he or she began college work and the number of credits transferred. Students should consult an academic advisor for assistance.

D. Beginning Fall Semester 2007 (Academic Year 2007-08), the policy under which transfer students who began their college careers prior to Fall Semester 2005 may satisfy Mathematics Competency is the same as is stated in paragraph B, above.

Test-out Options for Other University

General Education Competency Requirements:

COMPUTER LITERACY (CL) COMPETENCY EXAMINATION: The Computer Literacy Competency Examination (CLCE) implemented as a result of the revised General Education Requirements of 2005 is a computer-based test administered by the Computer Science Department. Registration and payment of fees is handled by the University Testing Office. The examination is timed for two and one-half hours. An abbreviated listing of the skills assessed by the exam is presented below. For the complete list of skills to be demonstrated, go to http://www.testing.wayne.edu/complit.pdf.

1. Knowledge of basic computing concepts.
2. The ability to perform fundamental operating system functions.
3. The ability to use computers in a secure manner.
4. The ability to use common software applications, such as:
   a. word processing (create, save, retrieve text file),
   b. spreadsheet program (create, manage, and manipulate numeric data),
   c. presentation software (create presentations).
5. The ability to use computers for Internet access and electronic communication, specifically the ability to:
   a. gain access to the University’s computer system (e.g., Pipeline, Blackboard),
   b. send and retrieve e-mail,
   c. conduct Internet and database searches to obtain information and resources.

Preparing for the Examination: Students will need to know how to use Microsoft Word, Microsoft Excel, and Microsoft PowerPoint software to take the exam. These software programs are available in the David Adamany Undergraduate Library. In addition, students should be familiar with the Internet Explorer browser and have a fundamental knowledge of the Internet and searching on the Internet. It is important for to review the detailed list of examination objectives available at http://www.testing.wayne.edu/complit.pdf for adequate preparation.

The exam will be given on a Windows-based computer, but the content of the exam itself will not focus on the Windows environment. All of the items tested are available for the Macintosh computer.

CRITICAL AND ANALYTIC THINKING (CT) COMPETENCY EXAMINATION: The Critical and Analytic Thinking Competency Examination covers the following areas:

Inference: Discriminating among degrees of truth or falsity of inferences drawn from given data.

Recognition of Assumptions: Recognizing unstated assumptions or presuppositions in given statements or assertions.

Deduction: Determining whether certain conclusions necessarily follow from information in given statements or premises.

Interpretation: Weighing evidence and deciding if generalizations or conclusions based on the given data are warranted.

Evaluation of Arguments: Distinguishing between arguments that are strong and relevant and those that are weak or irrelevant to a particular question at issue.

Sample questions for each of the five areas listed above are available for review. The examination includes problems, statements, arguments, and interpretations of data similar to those that are encountered on a daily basis at work, in the classroom, and in newspaper and magazine articles. Additional review material related to critical thinking is available in the Academic Success Center, 1600 Adamany Undergraduate Library, 313-577-3165.

Student Success Services 45
The examination is not timed but generally takes sixty minutes to complete. Total test administration time is approximately ninety minutes.

**ORAL COMMUNICATION (OC) COMPETENCY EXAMINATION** consists of two parts. Both parts must be completed within the same semester.

**Part I** is a written exam consisting of 100 multiple-choice questions. The Department of Communication will act as the sole arbiter of which answers are correct or incorrect. Test results for Part I will be sent to the student's WSU AccessID e-mail address.

**Part II** consists of an oral performance. Students will be required to present a seven to nine minute speech, prepare a full-sentence outline of their speech (including references), prepare a written analysis of their speech, and supply a non-returnable VHS cassette for video recording the speech. See the Department of Communication website http://www.comm.wayne.edu/oce.html for a complete description of Part II requirements. Test results for Part II of the exam will be sent to the student's WSU AccessID e-mail address.

**Educational Accessibility Services (EAS)**

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

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

EAS at Wayne State University takes pride in promoting accessibility through empowerment of students with disabilities in the course of self-determination, self-awareness, self-advocacy in an accessible university.

**Disability Determination:** Students who have self-identified the need for accommodations have professional counselors available to assist them throughout their University career. The counselor with proper documentation verifies the disability and develops with the student, appropriate accommodations. The individualized prescribed accommodation document helps facilitate the 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, interpreters, and information on community resources. If students require alternative media, requests should be presented in a timely manner. Faculty can refer to the online training module in the Faculty Forum to acquaint themselves with State and Federal regulations and guidelines.

**Scholarships:** Scholarships are available for students with disabilities registered with the EAS office. For specific criteria visit our website as listed above.

**University Wide Collaboration:** EAS collaborates throughout University services to ensure academic and campus life accessibility.

**Adaptive Technology:** EAS 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: JAWS, Dragon Dictate, scanners, Braille, enlargers tape recorders, and FM systems. Adaptive technology resources are available to students with disabilities.

**Community Agencies:** EAS 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, Center for Independent Living, and Reading for the Blind and Dyslexic.

Office of Military and Veterans’ Educational Benefits (OMVEB)

1600 Adany Undergraduate Library; 313-577-3374; 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), 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 advisor 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 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. If you’re at least 3/4-time student in a college degree program, or a vocational or professional program, you can ‘earn while you 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): Although there is no ROTC program on the WSU campus, interested personnel can be attached to a University of Michigan (UM) or Eastern Michigan University (EMU) ROTC unit. Member would remain a student of Wayne State University while attending Air or Army ROTC classes at the second institution. Contact the OMVEB for reference to the ROTC offices or reach them directly at Army EMU ROTC (734) 487-1020 or Air Force UM ROTC at (734) 784-2403.

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 OMVA. 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.

Division of Community Education
2800 Academic/Administrative Building
Telephone: 313-577-4695; Fax: 313-577-8000
Interim Director: Mary C. Dickson
Interim Associate Director: Dawn R. Dolly
Website: http://www.dce.wayne.edu
Service hours: see our website at www.success.wayne.edu

Academic Advisors
Catrice Chaney, Pamela Dale, Adrienne Elliot-Brown, Juanita Pipkin, Daune Elston and Audrey Whitfield

Recruitment Support
Daune Elston and Juanita Pipkin

Coordinators
Julie Mix (English), Darryl Gardner (Mathematics), Patricia Robinson (Retention) and Audrey Whitfield (Admissions)

The Division of Community Education (DCE) is an alternative educational outreach program. 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. 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. Applicants are enrolled through the College of Liberal Arts and Sciences and are eligible to transfer after satisfactory completion of DCE program requirements.

Application: Students are admitted for the fall term. Admissions applications and official transcripts are due no later than July 31.

Admission Requirements: Admission to DCE is not restricted by age. Minimum requirements are a high school diploma with a 2.3 g.p.a. (students with a 2.0 - 2.29 g.p.a. will be given consideration after meeting with the DCE Admissions Committee) or General Equivalency Diploma (GED) and demonstrated proficiency on the DCE assessment test. Test results are also used in the evaluation of academic needs and necessary tutorial support. Students must attend DCE Orientation and DCE Prep Day. Submission of a federal financial aid application (FAFSA) is required of all applicants.

Financial Aid: Individuals interested in the Division of Community Education program may apply for federal, state, or University grants using applications available at the federal website http://www.fafsa.ed.gov, the extension centers, on campus at the DCE administrative office, or the Office of Student Financial Aid. The Urban Extension Grant also makes funds available to qualified DCE students. Contact the Division of Community Education for additional information: (313) 577-4695.

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. Upon recommendation of DCE advisors, students are eligible for transfer from the Division of Community Education, having completed the Basic Composition (BC) writing course, Mathematics Competency (MC) and either Oral Competency (OC) or Basic Computer Literacy (CL) requirements.

Non-matriculant Advising
2112 Academic/Administrative Building, 5700 Cass Avenue
Telephone: 313-577-4893; Fax: 313-577-9826
Advisor: Ellen Holmes

Advising services for non-matriculant students are provided both on main campus and at extension centers. Students without matriculated status in the University are especially encouraged to consult with the non-matriculant advisor before registration. Appointments on campus can be arranged by telephoning the non-matriculant advisor’s office.

Off-campus Course Registration
DCE Records and Registration Services
Second floor, Academic/Administrative Building, 5700 Cass Avenue
Lead Records Clerk: Annestine Crawford; 313-577-4671

Registration for off-campus academic courses is held during regular registration periods each semester (see Academic Calendar). Forms for each registration period are available in person from the Records and Registration Office, and on the Wayne State website at http://www.wayne.edu. Specific registration information is provided at (313) 577-4671.
Federal TRIO-ACCESS
Academic College Enrichment Services
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 in the metropolitan Detroit area 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 and students enrolled at WSU. Federal TRIO-ACCESS serves an extremely diverse student population that ranges from twelve to nineteen years of age in the Detroit Public Schools, veterans of the armed services, and other adult learners. ACCESS Programs serve over 6,000 students residing in Wayne, Oakland and Macomb Counties.

Federal TRIO-ACCESS is comprised of eight state and federally funded programs designed to increase the postsecondary 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 Higher Education Opportunities Committee (HEOC) Talent Search Program, 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. HEOC also sponsors trips to colleges and works with students on career choices, tutoring, study skills and test-taking techniques.

The Martin Luther King, Jr.—Cesar Chavez—Rosa Parks (KCP) College Day Program, 345 Manoogian Hall, 577-3085, 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.

Student Support Services, 5700 Cass Avenue, Academic/Administrative Bldg., Suite 1330, 577-5050, provides academic support and facilitates admission to Wayne State University for students with demonstrated academic potential, financial need, and who meet federal eligibility requirements for participation. Newly enrolled Student Support Services students are required to participate in an eight-week summer residential program.

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, 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.

Child Care Means Parents In School (CCAMPIS) 5700 Cass Avenue Suite 1330, 577-5050. This program is operated in collaboration with Merrill-Palmer Institute Child Development Lab (CDL). It provides advising, counseling and referrals for supportive services to Pell Grant eligible WSU students with children who meet the age requirements of the Merrill-Palmer CDL, with the goal of increasing the graduation rates of eligible WSU undergraduate-parents.
Campus Life

Dean of Students Office
351 Student Center; 313-577-1010

The Dean of Students Office provides services and affords opportunities to enhance campus life. The Office coordinates major campus student activities and events, including new student orientation, 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 office is responsible for residence life programming and the University Student Conduct Officer is housed in the Dean of Students Office.

Student Organizations: There are over 200 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 daily during the academic year.

Parents Association: The Dean of Students Office coordinates the Wayne State Parents Association. Through this association, parents can attend special orientations 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

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

The Student Council is the recognized student government of Wayne State University. It consists of twelve members, elected in a University-wide election, plus one student representative elected by each College and School. 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 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 is granted at the Fall commencement ceremony. 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 is granted at the Winter commencement ceremony.

The winners of these awards are determined by the David D. Henry/Howard A. Donnelly Award 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.centeroffall.wayne.edu

The mission of the Office of Housing and Residential Life, consistent with the academic mission of Wayne State University, is to create a positive living-learning environment for students by providing staff, resources, programs, services, and facilities that promote and support educational achievement, social development, and civility through local and global cultural awareness and understanding.

Facilities and programs administered by this Office are located near classrooms, libraries, the Student Center, and the Mort Harris 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 South Hall, opened in 2002 and 2003 respectively, offer a state-of-the-art living environment for first-year students only. These facilities offer one-bedroom units for two people, on-site dining, laundry and retail as well as free Internet access, cable connections and telephone service.

Towers Residential Suites: The fall of 2005 brought the opening of the Towers Residential Suites, with 970 beds; this facility features suite-style accommodations, with one-, two-, three- and four-bedroom units with a common living area. Separate floors of The Towers are reserved for graduate students. The Towers has fitness facilities, laundry rooms, free Internet access, cable connections, telephone service, 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 a 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 (furnished or unfurnished); the two- and three-bedroom units have two baths. University Towers has central air conditioning, a computer lab, an on-site child care center, 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, laundry facilities, and a 24-hour reception desk.

Chatsworth Tower Apartments offers graduate and professional students spacious efficiency, one-, and two-bedroom apartments in a graceful, nine-story historic landmark built in 1929. Some air conditioned units are available.

Sherbrooke Apartments offers very reasonably priced efficiency and one-bedroom units, available to graduate and professional students.

Apartment Facilities: All on-campus University Housing apartments include 24-hour reception desk and on-call maintenance, internet access, cable connection, laundry rooms, activity and conference rooms, lounges, TV rooms, vending machines, and central air conditioning in most buildings.

Faculty and staff living in University housing are subject to a ten percent surcharge above student rates and are limited to a one-year

Campus Life 49
stay. For more information and current pricing, contact the Office of Housing and Residential Life at 313-577-2116 or visit the Website: http://www.centerofitall.wayne.edu

**Mort Harris Recreation and Fitness Center**  
5210 Gullen Mall; 313-577-BFIT (2348)  
Website: http://www.rfc.wayne.edu

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, step, yoga, spinning, stretch and tone, kickboxing, salsa, ballroom dance and abdominal classes.

**Open Recreation:** The fitness area, courts, walking track, climbing wall, and fitness studios offer opportunities for unstructured play and participation. Basketball, volleyball, and a variety of equipment and areas for working out, stretching, or socializing are offered.

**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, Texas Hold 'Em and much more.

**Fitness and Wellness Programs:** Nutritional counseling, health assessments, massage therapy and personal training programs for every level of fitness are available to all members.

**Climbing Wall:** The climbing wall is a challenging exercise option for building strength and endurance. All necessary equipment may be rented at the climbing wall registration desk; periodic structured classes and open-use periods are available.

The 75,000 square-foot Mort Harris Recreation and Fitness Center also features a concessions 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 the disabled, men's and women's locker rooms with individual private showers, and day use or semester rental lockers.

**Athletics, Intramurals and Recreation**

**Matthaei Facility:** 126 Matthaei Building; 313-577-4295  
**Intramural Sports:** 127 Matthaei Building; 313-577-4261  
**Intercollegiate Athletics:** 101 Matthaei Building; 313-577-4280  
**Website:** WSUathletics.com

Wayne State University has a rich athletic tradition dating back to 1917. Its student athletes have captured numerous championships, including national championships directed by the NCAA and conference honors. Individual participants have been honored with recognition as national champions, academic All-Americans and All-Conference champions. The over 400 student-athletes currently involved in competitive athletics have a combined grade point average 3.05. 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, men's and women's ice hockey, softball, men's and women's swimming, men's and women's tennis, and volleyball. Last season, ten out of seventeen programs competed in NCAA championships with the institution achieving its highest National finish ever - 25th in the nation.

The University competes in both NCAA Division I and Division II. Currently, both men's and women's hockey are Division I competing in the College Hockey America conference. 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, Gannon University, Grand Valley State University, Hillsdale College, University of Indianapolis, Mercyhurst College, Michigan Technological University, Northern Michigan University, Northwood University, Saginaw Valley State University, and Wayne State University.

The University offers a wide and varied program of recreational and intramural activities. The Matthaei Complex, located on the west end of the 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 but a current University ID is required for admission to the facilities.

**The Matthaei Building** is open from 7:30 a.m. to 9:30 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. Lock 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.

**Intramural activities** are also available for students. Activities offered include basketball, flag football, soccer, racquetball, softball, badminton, bowling, tennis, and volleyball. For sign-up information or schedules, visit the Intramural Office, 127 Matthaei Building; or call: 313-577-4261.

**Ticket and schedule information** is available at the Athletic Office, 110 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 Web site: http://www.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.

**Student Center Administration**

**Director:** 573 Student Center; 313-577-3482

The Student Center is a unifying force in the life of the University. This department's mission is to provide a Student Center 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.

**Student Center:** 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. To insure the effectiveness of its programs and services, the Center administration meets regularly with an advisory board that includes student representatives. The major facilities, programs and services of the Student Center include:

**Weekly Programs:** Each week during the academic year, the Student Center Administration offers a variety of different programs for the general student population. These programs include: the Wayne Down Under Music Series, weekly bingo games and karaoke, and annual celebrations such as the Student Center Bash, Hallo-Wayne, College Bowl, and Wayne Winter Week.
**Down Under**, the lower level entertainment zone in the Student Center. This area includes an expanded game and entertainment zone, the Underground Grill and daily evening programs for students.

**Food Service:** The Student Center provides a selection of food services for the campus community. First floor dining options include Pizza Hut Express, Friar's Kitchen, Subway, Taco Bell Express, McDonald's, and KFC Express. The Underground Grill serves hot-dogs, hamburgers and a variety of other items on the lower level. Additional food options are provided by Barnes and Noble convenience shop and numerous vending machines located throughout the building.

**Post Office,** Located on the first floor of the Student Center Building, the Post Office offers stamps, express mail, certified/registered mail envelopes, postcards, priority mail, package handling, money order and Post Office boxes. Open noon–5 p.m. Monday through Friday; 313-577-4328.

**Game Room,** Recreation facilities are located on the lower level of the Student Center. Games include billiards, table tennis, foosball and a variety of video games; 313-577-3477.

**Campus Information and Service Center,** 313-577-3484 or 313-577-3568: Located in room 50 of the Student Center, the Service Center provides the following services for a fee: typewriter rental, duplicating service, SMART bus tickets, material fee cards, laminating service, overnight photo-finishing service, international identification cards, Fax service, and State Hall locker rentals. In addition, the University Lost and Found, student organization mailboxes, and the campus bulletin board posting service are located here. The CISC is open Monday – Friday 8:00 a.m. – 8:00 p.m. and Saturday 10:00 a.m. – 4:00 p.m. 313-577-3484 or 313-577-3568:

The Campus Information and Service Center provides University academic programs and services; on-campus and off-campus housing information; campus activities; travel information; campus weekly and monthly calendars; on-campus and off-campus job postings; SMART and DOT bus schedules; community activities and community service opportunities.

**Grosberg Religious Center:** Various religious denominations have offices on the sixth and seventh floors of the Student Center. Programs are offered, and personal and spiritual counseling are available from the various University chaplains.

**Reservations Office,** 313-577-4585: Located in 573 Student Center, this office makes rooms and audio-visual equipment available for meetings, seminars, conferences and special programs. Bake sale lotteries, literature table, and showcase information are also provided by this office.

**Student Center Graphics,** 313-577-3730: Located in Room 50 of the Student Center, this Office provides design services including banners, showcases, flyers, posters, signs, special projects, and consultation for student organizations and University departments.

**Primary Care Nursing Center**

4B, University Health Center; 313-993-8640

The Primary Care Nursing Center provides comprehensive health care services for students, including physical examinations, family planning and immunizations (including flu, meningitis, hepatitis B, etc.). Visits are by appointment, but walk-in visits are accepted for students experiencing an illness. Counseling services are also available. Most health care plans are accepted, or payment may be made at the time of service by cash, check or credit card. To make an appointment, call (313) 993-8640.

**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 police officers 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 (76 West Hancock; 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 Agression 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

Ombudsperson: Victoria Asmar-Anderson

The Office of the Ombudsperson exists to assist students in solving University-related student problems. The Office can help students understand and negotiate bureaucratic issues, overcome unfair treatment, or obtain consideration of extenuating circumstances by pro-
International Students and Scholars

Office of International Students and Scholars (OISS)

The University is home to approximately 3,800 international students and visiting scholars from nearly 100 countries. The OISS was established to aid these individuals in their educational and scholarly pursuits at Wayne State. It 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 Office mission 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 material 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.

New International Students and Scholars receive the OISS welcome booklet with their visa document (Form I-20 or DS 2019). The booklet provides information on a wide variety of important topics to these individuals before they leave their home country. Among the subjects covered are housing, health insurance, expenses, immigration status, local climate, and air transportation. New students and scholars from abroad must report to OISS soon after their arrival and 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, 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 U.S. Immigration and Customs Enforcement (ICE) through the OISS of any change in name, address, program (including changes in level and field of study), and full-time enrollment.

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

416 Welcome Center; 313-577-3422; Fax: 313-577-2962

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, 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 U.S. Immigration and Customs Enforcement (ICE) through the OISS of any change in name, address, program (including changes in level and field of study), and full-time enrollment.

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OISS must provide this information to 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.

Immigration and Customs Enforcement (ICE) regulations require 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. Graduate students (including those in pre-master’s status) must successfully complete at least eight credits each semester (excluding Spring/Summer or an approved annual vacation). See an OISS advisor for details on complying with this and other ICE requirements.

Commuting Canadian students enrolled less than full time must obtain an I-20 from OISS each semester they are enrolled and should consult with an 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-8, ‘Employment Eligibility Verification’ and present evidence of their identity and employment eligibility at OISS before commencing employment at Wayne State University.

Health Insurance

416 Welcome Center; 313-577-3422; Fax: 577-2962

Health Insurance Advocate: 313-577-0724

Health Insurance: International students and J-1 exchange visitors and their dependents holding 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 please access OISS website at http://www.oiss.wayne.edu or contact the Health Insurance Advocate in the OISS; telephone: 577-0724.

Insurance For U.S. Citizen and Permanent Resident students and their dependents, the Student Injury and Sickness Insurance Plan is a voluntary insurance program for U.S. citizen and permanent resident students. This voluntary plan is available for purchase. For more information, for purchasing the Domestic Health Insurance plan, students may go to http://www.collegiaterisk.com or contact Collegiate Risk Management at 1-800-922-3420 or the Health Insurance Advocate in OISS at 313-577-0724.

Cross-Cultural Activities: The OISS provides cross-cultural activities in order to provide the broadest exposure to American society, culture, and institutions. Activities include: International Week and a free international coffee hour held in the seventh floor of the Student Center Building every other Wednesday from 11:30 a.m. to 1:30 p.m., which provides opportunity for dialogue with and among international students and scholars, American students, and community sponsors. Please access the Oases website at http://www.oasis.wayne.edu for upcoming events and opportunities.
Metropolitan Programs and Summer Sessions

5700 Cass Ave. , Detroit MI 48202; 313-577-4682
Web: http://www.mpss.wayne.edu/

Associate Vice President for Educational Outreach:
Ahmad Ezzeddine

Director: Cynthia Ward

Extension Directors: Robert Walsh, Macomb and St. Clair Counties; Kristopher Krzyzanski, Oakland County; Keith White, Wayne County

Program Coordinators: William Slater, Cheryl Smith-White, Gail Stanford; Margaret Matyniak, Instructional Services Coordinator

Center Academic Staff: Susan English, Neveis Michail, Linda Robertson, Denise Thomas, Frank Williamson

Metropolitan Programs and Summer Sessions is principally responsible for the outreach programs and extension courses of Wayne State University. 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 program at the University Center at Macomb.

The division operates six instructional centers in the Detroit metropolitan area as well as in other selected locations in Michigan, and delivers instructional programs online and interactive video. 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.

Metropolitan Programs and Summer Sessions also administers the University’s Visitor Program. Under this program, individuals 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 Metropolitan Programs and Summer Sessions operates six instructional centers in the Detroit metropolitan area as well as in other selected locations in Michigan, and delivers instructional programs through interactive video and online. 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.

OAKLAND CENTER: 33737 W. Twelve Mile Road, Farmington Hills, MI 48331; Telephone: 248-553-3545; 313-577-3592; Fax: 248-553-7733

UNIVERSITY CENTER AT MACOMB: 44575 Garfield, Clinton Township, MI 48038; Telephone: 586-263-6700; Fax: 586-263-6120

WAYNE COUNTY CENTER: 7800 W. Outer Drive, Suite 300, Detroit MI 48235; Telephone: 313-577-0613; Fax: 313-537-4175

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)

MADISON HEIGHTS CENTER: Lamphere High School, 610 W. Thirteen Mile Rd., Madison Heights, MI 48071; Telephone: 586-263-6700 (contact via University Center at Macomb)

UNIVERSITY CENTER AT ST. CLAIR COUNTY COMMUNITY COLLEGE (SC4): M-TEC Building – Room 101, 323 Erie Street, Port Huron, MI 48061; Telephone: 586-989-5808, option 7

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.

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: 313-577-4671.

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 Metropolitan Programs and Summer Sessions 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. Guest students should consult with their home institution when formulating their registration plans and submit an application for guest admission.

Persons who wish to enroll in courses offered through this division and who have NOT been formally admitted to the University are registered as non-matriculated students in the College of Liberal Arts and Sciences. Students are advised to consult the non-matriculated advisor as well as the specific degree program requirements, and are urged to process formal application and admission documents as soon as possible. Upon admission to a Wayne State school or college, credits earned in non-matriculant status may be applied toward degrees subject to the approval of the admitting school or college.

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 Metropolitan Programs and Summer Sessions Office (313-577-4682) or their resident School/College for information regarding the amount of such coursework available through extension.

BACHELOR OF ARTS and BACHELOR OF SCIENCE in Accounting (partial)
Finance and Business Administration (partial)
Management and Organization Sciences (partial)
Management Information Systems (partial)
Marketing (partial)

BACHELOR OF SCIENCE in Education with a Major in Bilingual/Bicultural Education (partial)
Elementary Education (partial)

BACHELOR OF SCIENCE in Engineering Technology (partial)
COLLEGE OF LIBERAL ARTS AND SCIENCES

**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, Geography, History, Humanities, Interdisciplinary Studies, Peace and Conflict Studies, Philosophy, Political Science, and Sociology, Spanish, Women Studies, and Urban 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 17).

**Library and Information Science Program:** 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.

**Nursing:** Courses toward the Master of Science in Nursing are scheduled at the University Center-Macomb.

**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.) part-time program at the Wayne County Center and a full-time program at the University Center at Macomb and at St. Clair County Community College University Center. 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 Metropolitan Programs and Summer Sessions. Most programs occur in the Summer Sessions; times and locales vary each year. Recent travel study programs include:

- **SCHOOL OF BUSINESS ADMINISTRATION**
  - Business courses in Germany and various European cities
- **COLLEGE OF LIBERAL ARTS AND SCIENCES**
  - Africana Studies: culture courses in Africa
  - Biological Sciences: marine lab at the Florida Keys; field studies at Fish Lake, Michigan
  - Interdisciplinary Studies: China
  - Languages: China, Italy, Japan
  - Urban economics courses in Scotland and Mexico City
- **COLLEGE OF EDUCATION**
  - Teacher Education: student teaching issues in Finland, Russia, Spain, and Zimbabwe
  - Science Education: ecology courses at Higgins Lake, Michigan
- **COLLEGE OF FINE, PERFORMING, & COMMUNICATION ARTS**
  - Fashion Merchandising: design in New York City
  - Art and Art History in Rome and Moscow
  - Classics in Italy

**Noncredit Career and Professional Development Programs**

The Professional Development Division (PDD), the executive education, training and consulting arm of Wayne State University, provides organizations with proven, practical solutions to business and organizational challenges.

PDD offers proven problem-solving strategies fully customized and fully integrated to align with your organization’s mission, strategy and needs assessment. PDD programs follow a blended learning approach, using best practice tools and technologies. Recent clients have included health-care organizations, government agencies, manufacturing companies and non-profit entities.

Services include on-site consulting, customized training, degree and non-degree certificate programs, coaching and cutting-edge courses in areas such as:
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 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 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 Metropolitan Programs and Summer Sessions, located on the main campus.

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. Payment is accepted by money order, check, or Master Card. Students may register in person by calling 313-577-4665.

UNIVERSITY CENTER at MACOMB

Office: 44575 Garfield Road, Clinton Township, MI 48038-1139
Telephone: 586-263-6700 or 313-577-6261
Fax: 586-263-6120

Wayne State University offers courses of instruction and nine degree completion programs on the campus of Macomb Community College. The programs give students the opportunity to complete Wayne State degrees by attending Wayne State classes at the University Center at Macomb. Students who are admitted to the program may transfer up to sixty-four credits (or more depending on the program chosen) from Macomb Community College or another institution toward a Wayne State degree. Wayne State courses offered at the University Center include upper division courses and lower division courses which do not have Macomb Community College equivalents; they are open to all Wayne State students. For the degree programs listed below, most courses necessary to complete a program are offered at the University Center with the exception of laboratory courses, which are offered on Wayne State’s main campus.

All course work for degrees earned at the University Center must be completed in accordance with the regulations of the College and Department offering the degree, and of the University. See sections beginning on page 16 and page 35 for University regulations regarding undergraduate admission, tuition and fees, degree requirements, academic advising, and academic regulations. For descriptions of specific degree requirements of Colleges/Schools and Departments, see the School/College and Department sections of this bulletin.

Degree Programs

The following degree programs offered by Schools and Colleges at Wayne State University may be completed in full or in part at the University Center at Macomb.

BACHELOR OF ARTS/SCIENCE in Education with a Major in Elementary Education -- Science or Mathematics Major
BACHELOR OF ARTS/SCIENCE in SECONDARY EDUCATION
BACHELOR OF SCIENCE in Engineering Technology
BACHELOR OF ARTS with a Major in English
BACHELOR OF INTERDISCIPLINARY STUDIES
BACHELOR OF SOCIAL WORK
BACHELOR OF TECHNICAL AND INTERDISCIPLINARY STUDIES (also: B.T.I.S. with a minor in Criminal Justice)
MASTER OF BUSINESS ADMINISTRATION
MASTER OF LIBRARY AND INFORMATION SCIENCE
MASTER OF SCIENCE IN NURSING
MASTER OF EDUCATION IN SPECIAL EDUCATION/LEARNING DISABILITIES
MASTER OF EDUCATION WITH A MAJOR IN EDUCATIONAL LEADERSHIP
MASTER OF INTERDISCIPLINARY STUDIES
MASTER OF SOCIAL WORK
POST GRADUATE EDUCATION SPECIALIST CERTIFICATE IN EDUCATIONAL LEADERSHIP
SECONDARY EDUCATION CERTIFICATION

Application for Admission

Students may obtain application forms for admission to University Center programs at the University Center; completed forms may be returned to the University Center or to the Admissions Office on the main Wayne State University campus. Personnel are available at the University Center to assist potential students in completing applications.
Wayne State computer laboratories are located in all University Libraries and every school and college. For a comprehensive list of computer labs on and off campus, including information on who can use them, see: http://computing.wayne.edu/computerlabs.

WSU AccessIDs: As soon as someone applies for admission or is hired, a unique AccessID (e.g., xy6789) is automatically created and made available. The AccessID and password combination is the 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, free e-mail, free and discounted software, secure student self-services through WSU Pipeline (financial aid, registration, online tuition payments, final grades, and more), and online courses, course materials, and an e-Portoflio in Blackboard on the Web. (For more about these services, see descriptions below.)

For information about all the WSU AccessID services and resources available to students and others, visit the Web 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: Wayne State student can access the Internet and WSU’s network on campus or from home in numerous ways:

- 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,’ above).

- Use a laptop/notebook computer in the location of wireless Internet access points in most buildings on campus or plugged into a wired network connection in libraries and popular gathering places. For more information about wireless@wayne and current service locations, visit: http://computing.wayne.edu/wireless. For more about wired@wayne, visit: http://computing.wayne.edu/wired.

- Use free high-speed Internet access with a personally owned computer in their University residence hall or apartment on campus.

- Use a home computer connected to a broadband (high-speed) Internet service (cable modem, DSL, or wireless), or a telephone modem with a dial-in connection provided by a commercial Internet Service Provider. Information about remote access to the Internet is available on the Web at: http://computing.wayne.edu/internetaccess.

For help or information about how a WSU student can access the Internet on campus or from home, visit the Websites noted above or contact the C&IT Help Desk: 313-577-4778 or helpdesk@wayne.edu.

Computer and Software Purchases: Information about recommended desktop computers and laptops/notebooks to buy, with links to computer companies that offer educational discounts for Wayne State students, is on the Web at: http://computing.wayne.edu/hardware. Using an AccessID and password, WSU students can download free software (such as antivirus) and also purchase commercial software for substantial student discounts with a credit card on a secure Website. Links to obtaining this software and getting help with it are at: http://computing.wayne.edu/software.

WSU E-mail and Communication Tools: A free electronic mail account and many communication and collaboration tools on the Web (such as a portable address book, portable calendars, secure chat, discussion boards, and more) are available to all Wayne State students, faculty, and staff using a WSU AccessID and password (see above). Wayne State’s AccessID E-mail System is the primary method of communication on campus, so it is essential that everyone at the University uses their WSU E-mail account, or forwards their WSU E-mail to a regularly used e-mail address. Assistance with using e-mail at Wayne State is available on the Web at: http://computing.wayne.edu/email and from the C&IT Help Desk: 313-577-4778 and helpdesk@wayne.edu.

WSU Online Directory: Every student, faculty, and staff person at Wayne State is listed in the University’s Online Directory. This helps people find their WSU E-mail addresses and other contact information. To access it, visit WSU’s Website (http://wayne.edu) and click ‘WSU Directories.’

WSU Pipeline and Self-Service on the Web: WSU Pipeline is an Internet gateway that provides single signon and secure access to Wayne State computing systems, self-services, and information. This comprehensive Web environment is a one-stop location where WSU students, faculty, and staff can conveniently use online self-services and easily access computing systems, such as WebMail and the Blackboard Learning System. Using Pipeline, each of these groups also has access to information specific to their roles and helpful tools needed for communication, collaboration, teaching and learning, and University business. Wayne State applicants are able to check 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 and final grades, obtain enrollment verifications and transcripts, self-register for orientation or training workshops, and more. To access WSU Pipeline, use a current Web browser on any computer connected to the Internet and go to: http://pipeline.wayne.edu. Then log in using a WSU AccessID (e.g., xy6789) and password. For assistance accessing or using WSU Pipeline, visit: 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 course management and learning system chosen by Wayne State faculty to deliver all or part of many regularly scheduled University courses, because it is full-featured and easy to access and use. In the Blackboard Web environment, WSU students can find class information (such as syllabi, assignments, and course documents), access valuable learning resources, take tests and view the test grades, communicate and interact with other students and the instructor (using course e-mail, secure live chat, and discussion boards), and gather and display their work using e-Portfolios. Many faculty members require students to participate online as part of their academic work, and some courses are offered entirely through Blackboard. Students should check at the start of the semester to find out about Blackboard requirements for each course. This Web-based course system can be accessed on the Internet from anywhere, at any time, using an AccessID and password to log in to Blackboard directly (http://blackboard.wayne.edu) or through WSU Pipeline (http://pipeline.wayne.edu). For assistance accessing or using Blackboard at Wayne State, see the User Manual available at: http://computing.wayne.edu/blackboard or contact the C&IT Help Desk: 313-577-4778 or helpdesk@wayne.edu.
Education Technology Services: Graduate teaching assistants and faculty members have access to many tools for making courses or course materials available on the Web, managing effective student communication and collaboration, giving exams and posting grades online, and enhancing the overall quality of education and learning at Wayne State. The major tool for online development and management of courses at WSU is the Blackboard Academic Suite, which the faculty adopted in 1999. Blackboard makes it easy to put course information and materials on the Web with virtually no technical expertise required. In addition to coordinating Blackboard training, C&IT Education Technology Services (ETS) develops support materials to help students and faculty use Blackboard successfully. ETS’s professional staff members also produce effective broadcast and multimedia communications, such as high-quality video, multimedia, audio, and graphics/animation products, to enhance instruction both online and in the classroom. For more information about these ETS services, call 313-577-4203. For help accessing or using Blackboard, students can contact the C&IT Help Desk: 313-577-4778 and: helpdesk@wayne.edu.

High Performance Computing (WSU Grid) and Advanced Networking: C&IT, in partnership with a number of Wayne State Schools and Colleges, maintains a campus-wide Grid and High Performance Computing Facility for faculty, students, and academic staff who have computationally intensive research or data management needs or require specialized applications for parallel and distributed computing. With a connection to Abilene (the nation’s research network for Internet2) and to the Michigan LambdaRail (MiLR, a very high-speed dedicated research network in higher education), WSU’s high-speed backbone network fully supports the expansion of University research and collaboration with academic/research institutions in Michigan, around the country and abroad, and with national laboratories and supercomputing centers. For more on the WSU Grid, including current processing power, an account application, online training, and tutorials, visit: https://www.grid.wayne.edu or call: 313-577-8106. To obtain information about Wayne State’s advanced network, visit: http://networks.wayne.edu/dns/ or call: 313-577-5558.

Research Consulting Services: C&IT provides research consulting services for WSU graduate students. These research services cover the use of computer technology at any phase of the research process (design, implementation, statistical analysis, or final presentation). C&IT Research Consulting Services are available by appointment only at: 313-577-0299. For more information, visit: http://computing.wayne.edu/services/aboutresearchconsulting.php.

HELP DESK — for computers and networks at Wayne State: The Computing & Information Technology (C&IT) Help Desk provides personal assistance to help Wayne State University students, faculty, and staff:

– access the Internet and computing systems and resources on WSU’s network from a computer at home or on campus;
– access and use WSU’s E-mail System, using an AccessID and password;
– access other centrally provided computer systems and servers at Wayne State (such as WSU Pipeline, Blackboard, and the WSU Grid);
– use C&IT-supported operating systems and software on a Windows PC or a Macintosh (see: http://computing.wayne.edu/Help_Desk/software.php);
– obtain free virus protection software and other site-licensed or public domain software for free or at substantial discounts;
– get information about purchasing a Windows PC or Macintosh computer and commercial software at educational discounts;
– troubleshoot hardware and software problems and have their personally owned computers serviced and repaired (by the C&IT PC Clinic); and

– use or learn about any of the computing resources or services C&IT provides the University community.

Assistance from the C&IT Help Desk can be obtained in a number of ways:
– call: 313-577-4778,
– e-mail: helpdesk@wayne.edu, or
– visit C&IT’s Website: http://computing.wayne.edu.

For answers to commonly asked computing questions when the C&IT Help Desk is not open, students, faculty and staff can access a self-service knowledge base that is available on the Web, twenty-four hours a day, seven days a week at: http://kb.wayne.edu.

If there is a problem accessing a University computing system, check the System Status and Availability page on C&IT’s Website (http://computing.wayne.edu/systemstatus) to see whether it is available. This page displays the real-time status of a number of WSU computing systems, such as: the Banner Administrative System, Blackboard Learning System, the current Schedule of Classes, and WSU Pipeline. The Web page also posts planned outages and changes to computing and networking services and systems.

Online Computing News and Announcements: C&IT routinely announces changes to the availability and status of Wayne State’s networks and centrally provided computing resources and services (including revised hours of operation). Recent news items are available on the Web at: http://computing.wayne.edu/notices. Planned outages and changes to computing and networking services and systems are posted on the C&IT Change Calendar, which can be viewed at: http://computing.wayne.edu/systemstatus

C&IT Telephone Numbers 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
C&IT Help Desk: 313-577-4778 or: http://computing.wayne.edu
Education Technology Services: 313-577-4203
Grid and High Performance Computing: 313-577-8106 or: https://www.grid.wayne.edu
High Performance Networking: 313-577-5558
http://networks.wayne.edu/dns/
Internet Access Help: 313-577-4778 or: http://computing.wayne.edu/internetaccess
Research Consulting Services: 313-577-0299 or: http://computing.wayne.edu/services/aboutresearchconsulting.php
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 University Libraries support the education, research and service missions of the University and its communities through comprehensive, high-quality services and resources. The University Libraries are leaders 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 Library and Information Science Program, 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 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.

**Library Cards:** see WSU OneCard, page 41.

### David Adamany Undergraduate Library

**Telephone:** 313-577-8852  
**Website:** [http://www.lib.wayne.edu/](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 Educational Accessibility Services, and the media collection which includes videos, cds, dvds and lecture tapes.

### Arthur Neef Law Library

**Telephone:** 313-577-3925  
**Website:** [http://www.lib.wayne.edu/lawlibrary](http://www.lib.wayne.edu/lawlibrary)

The 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 and 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/](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 Library Computing and Media Services 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/](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 Dubernell 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

**Telephone:** 313-577-1094  
**Website:** [http://www.lib.wayne.edu/shiffman](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 our consumer health information services via our Web site, phoning or by visiting the library to get the latest health information. Shiffman Library and the Applebaum College are located on the Detroit Medical Center campus; directions from all points can be found on our Web site or call for directions and parking or walking suggestions.

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. 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.

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Additional University Services  59
University Archives

 Walter P. Reuther Library; 313-577-4024

 The University Archives was established in 1958 as a research/reference center for the University’s historical records. In addition to being the official repository for records of Wayne State and its predecessor institutions, the Archives also collects selected faculty papers and the records of student and professional organizations that document the development of the University and higher or professional education. The Archives’ holdings of over 6,000 cubic feet include manuscripts, minutes, publications, photographs and reports. There are over 500 current and non-current titles, extensive vertical and biographical files, catalogs from 1868 to present, and the student newspaper from 1918 to the present. Topics range from House Un-American Activities Committee, and Michigan Academy of Pharmacy, occupational health and safety, and teacher training, to student activities. Tours of the University Archives and the Reuther Library may be scheduled upon request.

 Archives of Labor and Urban Affairs

 Walter P. Reuther Library; 313-577-4024; Fax: 313-577-4300

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

 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 1,900 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 and 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. It 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, the Graphic Communication Council/International Brotherhood of Teamsters (IBT), the Brotherhood of Maintenance of Way Employees/IBT, 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

 Director: Jorge Chinea
 Website: http://www.cbs.wayne.edu
 e-mail: aa1941@wayne.edu

 The Center for Chicano-Boricua Studies (CBS) is a multi-service unit engaged in teaching, research, and service. The Center 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 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.

 Scholarships: The Center awards $100,000 to $150,000 annually in scholarships to students at Wayne State University.

 Center to Advance Palliative-Care Excellence

 5557 Cass Avenue; Cohn Building, Room 247; (313)-577-0907; Fax: (313)-577-0940

 e-mail: RenataK@wayne.edu
 Website: http://www.capewayne.org

 Director: Robert J. Zalenski, M.D.
 rzillaenski@med.wayne.edu; tel.: (313) 966-7679

 Associate Director for Research: Margaret Campbell, Ph.D.
 mcampbe3@dmc.org; tel.: (313) 745-3271

 Associate Director for Humanities: Richard Rospa, Ph.D.
 aa2267@wayne.edu; tel.: 313-577-6578

 Associate Director for Education: Stephanie Myers Schim, Ph.D.
 s.schim@wayne.edu; tel.: 313-577-4034

 Associate Director for Clinical Practice: Michael Stellini, M.D.
 mstellini@med.wayne.edu; tel.: 313-577-4342

 Executive Facilitator: Denise Waselewsky, M.T.
 dwaselew@med.wayne.edu; tel.: (313) 745-4350

 Program/Project Coordinator: Renata Korabiewski, M.B.A.
 RenataK@wayne.edu; tel.: 313-577-0907

 The mission of the Center to Advance Palliative-Care Excellence is to improve palliative care through advances in four central domains - research, humanities, education, and clinical practice. These areas are complex, multidimensional, and interrelated. A key goal is to integrate palliative care with modern health care.
SERVICE: In order to support the experiences of patients, families, communities, and health care providers living with discomfort, pain, illness, and injury, we work as an interdisciplinary team to support the knowledge, training, and evidence-base for direct care. The center also serves the larger community by making significant contributions to knowledge and practice excellence in palliative care and in modeling interdisciplinary teamwork.

TEACHING: We prepare health care providers, persons in diverse academic disciplines, and community members through teaching and role modeling excellence in practice. We also teach each other across boundaries of discipline, academic and service division, and titles or organizational positions. We appreciate that persons in need of palliative care and their families constantly teach us about their experiences and the meanings they assign their lives.

ADVOCACY: We advocate as necessary for individuals, families, and communities to control their own life and death experiences in ways that are consistent with their cultures, values, and beliefs. We also work to create more effective, ethical, and evidence-based practice, education, programs, and policies.

RESEARCH: We engage in collaborative, interdisciplinary, and innovative research to develop and extend new knowledge in palliative care. The Center provides a forum for the creative expression of ideas and open discourse across disciplines. Our interdisciplinary team of researchers and practitioners has created a learning community that inspires us to ask better questions about ways to enhance palliative care. In such a robust community, critical thinking and scientific inquiry flourish in pursuit of better answers.

We are an interdisciplinary community of researchers and practitioners dedicated to improving the care of those who are approaching the ends of their lives. Our aim is to improve care globally through our research and publications, our practices as health professionals, and our everyday transactions with others. We seek to forge new links between the many diverse communities committed to excellence in palliative care. We esteem the energy of diverse approaches and perspectives that lead to innovation.

Our purpose is to look at death and dying as narrative phenomena, in which patients, health professionals, and the circle of care givers participate.

Courses offered and taught by the Center Directors:

ANT 5430 (ISP 5510) (CD) End-of-Life Issues. (ANT 7430) (ISP 7510) (LIS 7635) (NUR 7515) (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)

ISP 5500 Selected Topics in Interdisciplinary Studies. (ISP 7500) Cr. 2-4 (Max. 8)
Prereq: written consent of advisor and instructor. Topics to be announced in Schedule of Classes. (Y)

ISP 5510 (CD) End-of-Life Issues. (ANT 5430) (ANT 7430) (ISP 7510) (LIS 7635) (NUR 7515) (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 (ISP 5510) (CD) End-of-Life Issues. (ANT 5430) (ANT 7430) (ISP 7510) (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, 313-577-2654; Fax: 313-577-3770

Director: Barbara LeRoy, Ph.D.
e-mail: B_Le_Roy@wayne.edu
Website: http://www.wayne.edu/ddi/

The Developmental Disabilities Institute is one of a national network of over sixty University Affiliated Programs, 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 technical assistance, training, 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 University Affiliated Program. 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 offers leadership education opportunities related to community integration and support of persons with disabilities. A number of other programs have been developed with academic programs throughout the University.

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 representatives of twenty-five 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.
Website: http://www.research.wayne.edu/hum
E-mail: walter.edwards@wayne.edu

Mission: The mission of the Humanities Center is to nurture interdisciplinary, transdisciplinary, and disciplinary work in the humanities and arts through competitions, seminars, discussion groups, and other programs for Wayne State’s humanities and arts faculty and students and for visiting scholars and artists. The Center also seeks to promote excellence in research and creative endeavors through rigorous peer review of proposals submitted to it for funding; and to complement the work of humanities and arts departments, programs, and other centers within the University by providing additional resources to faculty and students. By promoting and funding programs that involve community participants, the Center supports the university’s urban mission. Through its various programs the Center is a site to collect, promote, and celebrate the diverse humanistic talents of WSU’s academic citizens and to encourage innovation and excellence in the humanities and arts.
Services and Events

Honors Thesis Grant for Undergraduate Students in the Humanities and Arts: In conjunction with the Honors Program, the Humanities Center offers awards of up to $500.00 to Junior and Senior undergraduates who are Honors majors in good academic standing, and who are in the process of working on an Honors thesis or project in the humanities or arts. The Humanities Center has budgeted $2,000 to support this program.

The Humanities Center strongly encourages undergraduates to attend the following public events:

Brown Bag Colloquium Series: The Humanities Center’s Brown Bag Series gives students the chance to interact with faculty who are presenting their work. The informal setting of these talks allows the audience to interact with the speaker in an atmosphere very different from the classroom. The Brown Bag talks are held twice a week in 2339 Faculty Administration Building.

Fall Symposium and Spring Faculty Fellowship Conferences: The Humanities Center holds one Fall Symposium and one Faculty Fellowship Conference each year. Speakers from universities around the world and from Wayne State give presentations on topics that fit within the year’s theme. These all-day events are a wonderful and rare opportunity for undergraduates to meet scholars from a variety of fields in the humanities and arts and hear them present their work.

Labor Studies Center
3178 Faculty/Administration Bldg.; 313-577-2191; Fax: 313-577-7726
Director: Hal Stack, Ph.D. e-mail: h.stack@wayne.edu Website: http://www.laborstudies.wayne.edu

The Labor Studies Center is a comprehensive labor education center committed to strengthening the capacity of organized labor to represent the needs and interests of workers, while at the same time strengthening the University’s interdisciplinary research and teaching on labor and labor relations issues. The Center’s primary areas of research and practice include: training and technical assistance to unions on labor relations and workplace issues; an undergraduate labor studies major and internship program; interventions to increase the organizational effectiveness of unions; the development and diffusion of constructive labor-management relations practices, particularly in the public sector; the formation and institutionalization of labor-community coalitions; and the impact of lean production systems on workers and labor relations practice in the North American auto industry.

Merrill-Palmer Skillman Institute
71 East Ferry Ave.; 313-872-1790; Fax: 313-577-0947 E-mail: mpi@wayne.edu Merrill-Palmer Director: Laura McCloskey, Ph.D. Website: http://mpi.wayne.edu

100 E. Palmer St.; 313-872-7013; Fax: 313-872-7126 Skillman Director: Kristine Miranne, Ph.D. E-mail: skillmancenter.culma@wayne.edu Website: http://www.skillmancenter.wayne.edu

The Merrill-Palmer 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 University departments.

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 intonation in children 12-23 months, early language and cognitive development adolescent development, social-emotional development of children, school readiness, early literacy skills, and preschool expulsion.

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 Bldg.; 313-577-3453 Fax: 313-577-8269
Director: Frederic Pearson, Ph.D. Associate Director: Elizabeth Barton, Ph.D. e-mail: fredericpearson@wayne.edu Website: http://www.pcs.wayne.edu

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, an associate 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, and participates in the interdisciplinary Master of Arts dispute resolution program. The Center director also directs the Detroit Council for World Affairs, a community outreach program designed to promote globalization of the Detroit metropolitan community. The Council promotes activities for a broad audience on crucial world issues and domestic and international conflict. Members of the public may join the Council to participate in Center and Council activities. The Center networks nationally and internationally via the Internet and World Wide Web. Students are frequently involved as interns and researchers in center programs and training.

Detroit Council for World Affairs: The Council is a community outreach of the Center for Peace and Conflict Studies and presents activities for youth and adults on crucial world issues. 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 to the campus. Members of the public and students may join the Council to participate in its activities. Students also can become involved in the Peace and Conflict Student Forum, which has operated the WSU chapter of Amnesty International.

Center for Urban Studies
3040 Faculty/Administration Building; 313-577-2208 Fax: 313-577-1274 Interim Director: Lyke Thompson e-mail: ad5122@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 is organized into eight specialized programs:

**Michigan Metropolitan Information Center (MIMIC):** a university research and service program specializing in urban housing and population issues; MIMIC is the coordinating agency in the U.S. Census Bureau’s State Data Center program in Michigan and is the University representative to the Interuniversity Consortium for Political and Social Research.

**Survey Research:** conducts survey research for a variety of public and private institutions; the program collects data through telephone interviews, questionnaires, focus groups, in-person interviews, and participant observation; staff also provide technical assistance in areas such as sampling design, data collection and processing, and statistical analysis.

**Evaluation Research:** conducts program evaluation for a variety of public and private institutions; 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; conducts data analysis and research on current best practices and model programs to inform local policy-makers; represents a collaboration among Detroit metropolitan area organizations in providing community education to prevent youth crime and to empower neighborhoods; other program activities include conducting applied research on crime and safety issues in Detroit and Wayne County.

**Early Childhood and Disabilities Research:** conducts evaluation of the implementation and impacts of intervention systems for individuals with disabilities; provides policy recommendations for improvements; and conducts research on family and community supports for 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.

### Additional University Services

Other Wayne State University Centers and Institutes that may provide opportunities for undergraduates:

**Barbara Ann Karmanos Cancer Institute**
4100 John R., 2nd Floor; 313-577-8670; Fax: 313-576-8668
e-mail: ruckdeschel@karmanos.org
Website: http://www.karmanos.org
Director: John Ruckdeschel, M.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

**Center for Arts and Public Policy**
3347 Old Main; 313-577-5200; Fax: 313-577-0935
e-mail: d_magidson@wayne.edu
Website: www.capp-wsu.org
Director: David Magidson, Ph.D.

**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/~coe/main.cfm?location=751
Director: Naemi Henein, Ph.D.

**Center for Health Research**
319 Cohn Bldg.; 313-577-4135; Fax: 313-577-5777
e-mail: jfloyd@wayne.edu
Website: http://www.nursing.wayne.edu/research/
Director: Judith Floyd, Ph.D.

**Center for Molecular Medicine and Genetics**
3139 Scott Hall; 313-577-5216; Fax: 313-577-5216
e-mail: l.grossman@wayne.edu
Website: http://www.genetics.wayne.edu/
Director: Lawrence I. Grossman, Ph.D.

**Center for the Study of Citizenship**
3089 Faculty/Admin. Bldg.; 313-577-2593; Fax: 313-577-6987
e-mail: mkrum@wayne.edu
Website: http://www.citizenship.wayne.edu/
Director: Marc Kruman, Ph.D.

**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.

**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://obg.med.wayne.edu/Department/Divisions/mott.htm
Director: Robert Sokol, M.D.

**Douglas Fraser Center for Workplace Issues**
255 Walter Reuther Library.; 313-577-2100; Fax: 313-577-7599
e-mail: wcooke@wayne.edu
Website: http://www.frasercenter.wayne.edu
Director: William Cooke, Ph.D.

**Institute for Information Technology & Culture**
49 Pauline Knapp Building; 313-874-7010; Fax: 313-577-0174
e-mail: a.batteau@wayne.edu
Website: http://www.itlc.wayne.edu/people/index.asp
Director: Allen Batteau, Ph.D.

**Institute for Learning and Performance Improvement**
375 Education Bldg.; 313-577-6674; Fax: 313-577-1693
e-mail: d.brandenburg@wayne.edu
Website: http://www.lipi.wayne.edu/
Director: Dale Brandenburg, Ph.D.

**Institute for Manufacturing Research**
281 Physics Bldg.; 313-577-2970; Fax: 313-577-4880
e-mail: ipo@wayne.edu
Website: http://www.imr.wayne.edu
Director: John Oliver, Ph.D.

**Institute for Organizational & Industrial Competitiveness**
214 Prentis Bldg.; 313-577-4484; Fax: 313-577-2253
e-mail: l.fobes@wayne.edu
Director: Larry Fobes

**Institute of Environmental Health Sciences**
319 Cohn Bldg.; 313-577-0262; Fax: 313-577-8333
e-mail: king.yang@wayne.edu
Website: http://www.iitc.wayne.edu/people/index.asp
Director: Allen Batteau, Ph.D.

**Institute of Learning and Performance Improvement**
375 Education Bldg.; 313-577-6674; Fax: 313-577-1693
e-mail: d.brandenburg@wayne.edu
Website: http://www.iipi.wayne.edu/
Director: Dale Brandenburg, Ph.D.

**Institute for Manufacturing Research**
281 Physics Bldg.; 313-577-2970; Fax: 313-577-4880
e-mail: ipo@wayne.edu
Website: http://www.imr.wayne.edu
Director: John Oliver, Ph.D.

**Institute for Organizational & Industrial Competitiveness**
214 Prentis Bldg.; 313-577-4484; Fax: 313-577-2253
e-mail: l.fobes@wayne.edu
Director: Larry Fobes

**Institute of Environmental Health Sciences**
2727 Second Ave.; 313-577-0100; Fax: 313-577-0082
e-mail: r.novak@wayne.edu
Website: http://www.iehs.wayne.edu
Director: Raymond Novak, Ph.D.
Institute of Gerontology
87 E. Ferry St.; 100 Pauline 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.
Director for Education: Jennifer Mendez, Ph.D.

Institute of Mental Health
9 B University Health Center, 4201 St. Antoine Blvd.
Telephone: 313/577-0385
Fax: 313/577-5900
Director: Helene Lycaki, Ph.D.
email: hlycaki@med.wayne.edu
Web site: in progress

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.med.wayne.edu/kresgeeye/ligon/
Director: Gary Abrams, M.D.

Manufacturing Information Systems Center
100 Rands House; 313-577-7837; Fax: 313-577-4880
e-mail: aragowsky@aol.com
Website: http://sbaweb.wayne.edu/~misc/
Director: Arik Ragowsky, Ph.D.

Morris Hood, Jr. Comprehensive Diabetes Center
4201 St. Antoine, 4H UHC; 313-745-4008; Fax: 313-993-0903
e-mail: pberhanu@intmed.wayne.edu
Contact: Paulos Berhanu
SCHOOL OF BUSINESS ADMINISTRATION

INTERIM DEAN:  Richard M. Gabrys
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 teach 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 each of our campus locations: Main Campus and the Oakland Center.

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, business logistics, finance, management, information systems management, and marketing. Degrees of Bachelor of Science in Business Administration, Bachelor of Arts 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 Taxation degree is offered to those exhibiting an advanced interest in the study of taxation. The Master of Science in Accounting program prepares individuals for professional careers in public accounting. For additional graduate program information, consult the Wayne State University Graduate Bulletin.

The Ph.D Program in Business Administration prepares students to become faculty at major research 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 management education, research, and service with an emphasis on metropolitan organizations and issues in a global environment. The School aspires to be the leading business school among North America’s public research universities in an urban environment, and to foster a spirit of partnership with students, alumni, and employers.

Management Education Goals: Our goal is to teach strong and enduring management principles, and to develop the capabilities of our diverse learners that will enable them to apply innovative and competitive business practices. This will be achieved by:
1) Preparing students for productive and continuing professional and societal lives by providing the basic and applied educational experience needed to succeed in the workplace.
2) Continuing improvement of curricula by anticipating the changing needs of global business.
3) Offering degree and executive development programs, including programs that are time flexible and geographically accessible, to a diverse set of learners.

Research Goals: Our goal is to conduct high quality scholarship and cutting edge analyses of the issues challenging business organizations. We will accomplish this by:
1) Infusing our research with real world, multi-disciplinary applicability, and making substantive contributions to advance business knowledge.
2) Fostering collaborative and cross-disciplinary efforts in research.
3) Publishing research in peer-ranked, top quality academic and professional journals.

Service Goals: Our goal is to contribute professional expertise to for-profit and not-for-profit organizations, governments, and the academic community. The School will realize this goal in each area by:
1) Contributing assistance to public and alumni activities.
2) Supporting School and University activities.

Degree Programs

BACHELOR OF SCIENCE in Business Administration with majors in
- Accounting
- Business Logistics
- Finance
- Management
- Information Systems Management
- Marketing

BACHELOR OF ARTS in Business Administration with majors in
- all of the Bachelor of Science majors cited above

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 BUSINESS ADMINISTRATION

School of Business Administration
Bachelor’s Degrees

Admission Requirements

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 23.)

Transfer Students: Students must meet University requirements for general admission. (See Undergraduate admission requirements, page 23.) 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 pre-business administration 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 course work in University General Education requirements (see page 17), business foundation, core, major, and elective classes.

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 equiv; ECO 2010, 2020 or equiv. (each with a minimum grade of C (2.0))

ACC 3020 – Introduction to Managerial Accounting: Cr. 3
Prereq: ACC 3010; ECO 2010, 2020; MAT 1500 (each with a minimum grade of C (2.0)).

Business Law

ACC 3510 – Business Law I: Cr. 3
Prereq: sophomore standing.

Economics

*ECO 2010 – (SS) Principles of Microeconomics: Cr. 3
*ECO 2020 – (SS) Principles of Macroeconomics: Cr. 3
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 English Qualifying Examination or passing grade in ENG 1010.
AND
Pass the English Proficiency Examination in Composition.
NOTE: Students must successfully pass this examination prior to the completion of sixty semester credits.
Mathematics

Courses Equivalent to or at a higher level than:

*MAT 1500 -- Finite Mathematics 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:

AND

Pass the Mathematics Competency (MC) Examination.

Statistics

*ISM 2300 -- Quantitative Methods I: Probability & Statistical Inference: Cr. 3
Prereq: MAT 1500 or higher or equiv.

General Education Requirements

Students must also satisfy University General Education Competency and Group Requirements, and Exposure Areas Requirements, (see page 17) 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 17). In reviewing that material, students should note that COM 3300 satisfies the Writing-Intensive major course requirement for business administration curriculum. 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.

Note: All General Education Competency Requirements may be satisfied through required business administration foundation courses, except for mathematics. Students who elect MAT 1500 must satisfactorily pass the Mathematics Placement Examination.

— Core Requirements

All students must complete the following core courses. Students are responsible for observing all course prerequisites and limitations.

FIN 4290 -- Business Finance: Cr. 3
ISM 3400 -- Quantitative Methods II: Statistical Methods: Cr. 3
ISM 3600 -- Production Operations Management: Cr. 3
ISM 3630 -- Business Information Systems: Cr. 3
MGT 2530 -- Management of Organizational Behavior: Cr. 3
MGT 6890 -- 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 two academic departments: Accounting and Business. Majors in Accounting, Business Logistics, Finance, Management, Information Systems Management, and Marketing require six courses (eighteen credits). 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, Business Policy.

Students should refer to the respective departmental section 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 or ROTC credits may not be used to satisfy this requirement.
Begins in dents’ alternate semesters of work and academic study. Eligibility in Business Administration official University transcript. The School of Business Administration actively participates in the bachelor’s degree. No academic credit 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. 3  
ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 3  
MAT 1500 -- Finite Math. 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 4290 -- 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 Planning and Placement 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 (‘SU’) 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 67).

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 CLASS 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 from the University Records Office; or from the Business School’s Office of Student Services, 200 Prentis Building and 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 36. 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 endeavors.
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.

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 involves advanced readings and research or a tutorial under the supervision of a faculty member in an area or areas of special interest to the student and faculty member; credits vary between one and three. A cumulative grade point average of 2.75 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.

English Proficiency Examination

The English Proficiency Examination in Composition is a School of Business Administration and a University requirement. Each student must pass the examination prior to the completion of sixty semester credits. Students who fail the examination and who have taken sixteen credits will be excluded from taking any further courses until the proficiency examination is successfully completed. Entering students should take the examination as soon as possible to ensure preparation for their business courses. Information regarding application, dates, and times of the examination may be obtained from the Testing, Evaluation, and Student Life Research Services Office, 698 Student Center; telephone: 577-3400. The fee is $24.00.

No credit toward a degree in business administration is granted for English 1010 or 1080. A maximum of four credits toward a degree in business administration is granted for English 1020, (BC) Introductory College Writing, or its equivalent.

Mathematics Competency or Proficiency Requirement

Mathematics Competency (MC) requirements are stated in the University General Education Program; see page 18.

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.

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 22.

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 (see Student Services for details) to qualify for an honors distinction on their transcript and diploma at graduation.

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.

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 51) is available to all students for assistance in the resolution of University-related problems.

Incomplete Marks

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’.

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.

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. Class work completed at another institution during a period of temporary suspension will not be considered for transfer credit.

While on probation, a student may not represent the School in student activities.

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.

Retaking Courses

The University policy on retaking courses is stated on page 35. 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 Affairs 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.
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 of $1000 open to a student majoring in marketing. Fall semester deadline; contact Department of Marketing.

Alumni Association Endowed Scholarship: Designated for business administration students demonstrating high academic achievement, leadership, and service. Established in 1986. Winter semester deadline; contact the School's Student Services Office, 200 Prentis.

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 Scholarship: Award of variable amount established to recognize potential abilities and academic achievements of minority accounting students.

Stanton P. Bocknek Memorial Endowed Scholarship: Awarded for the first time in 1988, these awards ($500 and $1000) 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.

Budco Endowed Scholarship/Internship Program for Marketing Management: Annually, an award to an undergraduate marketing or management student on the basis of financial need, leadership, character, and scholastic achievement.

Comerica Incorporated Minority Annual Scholarship: Established to recognize the academic achievement of junior and senior minority 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.

The Croskey Family Academic and Athletic Endowed Scholarship: Established in honor of all past, present, and future student athletes who have been and will be able to extend their talents academically and athletically while attending Wayne State University. Awarded to full-time undergraduate business students who are actively participating in a University-sponsored athletic program.

Barbara and Paul Czamanse/Compass Group Ltd. Endowed Scholarship: Designed to recognize pre-business undergraduate 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.

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 Minority Annual Scholarship: This scholarship is designated for academically-gifted minority 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.

Handleman Company Annual Scholarship: Funded through the generosity of Handleman Company to recognize outstanding students

David D. Henry Award: Awarded to the outstanding male and female graduates of the University's December commencement class, based upon leadership, activities, and service to the University, consistent with high scholarship.

T. Norris and Vivilore Hitchman Endowed Scholarship Fund: Established to recognize scholastic achievement of students majoring in business disciplines.
Financial Aids and Awards

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. Fall semester deadline; contact the School’s Student Services Office, 103 Prentis.

KPMG/Peat Marwick—Wayne State Alumni Scholarship: Funded solely by Wayne State Alumni with Peat Marwick and Company, 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.

LaSalle Bank Annual Scholarship: Established to recognize the scholastic achievement of students interested in banking.

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.

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.

MichCon—Leon Atchison Scholarship: Amount depends on funds available; open to any undergraduate student majoring in accounting, chemical engineering, mechanical engineering, or computer science, from the MichCon service area. Student must maintain a minimum 2.5 g.p.a., be a United States citizen, and demonstrate financial need. Application deadline is April 30; contact the University Office of Student Financial Aid.

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.

Brian A. Nalepka-Sturtz Scholarship: Recognizes the scholastic achievement of business students.

Marie L. Nash Memorial Endowed Scholarship Fund: Recognizes scholastic achievement of graduate students in the School of Business Administration.

Plante & Moran, PLLC Corporate Annual Scholarship: Funded through the generosity of Plante & Moran, PLLC, to recognize an outstanding accounting student.

Pre-Business Scholarship: Established through the Office of Student Services, this award recognizes a high achiever in the pre-business curriculum who shows strong potential for success in the School of Business Administration.

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.

Peter A. Schweitzer Annual Scholarship in Marketing: Recognizes the scholastic achievement of marketing students.

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.

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.

David A. Stulberg Endowed Scholarship: Established to recognize scholastic achievement, to encourage continued progress, and to provide financial assistance to undergraduate business students.

Brian A. Strutz Endowed Scholarship Fund: Established to recognize scholastic achievement of business students.

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

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.

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.

The Wall Street Journal Student Achievement Award: Awarded annually to the business administration student in the Spring graduating class with the highest grade point average.
Support Services and Organizations

Office of Student Services

The Office of Student Services is responsible for credential 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 academicians; 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.

Professional Development Division

The Professional Development Division (PDD) provides proven practical solutions to business challenges through executive education, business training and consulting. Offering a unique blend of expertise and flexible design, PDD moves beyond off-the-shelf, pre-packaged training and consulting ‘services’ by applying problem-solving strategies to assess and meet the needs of its clients. PDD is committed to providing customized, fully integrated, in-depth programs to address specific organizational needs and improve individual and organizational capabilities and performance. The PDD portfolio includes:

BUSINESS TRAINING AND EXECUTIVE EDUCATION

PDD 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. Areas of expertise include: Leadership, Strategic Planning, Customer Service, Business Process Improvement, Communication Skills, Motivating Employee Performance, Change Management, Quality and Customer Focus, Financial Management, Organizational Communication, Team Development, and Management Skills.

PDD 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

PDD 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 employees the opportunity for higher mastery and competency in a particular subject area and are customized to meet each organization’s specific needs.

ON-SITE CONSULTING SERVICES

In conjunction with training, PDD’s expert staff provides consulting services in the following areas:

- Balanced Scorecard
- Business Process Improvement
- Communication Strategies
- Creating a Learning Organization
- Customer Focus
- Financial Management
- Knowledge Management
- Leadership Development
- Management Change
- Managing for Employee Effectiveness
- Organizational Development
- Quality Assurance
- Strategic Business Planning
- Succession Planning
- Training Design and Development

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Small Business Services

Building on twenty years of success, PDD’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. Recently, PDD introduced a Small Business Consulting Workshop to assist accountants in expanding their practices by growing their consulting services.

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 Professional Development services or activities, call: 577-4449, or Fax: 577-4354.

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.

The Association of Black Business Students (ABBS) was formed in the fall of 1967, to better prepare students for the business world by providing an environment for professional growth and development, through the encouragement of interaction among business students and with the business community.

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.

Institute of Management Accountants is a professional organization for promotion of the development of accounting students who plan careers in management accounting. Student chapter members participate fully in local professional chapter activities, sharing ideas and knowledge with experienced management accountants.

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.

The Management Information Systems Association (MISA) is a professional organization which strives to educate its members further in the practical application of computer technology and interact with leaders in the ISM field through various activities, including speakers and corporate tours. The organization welcomes members from all majors.

The MBA Association was established in 1987. This organization is designed to recognize outstanding M.B.A. students and to facilitate the academic and professional development of the graduate business student population.

National Association of Black Accountants (NABA) is a professional organization that sponsors speaking events, and provides a linkage with the professional community.

The 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 Senate Office (577-4783) or the University Student Center and Program Activities Office (577-3444).

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Accounting

Office: 200 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, Kreag Danvers, Huijing Fu

Senior Lecturers
Susan D. Garr, Deborah Jones

Lecturers
Frank Lamarra, Randolph C. Paschke, Daniel Weimer, Mary Ann Welden

Degree Programs
BACHELOR OF SCIENCE in Business Administration with a major in accounting
BACHELOR OF ARTS 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 68). 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 16, 35, and 67.

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 5996, to assess students’ knowledge of the discipline. Students who concentrate in accounting must complete the following courses:

- ACC 5100 -- Intermediate Financial Accounting: Assets: Cr. 3
- ACC 5110 -- Intermediate Financial Accounting: Liabilities and Equity: Cr. 3
- ACC 5130 -- Accounting Systems Design and Control: Cr. 3
- ACC 5160 -- Managerial Accounting: Cr. 3
- ACC 5170 -- Introduction to U.S. Taxation: Cr. 3
- ACC 5996 -- Auditing, Assurance and Attestation: Cr. 3

ACCOUNTING SPECIALIZATIONS

An accounting specialization is not required for the major in accounting; however, the specializations described below include recommended courses for students who desire further study in a particular accounting area.

Public Accounting

The courses listed below are designed to prepare students for professional careers in public accounting and the Certified Public Accountant (CPA) Examination.

- ACC 5120 -- Advanced Financial Accounting: Cr. 3
- ACC 5180 -- Governmental and Not-for-Profit Accounting: Cr. 3
- ACC 5190 -- Business Law II: Cr. 3
- ACC 5270 -- Advanced Tax Topics: Cr. 3

Managerial Accounting

This specialization is designed to prepare students for professional careers in corporate, governmental, and not-for-profit accounting.

- ACC 5120 -- Advanced Financial Accounting: Cr. 3
- ACC 5180 -- Governmental and Not-for-Profit Accounting: Cr. 3
- ACC 5190 -- Business Law II: Cr. 3
- ACC 5270 -- Advanced Tax Topics: Cr. 3

Accounting Systems

This specialization is designed to prepare students for professional careers by developing expertise in accounting systems. It incorporates several courses offered in the major in information systems management.

- 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

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 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.
ACCOUNTING COURSES (ACC)

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 483. 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.

2510 Business Law I. Cr. 3

No credit after former ACC 3510. 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)

3010 Introduction to Financial Accounting. Cr. 3

Prereq: MAT 1500 or equiv. with minimum grade of C. Theory and practical applications of financial accounting principles; preparation and evaluation of financial statements and their content using real-world examples. Use of the language of business to communicate financial information about business enterprises. Classroom participation and homework assignments. (T)

3020 Introduction to Managerial Accounting. Cr. 3

Prereq: ACC 3010, ECO 2010, or equivs., each with minimum grade of C. Basic terms and concepts used in managerial accounting: cost behavior; cost-volume-profit analysis; business planning; accounting controls; use of accounting information in business decision making. (T)

3050 The Profession of Accounting. Cr. 2

Offered for S and U grades only. Prereq: ACC 3010 with minimum grade of C. 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 adviser. 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)


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; which meet needs of various external users; theories and practices of external financial reporting for organizations. Valuation and accounting for assets: receivables, inventory, plant, property and equipment, intangibles. (F,W)

5110 Intermediate Financial Accounting: Liabilities and Equity. 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. The liability and equity side of the balance sheet: bonds, leases, pensions, income taxes, and equity securities, including common, preferred and treasury stock; income measurement concepts and issues, and calculation of earnings per share. (F,W)

5120 Advanced Financial 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. The liability and equity side of the balance sheet: bonds, leases, pensions, income taxes, and equity securities, including common, preferred and treasury stock; income measurement concepts and issues, and calculation of earnings per share. (W)

5130 Accounting Systems Design and Control. Cr. 3

Prereq: ACC 5100 and ISM 3630 or former ISM 4630, 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. (F,W)

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. The 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 U.S. Taxation. Cr. 3

Prereq: ACC 3010 and ACC 3020, 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. U.S. taxation of business entities and individuals. U.S. tax law; basic tax concepts; tax planning and role of taxation in business decision-making. (T)

5180 Governmental and Not-for-Profit 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. 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. (Y)

5190 Business Law II. Cr. 3

Prereq: 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 on CPA examination. (Y)

5270 Advanced Tax Topics. Cr. 3

Prereq: ACC 5170 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 5170. Accounting for income taxes on financial statements, taxation of corporate reorganizations, multi-state and multi-national taxation principles; advanced issues facing individual taxpayers including deferred compensation, retirement, and estate/gift taxation. (F)

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.  Prereq: junior standing or above; 3.0 or above cumulative g.p.a.; ACC 5100 with minimum grade of B; written consent of chairperson on application form prior to registration.  Student secures internship position with professional accounting firm or in accounting or tax department of an organization, prior to registration in this course.  Student must also submit evaluation by supervisor of internship.  Weekly electronic journal submissions on internship experience; 5-7 page paper and/or presentation on previously approved topic relating to the internship, at conclusion of course, as approved by instructor.  (T)

5990  Directed Study in Accounting.  Cr. 1-3 (Max. 6)
Prereq: 3.0 cumulative g.p.a. to be eligible; written approval of sponsoring faculty member and consent of chairperson on proposal form prior to registration.  Open only to School of Business Administration upper division students; others by consent of chairperson.  Three credits maximum in an academic semester.  In-depth investigation of accounting or tax subject or subject matter not covered in regular coursework.  Advanced reading and research under supervision of accounting faculty member.  Student chooses topic, research method, data sources, and theoretical question(s).  Not a substitute for a regularly-offered course.  (T)

5996  Auditing, Assurance and Attestation.  Cr. 3
Prereq: ACC 5110 and ISM 5400 or former ISM 4400, both with minimum grade of C.  Open only to School of Business Administration upper division students; others by consent of an organization.  Offered for undergraduate credit only.  No credit after former ACC 5140.  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

Office:  300 Prentis Building; 577-4525
Interim Chairperson: Harish L. Verma
Interim Associate Chair: Thomas J. Naughton

Professors
Richard F. Beltramini, Abhijit Biswas (Kmart Chair in Marketing), Hugh M. Cannon (Adcraft Club/ Simons-Michelson Professor in Advertising), Frank Carmone (Emeritus), Sudip Datta (T. Norris Hitchman Endowed Chair in Finance), Bruce E. DeSpelder (Emeritus), Mai Iskandar-Datta, Victor C. Doherty (Emeritus), James L. Hamilton (Emeritus), J. Patrick Kelly (Emeritus), Celia Romm-Livermore, James E. Martin, John G. Maurer (Emeritus), Richard N. Osborn, Irvin D. Reid, Edward A. Riordan, Jone M. Rymer (Emeritus), Milton H. Spencer (Emeritus), Joseph Tan, Attila Yapra

Associate Professors
Mark E. Bayless, John D. Beard, Robert C. Bushnell (Emeritus), Timothy Butler, Edwin F. Harris (Emeritus), George C. Jackson, Catherine Kirchmeyer, K.S. Krishnan, James T. Low, Ranjan D'Mello, Mbojda Mougoue, Thomas J. Naughton, Harvey Nussbaum (Emeritus), Donald H. Palmer (Emeritus), Irving Paster (Emeritus), Barbara Price, Kelly R. Price, Arik Ragowsky, Alice Schnoor (Emeritus), Margaret A. Smoller, Toni M. Somers, Louis L. Stern (Emeritus), Myles Stern, Jeffrey J. Stoltman, Eric Tsang, Fred P. Unruh (Emeritus), Harish Verma, David Verway (Emeritus), Frank L. Voorheis (Emeritus), John D. Wagster, David L. Williams

Assistant Professors
Neveen Awad, Sujay Dutta, Joan Penner-Hahn, Amanuel Tekleab

Senior Lecturers
Ariel S. Levi, David Lucas, Paul Reagan, Frank Vandervegt, Sandra Williams

Lecturers
Clinton Andrews, William Burrell, Clyde Chaffee, William Pritchard, William Spaulding

Degree Programs
BACHELOR OF ARTS in Business Administration with majors in
Business Logistics  
Finance  
Information Systems Management  
Management  
Marketing

BACHELOR OF SCIENCE in Business Administration with majors in
Business Logistics  
Finance  
Information Systems Management  
Management  
Marketing
Bachelor's Degrees
with a Major in Finance

Admission Requirements: Students who meet the University requirements for regular admission (see page 23) 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 68), 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 16, 35, and 67.

Finance

Finance is the management of money and other assets such as stocks and bonds for either business firms or individual investors. Students who major in finance are interested in careers involving decision making about the investment of financial assets.

The basic finance principles are used for all sorts of investment decisions. People who work for banks, savings and loan associations, insurance companies, mortgage companies and stock brokerage firms must understand what stocks, bonds, and securities are, and know when to buy or sell them to receive high returns on investments. People who work for non-financial companies also must decide how to invest money in their business to make high returns.

With increasing globalization of the economy, many corporations want to employ people who are experts at analyzing potential future investments in foreign markets. Finance specialists become involved in virtually every industry. The basic finance principles are used for all sorts of investment decisions. People who work for banks, savings and loan associations, insurance companies, mortgage companies and stock brokerage firms must understand what stocks, bonds, and securities are, and know when to buy or sell them to receive high returns on investments. People who work for non-financial companies also must decide how to invest money in their business to make high returns.

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Finance Major Requirements

ACC 5100 -- Intermediate Accounting: Assets: Cr. 3
FIN 5210 -- Security Analysis and Valuation: Cr. 3

Electives (Four of the following including either FIN 6996 or FIN 6997 as one of the four choices)

ACC 5110 -- Intermediate Accounting: Liabilities and Equity Cr. 3
FIN 5220 -- Portfolio Management: Cr. 3
FIN 5270 -- Advanced Business Finance: 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 6996 -- Corporate Financial Strategies: 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 managers 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 5270 -- Advanced Business Finance: Cr. 3
FIN 5320 -- Principles of International Business Finance: Cr. 3
FIN 5890 -- Internship in Finance: Cr. 3
FIN 6996 -- Corporate Financial Strategies: 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. Investments 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.

Suggested courses to include in final choice of electives for students seeking a career in Financial Markets or Investments:

FIN 5220 -- Portfolio Management: 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

Bachelor's Degrees with a Major in Information Systems Management

Admission Requirements: Students who meet the University requirements for regular admission (see page 23) 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 68), 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 16, 35, and 67.

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 use of computers has spread into virtually every industry in America, and, at present, there is a great demand for information systems professionals. 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. Students must complete the following:

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 can select specialized topics in ISM (e.g., Expert Systems, Decision Support Systems, Computer Aided Design) or an advanced programming course from the Computer Science Department Including ONE of the following:

CSC 1050 -- (CL) Introduction to C and UNIX: Cr. 2
(CSC 1050 is a two-credit course, students may need to elect an additional credit.)
CSC 2000 -- Introduction to C++: Cr. 3
CSC 2110 -- (CL) Intro. to Data Structures and Abstraction: Cr. 4
ISM 4990 -- Directed Study: Cr. 1-3
Bachelor’s Degrees with a Major in Management

Admission Requirements: Students who meet the University requirements for regular admission (see page 23) 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 68), 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 16, 35, and 67.

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 involving organizational design, organization learning, technology management, team projects, managing diversity, quality management, and the development and management of alliances in a global market place.

Core Courses: Students specializing in general management and human resource management and labor relations will complete the following three core courses, and then select from the designated courses in the area of specialization listed below.

- MGT 5510 -- Advanced Organizational Theory: Cr. 3
- MGT 5530 -- Advanced Organizational Behavior: Cr. 3
- MGT 6995 -- Seminar in Management: Cr. 3

Specializations

Bachelor’s degrees in management are offered in the following two specializations: General Management, and Human Resource Management and Labor Relations.

General Management

This specialization focuses on the overall skills required of managers. It is the broadest of the four specializations. Students complete three courses from the following:

- MGT 5540 -- Managing Diversity: Cr. 3
- MGT 5650 -- The Entrepreneur and Venture Creation: Cr. 3
- MGT 5700 -- Human Resource Management: Cr. 3
- MGT 5740 -- Collective Bargaining: Cr. 3
- MGT 5770 -- Advanced Human Resource Management: Cr. 3
- MGT 5780 -- Designing Compensation & Reward Systems: Cr. 3
- ISM 5860 -- Operations Strategy in a Global Environment: Cr. 3
- ISM 5996 -- Advanced Topics in Operations Management: Cr. 3

Human Resource Management and Labor Relations

This specialization prepares students for positions in human resource management and/or labor relations in a variety of public and private sector organizations, including business, labor, non-profit enterprises and government. Students complete three of the following:

- MGT 5700 -- Human Resource Management: Cr. 3
- MGT 5740 -- Collective Bargaining: Cr. 3
- MGT 5770 -- Advanced Human Resource Management: Cr. 3
- MGT 5780 -- Designing Compensation and Reward Systems: Cr. 3

Bachelor’s Degrees with a Major in Marketing

Admission Requirements: Students who meet the University requirements for regular admission (see page 23) 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 68), 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 16, 35, and 67.

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 automotive marketing, international marketing, personal selling and sales management, and 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

This specialization is designed to provide 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
Business Logistics Major

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. This is reflected in an increasing number of jobs in logistics management. Required courses include:

BLG 5600 -- Supply Chain and Distribution Strategy. Cr. 3
BLG 5620 -- Supply Chain Management. Cr. 3
BLG 6997 -- Supply Chain Analysis and Planning. Cr. 3

Plus three electives from a Departmental list, including:
MKT 5650 -- Strategic Procurement (highly recommended). Cr. 3

UNDERGRADUATE COURSES

The following courses, numbered 0990-5999 and 6100-6999, are offered for undergraduate credit. Courses numbered 6000-6090 and 7000-7999 which are offered for graduate credit only may be found in the graduate bulletin. For interpretation of numbering system, signs and abbreviations, see page 483. 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.

BUSINESS ADMINISTRATION COURSES (B A)

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. Human resource management; motivation of employees. (T)

4990 Directed Study. Cr. 1-3
Prereq: 2.75 cumulative g.p.a.; prior written approval of associate dean of undergraduate programs. Advanced readings and research under supervision of faculty member, in area of special interest. (T)

BUSINESS LOGISTICS COURSES (BLG)

4500 Co-op in Business Logistics. 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. Opportunity to put theory into practice on the job. Students normally assigned to an organization for one semester. (T)

4990 Directed Study in Business Logistics. Cr. 1-3
Prereq: BLG 5600; BLG 5620; minimum 2.75 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 or former MKT 4300. 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 Supply Chain Management. Cr. 3
Prereq: MKT 2300 or former MKT 4300. 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. (F)

5890 Internship in Business Logistics. Cr. 3
Prereq: FIN 3290 or former FIN 4290; ISM 3400 or former ISM 4400; ISM 3600 or former ISM 4600; ISM 3630 or former ISM 4630; MGT 2530 or former MGT 4530; MGT 2300 or former MGT 4300; minimum 3.0 g.p.a.; consent of instructor prior to enrollment. Offered for S and U grades only. Student works a minimum ten hours per week for fifteen weeks in entry-level management position. (T)

6997 Supply Chain Analysis and Planning. Cr. 3
Prereq: BLG 5600 and BLG 5620. Open only to students admitted to School of Business Administration; others by consent of adviser. Application and synthesis of logistical concepts to solve problems encountered in the management of the supply chain. (I)

FINANCE COURSES (FIN)

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: ECO 2010, ACC 3010 and ISM 2300 or equiv. No credit after former FIN 4290. 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
Prereq: ECO 2010; ACC 3020. Open only to students admitted to the School of Business Administration; others by consent of adviser. 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. 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: Prereq: ACC 5100; FIN 5210; 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)

5210 Security Analysis and Valuation. Cr. 3
Prereq: FIN 3290 or former FBE 5290, ISM 3400 or former ISM 4400 (or former FBE 5400); coreq: ACC 5100. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. Offered for undergraduate credit only. Analysis of the investment environment; sources of investment information; measuring the risk and return of investments; security valuation models; factors influencing security prices; diversification effects on risk and return, and introduction to portfolio theory and management. (F,W)
5220  Portfolio Management. Cr. 3  
Prereq: FIN 5210 or former FBE 6210. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. Offered for undergraduate credit only. Principles of portfolio construction and administration applicable to various institutions including banks, insurance companies, mutual funds, and pension trusts. (F,W)

5270  Advanced Business Finance. Cr. 3  
Prereq: FIN 5210 or former FBE 6210. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. 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 Business Finance. Cr. 3  
Prereq: FIN 3290 or former FIN 4290. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. 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. (F,W)

5330  Bank Management. Cr. 3  
Prereq: FIN 3290 or former FIN 4290. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. 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 former FIN 4290; ISM 3400 or former ISM 4400; ISM 3600 or former ISM 4600; ISM 3630 or former ISM 4630; MGT 2530 or Former MGT 4530; MKT 2300 or former MKT 4300; minimum 3.0 g.p.a.; consent of instructor 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. (I)

6240  Financial Management for Engineers. Cr. 4  
Prereq: admission to engineering management specialization in industrial engineering master's degree program. Principles of financial reporting, financial analysis, and cost accounting relevant to effective engineering project management. (F)

6996  Corporate Financial Strategies. Cr. 3  
Prereq: FIN 5270 or former FBE 6270. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. 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  Derivative Securities and Portfolio Management. Cr. 3  
Prereq: FIN 5220 or former FBE 6220. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. Offered for undergraduate credit only. Recent developments in futures and options. Principles and theories applicable to pricing of, and markets for, futures and options; analysis and management of financial portfolios. Principles of valuation of options and futures investments; brief review of empirical evidence. (F,W)

### INFORMATION SYSTEMS MANAGEMENT COURSES (ISM)

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 former ISM 3300. Repeat of ECO 4100, STA 1020, or equiv. Measures of central tendency and dispersion. Introduction to probability, normal, binomial, exponential, and Poisson distributions. Statistical inference and sampling methods. Computer techniques. (T)

3400  Quantitative Methods II: Statistical Methods. Cr. 3  
Prereq: ISM 2300 or former ISM 3300 or ECO 5100 or equiv. No credit after ISM 4400. 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)

3600  Production Operations Management. Cr. 3  
Prereq: ISM 2300 or former ISM 3300 or ECO 4100 or equiv. No credit after former ISM 4600. No graduate credit. Analysis of the production system. Identification of problems in a production system and solution of problems. Topics include: forecasting, production planning and scheduling, quality control, cost control and inventory control. (T)

3630  Business Information Systems. Cr. 3  
Prereq: ISM 2630 or former ISM 4630 or equiv. and MAT 1500 or equiv. Offered for undergraduate credit only. Open only to School of Business Administration upper division students; others by consent of adviser. No credit after former ISM 4630. Concepts and techniques of design, use and control of computer-based systems for business data processing, office automation, information reporting, and decision-making. Material Fee as indicated in the Schedule of Classes. (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)

4990  Directed Study in Information Systems and Manufacturing. Cr. 1-3 (Max. 6)  
Prereq: ISM 5820; ISM 5992; ISM 5680; ISM 5994; minimum 2.75 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. (Y)

5650  (MKT 5650) Strategic Procurement. Cr. 3  
Open only to School of Business Administration students; 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: ISM 3600 or former ISM 4600 or consent of instructor. Open only to students admitted to School of Business Administration; others by consent of adviser. Offered for undergraduate credit only. Analysis of problems in production/operations management. Appli-
cation 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. (Y)

5820 Systems Analysis and Design. Cr. 3
Prereq: ISM 3630 or former ISM 4630. No credit after former ACC 5820. Open only to School of Business Administration upper division students; others by consent of adviser. 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. No credit after former ACC 5993. 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 and Manufacturing. Cr. 3
Prereq: FIN 3290 or former FIN 4290; ISM 3400 or former ISM 4400; ISM 3600 or former ISM 4600; ISM 3630 or former ISM 4630; MGT 2530 or former MGT 4530; MKT 2300 or former MKT 4300; minimum 3.0 g.p.a.; consent of instructor prior to enrollment. Open only to School of Business Administration upper division students; others by consent of advisor. Offered for undergraduate credit only. Minimum 10-page paper (excluding exhibits) discussing problem or opportunity facing the sponsor organization; application of information systems and manufacturing concepts, and outcomes relative to the problem or opportunity; summary presentation to the department chairperson. (Y)

5892 Database Systems. Cr. 3
Prereq: ISM 3630 or former ISM 4630. No credit after former ACC 5992. 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)

5994 Software Tools for Business Applications. Cr. 3
Prereq: ISM 5820. No credit after former ACC 5994. 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)

5995 Global Issues in Information Systems. Cr. 3
Open only to School of Business Administration upper division students. Prereq: ISM 3630 or former ISM 4630. Opportunities and problems of managing global information systems and information resources across national borders, time zones, and cultures. (T)

5996 Advanced Topics in Operations Management. Cr. 3
Prereq: ISM 3600 or former ISM 4600 and ISM 3400 or former ISM 4400 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 Information Systems Policy and Management. Cr. 3
Prereq: ISM 5992 or ISM 5860. Must be elected in final sixteen credits of ISM curriculum. No credit after former ACC 6997. Open only to School of Business Administration upper division students; others by consent of adviser. 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. No credit after former MGT 4510 or former MGT 4530. 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. (ACC 4500) (FIN 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. (Y)

4990 Directed Study in Management. Cr. 1-3 (Max. 6)
Open only to upper division students admitted to School of Business Administration. Prereq: MGT 5510; MGT 5530; minimum 2.75 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 Advanced Organizational Theory. Cr. 3
Prereq: MGT 4510 or MGT 2530 or former MGT 4530. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. 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 4510 or MGT 2530 or former MGT 4530. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. 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 (CD) Managing Diversity. Cr. 3
Prereq: MGT 4520 or MGT 2530 or former MGT 4530 or senior standing. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. 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. (Y)

5650 The Entrepreneur and Venture Creation. Cr. 3
Prereq: ACC 3010; FIN 3290 or former FIN 4290; MGT 4510 or MGT 2530 or former MGT 4530; MKT 2300 or former MKT 4300. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. Offered for undergraduate credit only. Nature of entrepreneurship and the role of the entrepreneur in American 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 former MGT 4530 or consent of instructor. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. 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 former MGT 4530 or consent of instructor. Offered only to upper division students admitted to School of Business Administration; others by consent of adviser. 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. (T)

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 adviser. Offered for undergraduate credit only. In-depth study of contemporary human resource practices. Specific personnel techniques discussed and analyzed through applications. (F,W)

5780 Designing Compensation and Reward Systems. Cr. 3
Prereq: nine credits in personnel and industrial relations. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. Offered for undergraduate credit only. Investigation of principles of design and implementation of employee compensation and reward systems; two-tier wage systems, merit pay, pension benefits. (Y)

5790 Internship in Management. Cr. 3
Open only to upper division students admitted to School of Business Administration. Prereq: FIN 3290 or former FIN 4290; ISM 3400 or former ISM 4400; ISM 3600 or former ISM 4600; ISM 3630 or former ISM 4630; MGT 2530 or former MGT 4530; MGT 2300 or former MGT 4300; minimum 3.0 g.p.a.; consent of instructor prior to enrollment. Offered for S and U grades only. Student to submit minimum ten-page paper (excluding exhibits) discussing: a) problem or opportunity facing sponsor's organization; b) application of management concepts; and c) outcomes relative to the identified problem or opportunity; and give a presentation summarizing the experience. (T)

6840 Project Management. (I E 6840) Cr. 1-4
Prereq: I E 6850 or B A 6020 or equiv.; or consent of instructor. Presentation of project management strategies, tools and techniques. Development of management skills for team-building and corporate strategic planning. (Y)

6890 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. Development of conceptual and administrative skills required of managers in their strategy determination, policy formulation, and policy implementation roles. 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 5510, MGT 5530, six additional credits in management courses. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. Offered for undergraduate credit only. Advanced topics in organizational behavior, organization theory, human resource management, operations management from strategic and global perspective. (Y)

MARKETING COURSES (MKT)

2300 Marketing Management. Cr. 3
Prereq: ECO 2010. No credit after former MKT 4300. Planning the marketing program within social, economic and legal environments. Market segmentation and behavior; market systems and strategy; international marketing. (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 2.75 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)

5410 Marketing Research and Analysis. Cr. 3
Prereq: MKT 2300 or former MKT 4300, ISM 3400 or former 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 or former MKT 4300. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. 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 or former MKT 4300. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. 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 or former MKT 4300. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. 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 adviser. Principles of effective advertising copy and application in consumer and industrial advertisements. Exercises in writing, critiquing, 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)

5650 Strategic Procurement. (ISM 5650) Cr. 3
Open only to upper division School of Business Administration students; 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 selection, quantity and delivery, and price determination. Strategic, ethical, legal, international issues. (Y)

5700 Retail Management. Cr. 3
Prereq: MKT 2300 or former MKT 4300. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. 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 or former MKT 4300. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. The sociopolitical-legal-economic environment of international marketing operations, cross-national consumer behavior, international marketing research, forms of international involvement, direct foreign investment; international product, pricing, distribution and promotion policies; world trade patterns, trade policy, multinational corporations and the world economy. (Y)

5820 Marketing in the Automotive Industry. Cr. 3
Prereq: MKT 2300 or former MKT 4300. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. Offered for undergraduate credit only. Topics include: history, brand management, customer perception of satisfaction and quality, organizational issues. Corporate, retail, and wholesale levels. (Y)

5830 Business in Transition in the Emerging Republics. (SLA 5830) Cr. 3
Open only to upper division students admitted to School of Business Administration. Prereq: consent of instructor. Comparative review of economic liberalization and transformation in socialist and market economies. Analysis of liberalization attempts and outcomes; ethical norms and dilemmas occurring in transitional economies. (Y)

5840 Special Topics on Economic Transition in Emerging Republics. (SLA 5840) Cr. 3
Open only to upper division students admitted to School of Business Administration. 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. (Y)

5850 Integrated Marketing Communications Strategy. Cr. 3
Prereq: MKT 2300 or former MKT 4300. Open only to students admitted to School of Business Administration; others by consent of adviser. 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)

5860 The Cultural Environment of Ukrainian Business. (UKR 5860) Cr. 3
Open only to upper division students admitted to School of Business Administration. Prereq: consent of instructor. Culture and history of the Newly Independent States (NIS). History, past cultural achievements, commercial evolution in Ukraine as compared to other cultures. Topics include: Stalinist repression, Kruschev thaw, 1960s Renaissance, implosion of Soviet empire. (Y)

5890 Internship in Marketing. Cr. 3
Prereq: FIN 3290 or former FIN 4290; ISM 3400 or former ISM 4400; ISM 3600 or former ISM 4600; ISM 3630 or former ISM 4630; MGT 2530 or former MGT 4530; MKT 2300 or former MKT 4300; minimum 3.0 g.p.a.; consent of instructor prior to enrollment. 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. Presentation to class summarizing internship experience. (T)

6996 Marketing Policy. Cr. 3
Prereq: MKT 2300 or former MKT 4300; COM 3300; five additional courses in marketing concentration and core courses. 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:  Paula C. Wood
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.

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 concentrations in:
  - Cognitive Impairment
  - Speech & Language 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

**K-12 Education – with concentrations in:**

- Art Education 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
- School and Community Psychology – with concentrations in:
  - School & Community Psychology
  - Marriage and Family Therapy
- 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 concentration in:
  - English as a Second Language
- Career and Technical Education
- Counseling
- Early Childhood Education
- Educational Leadership
- Educational Psychology
- Elementary Education — with concentrations in:
  - Early Childhood Education
  - Language Arts and Reading
  - Literature for Children
  - 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
    - Mathematics Education
    - Middle Level 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)
    - 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. Undergraduate students who are working full time may elect a maximum of eight credits with approval of the adviser.

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/Admissions.html. 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.

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.

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

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.)

Students must complete sixty semester credits at Wayne State University to graduate with honors.

Probation Policy and Withdrawal

For an explanation of matriculation Levels 1 and 2 referenced below, see page 89.

(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 is a signal 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.

90 College of Education
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, Kevin Williams  
Undergraduate Advising: Fawne Allossery, Janet Andrews, Ebony Green, Jahquan Hawkins

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 coeundergrad@wayne.edu, or by attending walk-in advising every Tuesday from 9:00am to 4:00pm 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 for 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 listed below 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 including a list of available scholarships at www.coe.wayne.edu. Refer to the website for deadline date.

Art Education Students:

Art Education Alumni Scholarship: Open to students who have established a record of at least one semester in the art education program; consideration given to financial need, scholastic achievement, character.

Murray A. Douglas Memorial Scholarship: Award of $500 open to art education majors, undergraduate or post-degree, with at least twelve credits earned in art education courses, who have demonstrated excellence in art education studies for at least one semester and show outstanding potential as an art teacher, good character, and leadership ability.
Freda A. Harrington Endowed Memorial Scholarship: Open to art education majors, undergraduate or post-degree, with at least twelve credits earned in methods and material courses, who have demonstrated excellence in art education studies for at least one semester and show outstanding potential as an art teacher, good character, and leadership ability.

Mildred J. Lyman Endowed Memorial Scholarship: Award of varying amount, open to full- or part-time graduate or undergraduate students in the Art Education program, with a cumulative grade point average of at least 3.0; recipient may be eligible for repeat awards.

Earl A. Weiley Endowed Memorial Scholarship: Open to art education majors, undergraduate or post-degree, with at least twelve credits in Art Education methods and material courses, who have demonstrated excellence in the program for at least one semester and show outstanding potential as an art teacher, good character, and leadership ability.

Jane Betsy Well Endowed Memorial Scholarship: Open to full-time undergraduate students who have established a record of at least one semester of study in the Art Education program, with outstanding record in art education courses, excellent potential as an art teacher, and financial need.

Fred E. Zwickel Endowed Memorial Scholarship: Open to art education majors, undergraduate or post-degree, with at least twelve credits earned in methods and material courses, who have demonstrated excellence in art education studies for at least one semester and show outstanding potential as an art teacher, good character, and leadership ability.

Teacher Education Students:

David Adamany Fund for Alternative Pathways to Teaching Program: Open to teachers in the Detroit Public School system who are enrolled in the College of Education's Pathways to Teaching program, working towards State Certification.

C.C. Barnes Memorial Fund: Award of a paid membership in the National Council for Social Studies, open to meritorious social studies education students with a cumulative g.p.a. of at least 3.0 and demonstrated evidence of social and intellectual maturity.

Beta Sigma Phi Endowed Scholarship: Award of varying amount for tuition assistance or books, open to full- or part-time undergraduate or graduate students majoring in elementary or secondary education, with a cumulative g.p.a. of at least 3.0. Recipients may be available for repeat awards.

Eva Marie and William S. Billups Endowed Scholarship: Open to undergraduate or full- or part-time master’s-level students in education. Criteria include a cumulative g.p.a. of at least 3.0, educational or community-related service, demonstrated potential for leadership, and financial need.

College of Education Alumni Association Scholarship: Award of up to twelve credit hours of tuition open to full-time undergraduate students with junior standing who aspire to be teachers. Criteria include a minimum cumulative 3.0 g.p.a. and evidence of the following: leadership ability and potential for becoming an outstanding teacher, social and intellectual maturity, commitment to the field of education, and financial need.

Edna Crosson Endowed Scholarship: Open to undergraduate or M.A.T. students in a teacher preparation program who are pursuing a career in teaching or school administration. Criteria include a cumulative g.p.a. of at least 3.0, financial need, and high academic achievement.

Mamie Curtis Special Education Scholarship: Award of varying amount open to undergraduate or graduate special education students enrolled full or part time, with a cumulative g.p.a. of 3.0 or above, high academic achievement, and demonstrated qualities of leadership.

Dean's Scholarship Award: Award of varying amount open to full- or part-time undergraduate (with minimum 3.5 g.p.a.) or graduate (with minimum 3.75 g.p.a.) students who exhibit interest in urban education. Criteria also include evidence of leadership ability and potential for becoming an outstanding educator, commitment to the field of urban education, and evidence of volunteer community activity.

Delta Kappa Gamma Society, Alpha Chapter, Scholarship (Effie M. Downer Memorial Fund): Open to graduate students enrolled in a planned degree program full or part time, with a cumulative g.p.a. of 3.5 or above, financial need, and evidence of social and intellectual maturity.

Delta Kappa Gamma Society, Lambda Chapter, Scholarship: Award of $500 open to female graduate students in their final year of teacher preparation. Criteria include a cumulative g.p.a. of 3.0 or above, financial need, high academic achievement, evidence of potential to become an outstanding teacher.

Delta Kappa Gamma Society, Zeta Chapter, Alpha Iota State of Michigan Scholarship (in honor of Dr. Paula A. Dent): Open to undergraduate or M.A.T. students, full or part time. Criteria include a cumulative g.p.a. of at least 3.25 and approval for student teaching.

Delta Kappa Gamma Society / Irene Waldorf Endowed Scholarship: Award of varying amount open to full-time undergraduate or graduate students enrolled in a planned degree program. Criteria include a cumulative g.p.a. of 3.0 or above and demonstrated financial need.

Detroit Area Council of Teachers of Mathematics Scholarship: Open to residents of the Tri-County Area (Wayne, Oakland, Macomb). Criteria include: junior or senior student in good standing with a cumulative g.p.a. of 3.0 or above, desirable qualities of character, and financial need. If applicant is a Secondary major, he/she must have successfully completed sixteen credits in mathematics coursework; if an Elementary major, his/her program must include six credits in mathematics coursework.

Detroit Federation of Teachers Memorial Scholarship: Award of varying amount open to full- or part-time senior and post-graduate students who teach or intend to teach in the Detroit Public Schools. Detroit Public School graduates who are pursuing certification are encouraged to apply. Criteria include a cumulative g.p.a. of at least 3.0, demonstrated financial need, and evidence of social and intellectual maturity.

Dorothy L. Fisher Endowed Scholarship: Award of varying amount for students with a g.p.a. of at least 3.0, undergraduate or graduate, who are majoring in or demonstrate a strong interest in a career in teaching at the elementary or middle school level.

Dr. Marvin L. Greene Endowed Memorial Scholarship: open to full- or part-time graduate students majoring in or otherwise demonstrating a strong interest in a career as an educator. Transfer students are eligible for this scholarship, and recipients are eligible for repeat awards.

Jean Banks Holloway Endowed Scholarship: Open to full- or part-time undergraduate students majoring in, or otherwise demonstrating strong interest in, the field of teaching. Applicants must maintain a minimum g.p.a. of 3.0 and demonstrate financial need. Past recipients are eligible for repeat awards.

J. Wilmer Menge Memorial Scholarship: Open to undergraduate students in Mathematics Education planning to teach at the secondary school level; or graduate students preparing to work in curriculum and instruction. Criteria include a minimum cumulative 3.0 g.p.a., evidence of financial need, and desirable qualities of character.

David Morgan Scholarship: Award of varying amount open to graduates or undergraduates in special education. Preference given to graduates of Detroit Public Schools, and students intending to become special education teachers in the Detroit Public Schools. Criteria include a minimum cumulative 3.0 g.p.a. and financial need.

Gary Murphy Scholarship: Open to full- or part-time undergraduate or graduate students majoring in, or otherwise demonstrating strong
interest in, a career in teaching elementary education. Transfer students are eligible for this scholarship, and preference is shown to students pursuing elementary education careers. Recipients are eligible for repeat awards.

Gena E. Ratner Memorial Scholarship in Special Education: Open to full- or part-time undergraduate or graduate students majoring in special education who possess a cumulative g.p.a. of 3.0 or above.

Pi Lambda Theta Detroit Area Scholarships: For tuition assistance during the senior year, open to any full-time junior level student enrolled full-time, who has a cumulative g.p.a. of 3.5 or above, evidence of leadership potential, and financial need.

Retiring Faculty / Staff Scholarship: Awarded in honor of College of Education retiring faculty and staff, open to full- or part-time undergraduate or graduate students interested in urban education. Criteria include a minimum cumulative g.p.a. of 3.5 for undergraduates, and 3.75 for graduates; evidence of leadership and potential for becoming an outstanding educator, commitment to the field of urban education, and evidence of volunteer community activities.

Kurt G. and Martha Schmidt Endowed Memorial Scholarship: Open to full-time students enrolled in third-year study in a teacher preparation program in the College of Education. Criteria include a minimum cumulative g.p.a. of 3.2, senior status at the time funds are made available, and financial need.

Dorothy Silverman Endowed Memorial Scholarship: Award of varying amount open to full- or part-time undergraduate or graduate students in the College of Education with a minimum g.p.a. of 3.0. This scholarship is based on financial need and scholastic achievement.

Edward Walker Endowed Memorial Scholarship: Open to graduates of the Detroit Public Schools who have been accepted into or are enrolled in career and technical education studies; applicants may be full- or part-time, graduate or undergraduate. Criteria include scholastic achievement or potential, desirable qualities of character and leadership, and financial need.

Administrative and Organizational Studies Students:

William and Frances LaPlante-Sosnowsky Scholarship (in memory of Amanda Parker Funnelle): An award of varying amount, open to a full- or part-time graduate student in the College of Education who has been accepted into or enrolled in the Educational Leadership and Policy Studies Program. Criteria include a minimum cumulative g.p.a. of 3.75, scholastic achievement, and demonstrated promise and potential to be an educational administrator.

Kinesiology, Health and Sport Studies Students:

Kinesiology, Health and Sport Studies (KHS) Scholarship: Open to a full- or part-time student in a KHS major, undergraduate or graduate, who has earned at least twelve credits in professional course work. Preference is given to students who plan to work in an urban setting. Criteria include a minimum cumulative g.p.a. of 3.5, evidence of leadership and potential for becoming an outstanding educator, high academic performance, commitment to the professional area, a record of service to one or more urban school or community organizations, and financial need.

Sports Administration Scholarship: Open to full- or part-time graduate students in the sports administration program. Criteria include a minimum cumulative g.p.a. of 3.0, demonstrated evidence of potential to become an outstanding professional in the field, and financial need.

Scholarships Available to College of Education Students in All Program Areas:

Carol Ann Albertson Memorial Endowed Scholarship Fund: Award of varying amount open to full-time undergraduate students in their first year in the College of Education. Criteria include scholastic achievement or potential, and financial need.

Augustus J. Calloway Jr. Scholarship: Open to full-time undergraduate students (or full- or part-time graduate students at the master’s level) in the field of education. Criteria include a minimum cumulative g.p.a. of 3.0, evidence of performance in an educational or community-related service, demonstrated potential for leadership, and financial need.

Laura Catherine Campbell Endowed Memorial Scholarship: Award of varying amount for tuition or books, open to all students. Criteria include scholastic achievement.

Marshall and Thelma Davis Endowed Scholarship: Award of varying amount (depending on available funding) for tuition or books, open to full-time students. Criteria include a minimum cumulative g.p.a. of 3.0, scholastic achievement and financial need.

Donna Jean Nunnaly Edly Endowed Scholarship: Award of varying amount ($1200 to $2500) open to African American students, preferably full-time College of Education undergraduates in their junior or senior year, or graduate students working on their master’s degree. Recipients are male and female in alternate years. Criteria include a minimum cumulative g.p.a. of 3.0, good academic standing, and demonstrated leadership qualities or potential. A recipient may be eligible for a second annual award, providing he/she is in the upper half of the class academically and demonstrates financial need.

College of Education Memorial Scholarships: Open to full-time undergraduate (or part-time master’s-level graduate) students with a minimum cumulative 3.5 g.p.a., demonstrated evidence of social and intellectual maturity, and financial need.

Faculty Leadership Award: Open to students with a minimum cumulative g.p.a. of 3.5 (3.75 for graduate students) who show evidence of leadership and potential for becoming an outstanding educator, commitment to the field of education, and financial need.

Sally W. Gillum Endowed Memorial Scholarship: Award of varying amount open to full- or part-time undergraduates; preference given to Detroit residents. Criteria include academic achievement and financial need.

Margaret Leadbetter Meyers Endowed Scholarship: Award of varying amount for tuition and books, open to full- or part-time graduate or undergraduate students. This scholarship recognizes scholastic achievement and encourages continued progress toward a degree by providing assistance in financing students’ education. Recipients are eligible for repeat awards.

Estelle M. Morrison Endowed Memorial Scholarship: Award of varying amount open to students with a minimum cumulative undergraduate g.p.a. of 3.0 (3.5 for graduate students) who demonstrate financial need. This award is dependent on funds available and may be used for tuition, books, and other educational expenses.

Outstanding Educator of the Year Scholarship Award: Given in honor of an outstanding educator or administrator, this award is open to undergraduate or graduate students. Criteria include a minimum cumulative g.p.a. of 3.5, evidence of leadership and potential for becoming an outstanding educator, and financial need.

June and John Rounding Endowed Scholarship: Award of varying amount open to all students in the College, are pursuing graduate or undergraduate study. Applicants must demonstrate financial need; recipients are available for repeat awards.

Michael P. Rutledge Endowed Memorial Scholarship: Award of varying amount open to full-time undergraduate students and full- or part-time graduate students at the master’s level, who evidence financial need. Preference is given to residents of the City of Detroit.

Patricia Sax Endowed Scholarship: Open to full-time undergraduate students in the College of Education with a minimum cumulative g.p.a. of 3.0 and financial need. Recipients are available for repeat awards.
Jennifer Schmerin Memorial Scholarship: Open to full-time graduate or undergraduate students. Criteria include scholastic achievement, desirable qualities of character and leadership, and financial need.

Ilene Stark Smith Endowed Memorial Scholarship: Award of varying amount open to students with a minimum cumulative undergraduate g.p.a. of 3.5 (3.75 for graduate students); not a need-based award. Applicants must write and submit a poem or short story suitable for K-12 children, to be reviewed by the Scholarship Committee as part of the application.

Joseph Taranto Endowed Scholarship: Award of varying amount (pending available funding) for tuition or books, open to full-time graduate or undergraduate students. Criteria include a minimum cumulative undergraduate g.p.a. of 3.0 (3.5 for graduate students), financial need, and evidence of potential to become an outstanding professional in the field.

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 appropriate 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.
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 English 1020 or equivalent (Basic Composition).
4. Completion of BIO 2870 Anatomy & Physiology (Cr. 5 with lab).
5. Completion of University English Proficiency.
6. Completion of University Math Competency.
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. Up-to-date transcripts from each undergraduate school attended.
12. A completed Level 2 Application (available in Room 489, College of Education or online at http://www.coe.wayne.edu/as/admiss.htm).
13. 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 Office of Student Services, College of Education, 489 Education Building, 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 126 credits are required for completion of this degree: a minimum of forty credits in general education (including satisfaction of the University General Education requirements, see page 17); forty-four credits in kinesiology; eight credits in health, anatomy, and physiology; and twenty-two 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 126 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 16, 35, 89 and 106. All major, minor, and education 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 Track: This degree track prepares students for careers in teaching K-12 Physical Education. Specific goals of this
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. 3-4
BIO 2870 -- Anatomy and Physiology: Cr. 5
HEA 2330 -- First Aid and CPR: Cr. 3

KINESIOLOGY PEDAGOGY TRACK
(All courses required)
Level 1 Courses:
KIN 1991 -- Professional Perspectives in Physical Education: Cr. 2
KIN 3400 -- Lifespan Growth and Development: Cr. 3
KIN 3540 -- (HE 3540) Cultural Foundations of Kinesiology: 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: 3 Cr
KIN 4450 -- Methods in Physical Ed. for Elementary School Children II: Cr. 3
KIN 5400 -- Inclusion in Physical Education: Cr. 3
KIN 5530 -- Technology and Assessment in Kinesiology: Cr. 3
Lifelong Leisure Activity: Cr. 2

Level 2 Courses:
KIN 3440 -- Aquatic Leadership: Cr. 4
KIN 3550 -- (WI) Motor Learning and Control: Cr. 3
KIN 3580 -- Biomechanics: 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 5580 -- Pediatric Exercise Physiology: Cr. 3
Total credits: 44

PROFESSIONAL EDUCATION REQUIREMENTS
Level 1 Course
EDP 3310 -- (CD) Educational Psychology: Cr. 3

Level 2 Courses:
KIN 4460 -- Methods in Phys. Ed. for Secondary School Students: Cr. 3
KIN 5780 -- Student Teaching and Seminar I: Cr. 8
KIN 5790 -- Student Teaching and Seminar II: Cr. 5
RLL 4431 -- Reading: Middle and Secondary Subjects: Cr. 3
Total credits: 22

EXERCISE AND SPORT SCIENCE TRACK
REQUIRED COURSES
Level 1 Courses:
HE 3440 -- Nutrition and Health Education: Cr. 3
KIN 1991 -- Professional Perspectives in Physical Education: Cr. 2
KIN 2010 -- (ST) Psycho-Physiological Foundations: Cr. 3
KIN 3400 -- Lifespan Growth and Development: Cr. 3
KIN 3540 -- (HE 3540) Cultural Foundations of Kinesiology: Cr. 3
PHY 1020 -- Conceptual Physics: Cr. 3

Level 1 OR Level 2 Courses:
HEA 2310 -- Dynamics of Personal Health: Cr. 3
HEA 2330 -- First Aid and CPR: Cr. 3

Level 2 Courses:
KHS 5520 -- Sport Psychology: Cr. 3
KHS 5522 -- Health Psychology: Cr. 3
KIN 3550 -- (WI) Motor Learning and Control: Cr. 3
KIN 3580 -- Exercise Science Internship: Cr. 2-4
KIN 3570 -- Physiology of Exercise I: Cr. 3
KIN 3580 -- Biomechanics: Cr. 3
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
Level 1 Courses:
HE 5440 -- Mental Health and Substance Abuse: Cr. 3
NFS 2030 -- (LS) (ST) Nutrition and Health: Cr. 3
NFS 2210 -- Human Nutrition: Cr. 3
NFS 3270 -- Eating Disorders: Cr. 3
PSY 3010 -- Statistical Methods: Cr. 4

Level 2 Courses:
KHS 6540 -- Workshop in KHS: Cr. 1-3
KIN 2560 -- Individual Problems in Kinesiology: Cr. 1-3
KIN 3530 -- Exercise Science Internship II: Cr. 3
KIN 5360 -- Senior Research Project: Cr. 1-8
KIN 5510 -- Coaching Principles and Certification: Cr. 3
KIN 6310 -- Physiology of Exercise II: Cr. 3
Total Elective Credits: 22

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): October 2nd of the preceding academic year
   - Term II (Winter Semester): April 2nd 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. (An incomplete grade does not constitute satisfactory completion.): BIO 2870; EDP 3310; KIN 1991, 3550, 3580, 3610, 3620, 3630, 4440, 4450, 4460, and 5580.

6. The following certifications are required before the secondary student teaching contact:
   a) Current Red Cross Lifeguard Training Certificate.
   b) Current Water Safety Instructor Certificate.
   7. 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 7-12 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 3610 -- Elementary Movement Education and Dance: Cr. 3
- KIN 3620 -- Sports Education: Cr. 3
- KIN 3630 -- Fitness and Adventure Education: Cr. 3
- KIN 5400 -- Inclusion in Physical Education: Cr. 3

Level 2 Courses:

- KIN 3550 -- (WI) Motor Learning and Control: 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

Adaptive Kinesiology Pedagogy Endorsement

A program leading to State endorsement in this specialty is available to kinesiology and special education majors. The program requires twelve credits in approved special education courses and twelve credits in adapted kinesiology courses. To be admitted to this program the student must possess a valid Michigan teaching certificate in kinesiology 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 kinesiology or special education. Kinesiology 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: 3
- SED 5030 -- Education of Exceptional Children: Cr. 3
- SED 5110 -- Mental Impairments and the Cognitive Process: Cr. 3
- SED 5260 -- Effective Instructional Strategies for Exceptional Learners: Cr. 4
- SED 5600 -- Collaborative Support for Inclusive Education for Students with Special Needs: Cr. 3

Total credits: 25

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 University English Proficiency.
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.nesine.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. Transcripts from each undergraduate school attended.

10. Completed Level 2 application to the college of Education (available in Room 489 Education or online at: http://www.coe.wayne.edu/as/admiss.htm.

11. Students must possess personal attributes most desirable for teachers, including a high standard of moral conduct.

12. Attendance at a mandatory College of Education level 2 Orientation.

Admission questions should be directed to the Office of Student Services, College of Education, 469 Education, phone (313) 577-1801.

NOTE: This Major is being revised. For the most current information, see: http://www.kinesiology.wayne.edu/

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 17); forty-four core credits in health education (see below); a minimum of twenty credits in a selected minor; and twenty 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 16, 35, 89 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/semi-nar at the secondary level.

2. Students must submit completed application forms by the appropriate application period deadline:
   Term I (Fall Semester): October 2nd of the preceding academic year
   Term II (Winter Semester): April 2nd 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) State-wide 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; HEA 2310, 2320, 2330; H E 3300, 3330, 3440, 3500, 4340, 5440 5500, 6430; KHS 5520, EHP 3600, BBE 5000, SED 5010, 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 7-12; 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:

HEA 2310 -- Dynamics of Personal Health: Cr. 3
HEA 2320 -- Dynamics of Community and Environmental Health: Cr. 3
HEA 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: HEA 2310 or H E 3300)
   -- Workshop in KHS: Cr. 3
   (Prereq: HEA 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 3440)
KHS 5520 -- Sport Psychology: Cr. 3

Level 2 Courses:

H E 5500 -- Evaluation and Measurement in Kinesiology and Health: Cr. 3
Health Education Major Total Credits: 35

PROFESSIONAL SEQUENCE COURSES

Level 1 Courses:

BBE 5000 -- (CD) Multicultural Education in Urban America: Cr. 2
EDP 5480 -- Adolescent Psychology: Cr. 3
EHP 3600 -- Introduction to the Philosophy of Education: Cr. 3
H E 5790 -- Student Teaching: Cr. 10 (Prereq: completion of all courses and passing score on MTTC in major and minor)
SED 5010 -- Inclusive Teaching: Cr. 2

Level 2 Courses:

H E 3330 -- Methods in Teaching Health: Cr. 4
   (Prereq: successful completion of eighteen credits of Health Education and admission to Level 2)
H E 6430 -- (WI) School Health Curriculum: Cr. 3
RLL 4431 -- Teaching Reading in Middle and Secondary Subject Areas: Cr. 3
Professional Sequence Total Credits: 33

Other Requirements:

Teaching Minor: twenty to twenty-nine credits
General Education Courses: twenty-four credits
Additional electives: three credits
TOTAL CREDITS: 124

GENERAL EDUCATION REQUIREMENTS

Forty credits, which must include:

BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3
A minimum of twenty credits in an approved teaching minor is required
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 K-6. 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:
- HEA 2310 -- Dynamics of Personal Health: Cr. 3
- HEA 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: HEA 2310 or H E 3300)
  -- Workshop in KHS: Nutrition: Cr. 3
  (Prereq: HEA 2310 or H E 3300)
- H E 4340 -- Family and Reproductive Health: Cr. 3
- H E 5440 -- (CD) Mental Health and Substance Abuse: Cr. 3
  (Prereq: HEA 2310 or H E 330)

Level 2 Courses:
- H E 3330 or H E 6500
  -- Methods of Teaching Secondary Health: Cr. 3
    (Prereq: Completion of all Level 1 courses)
  -- Comprehensive School Health Education: Cr. 3
    (Prereq: Completion of all Level 1 courses)
- 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 HE 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. 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 5400 -- Inclusion in Physical Education: Cr. 3
- KIN 5530 -- Assessment and Technology in Kinesiology: Cr. 3

Level 2 Courses:
- KIN 3550 -- (WI) Motor Learning and Control: Cr. 3
- KIN 4460 -- Methods in Phys. Ed. for Secondary School Students: Cr. 3
- KIN 5580 -- Pediatric Exercise Physiology: Cr. 3

Total credits: 29

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 483.

DRIVER EDUCATION COURSES (D E)

5730 Teaching Driver Education and Traffic Safety. Cr. 3
Prereq: valid Michigan driver's license. (F,W)

5740 Problems in Driver Education and Traffic Safety. Cr. 3
Prereq: D E 5730. Issues and concerns in professional preparation to meet traffic safety needs of schools and communities. (F,S)

5750 Seminar in Driver Education and Traffic Safety. Cr. 3
Prereq: D E 5740. Behavioral, administrative, and professional aspects of the teaching role in driver and traffic safety education. (W,S)

HEALTH COURSES (HEA)

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. (Y)

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)

3990 Individual Problems in Health. Cr. 1-3 (Max. 3)
Prereq: HEA 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)

HEALTH EDUCATION COURSES (HE)

2010 (ST) Psycho-Physiological Foundations of Physical Activity and Health. (KIN 2010) Cr. 3
Physiological and psychological foundations of physical activity evaluated using the scientific method. Laboratories demonstrate relevant concepts and principles. (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. (F,W)

3330 Methods in Teaching Health. Cr. 3-4
Open only to health majors or minors. Prereq: completion of 18 H E and HEA credits. Principles, curriculum development, and techniques in teaching health at elementary and secondary school levels. (F)

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)

3400 Lifespan Growth and Development. (KIN 3400) 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. (F)

3440 Nutrition and Health Education. Cr. 3
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. (F)

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. (S)

3540 Cultural Foundations of Kinesiology. (KIN 3540) Cr. 3
Introduction to the sociology of physical education, sport, exercise, and health. (F,W)

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. (W)

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. (Y)

5440 (CD) Mental Health and Substance Abuse. Cr. 3
Prereq: HEA 2310 or consent of instructor. 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. (Y)

5500 Evaluation and Measurement in Kinesiology and Health. (KIN 5500) Cr. 3
Elementary statistical methods and evaluative techniques applied to health, physical education, and recreation. Test construction and standard measurement approaches. (W)

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. (Y)

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. (F)

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. (W)

6430 (WI) School Health Curriculum. Cr. 3
Offered for S and U grades only. Prereq: H E 3330. 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 course for health majors. (B)

6500 Comprehensive School Health Education. Cr. 3
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. (Y)

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. (W)
KINESIOLOGY COURSES (KIN)

1991 Professional Perspectives in Physical Education. Cr. 2
Required upon admission to the professional curriculum. Introduction to the profession and academic dimensions of physical education. (F,W)

2010 (ST) Psycho-Physiological Foundations of Physical Activity and Health. (H E 2010) Cr. 3
Physiological and psychological foundations of physical activity evaluated using the scientific method. Laboratories demonstrate relevant concepts and principles. (F,W)

2560 Individual Problems in Physical Education. Cr. 1-3 (Max. 4)
Prereq: consent of adviser and chairperson. Solving a specific problem under the guidance of the divisional staff. (F,W)

2580 Individual Sports I and II. Cr. 3 (Max. 6)
Open only to physical education majors, minors, and special education students. Skill development, methods and materials of teaching individual sports at the K-12 school levels, including classroom management and motivation, organization of personnel and use of facilities. (F,W)

2590 Team Sports I and II. Cr. 3 (Max. 6)
Open only to physical education majors, minors, and special education students. Skill development, methods and materials of teaching team sports at the K-12 school levels, including classroom management and motivation, organization of personnel and use of facilities. (F,W)

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. (F)

3440 Aquatic Leadership. Cr. 4
Prereq: swimmer level. Water safety and survival skills; instructional methods; program development, administration of aquatic programs; leads to Lifeguard Training, Lifeguard Instructor, and Water Safety Instructor certifications. (F)

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
Prereq: BIO 2870 or equiv. 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. (W)

3570 Physiology of Exercise I. Cr. 3
Prereq: BIO 2870 or equiv. Basic physiological concepts as they relate to exercise and human performance. Practical applications incorporated into the laboratory component. (W)

3580 Biomechanics. Cr. 3
Prereq: BIO 2870 or equiv. 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)

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. (Y)

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. (Y)

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.). (Y)

4440 Methods in Physical Education for Elementary School Children I. Cr. 3
Prereq: KIN 3610, KIN 3620, KIN 3630. 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. 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
Open only to students admitted to College of Education teacher certification program. Prereq: KIN 2580 I and II, KIN 2590 I & II. Planning for instruction in physical education with emphasis on unit and lesson planning, teaching styles, principles of motor learning and developmental curriculum planning. (W)

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, HEA 2330; written consent of instructor. 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 and KIN 3400 or equiv. 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, consent of instructor. Writing behavioral objectives for students with special needs. Adaptation of teaching methods and materials to meet the needs of individuals with special needs in physical fitness, fundamental motor skills, individual and group games, and lifetime sports skills. (F,W)

5420 Sports and Recreation for Children with Special Needs. Cr. 3
Prereq: KIN 5400 and consent of instructor. 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. (F,W)

5430 Practicum in Physical Education for the Exceptional Student. Cr. 2
Prereq: KIN 5400, 5410, 5420, and consent of instructor. 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
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. (F,S)

5520 Sport 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. (Y)

5521 Physical Education 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. (Y)

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. (B)

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. (Y)

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. (F)

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. (Y)

KINESIOLOGY, HEALTH, and SPORT STUDIES INTERDIVISIONAL COURSES (KHS)

5524 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. (F)

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. Elementary and secondary adventure education; elementary and secondary fitness education. Use of technology to enhance physical education and assessment. (Y)

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. (Y)

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 KHS. Cr. 1-3
Prereq: consent of adviser prior to registration. Future and current professionals explore topics of current interest, or work cooperatively on current problems in the field. (T)

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)

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)

6750 Fieldwork in KHS. Cr. 1-4
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. (F,W)

1190 Lifeguard Training. Cr. 2
Prereq: Level 1V swimming skills. Lifeguarding and water safety procedures. Leads to lifeguard training certification. (F,W)

1200 Theory and Practice of Aquatics: Water Safety Instructor. Cr. 2
Prereq: lifeguard certification. Instructional methods and techniques in aquatics, water safety and survival; swimming program development; pool and waterfront administration and management. Can lead to American Red Cross Lifeguard Instructor and Water Safety Instructor certifications. (F,W)

1210 Pilates Matwork. Cr. 2
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
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
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)

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. (Y)

1270 Aqu aerobics. 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. (Y)

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. (F,W)

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. (T)

1310 Rock Climbing: Basic. Cr. 1
Prereq: good physical condition. Two Friday field trips required. Introduction to the basic principles and techniques of technical rock climbing. Field trips. (T)

1350 Pocket Billiards: Beginning. Cr. 2 (Max. 4)
Bowling lane rental fee: $25. Basic skills and technique; history, rules, equipment and game courtesy. (F,W)

1380 Bowling. Cr. 2 (Max. 4)
Bowling lane rental fee: $25. Analysis and practice of skills. Information on scoring procedures, rules, tournament play. (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. (F,W)

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)

1500 Racquetball: Beginning. Cr. 2 (Max. 4)
Basic strokes, history, rules, equipment and game courtesy. Introduction to singles and singles game competition. (T)

1530 Basketball: Fundamental Skills. Cr. 2 (Max. 4)
Analysis and practice of fundamental skills, team play, and rules of basketball. (I)
1540 Basketball: Shooting Skills and Strategies. Cr. 2 (Max. 6)
Analysis and practice of intermediate and advanced shot-making skills and game strategies. (I)

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. (F,S)

1600 Tennis: Beginning. Cr. 2 (Max. 4)
Analysis and practice of basic strokes, singles and doubles play, strategy, rule interpretation. (T)

1640 Weightlifting and Training. Cr. 2 (Max. 4)
Analysis and practice of approved lifting techniques and use of weight training for conditioning purposes. (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. Continuation of PEA 1780. (F,W)

1790 Tai Chi Chuan: Continuing. Cr. 2 (Max. 8)
Prereq: basic Tai Chi Chuan skills. This course builds on basic knowledge 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
Analysis and practice of fundamental skills, movements, and philosophy of Tae Kwon Do as a modern martial art and competitive sport. (T)

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. 4)
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: Gerald Ogan
Office: 241 Education Building; 313-577-0902
Website: http://ted.coe.wayne.edu

Professors
Janice Hale, Leonard Kaplan, Michael Peterson, R. Craig Roney, Gary R. Smith, David Whitten

Associate Professors

Assistant Professors

Lecturers
Kathleen Arkles, Elsie Babcock, Carmen Ruth Bosch, Mary Brady, James Brown, Hal Dittenber, Placidia Frierson, Joan Livingston, Anna Miller, Kariann Reno, Sharon Sellers-Clark, Anne Williamson, Janet Windemuth

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 Kinesiology Pedagogy
Mathematics Education — Secondary
Science Education — Secondary
Social Studies Education — Secondary
Special Education — with concentrations in: Speech and Language Impairment 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 General Elementary 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
  - General Elementary 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
- 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, Geology, Geography, German, History, Italian, Latin, Mathematics, Political Science, Physics, Russian, Spanish

COLLEGE OF FINE, PERFORMING and COMMUNICATION ARTS
- Dance, Music, Speech

Laptop Computer Requirement
The College of Education requires each initial teacher certification candidate to own or purchase a college-specified laptop computer: Beginning Fall, 2007 Sophomores enrolled in TED 2251 and all Level 2 students enrolled in pre-student teaching (TED 3550, TED 5150, and TED 5650) that semester will be required to purchase a college-specified laptop computer before classes begin in the fall semester. Beginning Fall, 2008 all students enrolled in initial teacher preparation programs will be required to have the college-specified laptop before classes begin.

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.

For more details on the college-specified laptop computer, please visit http://www.coe.wayne.edu/laptop/ or e-mail the Director of the Education Technology Center at coelaptops@wayne.edu

Teacher Education 105
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 education, the major, the minor (including the planned minor), 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.

1. Forty credits in preprofessional coursework including 6-8 credits in English (ENG 1020, plus one course at the 2000 level or above) 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 17).
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) 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-Certification Office from either the American Heart Association or the American Red Cross.

BACHELOR OF ARTS in Education Language Requirement: In addition to the above requirements, the Bachelor of Arts degree requires twelve credits in a foreign language.

Bachelor's Degree Programs

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 content test.

Admission Requirements: see above, page 106.

DEGREE REQUIREMENTS: The following requirements in various curricular areas supplement the degree requirements outlined above.
PREPROFESSIONAL REQUIREMENTS (K-8 Certification): The following courses and course options are required of all students seeking K-8 certification, regardless of selection of major and minor studies. Some of these courses may also satisfy the University General Education Requirements (see page 17), 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-' is not acceptable.

ENGLISH (Two Courses)

ENG 1020 -- (BC) Introductory College Writing: Cr. 4
Intermediate Composition (IC) -- see General Education Requirements, page 17

EXPOSURE AREAS

(for students enrolled as freshmen Fall 2005 and thereafter, and transfer students enrolled Fall 2007 and thereafter, see page 21)

FOREIGN CULTURE

(see General Education Requirements, page 17)

HEALTH (One Course)

HE 3300 -- Health of the School Child: Cr. 3
HE 6500 -- Comprehensive School Health Education: Cr. 3
HEA 2310 -- Dynamics of Personal Health: Cr. 3
HEA 2330 -- First Aid and CPR: Cr. 3

HISTORICAL STUDIES (One Course)

ANT 3200 -- (HS) Lost Cities and Ancient Civilizations: Cr. 3
HIS 1000 -- (HS) World Civilization to 1500Cr. 3-4
HIS 1300 -- (HS) Europe and the World: 1500-1945: Cr. 3-4
HIS 1400 -- (HS) The World Since 1945: Cr. 3-4
HIS 1600 -- (HS) African Civilizations to 1800: Cr. 4
HIS 1610 -- (HS) African Civilizations Since 1800: Cr. 4
HIS 1800 -- (HS) The Age of Islamic Empires: 600-1600: Cr. 3
HIS 1810 -- (HS) The Modern Middle East: Cr. 3
HIS 1995 -- (HS) (NE 2040) The Modern Middle East: Cr. 3
HIS 2000 -- (HS) (NE 2030) The Age of Islamic Empires: 600-1600: Cr. 3
I H 3810 -- (HS) Discovering the Past: Cr. 3-4
ISP 3160 -- (HS) (ST) World War I as a Turning Point: Historical Perspectives: Cr. 4
N E 2030 -- (HS) The Age of Islamic Empires: 600-1600 (HIS 1800): Cr. 3
N E 2040 -- (HS) The Modern Middle East (HIS 1810): Cr. 3

NATURAL SCIENCE

(Three Courses, one of which must include an approved laboratory, which is associated with all of the following courses when elected for maximum credit, except BIO 1030)

PHYSICAL SCIENCES (elect one)

AST 2010 -- (PS) Descriptive Astronomy: Cr. 4
CHM 1000 -- (PS) (ST) Chemistry and Your World: Cr. 3-4
CHM 1020 -- (PS) Survey of General Chemistry: Cr. 4
CHM 1220 -- (PS) General Chemistry I: Cr. 4
CHM 1225 -- (PS) General Chemistry I: Cr. 3
CHM 1230 -- General Chemistry I Lab: Cr. 1
CHM 1410 -- (PS) Chemical Principles I: General/Organic: Cr. 6
GEL 1010 -- (PS) Geology: The Science of the Earth: Cr. 4
HON 4230 -- (PS) Seminar in Physical Science: Cr. 3
IST 2420 -- (PS) Atoms and Stars: A Historical Intro. to Astronomy, Physics and the Process of Scientific Discovery: Cr. 3-4
PHY 1020 -- (PS) Conceptual Physics: The Basic Science: Cr. 3-4
PHY 1040 -- (PS)(ST) Einstein, Relativity & Quanta: Conceptual Intro.: Cr. 3-4
PHY 1070 -- (PS) Energy and the Environment: Cr. 4
PHY 2130 -- (PS) General Physics: Cr. 3
PHY 2170 -- (PS) General Physics: Cr. 4
PHY 2175 -- (PS) General Physics: Cr. 4
PHY 3100 -- (PS) The Sounds of Music: Cr. 4

LIFE SCIENCES (PSY 1010 and one of the following Biology courses):

PSY 1010 -- (LS) Introductory Psychology (Required Course): Cr. 4
BIO 1030 or BIO 1050 or BIO 1500 or BIO 1510
-- (LS) Biology Today: Cr. 3-4
-- (LS) An Introduction to Life: Cr. 3-4
-- Basic Life Diversity: Cr. 4 (not a General Education course)
-- (LS) Basic Life Mechanisms: Cr. 3-4

MATHEMATICS (Two Courses)

MAT 1110 and 1120 -- Mathematics for Elementary School Teachers I & II: Cr. 6

SOCIAL STUDIES (Three Courses)

AMERICAN SOCIETY AND INSTITUTIONS:

PS 1010 or PS 1030
-- (AI) American Government: Cr. 4
-- (AI) The American Governmental System: Cr. 3

BASIC SOCIAL SCIENCES:

GPH 1100 -- (SS) World Regional Patterns: Cr. 4
HIS 2040 or HIS 2050
-- United States to 1877: Cr. 3-4
-- United States since 1877: Cr. 3-4

SCIENCE EDUCATION (One Course):

SCE 5010 -- Biological Sciences for Elem. and Middle School Teachers: Cr. 3-4
SCE 5020 -- Physical Sciences for Elem. and Middle School Teachers: Cr. 3-4

CHILDREN'S LITERATURE:

ELE 3200 -- Literature for Children: Cr. 3

CAMPUS COURSES

BBE 5000 -- Multicultural Education in Urban America*: Cr. 2
EDP 3310 -- (CD) Educational Psychology: Cr. 3
ELE 3300 -- Teaching Language Arts: Preprimary-9: Cr. 3
ELE 3400 -- Teaching Mathematics: Preprimary-9: Cr. 3
ELE 3500 -- Teaching Science: Preprimary-9: Cr. 3
ELE 3600 -- Teaching Social Studies: Preprimary-9: Cr. 3
ELE 6070 -- Family, Community, and School Partnerships: Cr. 3
RLL 4430 -- Teaching Reading II: Comprehension Preprimary-8
(Preq: ELE 3320): Cr. 3
*SED 5010 -- Inclusive Teaching: Cr. 2
*TED 6020 -- Computer Applications in Teaching I: Cr. 3

FIELD COURSES (Off-Campus):

Courses listed below are taken in public schools in the Detroit metropolitan area. They must be completed in the order given. All of the courses in the professional sequence must be completed before entering TED 5780.

TED 5780 -- Directed Teaching and Conference: Cr. 10

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 -- Preprinaries Goals and Practices: Cr. 3
TED 5790 -- Student Teaching & Conference for Special Groups: Cr. 5
(ELE 6080 and TED 5790 must be taken concurrently.)

Teacher Education 107
MAJOR AREAS OF STUDY (K-5 Certification): Students seeking a K-5 certification must complete a major and a minor, or three minors:

**ENGLISH MAJOR (Minimum 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
  - (CD) Literature and Identity: Cr. 3
  - Literature of the World: Cr. 3
- ENG 2310 or ENG 5450
  - (IC) Major American Books: Cr. 3
  - Modern American Literature: Cr. 3
- ENG 3140 -- (PL) Survey of American Literature: Cr. 3
- ENG 2110 or ENG 2600 or ENG 2800
  - (IC) Introduction to Drama: Cr. 3
  - Intro. to Folklore: Cr. 3
  - Techniques of Imaginative Writing: Cr. 4
- ENG 3110 -- (PL) English Literature to 1700: Cr. 3
- ENG 3120 -- (PL) English Literature after 1700: Cr. 3
- ENG 3700 -- Structure of English: Cr. 3
- ENG 5720 -- Linguistics and Education: Cr. 3

**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
- Speech Communication Elective: Cr. 3

**FOREIGN LANGUAGE MAJOR (Thirty to Thirty-five Credits)**

Elementary certification is offered with majors in the following languages: 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, or Spanish 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)**

The following courses plus all of the courses listed under the Mathematics Minor (see Minor Areas of Study below):

- MAE 5100 -- (MAT 5180) Geometry for Middle School Teachers: Cr. 3
- MAE 5110 -- Number Theory for Middle School Teachers: Cr. 3
- MAE 5120 -- (MAT 5120) Number Theory & 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: Cr. 4
- MAT 2010 -- Calculus 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 (Thirty-nine Credits)**

- AST 2010 -- (PS) Descriptive Astronomy: Cr. 4
- AST 2011 -- (PS) Descriptive Astronomy Lab: Cr. 1
- BIO 1050 -- (LS) Introduction to Life: Cr. 4
- BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
- GEL 1010 -- (PS) Geology: The Science of the Earth: Cr. 4
- CHM 1000 -- (PS) (ST) Chemistry and Your World: Cr. 4
- CHM 1020 -- (PS) Survey of General Chemistry I: Cr. 4
- CHM 6740 -- Laboratory Safety: Cr. 2
- PHY 1020 -- (PS) Conceptual Physics: The Basic Science: Cr. 3-4
- SCE 5030 or SCE 5040
  - Earth/Space Sci. for Elementary & Middle School Teachers: Cr. 3
  - Field Course Exploring the Natural Environment: Cr. 3
- SCE 5010 -- Biological Sci. for Elementary & Middle School Teachers: Cr. 3
- SCE 5020 -- Physical Sci. for Elementary & Middle School Teachers: Cr. 3
- SCE 5040 -- Field Course Exploring the Natural Environment: Cr. 3

**SOCIAL STUDIES GROUP MAJOR (Thirty-six Credits)**

- ECO 1000 -- (SS) Survey of Economics: Cr. 4
- ECO 2010 or ECO 2020
  - (SS) Principles of Microeconomics: Cr. 3-4
  - (SS) Principles of Macroeconomics: Cr. 3-4
- GPH 1100 -- (SS) (CD) 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
- PS 1030 -- (AI) The American Governmental System: Cr. 3
- PS 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 -- (CD) Multicultural Education in Urban America: Cr. 2
- BBE 5020 -- Effective Involvement of Parents in School & Community: Cr. 3
- BBE 6550 -- 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 -- Intership 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

**DANCE MINOR (Twenty-eight Credits)**

- DNC 2000 -- (VP) (CD) Introduction to Dance: Cr. 4
- DNC 2010 -- Technique Laboratory I: Part I: Cr. 2
- DNC 2020 -- Technique Laboratory I: Part II: Cr. 2
- DNC 2210 -- Ballet III: Cr. 2
- DNC 2300 or DNC 2310
  - History of Dance to 1800: Cr. 3
  - (VP) History of Dance from 1800: Cr. 3
- DNC 2311 -- Issues and Trends in Contemporary Dance: Cr. 2
- DNC 2500 -- Choreography I: Cr. 2
- DNC 3010 -- Technique Laboratory II: Cr. 2

1. May be elected while in the College of Liberal Arts and Sciences.
Health Education Minor (Twenty-four Credits)

- HEA 2310 -- Dynamics of Personal Health: Cr. 3
- HEA 2330 -- First Aid and CPR: Cr. 3
- HE 3300 -- Health of the School Child: Cr. 3
- HE 3340 -- Health Education for the Elementary School Teacher: Cr. 3
- HE 3440 -- Nutrition and Health Education: Cr. 3
- HE 4340 -- Family and Reproductive Health: Cr. 3
- HE 5440 -- (CD) Mental Health and Substance Abuse: Cr. 3
- HE 6430 -- School Health Curriculum: Cr. 3

Mathematics Minor (Minimum Twenty-three Credits)

- MAE 5100 -- Geometry for Middle School Teachers: Cr. 3
- MAE 5110 -- (MAT 5190) Number Theory 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 2100 -- Calculus I: Cr. 4
- MAT 5120 -- Number Theory & Algebra for Middle School Teachers: Cr. 3

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
- EDP 3550 or 5150 or 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

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):
- Student Teaching or on-the-job teaching 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 Sciences for Elementary & Middle School Teachers: Cr. 3
- SCE 5020 -- Physical Sciences for Elementary & Middle School Teachers: Cr. 3

Kinesiology (Physical Education) Minor

(Twenty-two Credits)

- 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 Physiolgy: 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.

Social Studies Group Minor — Elementary Only

(Twenty-three Credits)

- ECO 1000 -- (SS) Survey of Economics: Cr. 4
- ECO 2010 or ECO 2020
  - (SS) Principles of Microeconomics: Cr. 3-4
  - (SS) Principles of Macroeconomics: Cr. 3-4
- GPH 1100 -- (SS) (CD) World Regional Patterns: Cr. 4
- GPH 2200 -- Geography of Michigan: Cr. 3

1. May be elected while in the College of Liberal Arts and Sciences.

Teacher Education 109
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 182 and 256, respectively.

Admission Requirements: see page 106.

DEGREE REQUIREMENTS: The following requirements in various curricular areas supplement the degree requirements outlined above (see page 106).

PREPROFESSIONAL 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 COURSE REQUIREMENTS

Basic Composition (BC) course: Cr. 4
Intermediate Composition (IC) course: Cr. 3-4
Oral Communication (OC) course (or competency exam): Cr. 3
HEA 2310 or HEA 2330 or H E 3300 or H E 6500
-- Dynamics of Personal Health: Cr. 3
-- First Aid and CPR: Cr. 3
-- Health of the School Child: Cr. 3
-- Comprehensive School Health Education: Cr. 3
TED 2250 -- (CD) Introduction to Education (optional): Cr. 2
Computer Literacy (CL) course (or competency exam): Cr. 3-4
Critical Thinking (CT) course (or competency exam): Cr. 3-4

EXPOSURE AREAS (for students enrolled as freshmen Fall 2005 and thereafter and transfer students enrolled in Fall 2007 and thereafter; see page 21)

FOREIGN CULTURE (see General Education Requirements, page 17)

HISTORICAL STUDIES (One Course)

ANT 3200 -- (HS) Lost Cities and Ancient Civilizations: 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 1400 -- (HS) The World Since 1945: Cr. 3-4
HIS 1600 -- (HS) African Civilizations to 1800: Cr. 4
HIS 1610 -- (HS) African Civilizations Since 1800: Cr. 4
HIS 1800 -- (HS) (N E 2030) The Age of Islamic Empires: 600-1600: Cr. 3
HIS 1810 -- (HS) (N E 2040) The Modern Middle East: Cr. 3
HIS 1995 -- (HS) (ST) Society and the Economic Transition: Cr. 3
HON 4250 -- (HS) Seminar in Historical Studies: Cr. 3
I H 3810 -- (HS) Discovering the Past: Cr. 3-4
ISP 3160 -- (HS) World War I as a Turning Point: Historical Perspectives: Cr. 4
N E 2030 -- (HS) The Age of Islamic Empires: 600-1600. (HIS 1800): Cr. 3
N E 2040 -- (HS) The Modern Middle East. (HIS 1810): Cr. 3

MATHEMATICS COMPETENCY

(see General Education Requirements, Page 18)

NATURAL SCIENCE

(Three courses, one of which must include an approved laboratory, which is associated with all of the following courses when elected for the maximum credit, except BIO 1030)

PHYSICAL SCIENCES (elect one):

AST 2010 -- (PS) Descriptive Astronomy: Cr. 4
CHM 1000 -- (PS) (ST) Chemistry and Your World: Cr. 3-4
CHM 1020 -- (PS) Survey of General Chemistry: Cr. 4
CHM 1220 -- (PS) General Chemistry I: Cr. 4
CHM 1225 -- (PS) General Chemistry I: Cr. 3
CHM 1410 -- (PS) Chemical Principles I: General/Organic Chemistry: Cr. 6
GEL 1010 -- (PS) Geology: The Science of the Earth: Cr. 4
HON 4230 -- (PS) Seminar in Physical Science: Cr. 3
IST 2420 -- (PS) Atoms and Stars: Cr. 3-4
PHY 1020 -- (PS) Conceptual Physics: The Basic Science: Cr. 3-4
PHY 1040 -- (PS) (ST) Einstein, Relativity & Quanta: A Conceptual Intro.: Cr. 3-4
PHY 1070 -- (PS) Energy and the Environment: Cr. 4
PHY 2130 -- (PS) General Physics: Cr. 3
PHY 2170 -- (PS) General Physics: Cr. 4
PHY 2175 -- (PS) General Physics: Cr. 4
PHY 3100 -- (PS) The Sounds of Music: Cr. 4

NOTE: The four courses marked with an asterisk (*) in the following sections must be completed with a grade of ‘C’ or above.

LIFE SCIENCES (elect two):

*PSY 1010 -- (LS) Introductory Psychology (Required Course): Cr. 4
*BIO 1030 or BIO 1050 or BIO 1510 or BIO 1500
-- (LS) Biology Today: Cr. 3-4
-- (LS) An Introduction to Life: Cr. 3-4
-- (LS) Basic Life Mechanisms: Cr. 4
-- (LS) Basic Life Diversity: Cr. 4

SOCIAL STUDIES (Two Courses)

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

BASIC SOCIAL SCIENCES (SS) COURSE (elect one):

AFS 2210 -- (SS) Black Social and Political Thought: Cr. 4
ANT 2100 -- (SS) Introduction to Anthropology: Cr. 4
ECO 1000 -- (SS) Survey of Economics: Cr. 4
ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 4
ECO 2010 -- (SS) Principles of Microeconomics: Cr. 3-4
GPH 1100 -- (SS) (CD) World Regional Patterns: Cr. 4
GPH 3130 -- (SS) Introductory Urban Geography: Cr. 4
GPH 3200 -- (SS) Europe: Cr. 3
HON 1000 -- (SS) City I: Cr. 3
ISS 2710 -- (SS) (CD) Selected Perspectives on Ethnicity: Cr. 4
ISP 3480 -- (SS) Theoretical and Practical Analysis of Work Organizations: Cr. 4
ISS 2710 -- (SS) (CD) Selected Perspectives on Ethnicity: Cr. 4
P S 1000 -- (SS) Introduction to Political Science: Cr. 3
P S 2240 -- (SS) Introduction to Urban Politics and Policy: Cr. 4
PSY 1500 -- (SS) Freshman Seminar: Cr. 3
SOC 2000 -- (SS) Understanding Human Society: Cr. 3
SOC 2020 -- (SS) Social Problems: Cr. 3
SOC 3300 -- (SS) Social Inequality: Cr. 4
SOC 3510 -- (SS) Nature and Impact of Population on Society: Cr. 3
SOC 4100 -- (SS) Social Psychology: Cr. 4
W S 3010 -- (SS) Interdisciplinary Introduction to Women's Studies: Cr. 3-4

PHILOSOPHY & LETTERS (see General Education requirements, page 20)
VISUAL & PERFORMING ARTS  (see General Education requirements, page 20)

HEALTH  (One Course)
*HEA 2330 or H E 3300 or HEA 2310 or H E 6500
  -- First Aid and CPR:  Cr. 3
  -- Health of the School Child:  Cr. 3
  -- Dynamics of Personal Health:  Cr. 3
  -- Comprehensive School Health Education:  Cr. 3

PROFESSIONAL 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 I and II is predicated on the student's choice of major/minor.

SEMESTER I
  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

The following courses may be elected at any time after admission to the College of Education and must be completed prior to TED 5780:
  EDP 5480 -- Adolescent Psychology:  Cr. 3
  RLL 4411 -- Teaching Reading in Middle & Secondary Subject Areas:  Cr. 3

Teaching methods in the major, two courses:  Cr. 3 (6 req.)
  Teaching methods in the minor course:  Cr. 3

The following courses may be elected at any time after admission to the College of Education:
  BBE 5000 -- (CD) Multicultural Education in Urban America:  Cr. 2
  EHP 3600 -- Introduction to the Philosophy of Education:  Cr. 3
  SED 5010 -- Inclusive Teaching:  Cr. 2
  TED 6020 -- Computer Applications in Teaching I:  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

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)
  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)  (Spanish and Italian majors only.  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 -- Teaching English as a Second Language/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
  SGE 5060 -- Methods & Materials of Instruction:  
    Secondary Science I:  Cr. 3
  SGE 6300 -- Advanced Studies in Teaching Science:  
    Junior High & Middle School:  Cr. 3

SCIENCE EDUCATION: SINGLE SUBJECT
  SGE 5060 -- Methods & Materials of Instruction:  
    Secondary Science I:  Cr. 3
  SGE 5070 -- Methods & Materials of Instruction:  
    Secondary Science II:  Cr. 3

SOCIAL STUDIES EDUCATION
  SGE 6710 -- Methods & Materials of Instruction:  
    Secondary Social Studies:  Cr. 3
  SGE 6730 -- New Perspectives in Social Studies Education:  Cr. 3

SPEECH EDUCATION
  COM 6060 -- Teaching Communication at the Secondary Level:  Cr. 3
  EED 5200 -- Methods of Teaching English:  Grades 7-12:  Cr. 3

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
    -- (CD) Literature and Society:  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:  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, Italian, or Spanish 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.
The following courses outside the major are also required and may be available in room 469, College of Education.

**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 5000 -- Fundamental Concepts of Mathematics & Proof Writing: Cr. 3
- MAT 2100 -- (MAT 6150) Probability and Statistics for Teachers: Cr. 4
- MAT 2860 -- Discrete Mathematics: 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 5420 or MAT 6170
  - -- Algebra I: Cr. 4
  - -- Alg.: Ring Theory Through Exploration, Conjecture, & Proof. Cr. 4
- MAT 6140 -- Geometry: An Axiomatic Approach: Cr. 3
- 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 MATHEMATICS MINOR** (Minimum 31 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 6140 -- Geometry: An Axiomatic Approach: Cr. 3
- MAE 6210 -- (MAT 6210) Teaching Geometry, Probability & Statistics & Discrete Math. from an Advanced Perspective: Cr. 3
- MAT 5420 or MAT 6170
  - -- Algebra I: Cr. 4
  - -- Alg.: Ring Theory Through Exploration, Conjecture, & Proof. Cr. 4

**SECONDARY SCIENCE MAJOR**

**SINGLE DISCIPLINE and INTEGRATED SCIENCE**

Students who major in biology (thirty-seven credits), chemistry (thirty-one credits), and political science. The major must include at least two courses from each of these areas. (Note that opportunities for teaching social studies at the secondary level are very limited.) The recommended distribution of courses is as follows:

**ECONOMICS MAJOR** (Thirty Credits): See an adviser in Academic Services, College of Education, for specific course requirements.

**GEOGRAPHY 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**

This major includes four disciplines: economics, geography, history, and political science. The major must include at least two courses from each of these areas. (Note that opportunities for teaching social studies at the secondary level are very limited.) The recommended distribution of courses is as follows:

**SPEECH EDUCATION MAJOR**

A minor in English is strongly encouraged with this major. (History or Political Science may also be selected as options for the minor)

**REQUIREMENT** (COM 1010) is a prerequisite of this major

**REQUIRED COURSES**: (COM 1010) is a prerequisite of this major

**COMMUNICATION** (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
  - -- Oral Interpretation of Literature: Cr. 3.
  - -- (VP) Experiencing the Arts. Cr. 3.
  - -- (IC) Reading & Writing About the Arts. Cr. 3.
- COM 3270 -- Group Communication and Human Interaction: Cr. 3
- COM 3400 -- (WI) Theories of Communication: Cr. 4 (Coreq: COM 5993)
- COM 4040 -- (CD) Diversity in Interpersonal Communication: Cr. 3
- COM 5030 -- (EI) Communication Ethics: Cr. 3
  - (Capstone course to be taken in last twenty-one credits)
- COM 6070 -- Directing Forensics: Cr. 3

**TOTAL**: 34 credits

**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.

**GEOGRAPHY 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. (Note that opportunities for teaching social studies at the secondary level are very limited.) The recommended distribution of courses is as follows:**

**ECO 2010 or ECO 2020**
- -- (SS) Principles of Microeconomics: Cr. 3
- -- (SS) Principles of Macroeconomics: Cr. 3

**GPH 1100 -- (SS) (CD) 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 -- 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. (History or Political Science may also be selected as options for the minor)

**REQUIREMENTS**: (COM 1010) is a prerequisite of this major

**COMMUNICATION** (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 or HUM 1020 or HUM 2000
  - -- Oral Interpretation of Literature. Cr. 3.
  - -- (VP) Experiencing the Arts. Cr. 3.
  - -- (IC) Reading & Writing About the Arts. Cr. 3.
- COM 3270 -- Group Communication and Human Interaction: Cr. 3
- COM 3400 -- (WI) Theories of Communication: Cr. 4 (Coreq: COM 5993)
- COM 4040 -- (CD) Diversity in Interpersonal Communication: Cr. 3
- COM 5030 -- (EI) 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)

The student must take the language proficiency examinations by the time he/she has completed twelve credits; the student must satisfactorily pass the proficiency exams before completion of the program.

- **BBE 5000** -- (CD) Multicultural Education in Urban America: Cr. 2
- **BBE 5020** -- Effective Involvement of Parents in School and Community: Cr. 3
- **BBE 5500** -- Teaching Methods in Bilingual/Bicultural Education: Cr. 3
- **BBE 6600** -- Internship in Bilingual/Bicultural Teaching: Cr. 4
- **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. 1-3

**COMPUTER SCIENCE MINOR** (Twenty-three Credits)

- **CSC 1100** -- (CL) Problem Solving and Programming: Cr. 4
- **CSC 1500** -- (CL) Fundamental Structures in Computer Science: Cr. 3
- **CSC 2110** -- (CL) Computer Science I: Cr. 3
- **CSC 2220** -- Data Structures and Algorithm Analysis: Cr. 4
- **TED 8020** -- Computer Applications in Teaching I: Cr. 3
- **TED 8030** -- Computer Applications in Teaching II: Cr. 3

(TED 8030 is to be completed after admission to College of Education Level 2.)

Elective (three credits):
- CSC elective at or above the 3000 level (excluding CSC 4990, 4995. CSC 3750 is recommended.)

**DANCE MINOR** (Twenty-eight Credits)

- **DNC 2200** -- Ballet I: Cr. 3
- **DNC 2300 or DNC 2310**
  -- History of Dance to 1800: Cr. 3
  -- (VP) History of Dance from 1800: Cr. 2
- **DNC 2311** -- (VP) History of Dance from 1800 to the Present: Cr. 3
- **DNC 2500** -- Choreography I: Cr. 3
- **DNC 3010** -- Technique Laboratory II: Cr. 4
- **DNC 3020** -- Technique Laboratory III: Cr. 2
- **DNC 5610** -- Dance Company I: Cr. 1
- **DNC 5810** -- Creative Dance for Children (TED 5810): Cr. 3
- **DNE 4810** -- (DNC 4810) Methods in Modern Dance & Ballet: 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**
  -- (CD) Literature and Identity: Cr. 3
  -- Literatures of the World: Cr. 3
- **ENG 3110 or ENG 3120**
  -- (PL) English Literature to 1700: Cr. 3
  -- 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 5750** -- English Grammar. (LIN 5730): Cr. 3
- **ENG 6010** -- Tutoring Pracicum: Cr. 3

**FOREIGN LANGUAGE MINORS** (Twenty to Twenty-six Credits)

Secondary certification is offered with minors in the following languages: 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, Latin, or Spanish, or at the Intermediate High Level in 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

**MATHEMATICS MINOR** (Twenty-two to Twenty-three 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 5420 or MAT 6170**
  -- Algebra I: Cr. 4
  -- Alg.: Ring Theory Through Exploration, Conjecture, & Proof. Cr. 4

Two from the following:
- **MAT 6130** -- Discrete Mathematics: Cr. 3
- **MAT 6140** -- Geometry: An Axiomatic Approach: Cr. 3
- **MAT 6150** -- Probability and Statistics for Teachers: 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, 4
  -- (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

Students must also complete Pre-Student Teaching & Student Teaching in grades 6-8.

Field Experiences (credit does not count towards endorsement)

**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 sections 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-seven credits)

- **BIO 1030** -- (LS) Biology Today: Cr. 3
- **BIO 1500** -- Basic Life Diversity: Cr. 4
- **BIO 1510** -- (LS) Basic Life Mechanisms: Cr. 4
- **BIO 2870** -- Anatomy and Physiology: Cr. 5
- **BIO 3070** -- Genetics: Cr. 4
- **BIO 4130** -- (WI) Ecology: Cr. 4
- **BIO 4200** -- Evolution: Cr. 3

Additional Requirements:
- **CHM 6740** -- Laboratory Safety: Cr. 2
- **MAT 1800** -- Elementary Functions: Cr. 4

Teacher Education 113
CHEMISTRY MINOR (Minimum twenty-six credits)
CHM 1000 -- (PS) (ST) Chemistry and Your World: Cr. 4
CHM 1220 -- (PS) General Chemistry I: Cr. 4
CHM 1230 -- General Chemistry 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 Requirements:
MAT 1800 -- Elementary Functions: Cr. 4

EARTH/SPACE SCIENCE MINOR
(GEOLOGY & ASTRONOMY) (Minimum: twenty-four credits)
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
AST 2100 -- (PS) Descriptive Astronomy Cr. 4
AST 2101 -- Descriptive Astronomy Lab: Cr. 1 (coreq: AST 2100)
Additional Requirements:
CHM 6740 -- Laboratory Safety: Cr. 2
MAT 1800 -- Elementary Functions: Cr. 4

PHYSICS MINOR (Minimum twenty-four credits)
PHY 2170 -- (PS) General Physics Cr. 4
PHY 2171 -- General Physics Lab: Cr. 1 (coreq: PHY 2170)
PHY 2180 -- General Physics: Cr. 4
PHY 2181 -- General Physics Lab: Cr. 1 (coreq: PHY 2180)
PHY 3300 -- Introductory Modern Physics: Cr. 3
PHY 3310 -- Modern Physics Lab: Cr. 1 (coreq: PHY 3300)
PHY 5200 -- Classical Physics I: Cr. 3
PHY 1040 or PHY 5010 -- (PS) (ST) Einstein, Relativity and Quanta: Cr. 3
PHY 1070 or PHY 3100 -- (PS) (ST) Astrophysics and Stellar Astronomy: Cr. 3
PHY 5200 -- Classical Physics I: Cr. 3
Additional Requirements:
CHM 6740 -- Laboratory Safety: Cr. 2
MAT 1800 -- Elementary Functions: Cr. 4

SOCIAL STUDIES SINGLE SUBJECT MINOR (Twenty Credits)
Note: Social Studies is no longer available at the Secondary Level.

ECONOMICS MINOR (Minimum twenty-six credits)
ECO 2010 -- (SS) Principles of Microeconomics: Cr. 3
ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 3
ECO 5100 -- Introductory Statistics & Econometrics: Cr. 4
ECO 5300 or ECO 5310 -- International Trade: Cr. 4
-- International Finance: Cr. 4
ECO 5400 -- Labor Economics: Cr. 4
ECO 5410 -- (CD) Economics of Race & Gender: Cr. 4
ECO 5550 -- Economics of Health Care: Cr. 4

GEOGRAPHY MINOR (Minimum twenty-two credits)
GPH 1000 -- (LS) World Regional Patterns: Cr. 4
GPH 2020 -- Geography of Michigan: Cr. 3
GPH 2500 -- Geography of Africa: Cr. 4
GPH 3130 -- (SS) Introductory Urban Geography: Cr. 4
GPH 3200 -- (SS) Europe: Cr. 3
GPH 5750 -- Social & Economic Geography of US & Canada: 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 2040 -- United States to 1877: Cr. 3
HIS 2050 -- United States Since 1877: Cr. 3
HIS 2240 -- History of Michigan: Cr.3-4 (must elect four credits)
HIS elective at the 3000 level or above: Cr. 3
HIS elective at the 5000 level or above: 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 & Elections: Cr. 4
P S 3070 -- Michigan Politics: Cr. 4
P S 3040 or P S 5120 -- The Legislative Process: Cr. 4
-- Constitutional Rights & Liberties: Cr. 4

SPEECH COMMUNICATION EDUCATION MINOR
(Minimum: twenty-seven credits)
COM 1010 -- (OC) Basic Oral Communication: Cr. 3
(COM 1010 is prerequisite to all of the following)
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 5030 -- (EI) 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. The cognitive impaired concentration prepares teachers to work with children who have a 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.

PREPROFESSIONAL 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 17), 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. College and special education planned minor requirements must be completed prior to entering this program.

No grade below ‘C’ may be used to meet any requirement specific to Special Education, the Special Education major, or the professional sequence.

SPECIAL EDUCATION PLANNED MINOR
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
(Prerequisite: high school Biology or BIO 1050)
HEA 2330 -- First Aid & CPR: Cr. 3
MAT 1110 -- Mathematics for Elementary Teachers I: Cr. 3
(Prerequisite (within two semesters: Mathematics Placement Exam or MAT 0995 at WSU)
P S 1010 -- (AI) American Government: Cr. 4
PSY 1010 -- (LS) Introductory Psychology: Cr. 4
PSY 2300 -- Psychology of Everyday Living: Cr. 4

114 College of Education
Bachelor’s Degree Programs in Art 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, Group Requirements, and Exposure Areas) for which see page 17: 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 Art Education

The visual arts major for Post Bachelor Certification total 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)

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.

PREPROFESSIONAL REQUIREMENTS: Students seeking a bachelor’s degree in career and technical education must complete the preprofessional requirements outlined on page 110.

PROFESSIONAL EDUCATION REQUIREMENTS: Students in career and technical education programs must complete the professional education requirements outlined on page 111.
SPECIALIZATIONS: Programs in career and technical education are grouped under four curricular areas:

BUSINESS, MANAGEMENT, MARKETING & TECHNOLOGY:
- Accounting and Computing
- Business Information Systems
- Marketing Education

HEALTH OCCUPATIONS:
- Dental Occupations
- Medical Laboratory Occupations
- Medical Assisting Occupations
- Nursing Occupations

TRADE AND INDUSTRY:
- Auto Mechanics
- Electricity/Electronics
- Graphics and Printing
- Heating and Air Conditioning
- Small Engine Repair
- Welding

(For additional concentrations in this area, consult the Career and Technical Education Program Coordinator.)

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.

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

All 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. Elementary certificates require one academic major and one 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 or 489 Education.

Provisional Certificates

Teaching certificates as listed below are granted with the bachelor’s degree upon the completion of the four-year program. Application for the provisional certificate must be submitted within five years after certification requirements have been met. (In exceptional circumstances, the degree may be granted without the teaching certificate if the student meets all degree requirements but is unable to meet all requirements for the certificate.) 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.

Elementary Provisional Certificate for Kindergarten through Grade Eight

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; or three minors. A single subject major is defined as a minimum of thirty credits and a group major as a minimum of thirty-six credits. A single subject minor is a minimum of twenty credits, and a group minor is a minimum of twenty-four credits. Majors and minors must correspond to disciplines listed on the State of Michigan Approved List of Majors and Minors. Curriculum requirements may exceed the minimum semester credits listed above for majors and minors.
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 (may be a group minor) in subjects or subject fields in which the applicant expects to teach. A single subject major is defined as a minimum of thirty credits and a group major as a minimum of thirty-six credits. A single subject minor is a minimum of twenty credits and a group minor is a minimum of twenty-four credits. Curriculum requirements may exceed the minimum semester credits listed above for majors and minors.
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 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, 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.)
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 eighteen-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 October and November (deadline November 30) for the following Fall semester.
Apply during April and May (deadline May 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.
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 483.

TEACHER EDUCATION DIVISION COURSES (TED)

2250 (CD) Introduction to Education. Cr. 3
Exploration of teaching and schools in today's and tomorrow's society. Open to all students interested in discipline of professional education as a tool to understanding our multicultural society. (T)

3550 (WI) Teaching: Research, Theory and Practice. Cr. 5
Prereq: admission to College of Education; coreq: ELE 3320. 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)

5160 (WI) Analysis of Middle and Secondary School Teaching. Cr. 3-6
Prereq: admission to M.A.T program. 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. (T)

5150 Analysis of Elementary School Teaching. Cr. 3-6
Prereq: admission to M.A.T program. 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. (T)

5160 (WI) Analysis of Middle and Secondary School Teaching. Cr. 3
Prereq: admission to College of Education; coreq: TED 5650. 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)

5450 Directed Teaching and Conference. Cr. 1-10
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)

5470 Directed Teaching and Conference. Cr. 1-10
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)

5470 Directed 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 certifi-
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: aplique, tribunate, 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 handpicking processes, various firing procedures including forward and rake, 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, colligraphy, 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)

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. Basic theory and practice; emphasis on drawing, lesson plans, history of art education in the United States, state and national standards and research agendas of National Art Education Association. Material Fee as indicated in the Schedule of Classes (Y)

6320  Introduction to Art Therapy.  Cr. 3
Slides, lectures, studio experiences and field observations on definition, theory, goals, research and ethics of art therapy; the role and duties of the art therapist in various settings; cross-cultural mores. (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  (CD) 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  (CD) 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 multicultural 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  (CD) 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  
Prereq: admission to College of Education. 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)

6993  Teaching Methods for the Career and Technical Education Classroom II. Cr. 3  
Prereq: CTE 5410. 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)

3310  (CD) 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)

3990  Directed Study. Cr. 1-6 (Max. 6)  
Prereq: written consent of adviser. Offered for S and U grades only. (T)

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)

5998  Field Studies. Cr. 1-8 (Max. 8)  
Prereq: consent of adviser or instructor. Supervised professional study in field settings. (T)

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  
Psychological aspects of cognitive and physical deficits in children; laboratory experience in differential diagnosis. Material Fee as indicated in the Schedule of Classes (F)

EDUCATIONAL PSYCHOLOGY COURSES (EDP)

3310  (CD) 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)

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. 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-9. Cr. 3
Prereq: admission to College of Education. Developing communication skills in the elementary and middle school classrooms: thinking, listening, speaking, and writing. Implications of multiculturalism and bilingualism. Teaching children with special needs. Reporting to and collaborating with parents. (F,W)

3320 Teaching Reading I: Emergent Literacy. Cr. 3
Prereq: admission to College of Education; coreq: TED 3550. 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-9. 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-9. 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: Preprimary-9. 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 Family Centered Collaboration in Early Childhood Intervention and Special Education. (O T 6150) (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,W)

6020 Seminar in Early Childhood. Cr. 3
Prereq: admission to 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
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: admission to 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
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
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: admission to 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
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
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 selecting literature into school curriculum. (T)

6290 Language Arts Instruction: Preprimary-9. Cr. 3
Prereq: admission to MAT degree program. Developing thinking, listening, speaking and writing skills in elementary and middle schools. Students plan, implement and evaluate learning experience with children under professional guidance. (F,W)

6300 Language Arts Curriculum: Preprimary-9. Cr. 3
Prereq: admission to teacher certification program. Content of language arts programs. Objectives, procedures, materials, and organizational patterns. (T)

6310 Reading Instruction: Preprimary-9. Cr. 3
Prereq: admission to College of Education. Developing reading skills in elementary and middle schools. Students plan, implement and evaluate learning experience with children under professional guidance. (F,W)

6320 Reading Curriculum: Preprimary-9. Cr. 3
The reading process; procedure, materials and organizational patterns used when teaching reading. (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. (Y)

**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. (I)

**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. (S)

**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. (W)

**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)

### LANGUAGE EDUCATION COURSES (LED)

**5810 Teaching Foreign Languages: Receptive Skills.** (CLA 5810) (CLA 7810) (FRE 7810) (GER 5810) (GER 7810) (ITA 5810) (ITA 7810) (LED 7810) (N E 5810) (N E 7810) (SPA 5810) (SPA 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. (Y)

**5820 Teaching Foreign Languages: Productive Skills.** (CLA 5820) (CLA 7820) (FRE 7820) (GER 5820) (GER 7820) (ITA 5820) (ITA 7820) (LED 7820) (N E 5820) (N E 7820) (SPA 5820) (SPA 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 Technology in the Foreign Language Classroom.** (CLA 5830) (CLA 7830) (FRE 5830) (FRE 7830) (GER 5830) (ITA 5830) (ITA 7830) (LED 7830) (N E 5830) (N E 7830) (SPA 5830) (SPA 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 Foreign Language Instruction.** (CLA 5850) (CLA 7850) (FRE 5850) (FRE 7850) (GER 5850) (ITA 5850) (ITA 7850) (LED 7850) (N E 5850) (N E 7850) (SPA 5850) (SPA 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 Foreign Language Testing.** (CLA 5860) (CLA 7860) (FRE 5860) (FRE 7860) (GER 5860) (ITA 5860) (ITA 7860) (LED 7860) (N E 5860) (N E 7860) (SPA 5860) (SPA 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 an objective, relativistic and holistic attitude about human diversity, enabling them to relate to pupils in urban areas. (B)

MATHEMATICS EDUCATION COURSES (MAE)

5150 Methods and Materials of Instruction in 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 EDUCATION COURSE (RDG)

6400 Practicum in Developmental Reading. Cr. 1-4 (Max. 4)
Prereq: admission to College of Education. Identifying and solving field problems in developmental reading, management of reading instruction, the importance of reading in the content areas. (T)

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)

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. (S)

Teacher Education 123
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. (F,W)

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. (F,W)

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 Speech Improvement in the Classroom. Cr. 2
Identification of the speech characteristics and needs of teachers and pupils; deviations from normal speech; integration of speech improvement in classroom activities. (S)

5060 Developing Observation and Assessment Skills: Laboratory/Seminar. Cr. 3
Prereq: SED 5030. Investigation and application of appropriate evaluative techniques for use with learners with mental impairments in an educational setting. (Y)

5100 Methods 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)

5110 Mental Impairments and the Cognitive Process. Cr. 3
Prereq: SED 5030; admission to College of Education. Characteristics, classifications, etiologies, evaluation and learning strategies for the improvement of the cognitive processes in learners with a mental impairment. (F,W)

5130 Curriculum Development: Mental 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 mental impairments within the school and community. (Y)

5140 Behavior Management: Positive Behavior Support. Cr. 3
Prereq: SED 5030 or equiv; admission to College of Education. 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. 4
Prereq: SED 5030 or equiv; admission to College of Education. Effective instructional strategies for students with special needs; multi-level and differentiated instruction, scaffolding, multi-modal instruction. (F)

5600 Collaborative Support for Inclusive Education of Students with Special Needs. Cr. 3
Prereq: SED 5030, 5010, or 7050. Methods of organizing and implementing educational and behavioral support services for students with special needs, to facilitate successful inclusive education in K-12 schools. (I)

6000 Problems in Special Education: Critical Epochs in Exceptionality. Cr. 1-6 (Max. 8)
Prereq: successful completion of at least five credits in anatomy and physiology, including laboratory. For teachers, supervisors, and administrators. Seminars and workshops dealing with problems in educating handicapped children in pre-school, elementary, and secondary programs. Topics to be announced in Schedule of Classes. (I)

6010 Seminar in Special Education Teaching and Disabilities. Cr. 2-3
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.

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.

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.

SPEECH EDUCATION COURSE (S E)

6060 (COM 6060) Teaching Communication at the Secondary Level. Cr. 3
Prereq: admission to College of Education; fifteen credits in speech. Philosophy, pedagogical issues, and methods for teaching speech in secondary schools.

ADMINISTRATIVE & ORGANIZATIONAL STUDIES

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.

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.

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.

6135 Technology Applications in School Administration. Cr. 3
Use of technology tools by school administrators; factors related to leadership and research in technology integration.

6140 Designing Web Tools for the Classroom. Cr. 3
No credit for I T students after I T 7140. 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.

6230 Internet in the Classroom. Cr. 4
Developing problem-based instruction by integrating the Internet into the curriculum and lessons. Students examine models for lesson development and investigate how the Internet may be used as a resource in those lessons.

THEORETICAL & BEHAVIORAL FOUNDATIONS

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.
COLLEGE OF ENGINEERING

DEAN: Ralph H. Kummler
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 can be 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 (graduate degrees), 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 the six departments in the Division of Engineering. Five programs leading to a Bachelor of Science in Engineering Technology degree are offered in the Division of Engineering Technology. A Master of Science in Engineering Technology degree is also offered in this Division.

The Profession of Engineering

Engineering requires men and women of imagination who can plan and create. Their creations include the laser, the transistor, 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, 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. An ability to use mathematics and computers and, above all, an imaginative and an inquiring mind are primary tools in an engineer's toolbox.

Engineers do not devote their attention solely to innovations in technology. They look beyond their inventions and conceptions to ing mind are primary tools in an engineer's toolbox.

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.

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 designed 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 have been made in communications and instrumentation technology. Highly sophisticated machine tools and manufacturing processes have come into being. New energy sources and new man-made materials have been developed, and computer applications have 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 four separate buildings with over 214,000 square feet of classroom, office, and laboratory space. Among those facilities are multimedia classrooms, a comprehensive computer center, electronics and machine shops, 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 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 the Accreditation Board for Engineering and Technology (ABET). 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.

ACCRREDITATIONS

DIVISION OF ENGINEERING (undergraduate)

Bachelor of Science Degrees in

Chemical Engineering
Civil Engineering
Electrical Engineering
Industrial and Manufacturing 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 AND TECHNOLOGY (undergraduate)

Bachelor of Science degrees 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. 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 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 137.

The College is affiliated with the eleven other schools and colleges of Wayne State University. The University setting, 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:

Chemical Engineering
Civil Engineering
Electrical Engineering
Industrial Engineering
Mechanical Engineering

MASTER OF SCIENCE in:

Biomedical Engineering
Chemical Engineering
Civil Engineering
Computer Engineering
Electrical 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
Polymer Engineering

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Division of Engineering Technology Degrees

BACHELOR OF SCIENCE in Computer Technology

BACHELOR OF SCIENCE in Engineering Technology —with a major in:
- Electrical/Electronic Engineering Technology
- Electromechanical Engineering Technology
- Manufacturing/Industrial Engineering Technology
- Mechanical Engineering Technology
- Product Design Engineering Technology

BACHELOR OF SCIENCE in Manufacturing Engineering Technology

MASTER OF SCIENCE in Engineering Technology

College Of Engineering Directory

Dean: Ralph Kummler, Ph.D.
  Room 1150, Engineering Building; 313-577-3775
Associate Dean—Academic Affairs: Michele J. Grimm, 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: Snehamay Kashnabis, Ph.D.
  Room 1164, Engineering Building; 313-577-3861

Director of Alumni and Corporate Relations: kathleen Russeau
  Room 1158, Engineering Building; 313-577-1306

Business Manager: Gary Zaddach
  Room 3100, Engineering Building; 313-577-3817

Coordinator, Cooperative Education: Diane Grimord
  Career Planning and Placement, 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., Chair
  818 West Hancock; 313-577-1344

Chemical Engineering and Materials Science:
  Charles Manke, Ph.D., Chair
  Room 1100, Engineering Building; 313-577-3800

Civil and Environmental Engineering: Mumtaz Usman, Ph.D., Chair
  Room 2100, Engineering Building; 313-577-3789

Electrical and Computer Engineering: Yang Zhao, Ph.D., Chair
  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:
  Kenneth Chelst, Ph.D., Chair
  Room 2143, Manufacturing Engineering Building; 313-577-3821

Mechanical Engineering: Trilochan Singh, Ph.D., Interim Chair
  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: Naim 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 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

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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. Complete descriptions of these programs and the academic regulations pertaining to them are provided below.

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
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 1800, 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.

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 should questions arise regarding their 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 found admissible 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 University 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.

Transfer of College within the University: For the student who has attended another institution and who has been found admissible 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 University 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.

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.

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,' above.) Bridge students participate in the following two-semester sequence of courses with a cohort of students:

**Fall Semester**
- B E 0991 -- Skills for Success in Engineering II: Cr. 1
- B E 1001 -- Engineering Bridge Mentorship: Cr. 0
- B E 1050 -- Introduction to Engineering: Cr. 2
- MAT 1050 -- Algebra with Trigonometry PREP: Cr. 7
- PHY 1020 -- (PS) Conceptual Physics: Cr. 4

**Winter Semester**
- BE 0992 -- Skills for Success in Engineering III: Cr. 1
- BE 1001 -- Engineering Bridge Mentorship: Cr. 0
- CHM 1040 -- Chemistry Skills and Reasoning: Cr. 4
- ENG 1010 -- Basic Writing: Cr. 4
- MAT 1020 -- Elementary Functions: Cr. 4
- MAT 1900 -- 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. 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 advisors 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:

- BE 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 encour-aged 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 in these courses of at least 2.5. In addition, each student must satisfy the University’s English Proficiency and Critical Thinking requirements, either through examination or identified classes, 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 bache-lor’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. 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 Program

Students who qualify for the University Honors Program, either as incoming freshmen or continuing students, may opt to pursue both Engineering Honors and University Honors as they complete their bachelor of science degree. In order to graduate with University Honors, students must maintain a minimum grade point average of 3.5 and must complete at least twenty-four credits of honors designated courses. To qualify for Engineering Honors in addition to University Honors, these twenty-four credits must include the following:

B E 2550 – Basic Engineering IV: Numerical and Computer Applications in Engineering: Honors section: Cr. 3
B E 5998 – Engineering Honors Thesis: Cr. 4

(Eight credits of honors designated courses within the major department. Students should consult their department advisor for more information).

HON 42XX – Honors Seminar that will satisfy AI, FC, HS, or VP
General Education Requirements: Cr. 3-4

The five to six additional credits in 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.

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. This examination is not a replacement for the English Proficiency Examination (see page 136).

— 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.

Emerging Scholars Program: All engineering students who place into MAT 1800 or MAT 2010 are required to apply to the Emerging Scholars Program, an enhanced mathematics program that provides additional experience in mathematical applications and problem solving. Details on this program can be found in the section on the Department of Mathematics. 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.

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 may 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 17. 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 17):

COLLEGE REQUIREMENTS

AI: Any AI course (Only 3 credits count towards degree requirements)
BC: ENG 1020 or 1050
CL: B E 1200
CD: Any CD course, but recommended to correspond to the FC or VP course elected
CT: Competency exam (or pass PHI 1050)
EI: PHI 1120
EP: Competency Exam (or pass ENG 1080)
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 (IE 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; IE students may select any SS course)
ST: Program-specific capstone course (See program requirements)
VP: Any VP course (Only 3 credits count towards degree requirements - IE students may select any SS course)
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 17) regarding these University proficiency and competency requirements.

Students who have had their entire college experience at Wayne State University must take the English Proficiency Examination after they have completed ENG 1020 and before they have completed sixty credits. Transfer students who have transferred sixty or more credits must complete the examination during their first semester at Wayne State. In the event that the student does not pass this examination, he or she should register for English 1080 in the next available semester and complete the course with a satisfactory grade. The English Proficiency requirement must be satisfied before a student progresses to the professional program of their major. Students planning to take the English Proficiency Examination will find the examination schedule on the website of the Office of Testing, Evaluation, and Student Life Research Services (http://www.testing.wayne.edu).

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 17 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 132. Ideally, engineering students elect the first course in calculus (MAT 1010) 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 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.

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 38 for information relating to registration.) Special attention should be paid to course pre- and corequisites as well as departmental grade requirements in prerequisites. It is a 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.

Division of Engineering Academic Regulations

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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 reason.

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 credit hours. 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 of 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.

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. 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. 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.

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.
Students are directed to page 35 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 39. 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

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.

BASIC ENGINEERING COURSES (BE)

The following courses in basic engineering are of a general nature and are used by students in all of the Division of Engineering disciplines. For interpretation of numbering system, signs and abbreviations, see page 483.

**NOTE:** All 3000- and 4000-level courses are open only to students admitted to the professional engineering programs.

**0990**  Skills for Success in Engineering I. Cr. 1
Open to Engineering Bridge students; others by consent of instructor. Required of all Engineering Bridge students electing MAT 0993. Coreq: MAT 0993. Offered for Remedial Math grades only. No degree credit. Introduction to and practice of techniques and tools for success in engineering programs. (S)

**0991**  Skills for Success in Engineering II. Cr. 1
Offered for Remedial Math grades only. Coreq: B E 1050. Required for all Engineering Bridge students. Introduction to and practice of techniques and tools for success in engineering programs. (F)

**0992**  Skills for Success in Engineering III. Cr. 1
Open only to Engineering Bridge students. Development of professional and academic skills necessary for success in the study and practice of engineering. (F)

**1001**  Engineering Bridge Mentorship Program Participant. 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. Peer mentorship program for Engineering Bridge students. (T)

**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
Chemical Engineering and Materials Science

Office: 1100 W. Engineering Building; 313-577-3800
Chairperson: C.W. Manke
Website: http://www.eng.wayne.edu/chem

Professors
Y. Huang, R.H. Kummler, C.W. Manke, H.W.T Matthew, S. Ng, S.K. Patwardha, E.W. Rothe

Associate Professors
R. Kannan, G.Z. Mao, H. McMicking (Emeritus), S.O. Salley, G. Shreve

Assistant Professors
S. da Rocha, J. Potoff

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: Process and Product Engineering option; Chemical 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;
logical 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 132, 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 133.

**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 17 and 136), 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 16, 35, and 132. 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**

<table>
<thead>
<tr>
<th>First Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>B E 1200 -- (CL) Basic Engineering I: Design in Engineering: Cr. 3</td>
</tr>
<tr>
<td>CHM 1225 -- (PS) General Chemistry I: Cr. 3</td>
</tr>
<tr>
<td>CHM 1230 -- General Chemistry I Lab: Cr. 1</td>
</tr>
<tr>
<td>ENG 1020 -- (BC) Introductory College Writing: Cr. 4</td>
</tr>
<tr>
<td>MAT 2010 -- Calculus I: Cr. 4</td>
</tr>
<tr>
<td><strong>Total Credits:</strong> 15</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td>B E 1300 -- Basic Engg. II: Materials Sci. for Engineering Applications: Cr. 3</td>
</tr>
<tr>
<td>B E 1310 -- Materials Science for Engineering: Lab: Cr. 1</td>
</tr>
<tr>
<td>CHM 1240 -- Organic Chemistry I: Cr. 4</td>
</tr>
<tr>
<td>CHM 1250 -- Organic Chemistry I Lab: Cr. 1</td>
</tr>
<tr>
<td>ENG 1050 -- Calculus II: Cr. 4</td>
</tr>
<tr>
<td>PHY 2175 -- (PS) General Physics: Cr. 4</td>
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<tr>
<td><strong>Total Credits:</strong> 17</td>
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**SOPHOMORE YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>B E 2100 -- Basic Engg. III: Probability &amp; Statistics in Engg.: Cr. 3</td>
</tr>
<tr>
<td>BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3</td>
</tr>
<tr>
<td>MAT 2030 -- Calculus III: Cr. 4</td>
</tr>
<tr>
<td>PHI 1100 -- (PL) Contemporary Moral Issues: Cr. 3</td>
</tr>
<tr>
<td>PHY 2185 -- General Physics: Cr. 4</td>
</tr>
<tr>
<td><strong>Total Credits:</strong> 17</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td>B E 2550 -- Basic Engineering IV: Numerical Methods and Computer Programming: Cr. 3</td>
</tr>
<tr>
<td>CHM 2220 -- Organic Chemistry II: Cr. 3</td>
</tr>
<tr>
<td>CHE 2800 -- Material and Energy Balances: Cr. 4</td>
</tr>
<tr>
<td>ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 3</td>
</tr>
<tr>
<td>MAT 2150 -- Differential Equations and Matrix Algebra: Cr. 4</td>
</tr>
<tr>
<td>English Proficiency (EP) Exam: Cr. 0</td>
</tr>
<tr>
<td>Critical Thinking (CT) Exam: Cr. 0</td>
</tr>
<tr>
<td><strong>Total Credits:</strong> 17</td>
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**JUNIOR YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
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<tbody>
<tr>
<td>CHE 3200 -- Fluid Flow &amp; Heat Transfer: Cr. 4</td>
</tr>
<tr>
<td>CHE 3300 -- Thermodynamics: Chemical Equilibria: Cr. 4</td>
</tr>
<tr>
<td>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</td>
</tr>
<tr>
<td>-- Survey of Biochemistry: Cr. 3</td>
</tr>
<tr>
<td>ENG 3050 -- (IC) Technical Communication I: Report Writing: Cr. 3</td>
</tr>
<tr>
<td>(HS) Historical Studies Elective: Cr. 3</td>
</tr>
<tr>
<td><strong>Total Credits:</strong> 17-18</td>
</tr>
</tbody>
</table>
### 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
- **ENG 3080** -- (OC) Technical Communication II: Writing & 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 4260** -- Chemical Engineering Seminar I: Cr. 0
- **CHE 4600** -- Process Dynamics and Simulation: Cr. 2
- **CHE 4860** -- Chemical Engineering Seminar II: Cr. 1
- Chemical Engineering Technical Elective: Cr. 6

Total Credits: 14

#### Second Semester
- Chemical Engineering Technical Electives: Cr. 4-5
- **CHE 4800** -- (WI) 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: 131

### 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 1100** -- (PL) (EI) Contemporary Moral Issues: Cr. 3
- **PHY 2185** -- General Physics: Cr. 4

Total Credits: 17

**Second Semester**
- **B E 2550** -- Basic Engg. IV: Numerical Methods & Computer Programming: Cr. 3
- **CHE 2800** -- Material and Energy Balances: Cr. 4
- **CHEM 2220** -- Organic Chemistry II: Cr. 3
- **ECO 2020** -- (SS) Principles of Macroeconomics: Cr. 3
- **MAT 2150** -- Differential Equations and Matrix Algebra: Cr. 4
- **English Proficiency (EP) Exam**: Cr. 0
- **Critical Thinking (CT) Exam**: Cr. 0

Total Credits: 17

### JUNIOR YEAR

#### First Semester
- **CHE 3200** -- Fluid Flow & Heat Transfer: Cr. 4
- **CHE 3300** -- Thermodynamics: Chemical Equilibria: Cr. 4
- **CHM 5440** -- Physical Chemistry II: Cr. 4
- **ENG 3050** -- (OC) Technical Communication I: Report Writing: Cr. 3
- (HS) Historical Studies Elective: Cr. 3

Total Credits: 18

#### 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 & Speaking: Cr. 3
- **MSE 5650** -- Surface Science: 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 4260** -- Chemical Engineering Seminar I: Cr. 0
- **CHE 4600** -- Process Dynamics and Simulation: Cr. 2
- **CHE 4860** -- Chemical Engineering Seminar II: Cr. 1
- Chemical Engineering Technical Elective: Cr. 6

Total Credits: 14

#### Second Semester
- Chemical Engineering Technical Electives: Cr. 6
- **CHE 6810** -- (WI) 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: 131

### 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 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
- **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

**Second Semester**
- **B E 2550** -- Basic Engg. IV: Numerical Methods & Computer Programming: Cr. 3
- **CHE 2800** -- Material and Energy Balances: Cr. 4
- **CHEM 2220** -- Organic Chemistry II: Cr. 3
- **ECO 2020** -- (SS) Principles of Macroeconomics: Cr. 3
- **MAT 2150** -- Differential Equations and Matrix Algebra: Cr. 4
- **English Proficiency (EP) Exam**: Cr. 0
- **Critical Thinking (CT) Exam**: Cr. 0

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
- **MAT 2020** -- Calculus II: Cr. 4
- **PHY 2185** -- General Physics: Cr. 4
- **PHI 1100** -- (PL) (EI) Contemporary Moral Issues: Cr. 3

Total Credits: 17

**Second Semester**
- **B E 2550** -- Basic Engg. IV: Numerical Methods & Computer Programming: Cr. 3
- **BIO 2600** -- Introduction to Cell Biology: Cr. 3
- **CHEM 2220** -- Organic Chemistry II: Cr. 3
CHE 2800 -- Material and Energy Balances. Cr. 4  
MAT 2150 -- Differential Equations and Matrix Algebra. Cr. 4  
English Proficiency (EP) Exam: Cr. 0  
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 & 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. 2  
CHE 4860 -- Chemical Engineering Seminar II. Cr. 1  
CHE 5100 -- Engineering Physiology. Cr. 4  
Chemical Engineering Technical Elective: Cr. 3  
Total Credits: 16

Second Semester

CHE 6810 -- (W) 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 & Performing Arts Elective: Cr. 3  
Total Credits: 15

TOTAL PROGRAM CREDITS: 131

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 483.

NOTE: All 3000- and 4000-level courses are open only to Engineering students.

CHEMICAL ENGINEERING COURSES (CHE)

2800 Material and Energy Balances. Cr. 4  
Prereq: PHY 2170 or PHY 2175; MAT 2020 and CHM 1240. Material balances, stoichiometry 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. 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 (F)

3510 Co-op Experience. Cr. 1 (Max. 3)  
Offered for S and U grades only. Open only to students enrolled in professional engineering programs. Presentation of oral and written report to peer group describing Co-op experience. Attendance required at 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. Qualitative 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. 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. 2  
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) (ST) 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 prob-
lems deal with sources of data, design principles and optimization techniques.

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 Fundamental Fuel Cell Systems. (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)

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 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, calendaring, 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 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)

5811 Research Preparation. Cr. 1
Prereq: CHE 3200, CHE 3300, consent of adviser. 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)

6130 (NFS 6130) Food Preservation. Cr. 4
Prereq: senior standing. 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 5550. Introduction to study of both biological materials (bone, muscle, etc.) and materials for medical applications. Topics include tissue properties and effects of pathology, biocompatibility, 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 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. Biocompatibility 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  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 per-
formance properties and plastic design applications. (F)

5650  Surface Science. Cr. 3
Prereq: BE 1300. An introduction to the science and technology of
surface phenomena, including surface structure, surface energy, sur-
face diffusion, crystal growth and selected applications of technologi-
cal importance. (l)

Civil and Environmental Engineering

Office: 2100 E. Engineering Building; 313-577-3789
Chairperson: M.A. Usmen
Website: http://www.ce.eng.wayne.edu

Professors
L.T. Cheney (Emeritus), T.K. Datta, G. Fu, S. Khasnabis, C.J. Miller, J. M.
Paulson (Emeritus), M.A. Usmen

Associate Professors
T. M. Heidtke, H.C. Wu

Assistant Professor
P.T. Savolainen

Adjunct Faculty
A. Awad, N. Biswas, U. Dutta, M. Ghabrial, C. Katsikas, 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 tradition-
ally 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 engi-
neer 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; contain-
ment 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 integra-
tion and management of public works projects designed to improve
the urban infrastructure. Obviously, the responsibilities of the civil
ingenreer directly involve the health, safety and welfare of the public.
The Civil and Environmental Engineering Department maintains lab-
atories for teaching and research in the areas of: structures/materi-
als, transportation, hydraulics, geotechnical, geoenvironmental,
infrascture 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 facil-
ities 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 Engi-
neering Department is to provide high-quality, state-of-the-art educa-
tional 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 our graduates for success in their immediate,
as well as long-term, professional careers as practitioners, for obtain-
ing 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 133.

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 17 and 136), 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 16, 35, and 132. 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

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>B E 1200</td>
<td>(CL) Basic Engineering I: Design in Engineering</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>CHM 1225</td>
<td>(PS) General Chemistry I</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>CHM 1230</td>
<td>General Chemistry I Laboratory</td>
<td>Cr. 1</td>
</tr>
<tr>
<td>ENG 1020</td>
<td>(BC) Introductory College Writing</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>MAT 2010</td>
<td>Calculus I</td>
<td>Cr. 4</td>
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<td>Total Credits</td>
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Second Semester

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<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>B E 1300</td>
<td>Basic Engg. II: Material Science for Engineering Applications</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>B E 1310</td>
<td>Material Science for Engineering: Lab</td>
<td>Cr. 1</td>
</tr>
<tr>
<td>BIO 1510</td>
<td>(LS) Basic Life Mechanisms</td>
<td>Cr. 3</td>
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<tr>
<td>MAT 2020</td>
<td>Calculus II</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>PHY 2175</td>
<td>(PS) General Physics</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>Any (AI) course</td>
<td>Cr. 3</td>
<td></td>
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<td>Total Credits</td>
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SOPHOMORE YEAR

First Semester

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<tr>
<th>Course Number</th>
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<tbody>
<tr>
<td>B E 2100</td>
<td>Basic Engineering III: Probability and Stat. in Engg.</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>C E 2400</td>
<td>(M E 2400) Statics &amp; Mechanics of Materials</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>MAT 2030</td>
<td>Calculus III</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>PHY 2185</td>
<td>General Physics</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>English Proficiency Exam</td>
<td>Cr. 0</td>
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<tr>
<td>Critical Thinking Exam</td>
<td>Cr. 0</td>
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<tr>
<td>Visual and Performing Arts (VP) elective</td>
<td>Cr. 3</td>
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<td>Total Credits</td>
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Second Semester

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ECO 2010 or ECO 2020</td>
<td>(SS) Principles of Microeconomics</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>ECO 3050</td>
<td>(SS) Principles of Macroeconomics</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>ENG 3050</td>
<td>(IC) Technical Communication I: Report Writing</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>MAT 2150</td>
<td>Differential Equations and Matrix Algebra</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>M E 3400</td>
<td>Dynamics</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>Civil Engg. Technical Elective</td>
<td>Cr. 3</td>
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<td>Total Credits</td>
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JUNIOR YEAR

First Semester

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<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>C E 3250</td>
<td>Applied Fluid Mechanics</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>C E 4400</td>
<td>Structural Analysis</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>C E 4450</td>
<td>Civil Engg. Materials</td>
<td>Cr. 3</td>
</tr>
</tbody>
</table>

* Students who wish to carry sixteen or fewer credits per semester may defer this course until the spring or summer term.
C E 4850 -- Engineering Economy: Cr. 3  
PHI 1100 -- (PL) (EI) Contemporary Moral Issues: Cr. 3  
Total Credits: 17

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 4460 -- Transportation Design: Cr. 4  
Design Elective: Cr. 4  
Any (HS) course: Cr. 3  
Total Credits: 15

Second Semester  
C E 4995 -- (WI) (ST) 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: 132

Humanities and Social Science Electives: See page 136 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 483.

NOTE: All 3000- and 4000-level courses are open only to Engineering students.

2400  (M E 2400) Statics and Mechanics of Materials. Cr. 4  
Prereq. for C E students: MAT 2020, PHY 2175; prereq. or coreq: B E 1200 or B E 1300. Offered for credit only in non-mechanical engineering degree programs. Application of equations of static equilibrium, geometric compatibility and force-deformation in estimation of load-carrying capability of simple structural or machine elements and in design of those elements against failure. Forces, moments, couples, equilibrium, free body diagrams, centroids, elastic relationships between external forces acting on deformable bodies and associated stresses and deformations. Behavior of structural and machine elements under axial, torsional, and flexural loading; combined stresses; column buckling. Design projects and reports involving design of simple components against failure. (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 mixed 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 (Y)

4400  Structural Analysis. Cr. 4  
Prereq: C E 2400. 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, C E 2400, 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 queuing theory. Material Fee as indicated in the Schedule of Classes (W)

Civil and Environmental Engineering 147
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 includ-
ing inflow, outflow and circulation.  (Y)

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  (Y)

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) (ST) 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 Edu-
cation Writing Intensive requirement.  (W)

5220  Sanitary Chemistry.  Cr. 3  
Prereq: C E 4210.  Fundamentals of chemical principles and their 
application to unit operations and process encountered in the treat-
ment of water and waste water. 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, filtra-
tion 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, discretiza-
tion of continuous structural systems, stress analysis.  Commercial 
finite element software preprocessing for developing finite element 
models; postprocessing for evaluating analysis results.  (F)

5410  Hydrogen Infrastructure and Alternative Fuel 
Transportation. (AET 5410)  Cr. 4  
Prereq: senior standing in science or engineering discipline. Design, 
maintenance and operation of fuel-cell power generating facilities; 
handling of waste materials and waste disposal system design; 
design, construction, and operation of the infrastructure needed to 
transport hydrogen.  (F)

5420  (ST) Alternative Energy Technologies for Various 
Transportation Modes. (AET 5420)  Cr. 4  
Prereq: senior standing in science or engineering discipline. Discussion 
of current alternative energy technology applications, emerging 
developments, national programs and priorities, future prospects, tax 
incentive programs, economics of scale issues, interrelationship 
between fixed costs and variable costs.  (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 conven-
tional earth-retaining walls and of reinforced earth walls, anchored 
sheet-pile walls and cofferdams, fundamentals of soft-ground tunnel-
ing, 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 man-
agement, scheduling, budgeting and profitability, operations, financial 
management and risk management.  (T)

5995  Special Topics in Civil Engineering I.  Cr. 1-4  
Prereq: consent of chairperson.  Topics to be announced in Sched-
ule of Classes .  (I)

6010  Introduction to Construction Management.  Cr. 3  
Prereq: C E 4850 or consent of instructor.  An introduction to the 
analysis 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 excav-
ation, foundations, concrete, wood, steel, masonry, heavy construc-
tion, 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 engineer-
ing 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 com-
puter methods.  (B)

6190  Groundwater.  Cr. 4  
Prereq: C E 3250.  Historical background, aquifers and aquitards, 
saturated and unsaturated flow, sources of ground water contamina-
tion, artificial recharge of ground water, development of ground water 
basins and efficient use of ground water resources.  (Y)
6270  Environmental Management and Sustainable Development. (HWM 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

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

Associate Professors
I. Avrutsky, X. Han, J. Liu, S.M. Mahmud, S. Ryu, J. R. Woodyard, C.Z. Xu

Assistant Professors
J. Choi, S. Jiang, N. Sarhan, Y. Xu

Adjunct Professors
M. Forrest, R. Gerhart, L. Rimai

Degree Programs
BACHELOR OF SCIENCE in Electrical Engineering
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, integrated optics, optical computers, information sciences, digital circuits, computer engineering, integrated and active circuits, nanotechnology, bioengineering, 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 provided in a descriptive brochure available from the Departmental office. Senior students are encouraged to participate in research activities by means of independent study projects and student assistantships. Graduate students normally participate in the...
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, computer vision, semiconductor device materials including a clean-room facility, opto-electronics, machine intelligence, and computation and neural networks. Microprocessor system development forms a core for all Departmental activity. Personal 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 132, 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 133.

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 17 and 136), 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 16, 35, and 132. 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 electromagentic 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: Material Science for Engineering Applications: Cr. 3
- B E 1310 -- Science of Engineering Materials 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 (All) Course – American Society and Institutions: Cr. 3
- Mathematics Proficiency Exam : Cr. 0
Total Credits: 19

SOHOMORE YEAR

**First Semester**
- B E 2100 -- Basic Engg. III: Probability & Statistics in Engineering: Cr. 3
- ECE 3620 -- Introduction to Microprocessors: 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 3300 -- Introduction to Electrical Circuits: Cr. 3
- ECE 3310 -- Electrical Circuits: Laboratory: Cr. 1
- ECE 3610 -- Digital Logic I: Cr. 4
- ECE 3630 -- Digital Circuits Laboratory: Cr. 2
- MAT 2150 -- Differential Equations & Matrix Algebra: Cr. 4
- Critical Thinking (CT) Exam : Cr. 0
Total Credits: 17

JUNIOR YEAR

**First Semester**
- ECE 3330 -- Electrical Circuits II: Cr. 4
- ECE 3570 -- Electronics I: Cr. 4
- ECE 3580 -- Electronics Laboratory: Cr. 2
- ENG 3050 -- (IC) Technical Communication I: Report Writing: Cr. 3
- Any (HS) course: Cr. 3
Total Credits: 16

**Second Semester**
- ECE 4330 -- Linear Network and System Analysis: Cr. 4
- ECO 2010 or ECO 2020: Cr. 3
  - (SS) Principles of Microeconomics
  - (SS) Principles of Macroeconomics
- 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: 17

SENIOR YEAR

**First Semester**
- Electrical or Computer Option Courses: Cr. 12
- ECE 4340 -- Microcomputer-Based Instrumentation Lab: Cr. 2
- PHY 1100 -- (PL) Contemporary Moral Issues: Cr. 3
Total Credits: 17

**Second Semester**
- BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3
- ECE 4600 -- (WI) Capstone Design I: Cr. 4

150 College of Engineering
ECE Electives: Cr. 8
Total Credits: 15

ELECTRICAL OPTION
ECE 4470 – Control Systems I: Cr. 4
ECE 4700 – Introduction to Communication Theory: Cr. 4
ECE 4800 – Electromagnetic Fields and Waves: Cr. 4

COMPUTER OPTION
ECE 4050 or ECE 5650
--- Algorithms and Data Structures; Cr. 4
--- Network Programming for Engineers; Cr. 4
ECE 4700 or ECE 4900
--- Introduction to Communication Theory: Cr. 4
--- Electromagnetic Fields and Waves I: Cr. 4
ECE 4680: Computer Organization: Cr. 4

TOTAL PROGRAM CREDITS: 134

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.

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 483.

NOTE: All 3000- and 4000-level courses are open only to students in a professional Engineering program.

2620 Introduction to Microcomputers. Cr. 4 (LCT: 3; LAB: 3)
Prereq: B E 1200. Basics of digital systems, number systems, functional blocks of microcomputers, assembly language and machine code, applications of microcomputers and experimental demonstrations. Introduction to digital logic. Material Fee as indicated in the Schedule of Classes (T)

3300 Introduction to Electrical Circuits. Cr. 3 (LCT: 3)
Prereq: PHY 2185; prereq. or coreq: MAT 2150; coreq: ECE 3310. Open only to students enrolled in professional engineering programs. Electrical quantities and waveforms; resistance and Ohm’s law; network and Kirchoff’s laws; network equivalents; nodal and mesh analysis; Thévenin’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: 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)

3610 Digital Logic I. Cr. 4 (LCT: 4)
Prereq: PHY 2185, ECE 2620; prereq. or coreq: MAT 2150. Open only to students enrolled in professional engineering programs. 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)

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 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 system. Formulation of equilibrium equations for electromechanical systems. Linear incremental concepts. (T)

4400 Algorithms and Data Structures. (CSC 5050) Cr. 4
Prereq: knowledge of C or C++ programming. 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)

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.

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devices and integrated circuits. Introduction to the behavior of semiconductor and electronic devices. (T)

4600 (WI) (ST) Capstone Design I. Cr. 4 (LCT: 4)
Prereq: ENG 3050, ECE 3610, 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: ECE 3330, 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 hierarchy 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)
(l 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

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)

5325 Smart Sensors and Fuel Cells. (AET 5325) 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. (W)

5330 Dynamics and Control of Fuel Cell Systems. (AET 5330) Cr. 4
Prereq: senior standing in science or engineering discipline. Basic methodologies for dynamic analysis, control system design, system coordination, and optimization for fuel cell systems. Design project required. (B)

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 "clients" and the student will work as part of a cross-disciplinary team. (F)

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. (F)

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)

5440 Computer-Controlled Systems. Cr. 4
Prereq: ECE 4470 or CHE 4600 or M E 5540. Introduction to z-transform and sampling theory. Digital controller design using both trans-
fer 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. Semiconductor material processing techniques. (F)

5510 Electronic and Photonic Materials Laboratory. Cr. 2
Prereq: ECE 4570 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. Physical basis for the energy band structure of solids with particular emphasis on semiconductors and insulators. Basic principles associated with solid-state devices. Extrinsic and intrinsic semiconductors. Behavior of P-N junctions, bipolar and field-effect transistors. (Y)

5610 Introduction to Parallel and Distributed Systems. Cr. 4
Prereq: ECE 4050, 4680. Fundamentals of parallel 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, 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) Advanced Operating Systems. Cr. 4
Prereq: CSC 4420. Distributed operating system design issues including communication, synchronization, processes, file systems, and memory management; study and discussion of systems such as UNIX, MACH, AMOeba, and CHORUS. (I)

5650 Network Programming for Engineers. Cr. 4
Prereq: ECE 4050 or CSC 5050 or consent of instructor; junior standing or above. Fundamentals of internet protocols, shell programming, network programming using sockets, remote command execution, other topics. Programming assignments give students hands-on experience. (W)

5680 Switching Circuits. Cr. 4 (LCT: 4)

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 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. 6) (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 (ST) Enabling Technology. (BME 6500) (OT 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)

6180 (BME 6480) Biomedical Instrumentation. (I E 6180) (M E 6180) Cr. 4 (LCT: 4)
Prereq: ECE 3300, BME 5010 or 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.

**Industrial and Manufacturing Engineering**

Office: 2143 Manufacturing Engineering Building,
4815 Fourth St.; 313-577-3821
Chairperson: Kenneth R. Chelst
Website: [http://ime.eng.wayne.edu](http://ime.eng.wayne.edu)

**Professors**

Kenneth R. Chelst, Donald R. Falkenburg, Frank E. Plonka, Namua Singh, Kai Yang

**Research Professors**

Julia Gluesing, Kenneth Riopelle

**Associate Professors**

Ratna Babu Chinnam, R. Darin Ellis, Olugbenga Mejabi, Leslie Monplaisir, Namkyu Park, Gary Wasserman

**Assistant Professors**

Kyoung-Yun Kim, Ekrem Alper Murat

**Executives in Residence**

Jerry W. Leman, Shamel Rushwin

**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 man-
ufacturing 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.

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

In addition to the Undergraduate Program Goals listed on page 132, the specific goals of the industrial engineering B.S. program include the following objectives:

Admission Requirement: see page 133.

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 17 and 136), 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 16, 35, and 132. 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, I E 4250, I E 4260, I E 4310, I E 4330, I E 4420, I E 456 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 1310 -- 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 2510 -- Differential Equations and Matrix Algebra: Cr. 4
Social Sciences (SS) course: Cr. 3
Life Sciences (LS) course: Cr. 3
Visual & 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: Report Writing: Cr. 3
I E 3120 -- Work Environment: 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 & Speaking: Cr. 3
I E 4250 -- Engineering Data Analysis: Cr. 3
I E 4420 -- Systems and 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. 4
I E 4800 -- Engineering Design I: Management: Cr.1
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. 2
I E 4880 -- (ST) Engineering Design II: Cr. 3
Total Credits: 15

TOTAL PROGRAM CREDITS: 124

INDUSTRIAL ENGINEERING COURSES (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 483.

NOTE: All 3000- and 4000-level courses are open only to Engineering students.

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. Examination of functional and organizational role of the worker; impact of emerging computer-based technologies on work design and implementation strategies is discussed. (F)

3450 (M E 3450) Manufacturing Processes I. 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 (Y)

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 variability 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. Applications of operations research models to production control problems. (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. 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)

4880 (ST) 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)

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
Prereq: B E 2100, MAT 2150. Open only to students enrolled in professional engineering programs. 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)

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 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)

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)

(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)

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. (W)

6180  (BME 6480) Biomedical Instrumentation. (ECE 6180) 
(M E 6180) Cr. 4
Prereq: ECE 3300, BME 5010 or 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)

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, six-sigma, mistake proofing, problem solving, process management. Students develop competency in identifying causes and sources of waste in manufacturing, industrial, and business operations. (F)

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. How processes are designed to account for various manufacturing and other business constraints to ensure that customer needs are met. (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

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)

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)

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. (W)

6610 Introduction to Six Sigma. Cr. 4
For non-I E majors. (I E majors should elect I E 7010.) For the working engineer who requires exposure to basic concepts of 6-Sigma and its work applications. (S)

6840 (MGT 6840) Project Management. 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)
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.

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; 313-577-3845;
Fax: 313-577-8789
Interim Chairperson: Trilochan Singh, tsingh@wayne.edu
Director of Undergraduate Studies: J. Ku, jku@wayne.edu
Website: http://www.eng.wayne.edu/ME/

Professors

Associate Professors
E.O. Ayorinde, M. G. Koenig (Emeritus), J.C. Ku, E. C. Zobel (Emeritus), X. Wu

Assistant Professor
J. Lee

Adjunct Professors
B. Abdulnour, J. Agapiou, W. Bryzik, J. Hassan, N. Gianaris, D. Schmueser, R. Stevenson, S. Tung

Adjunct Associate Professor
T. Khalil

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 132, 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.

PROGRAM EDUCATIONAL OUTCOMES:

It is expected that by the time of graduation, B.S.M.E. students will:

a) be able to understand scientific principles and apply them to the practice of engineering;
b) be able to communicate effectively;
c) possess the problem-solving skills, background, and confidence necessary to educate themselves continually throughout their careers;
d) be able to apply computers as tools for engineering;
e) be able to apply the basic principles of measurement, data analysis, and design of experiments, learned through ‘hands-on’ laboratory experience;
f) be able to practice engineering with ethical standards and a responsibility to society;
g) be able to develop creative solutions to engineering problems;
h) be able to work well as part of a team;
i) be able to apply the design process to engineering problems, including the consideration of different technical alternatives while bearing in mind cost, environmental concerns, safety, and other constraints;
j) be able, based on their first-hand design experience, to analyze, construct, test, and evaluate an engineering design.
k) be able to connect engineering solutions and designs with contemporary issues, and consider engineering solutions and designs in a global and societal context.

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 133. 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 17 and 136), 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 16, 35, and 132.

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
- M E 2060 -- Computer-Aided Engineering Economics & Problem Solving: Cr. 2
- PHY 2175 -- (PS) General Physics: Cr. 4
Total Credits: 16

SOPHOMORE YEAR

First Semester
- ECO 2010 or ECO 2020 -- (SS) Principles of Microeconomics: Cr. 3
- ECO 2030 -- (SS) Principles of Macroeconomics: Cr. 3
- MAT 2030 -- Calculus III: Cr. 4
- M E 2210 -- Thermodynamics: Theory and Lab: Cr. 4
- M E 2400 -- Statics and Mechanics of Materials: Cr. 4
- PHY 2185 -- General Physics: Cr. 4
- English Proficiency Exam: Cr. 0
- Critical Thinking (CT) Exam: Cr. 0
Total Credits: 19
Second Semester
B E 2100 -- Basic Engg. III: Probability & Statistics in Engg. Applications: Cr. 3
B E 2550 -- (CL) Basic Engg. IV: Num. Methods & Computer Programming: Cr. 3
ENG 3050 -- (OC) Technical Communication I: Report Writing: Cr. 3
MAT 2150 -- Differential Equations and Matrix Algebra: Cr. 4
M E 3400 -- Design of Machine Elements: Cr. 4
Total Credits: 17

JUNIOR YEAR

First Semester
ENG 3060 -- (OC) Technical Communication II: Writing & Speaking: 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. 4
M E 3450 -- Manufacturing Processes I: Cr. 3
Total Credits: 18

Second Semester
M E 4210 -- Heat Transfer Theory and Lab: Cr. 4
M E 4250 -- Mechanical Engineering Design I: Cr. 4
M E 4440 -- Vibrations Theory and Lab: Cr. 4
PHI 1100 -- (PL) (EI) 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) (CD) Anthropology of Business: Cr. 3;
or any foreign language (FC) course through 2010: Cr. 3
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3
*M E 4500 -- (WI) (ST) Mechanical Engineering Design II: Cr. 4
M E Technical Elective: Cr. 4
Total Credits: 14

TOTAL PROGRAM CREDITS: 135

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 5540 -- Dynamic Modeling & Control of Engineering System (required): Cr. 4

BIOMECHANICAL ENGINEERING
M E 5400 -- 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 Rehabilitation Systems: Cr. 4
M E 5180 -- (BME 5370) Intro to Biomaterials (MSE 5160): Cr. 4

SOLID-M ECHANICS
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

ENGINEERING ANALYSIS
M E 5000 -- Engineering Analysis I: Cr. 4
M E 5100 -- 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 483.

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 systems 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)

2210 Thermodynamics: Theory and Laboratory. Cr. 4
Prereq: MAT 2020,PHY 2175, prereq. or coreq: B E 1200. Transfor- mation of heat energy to other energy forms. Introduction to basic concepts and laws of thermodynamics. Description of thermodynamic properties and processes for simple substances. Applications to energy conversion systems, power and refrigeration cycles. Labo-
4200 Statics and Mechanics of Materials. (C E 2400) Cr. 4
Prereq for M E students: MAT 2020, PHY 2175, M E 2060; prereq, or coreq: B E 1300. Application of equations of static equilibrium, geometric compatibility and force-deformation in estimation of load-carrying capability of simple structural or machine elements, and in design of those elements against failure. Forces, moments, couples, equilibrium, free body diagrams, centroids, elastic relationships between external forces acting on deformable bodies and associated stresses and deformations. Behavior of structural and machine elements under axial, torsional, and flexural loading; combined stresses; column buckling. Design projects and reports involving design of simple components against failure. (T)

3300 Fluid Mechanics: Theory and Laboratory. Cr. 4
Prereq: M E 2400, MAT 2150; prereq, or coreq: M E 2210. 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. 4
Prereq: M E 2400, B E 1200, MAT 2030. 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 principles, impact and work-energy principles. (F,W)

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)

3480 Design of Machine Elements. Cr. 4
Prereq: M E 2050, M E 2060, M E 2400; prereq, or coreq: B E 2100. 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 (F,W)

4210 Heat Transfer: Theory and Laboratory. Cr. 4
Prereq: M E 3300, ENG 3050, B E 2100, B E 2550. 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, Kirchhoff'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 3480, ENG 3050; prereq, or coreq: M E 3450, 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, MAT 2150, ENG 3050, B E 2100. 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 (WI) (ST) Mechanical Engineering Design II. 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

5010 Engineering Analysis II. Cr. 4

5040 Finite Element Methods I. Cr. 4

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)

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 5550; M E 4200. 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 5550. Introduction to study of both biological materials (bone, muscle, etc.) and materials for medical applications. Topics include tissue properties and effects of pathology, biocompatibility, and design considerations. (Y)

5210 Convective and Radiative Heat Transfer. Cr. 4

5250 Alternative Energy Technology System and Design. (AET 5250) Cr. 4
Prereq: senior standing in science or engineering discipline. 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

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 economic limitations. Material Fee as indicated in the Schedule of Classes. (F,W)

5360 Introduction to Computational Biofluids 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

5410 Vibrations II. Cr. 4

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)

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 Creative Problem Solving in Design and Manufacturing. Cr. 4

5500 (WI) Advanced Engineering Design. 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 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

5610 Experimental Mechanics of Materials. Cr. 4
Prereq: M E 2400. 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. (S)

5620 Fracture Mechanics in Engineering Design. Cr. 4
Prereq: M E 2400. 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.

5720 Mechanics of Composite Materials. Cr. 4
Prereq: ME 2400, 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.

5730 Tribology and Lubrication Technology. Cr. 4
Prereq: ME 2400. Friction, wear, and lubrication fundamentals: wear mechanisms, application of coatings, surface engineering fundamentals.

5800 Combustion Engines. Cr. 4

5810 Combustion and Emissions. Cr. 4
Prereq: ME 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.

5820 Thermal Environmental Engineering. Cr. 4
Prereq: ME 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.

5900 National Design Competition Projects. Cr. 1-4 (Max. 6)
Prereq: written consent of director of undergraduate studies or graduate students’ adviser.

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.

5992 Research Experiences for Undergraduates. Cr. 1-4 (Max. 6)
Prereq: written consent of instructor and director of undergraduate studies.

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.

6180 (BME 6480) Biomedical Instrumentation. (ECE 6180) (I E 6180) Cr. 4
Prereq: ECE 3300, BME 5010 or BMS 5550, and BME 5020. Engineering principles of physiological measurements. Signal conditioning equipment, amplifiers, recorders and transducers. Recent advances.

6450 Advanced Manufacturing Processes and Methods. (I E 6450) Cr. 4
Prereq: ME 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.
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, Donald V. Stocker (Emeritus)

Associate Professors
Seymour Cuker (Emeritus), Gene Liao, Vladimir Sheyman, Mukasa E. Ssemakula, Ece Yaprak, Chih-Ping Yeh

Assistant Professor
Caiheng Wang

Part-Time Faculty
Gary Cleary, Abbas Enteshari, Randy Fang, Bryce Grevemeyer, Satish Kettar, Gouliang Lin, Charles Loether, Ernie Luttrell, Steven Muldoon, Bob Opalinski, Sandra Overway, Vinod Singh, Anthony Slominis, Jason Sodergren, Tommy White

Degree Programs

BACHELOR OF SCIENCE in Computer Technology


BACHELOR OF SCIENCE in Manufacturing Engineering Technology

MASTER OF SCIENCE in Engineering Technology

The Division of Engineering Technology was founded in 1973 and offers an upper-division (junior and senior level) program and a graduate program. 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 dominates 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).

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 residence 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 17).
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 B.S.C.T. program requires 128 credits as outlined below:

**BASIC SCIENCE AND MATHEMATICS**

- **CSC 1050** – (CL) Introduction to C and Unix: 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** – Introduction to Software Engineering: Cr. 3
- **CSC 4420** – Computer Operating Systems: Cr. 3
- **CSC 4710** – Information Systems Design: Cr. 3
- **CSC 4968** – (WI) Senior Project and Computer Ethics: Cr. 2
- **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
- **EET 5720** – Computer Networking Applications: Cr. 4
- **EET 4100** – Computer Hardware Design: Cr. 3
- **ET 3850** – Reliability and Engineering Statistics: Cr. 3
- **ET 3870** – Engineering Economic Analysis: Cr. 3
- **ET 4999** – (WI) Senior Project: Cr. 3

Total Credits: 42

**LOWER DIVISION TECHNICAL TRANSFER CREDIT**

(see page 170)

- **CSC 1100** – (CL) Problem Solving and Programming: Cr. 3
- **CSC 2110** – (CL) Computer Science I: Cr. 3
- **CSC 2200** – Computer Science II: Cr. 3
- **Other CIS/EET technology courses: Cr. 29**

Total Credits: 42

**COMMUNICATION REQUIREMENTS**

(BC) Basic Composition course: Cr. 3

- **ENG 3080** – (IC) Technical Communication I: Report Writing: Cr. 3
- **ENG 3060** – (CG) Technical Communication II: Writing & Speaking: Cr. 3
- **English Proficiency Examination: Cr. 0**

Total Credits: 9

**OTHER GENERAL EDUCATION REQUIREMENTS**

- **American Society and Institutions (AI): Cr. 3**
- **Critical and Analytic Thinking (CT) Competency Examination: Cr. 0**
- **Exposure Areas (CD, EL, ST), three courses**
- **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 Engineering Technology

**Admission Requirements:** This program is designed for students with an associate degree in an appropriate engineering technology discipline, an associate degree in engineering science, or college-level course work equivalent to an associate degree in an engineering/technology-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.

**Mathematics Placement Examination:** Students entering the Division are required to take a mathematics placement examination unless they have earned advanced credit in pre-calculus. This examination should be taken prior to the first registration at Wayne State University. Students should contact the Mathematics Department (313-577-2479) for examination schedules.

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 a baccalaureate degree in engineering technology 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 17). 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 16, 35, and 132) and must conform to Division academic standards.

At graduation, the University requires a minimum 2.0 grade point average in total residence 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 and the English Proficiency 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, wishes to obtain a second bachelor’s degree must complete at least thirty credits beyond those applied toward the first degree.

**Electrical/Electronic Engineering Technology (EET) Curriculum**

With the continued expansion in the use of electrical power, automatic control systems, solid state and micro electronics, communications systems, and computer technology, electrical/electronic engineering technology is the fastest growing specialty area of all the engineering technologies.

Because the movement of electrons in a circuit is not a totally visible physical phenomena, the electrical/electronic engineering technician does some work in the abstract. For example, mathematical calculations and formulae are used to determine the proper equipment or the proper components in an electronic circuit needed to amplify an electrical signal radiating from a star system millions of light years away.

Division of Engineering Technology 165
Most electrical/electronic engineering technologists work in development, design, application, sales and in the manufacture of products. The major divisions in the field are power and digital/analog electronics. The power specialist works primarily with power generation and design distribution systems of electrical equipment, motors, generators, appliances, and controls. Electronic specialists develop and design electronic circuitry. This specialty also includes areas involving computers, communication systems, and electronic controls and devices. The impact of the microprocessor is being felt, not only throughout the entire electrical/electronic field but in most design, analysis, control, testing, and data processing applications.

Admission Requirements: see page 165. Students with an associate degree in electrical or electronic technology from a community college or equivalent college-level coursework may be admitted to the baccalaureate degree program by means of more theoretical and more comprehensive engineering technology courses together with further background courses in mathematics, science, and socio-humanities.

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.

PROGRAM REQUIREMENTS: The program in electrical/electronic engineering technology, leading to the Bachelor of Science in Engineering Technology degree, requires 128 credits as outlined in the following curriculum.

BASIC SCIENCE AND MATHEMATICS
CHM 1020 -- (PS) Survey of General Chemistry: Cr. 4
CSC 1050 -- (CL) Introduction to C and Unix: Cr. 2
MAT 1800 -- Elementary Functions: Cr. 4
MAT 3430 -- Applied Differential and Integral Calculus (ET 3430): Cr. 4
MAT 3450 -- Applied Calculus and Differential Equations (ET 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
ET 3030 -- Statics: Cr. 3
ET 3850 -- Reliability and Engineering Statistics: Cr. 3
ET 3870 -- Engineering Economic Analysis: Cr. 3
ET 4999 -- (WI) Senior Project: Cr. 3
EET 3100 -- Advanced Digital Design: Cr. 3
EET 3150 -- Network Analysis: Cr. 4
EET 3180 -- Analog Electronics: Cr. 4
EET 3350 -- Applied Signal Processing: Cr. 3
EET 3500 -- Electrical Machines & 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 170)
ET 2140 -- Computer Graphics: Cr. 3
EET 2000 -- Electrical Principles: Cr. 3
EET 2100 -- Principles of Digital Design: 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: Report Writing: Cr. 3

Electromechanical Engineering Technology (EMT) Curriculum
The electromechanical engineering technology major 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.

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.

PROGRAM REQUIREMENTS: The program in electromechanical engineering technology leading to the Bachelor of Science in Engineering Technology degree requires 128 credits as outlined in the following curriculum.

BASIC SCIENCE AND MATHEMATICS
CHM 1020 -- (PS) Survey of General Chemistry: Cr. 4
CSC 1050 -- (CL) Introduction to C and Unix: Cr. 2
MAT 1800 -- Elementary Functions: Cr. 4
MAT 3430 -- Applied Differential and Integral Calculus (ET 3430): Cr. 4
MAT 3450 -- Applied Calculus and Differential Equations (ET 3450): Cr. 4
PHY 2130 -- (PS) General Physics: Cr. 3
PHY 2131 -- General Physics: Cr. 3
PHY 2141 -- General Physics Lab: Cr. 1

Life Sciences (LS) elective: Cr. 3
Total Credits: 29

EET TECHNICAL CORE
ET 3030 -- Statics: Cr. 3
ET 3850 -- Reliability and Engineering Statistics: Cr. 3
ET 3870 -- Engineering Economic Analysis: Cr. 3
ET 4999 -- (WI) Senior Project: Cr. 3
EET 3100 -- Advanced Digital Design: Cr. 3
EET 3150 -- Network Analysis: Cr. 4
EET 3180 -- Analog Electronics: Cr. 4
EET 3350 -- Applied Signal Processing: Cr. 3
EET 3500 -- Electrical Machines & 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

College of Engineering
LOWER DIVISION TECHNICAL TRANSFER CREDIT
(see page 170)
- 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: Report Writing: Cr. 3
ENG 3060 -- (OC) Technical Communication II: Writing & Speaking: Cr. 3
English Proficiency Examination: Cr. 0
Total Credits: 9

OTHER GENERAL EDUCATION REQUIREMENTS
American Society and Institutions (AI): Cr. 3
Critical and Analytic Thinking (CT) Competency Examination: Cr. 0
Exposure Areas (CD, EI, ST), three courses
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

Manufacturing/Industrial Engineering Technology (MIT) Curriculum

The manufacturing/industrial engineering technologist is involved in the design, planning, supervision, construction and management of the methods and equipment for the production of industrial and consumer goods.

The magnitude of the manufacturing/industrial engineering technologist's responsibility can be best illustrated by examining a modern manufacturing plant. Within a typical facility, there are many machines performing hundreds of operations on thousands of parts. These processes include highly automated equipment which produce quality products built to exact specifications. Whether it be a single gear or a complete automobile engine, the logical set of events that result in a finished product is planned in advance. The location of every machine, every movement of a tool or part, the order of operations, even the machines themselves, are planned in detail as part of a total production system by the manufacturing/industrial engineering technologist.

A manufacturing/industrial engineering technologist may choose to specialize in such areas as quality control, plant engineering, manufacturing engineering, production planning and control, or supervision and management.

Admission Requirements: see page 165. Students entering this program would normally have an associate degree from a community college or equivalent college-level course work in one of the following technical areas:

Drafting; Industrial Management; Industrial Technology; Manufacturing; Machine Tools; Metallurgy; Metals Machining; Metrology and Calibration; Numerical Control; Welding

The program is designed to extend the practical and applied base of the associate degree by providing the graduate with depth and breadth in technical science and technical specialty courses as well as in non-technical related areas.

Required Background: Any student deficient in any courses listed under Lower Division Technical Transfer will be required to remove the deficiency before completing fifteen credits in basic science/mathematics and technical core courses.

PROGRAM REQUIREMENTS: The program in manufacturing/industrial technology leading to the Bachelor of Science in Engineering Technology degree requires 128 credits as outlined in the following curriculum.

BASIC SCIENCE AND MATHEMATICS
- CHM 1020 -- (PS) Survey of General Chemistry: Cr. 4
- CSC 1050 -- (CL) Introduction to C and Unix: 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

MIT 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 -- Engineering Economic Analysis: Cr. 3
- E T 4099 -- (WI) Senior Project: Cr. 3
- EET 3010 -- Instrumentation: Cr. 3
- MCT 3100 -- Mechanics of Materials: Cr. 3
- MCT 3410 -- Kinematics and Dynamics of Machines: Cr. 3
- MIT 3510 -- Manufacturing Processes: Cr. 3
- MIT 4700 -- Computer-Aided Design and Manufacturing: Cr. 3
- MIT Upper Division Technical Electives: Cr. 12
Total Credits: 42

LOWER DIVISION TECHNICAL TRANSFER CREDIT
(see page 170)
- 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: Report Writing: Cr. 3
ENG 3060 -- (OC) Technical Communication II: Writing & Speaking: Cr. 3
English Proficiency Examination: Cr. 0
Total Credits: 9

OTHER GENERAL EDUCATION REQUIREMENTS
American Society and Institutions (AI): Cr. 3
Critical and Analytic Thinking (CT) Competency Examination: Cr. 0
Exposure Areas (CD, EI, ST), three courses
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 MIT program: 128

Mechanical Engineering Technology (MCT) Curriculum

The upper division program in Mechanical Engineering Technology is intended primarily to provide the graduate with depth and breadth in technical science and technical specialties as well as in non-technical related areas. Graduates of this curriculum will receive the degree of Bachelor of Science in Engineering Technology and enter a field of challenging work in which they are broadly concerned with energy, its transformation from one form to another, its transmission,
and its utilization. This includes the conversion of chemical, nuclear, or solar energy into mechanical work; the transmission of energy via heat exchangers, pipe lines and mechanical systems; and the harnessing of energy to perform useful tasks. Mechanical engineering technologists are employed by every kind of industry to seek new knowledge through creative design and development, and to build and control the modern devices and systems needed by society. Sequential elective courses to enhance a candidate’s job opportunities can be selected in the areas of design and thermal sciences.

**Admission Requirements:** see page 165.

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

**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.

**PROGRAM REQUIREMENTS:** The program in mechanical engineering technology leading to the Bachelor of Science in Engineering degree requires 128 credits as outlined in the following curriculum.

**BASIC SCIENCE AND MATHEMATICS**

- CHM 1020 -- (PS) Survey of General Chemistry: Cr. 4
- CSC 1050 -- (CL) Introduction to C and Unix: Cr. 2
- MAT 1800 -- Elementary Functions: Cr. 4
- CHM 3430 -- Applied Differential and Integral Calculus (ET 3430): Cr. 4
- MAT 3450 -- Applied Calculus and Differential Equations (ET 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 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 4870 -- Engineering Economic Analysis: Cr. 3
- E T 4999 -- (WI) Senior Project: Cr. 3
- EET 3010 -- Instrumentation: Cr. 3
- MCT 3010 -- Mechanics of Materials: Cr. 3
- MCT 3150 -- Applied Thermodynamics: Cr. 4
- MCT 3180 -- Fluid Mechanics: Cr. 4
- MCT 3410 -- Kinematics and Dynamics of Machines: Cr. 3
- MCT 4430 -- Design of Machine Elements: Cr. 3
- MCT Upper Division Technical Electives: Cr. 4
- MIT 3510 -- Manufacturing Processes: Cr. 3

**Total Credits:** 42

**LOWER DIVISION TECHNICAL TRANSFER CREDIT**

(see page 170)

- 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: Report Writing: Cr. 3
- ENG 3060 -- (OC) Technical Communication II: Writing & Speaking: Cr. 3
- English Proficiency Examination: Cr. 0

**Total Credits:** 9

**OTHER GENERAL EDUCATION REQUIREMENTS**

- American Society and Institutions (AI): Cr. 3
- Critical and Analytic Thinking (CT) Competency Examination: Cr. 0
- Exposure Areas (CD, EI, ST), three courses
- 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

**Product Design Engineering Technology (PDT) Curriculum**

The upper-division program in Product Design Engineering Technology is intended to provide the student 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:** see page 165. 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.

**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.

**PROGRAM REQUIREMENTS:** The program in product design engineering technology leading to the Bachelor of Science in Engineering Technology degree requires 128 credits as outlined in the following curriculum.

**BASIC SCIENCE AND MATHEMATICS**

- CHM 1020 -- (PS) Survey of General Chemistry: Cr. 4
- CSC 1050 -- (CL) Introduction to C and Unix: Cr. 2
- MAT 1800 -- Elementary Functions: Cr. 4
- CHM 3430 -- Applied Differential and Integral Calculus (ET 3430): Cr. 4
- MAT 3450 -- Applied Calculus and Differential Equations (ET 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 4870 -- Engineering Economic Analysis: Cr. 3
- E T 4999 -- (WI) Senior Project: Cr. 3
- EET 3010 -- Instrumentation: Cr. 3
- MIT 3350 -- Applied Human Factors: Cr. 3
- MIT 3510 -- Manufacturing Processes: Cr. 3

**Total Credits:** 42
MIT 4700 -- Computer-Aided Design and Manufacturing: Cr. 3
PDT Upper Division Technical Electives: Cr. 12
Total Credits: 42

LOWER DIVISION TECHNICAL TRANSFER CREDIT
(see page 170)
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: Report Writing: Cr. 3
ENG 3060 -- (OC) Technical Communication II: Writing & Speaking: Cr. 3
English Proficiency Examination: Cr. 0
Total Credits: 9

OTHER GENERAL EDUCATION REQUIREMENTS
American Society and Institutions (AI): Cr. 3
Critical and Analytic Thinking (CT) Competency Examination: Cr. 0
Exposure Areas (CD, EI, ST), three courses
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).

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 17). 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 23. 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 the 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. But each of the six degree programs offered by the Division of Engineering Technology specifies some Wayne State University courses the equivalence of which must be part of that allowance and some number of additional credits in technology transfer courses. These curricula-specific sections (all under the heading: Technical Transfer Credits) also indicate the total number of these kinds of credits that must be part of the sixty-four credit allowance. 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 39. 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 483.

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.
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)

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: PHYS 2130, EET 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, Replace transforms, Taylor series, and Fourier series. (F,W)

3850 Reliability and Engineering Statistics. Cr. 3 (LCT: 3)
Prereq: MAT 1800. Probability, hyper geometric, 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, finite elements, 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: successful completion of English proficiency exam, 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)

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)

3010 Instrumentation. Cr. 3 (LCT: 1; LAB: 3)
Prereq: EET 2000 and PHY 2140. Theory and use of various instruments and measurement techniques; power supplies, bridges, potentiometers, oscilloscopes; transducers for temperature, pressure, flow, strain, thermocouples, etc.; signal conditioning. Material Fee as indicated in the Schedule of Classes (F,W)

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)

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, oscillators 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)

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, E T 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. (I)

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)

**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)

**3510 Manufacturing Processes.** Cr. 3 (LCT: 2; LAB: 3)  

**3600 Process Engineering.** Cr. 3 (LCT: 3)  

**4320 Production and Inventory Management.** Cr. 3 (LCT: 3)  
Prereq: E T 3850, 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 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)**

**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)

**3150 Applied Thermodynamics.** Cr. 4 (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)

**3180 Fluid Mechanics.** Cr. 4 (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)

**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)

**4210 Heat Transfer.** Cr. 4 (LCT: 3; LAB: 2)  
4230 Heating, Ventilation, and Air Conditioning. Cr. 3 (LCT: 3)
Prereq: MCT 3150, 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)

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, fuels 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. Program. Crystal structures for simple metals, alloys and chemical compounds; thermodynamics and phase equilibrium; solids, liquids and nonideal gases; delocalization in metals; chemical bonding in network compounds; introduction to bonding in polymers. (Y)

3031 Introduction to Organic and Polymer Chemistry. Cr. 1
Prereq: GCC 3011. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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. (Y)

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 B.S.M.F.T. 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 B.S.M.F.T. 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. (Y)

2462 Engineering Economics I. Cr. 2
Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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 B.S.M.F.T. 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. (Y)

3111 Machining Processes II. Cr. 1
Prereq: GCT 1112. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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. (Y)

3172 Metals Forming II Cr. 2
Prereq: GCT 3152, GCS 3132. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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. (Y)

3262 Control Systems II. Cr. 2
Prereq: GCS 3311, GCS 3214. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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. (Y)

3314 Manufacturing Systems II. Cr. 4
Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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. (Y)

4173 Tool Design and Construction. Cr. 3
Prereq: GCS 3132. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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. (Y)

4313 Facilities Design. Cr. 3
Prereq: GCE 3314; GCE 3111. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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. (Y)

4413 Operations Management. Cr. 3
Prereq: GCE 3314; senior standing; 40 credits beyond AS/MET. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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. (Y)

4513 Capstone Project. Cr. 3
Prereq: senior standing; 40 credits beyond AS/MET. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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. (Y)

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 B.S.M.F.T. Program. Supervised study and instruction. (T)

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. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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)

3414 Mechanisms and Machines. Cr. 4
Prereq: GCS 3191, GCS 3163. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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. (Y)
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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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. (Y)

3313 (SS) Contemporary Social Problems. Cr. 3
Prereq: GCL 2013. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Satisfies the WSU General Education social science (SS) requirement. (Y)

3363 Political Science. Cr. 3
Prereq: GCL 2013. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Interdisciplinary approach to phases of United States constitutional development and the relationship of the courts to American government in historical and contemporary contexts. (Y)

3413 History of Technology. Cr. 3
Prereq: GCL 2013. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Major technological developments that have affected the course of human history, particularly in America; interrelationships of the technical to the sociocultural milieu. (Y)

3513 (VP) Arts in Action. Cr. 3
Prereq: GCL 2013. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Introduction to arts and humanities through reading and experience. Areas include: film, art, architecture, and theatre; reading, projects, essays and other writing included. (Y)

3613 (FC) (CD) Global Cultures. Cr. 3
Prereq: GCL 2013. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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)

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 B.S.M.F.T. 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. (Y)

1013 Technical Mathematics I. Cr. 3
Prereq: GCM 1010. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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.

**3214 Technical Calculus II. Cr. 4**
Prereq: GCM 2114. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Calculus of transcendental functions; L'Hôpital'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; trigonometric and inverse trigonometric functions.

**3254 Technical Calculus III. Cr. 4**
Prereq: GCM 3214. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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.

**3312 Differential Equations I. Cr. 2**
Prereq: GCM 3214. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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.

**3332 Differential Equations II. Cr. 2**
Prereq: GCM 3312. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Higher order differential equations; series solution of linear equations; modeling with higher order differential equations; Laplace operator; systems of differential equations; and applications.

**3411 Design of Experiments. Cr. 1**
Prereq: GCM 2413. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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 fractional 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.

**2211 Thermoscience I. Cr. 1**
Prereq: GCM 2114. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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.

**2313 Electroscience I. Cr. 3**
Prereq: GCM 1022. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Principles of electrostatics; concepts of DC-analysis; function of devices and everyday applications employing principles of electromagnetism, and/or inductors and capacitors.

**3112 Mechanophysics II (T). Cr. 2**
Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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.

**3132 Engineering Mechanics II. Cr. 2**
Prereq: GCM 3124, GCS 3163. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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.

**3163 Mechanophysics II. Cr. 3**
Prereq: GCM 2113, GCM 3312. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Analytical foundations for kinematics concepts, integral and differential relationships in the equations of motions, centoid and inertia, momentum, translational and rotational kinetics.

**3163 Mechanophysics II (E). Cr. 3**
Prereq: GCS 2113; GCM 3312; student in manufacturing engineering program. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Analytical foundations for kinematics concepts, integral and differential relationships in the equations of motions, centoid and inertia, momentum, translational and rotational kinetics.

**3191 Engineering Mechanics III. Cr. 1**
Prereq: GCS 3132, GCM 3332. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Introductory study of vibrations of mechanical systems, comprising simple undamped and damped free and forced vibration; introduction to mode shapes and frequencies.

**3214 Thermoscience II. Cr. 4**
Prereq: GCS 2211. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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.
3311  Electroscope II: AC Circuit Analysis and Topics in Electronics.  Cr. 1
Prereq: GCS 2313; GCM 3312. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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 amplifier. (Y)

3361  Electroscope III: Trans and Digital Concepts.  Cr. 1
Prereq: GCS 3311; GCM 3332. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Transient circuit analysis including RI, RC, and RLC circuits; introduction to basic digital concepts. (Y)

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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. Program. Introduction to manufacturing systems design. Fundamentals of manufacturing systems design, graphical analysis tools, mathematical analysis tools, and data communication networks. (Y)

2452  (EI) (ST) Ethics and Industry.  Cr. 2
Prereq: GCL 1013. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. 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 B.S.M.F.T. Program.  (Y)
COLLEGE OF FINE, PERFORMING and COMMUNICATION ARTS

DEAN: Sharon L. Vasquez
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 Community Arts Gallery that often 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, 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 Music Department are accredited by the National Association of Schools of Music. Programs in the Theatre Department are accredited by the National Association of Schools of Theatre.

DEGREE PROGRAMS

BACHELOR OF ARTS with majors in
- Art
- Art History
- Broadcast Journalism
- Fashion Design and Merchandising
- Film
- Journalism
- Media Arts and Studies
- Music
- Public Relations
- Speech Communication
- Theatre

BACHELOR OF FINE ARTS with majors in
- Art
- Dance
- Theatre

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
- 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 ensure 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 17) 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: 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 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 various language departments of the University, 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 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 17.

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 a specific program 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 hours 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 concentrated 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. A major in art and art history, dance, media arts and studies, music, speech communication, public relations, journalism, or theatre requires intensive study. Students who plan to elect one of these majors should consult with a departmental adviser prior to initial course registration in the freshman year. 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 the major with the grade of ‘C’ 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 Adaminy 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 representaive 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 department 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 intended major 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 the major. Both majors are designated on the diploma.

**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.

**Concentration Areas Available within Departments**

**Art:** B.F.A. Degrees: Ceramics, Drawing, Fibers, Graphic Design, Industrial Design, Interdisciplinary Electronic Arts, Interior Design, Metalsmithing, Painting, Photography, Printmaking, Sculpture

**Art:** B.A. or B.S. Degrees: Apparel Design, Fashion Merchandising

**Dance:** Choreography and Performance, Dance Education (Bachelor of Fine Arts or Bachelor of Science Degree)

**Music:** Composition/Theory, Instrumental Music Education, Jazz Studies, Music Business, Music Technology, Performance (Bachelor of Music Degree), Vocal Music Education

**Communication:** Broadcast Journalism, Film (Bachelor of Arts Degree), Journalism, Media Arts and Studies, Public Relations, Speech Communication,

**Theatre:** Theatre (Bachelor of Arts Degree), Acting, Design/Technology (Bachelor of Fine Arts Degree)

**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 for 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 academic 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 elects 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 undergraduate School. 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.

In order to be granted a second degree, the student must fulfill the University General Education Group Requirements and all major requirements, including the foreign language requirement, for all Bachelor of Arts degrees. 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. Generally, no second degree will be granted in the academic area in which the first degree was earned.

**Concurrent Degrees**

A student who has satisfied all the requirements for two different major programs leading to degrees offered by the College and who has 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. 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 182.)

**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.

— Interdisciplinary Studies (College of Liberal Arts and Sciences): No more than sixteen credits, which may include six credits of Independent Study, may be transferred from courses sponsored by the Department of Interdisciplinary Studies.

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.

Professional Courses: A maximum of sixteen credits may be elected as cognate credit by any student from courses offered for degree credit by the several professional Schools and Colleges within the University. These credits may be elected with the approval of the departmental adviser.

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 40.

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 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’ 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 residence 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 33), and in the individual department sections. The following is open to all students majoring in the fine and performing arts:

Richard J. Bilaitis Award for Creative Excellence: Open to junior, senior, or graduate students enrolled in the Departments of Art and Art History, Dance, Music, or Theatre upon the recommendation of a member of the College Faculty. Students must maintain a minimum 2.5 g.p.a. and are not required to demonstrate financial need.

Sol Nathan Cohen Memorial Scholarship: Amount depends on funds available; open to full-time undergraduate students majoring in the fine and performing arts, maintaining a minimum 3.0 g.p.a. and demonstrating financial need.
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 23.

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 with a 3.0 grade point average are eligible to enrich their education through election of honors courses. Information on these courses may be obtained in the online Schedule of Classes under Honors Program. For a listing of available honors courses, see page 330.

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 21 of this Bulletin. Further information regarding the Honors Program is available in the Honors Program Office located in 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 38.)

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 36. 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 probation ‘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 g.p.a. of at least 2.0 shall be excluded from
Academic Regulations

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the University. This exclusion may be reviewed by the Probation Committee 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 483.

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 indicated in Schedule of Classes.

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.

5660 Creativity: Building the New. (ISP 5660) 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.
Directory of the College

Dean
Sharon L. Vasquez: 5104 Gullen Mall; 313-577-5342

Associate Dean for Academic Affairs
John D. Vander Weg: 5104 Gullen Mall; 313-577-5342

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

Development Officer
Gregg Bloomfield: 5104 Gullen Mall; 313-577-1458

Development and Alumni Affairs
Jana Stoyanovich: 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 Newby: 5104 Gullen Mall; 313-577-9820

Student Services
Sue Tamm: 5104 Gullen Mall; 313-577-5364

DEPARTMENTAL OFFICES

Art and Art History
Tony Crowley: 150 Art Building; 313-577-2980

Communication
Matthew Seeger: 585 Manoogian Hall; 313-577-2943

Dance
Douglas Risner: 3226 Old Main; 313-577-4273

Music
John D. Vander Weg: 1321 Old Main; 313-577-1795

Theatre
Blair Anderson: 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, Wayne State University, Detroit, MI 48202

Art and Art History

Office: 150 Art Building, 450 Reuther Mall; 313-577-2980

Chairperson: Tony Crowley

Undergraduate Adviser: Michele Porter

Slide Collection Curator: Terry Kirby

Art Exhibitions Director: Lisa Gonzalez

Art Studio Supervisor: Matthew Blake

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

Professors
Tony Crowley, John G. Hegarty, Marion E. Jackson, James Nawara, Melvin Rosas, Stanley Rosenthal, Joseph B. Zajac

Associate Professors
Jeffrey Abt, Sarah Bassett, Pamela DeLaura, Thomas P. Fitzgerald, Urban Jupena, Brian Kritzman, Brian Madigan, Judith Moldenhauer, James M. Raymo, John Richardson, Marilyn Zimmerman

Assistant Professors
Margaret Franklin, Adrian Hatfield, Evan Larson, Jennifer Olmsted

Lecturers
Sabine Gruffat, Rayneld Johnson, Dennis Robare, Susan Widawski

W. Hawkins Ferry Endowed Chair in Twentieth Century Art History and Criticism
Dora Apel

Emeritus/Emerita Faculty

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, metal arts, 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, metal arts, 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 Department of Art and Art History 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.

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. Note: Students must maintain an overall grade point average of 2.75 to major in art, art history, or fashion design and merchandising, and no grade lower than a ‘C’ in a major course may be applied toward the completion of the degree.

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 23.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Arts in Art must complete 120 credits including satisfaction of the University General Education Requirements (see page 17), College degree requirements (see page 186), and forty-eight credits in art courses, including the Core Requirements and Departmental Requirements cited below. 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. Degree candidates must also maintain a minimum grade point average of 2.75. Students pursuing a bachelor of arts degree must fulfill the foreign language requirement (see page 181). All course work must be completed in accordance with the regulations of the University and the College governing undergraduate scholarship and degrees.

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 5987 – (WI) Senior Seminar in Visual Arts: Cr. 3
- ADR 2070 – Beginning Life Drawing: Cr. 3
- APA 2100 – Basic Painting: Cr. 3
- ASL 2150 – Beginning Sculpture: Cr. 3
- One three-credit course in printmaking (APR) or photog. (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 2660
  -- Beginning Weaving: Cr. 3
- One honors seminar from among HON 4200 through 4280 (3 cr.)
- COMBINED UNIVERSITY AND DEPARTMENTAL HONORS

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 23.

DEGREE REQUIREMENTS: Candidates must complete 120 credits, including satisfaction of the University General Education Require-
Admission Requirements for this program are satisfied by the general requirements for undergraduate admission to the University; see page 23.

DEGREE REQUIREMENTS: Candidates for either Bachelor’s degree must complete 120 credits including satisfaction of the University General Education requirements (see page 17). College degree requirements (see page 186), 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. Degree candidates must also maintain a minimum grade point average of 2.75. 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 16, 35, and 181.

Students pursuing the Bachelor of Arts Degree with a Major in Design and Merchandising must also fulfill the foreign language requirement (see page 181).

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. (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 23.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Fine Arts degree must complete 120 credits including satisfaction of the University General Education Requirements (see page 17) and College degree requirements (see page 186). 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 16, 35, and 181.

CORE REQUIREMENTS:
ADR 1050 -- Drawing I: Cr. 3  
ADR 1060 -- Drawing II: Cr. 3  
ADE 1200 -- Design I: Cr. 3  
ADE 1210 -- Design II: Cr. 3  
AH 1110 -- (VP) Survey of Art History: Ancient - Medieval: Cr. 3  
AH 1120 -- (VP) Survey of Art History: Renaissance - Modern: Cr. 3

DEPARTMENTAL REQUIREMENTS
ADR 2070 -- Beginning Life Drawing: Cr. 3  
APA 2100 -- Basic Painting: Cr. 3  
ASL 2150 -- Beginning Sculpture: Cr. 3

One three-credit course in printmaking (APR) or photography (APH): Cr. 3  
Two Art History electives (AH 3000 level or above): Cr. 6 (total)  
PHI 3700 -- (PL) Philosophy of Art: Cr. 3

One of the following:
ADE 2200 -- Design III: Three Dimensional: Cr. 3  
ACR 2550 -- Ceramics & Pottery Design I: Cr. 3  
AMF 2600 -- Introduction to Jewelry Metalsmithing: Cr. 3  
AFI 2650 or 2660  
-- Beginning Weaving: Cr. 3  
-- Introduction to Fabric Printing and Dyeing: Cr. 3

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. Degree candidates must also maintain a minimum grade point average of 2.75. 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
ACR 2550 -- Ceramics & Pottery Design I: Cr. 3  
ACR 2560 -- Ceramics & Pottery Design II: Cr. 3  
ACR 3550 -- Beginning Ceramics: Cr. 3  
ACR 4000 and/or ACR 4001  
-- Ceramics: Wheel Throwing: Cr. 3  
-- 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 5080 -- Advanced Concepts in Drawing & Painting: Cr. 3  
ADR 5080 -- Landscape Drawing and Painting: 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 & Dyeing: Cr. 3  
AFI 3650 or AFI 3660  
-- Intermediate Weaving: Cr. 3  
-- Intermediate Fibers: Printing and Dyeing: Cr. 3
Students must take a total of nine credits from the following two concentrations. Students pursuing this concentration should consult with a major advisor with regard to the Departmental Requirements:

**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 5280 – (WI) Senior Seminar: Cr. 3
- AGD 5997 – Graphic Design IV: Cr. 3

**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
- ATE 2140 – Computer Graphics: Cr. 3
- AID 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. 3
- AID 5300 – Advanced Studio/Project: Cr. 3
- AID 5310 – Advanced Presentation: Cr. 3
- AID 5330 – 3-D Modeling: Cr. 3
- 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
- ETE 2140 – Computer Graphics: 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 – Advanced Studio: Transportation: 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 – Video Art: Cr. 3
- AIN 3220 – Computer Art: Cr. 3
- AIN 4220 – Computer Animation: Cr. 3
- AIN 5220 – Interactive Art: Cr. 3
- APR 2300 – Introduction to Printmaking: Cr. 3

Plus nine additional credit hours 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 & Application: Cr. 3

**Suggested Interior Design Electives:**
- AIA 3620 – Interior Design CAD II: Cr. 3
- 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

**METAL ARTS**
- ACS 5997 – (WI) Senior Seminar in Visual Arts: Cr. 3
- AME 2600 – Intro: Jewelry & 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 & Metalsmithing: Cr. 6
- AME 5000-level Metal Arts elective: Cr. 3

**PAINTING**
- ACS 5997 – (WI) Senior Seminar in Visual Arts: Cr. 3
- APA 2110 – Beginning Painting: Water Media: Cr. 3
- APA 2120 – Beginning Painting: Oil: Cr. 3
- APA 3130 or APA 3140 – Figure Painting: Water Media: Cr. 3
- APA 3130 or APA 3140 – Figure Painting: Oil and Other Media: Cr. 3
- APA 5100 – Painting Seminar: Cr. 3
- APA 5000-level Painting Electives: Cr. 3

**PHOTOGRAPHY**
- ACS 5997 – (WI) Senior Seminar in Visual Arts: Cr. 3
- APH 2400 – Introductory 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
- APH 4500-level Photography electives: Cr. 3
- APH 5000-level Photography electives: Cr. 3

**PRINTMAKING**
- ACS 5997 – (WI) Senior Seminar in Visual Arts: Cr. 3
- APR 2000-level Printmaking course: Cr. 3
- APR 3000-level Printmaking course: Cr. 9
- APR 3000-level Printmaking course or above: Cr. 3
- APR 5000-level Printmaking 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
– with Honors in Art

(15 Credits required)

Select the honors option in two of the following (6 credits total):

- ACR 3550 -- 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 -- Fabric Printing and Dyeing: Cr. 3
- AGD 2250 -- Typography: Cr. 3
- AGD 3250 -- Graphic Design I: Cr. 3
- AME 2600 -- Introduction to Jewelry and Metallurgy: Cr. 3
- APA 2100 -- Basic Painting: Cr. 3
- APA 2120 -- Beginning Painting: Cr. 3
- APA 3120 -- Intermediate Painting: Cr. 3
- AFI 2400 -- 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 (3 cr.)
- Honors project in Studio Art, Directed Project course (e.g. ADR 5800) (3 cr.)
- One honors seminar from among HON 4200 through 4280 (3 cr.)

COMBINED UNIVERSITY AND DEPARTMENTAL HONORS

- Twenty-four credits required including all of the above plus nine additional credits in other honors courses.

Minimum g.p.a.: 3.3

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. Degree candidates must also maintain a minimum grade point average of 2.75.

Minors in Art and Art History

ART: A minor in art will be granted upon completion of twenty-four 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 183. 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 metals, photography, or a closely related field.

Brian Gahegan 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.

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.

Marij 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 483.

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 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  

2560 (ACR 2550) Ceramics and Pottery Design II. (ACR 3550)  (ACR 4550) (ACR 5550) (ACR 7550)  Cr. 3
Prereq: ADR 1060. Continuation of ACR 2550. Development of personal approach is encouraged. Material Fee as indicated in the Schedule of Classes  

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  

4000 Ceramics: Wheel Throwing.  Cr. 3 (Max. 6)
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  

4001 Handbuilding.  Cr. 3 (Max. 6)
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. Surfaceing, glazing and firing processes as they apply to completing the objects. Material Fee as indicated in the Schedule of Classes  

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  

5550 (ACR 2550) Advanced Ceramics. (ACR 2560) (ACR 3550) (ACR 4550) (ACR 5550) (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  

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.  

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  

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.  

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  

DRAWING COURSES (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  

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  

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  

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  

5060 (ADR 5060) Advanced Concepts in Drawing and Painting. (ADR 7060)  Cr. 3-6 (Max. 15)
Prereq: ADR 3070 or APA 3120. Open only to art majors. Emphasis on individual projects using any appropriate medium. Work is created 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  

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. Expressive interpretation of the figure through broad range of media. Material Fee as indicated in the Schedule of Classes  

5080 Landscape Drawing and Painting. (ADR 7080)  Cr. 3-6 (Max. 12)
Prereq: ADR 1060. Election of more than 3 credits per semester requires consent of instructor. Open only to art majors. Drawing and/or painting outside at a variety of urban 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 in any appropriate drawing or painting medium. This course will fulfill drawing or painting major requirements.  

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  

Art and Art History 191
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 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 historical 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 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 Mathematics Competency (MC) Requirement, 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 completion of English proficiency 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 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., MA, 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 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., 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., MA, 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., MA, 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., MA, 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)

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 bro- chure 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 (F,W)

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 (T)

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  Introduction to Industrial Design. (AID 5300)  Cr. 3 (Max. 9)
Prereq: ADR 1050; coreq: ADE 1200. Introduction to fundamental
skills necessary for the practice of industrial design. Two-dimensional
presentation techniques are developed in first half of semester; sec-
ond portion consists of exercises in problem-solving methodology.
Material Fee as indicated in the Schedule of Classes (F,W)

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  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 solu-
tions. Students build on their ability to communicate two-dimension-
ally, with introduction of digital manipulation and creation software.
Material Fee as indicated in the Schedule of Classes (F,W)

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. stu-
dents. Seminar on contemporary issues in industrial design including
professional concerns in transportation and product design, presen-
tation, 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. pro-
gram, or art M.A. students. Form and proportion studies. Develop-
ment 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. pro-
gram, 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.  Cov-
ers a broad spectrum of the applied arts. (W)

INTERDISCIPLINARY ELECTRONIC ARTS COURSES (AIN)

2220  Video Art.  Cr. 3
Prereq: ADE 1200 or consent of instructor. Video concepts in history,
the visual arts, typography, and performance art; traditional and non-
traditional use of video for personal expression. Material Fee as indi-
cated in the Schedule of Classes (W)

3220  Computer Art.  Cr. 3
Prereq: AIN 2220 or consent of instructor. Open only to students
who have completed their freshman year. Survey of use of computer
in history of art; artists’ preparations and the practical generation of
computer-assisted imagery. Paint, printmaking, and photographic
systems; their specific media. Course is designed to stimulate begin-
ning students to experiment with computer tools as an essential part
of their creative efforts. No prior computer experience is required.
Material Fee as indicated in the Schedule of Classes (Y)

4220  Computer Animation I.  Cr. 3
Prereq: AIN 3220 or consent of instructor. Open only to students
who have completed their freshman year. Study and synthesis of
photography, video, painting, printmaking, graphic design, motion
and sound. Students use microprocessor system in developing their
projects. Equipment, materials, processes and philosophy of the
area. Material Fee as indicated in the Schedule of Classes (Y)

4230  Computer Animation II. (AIN 6230) (AIN 7230)  Cr. 3
Prereq: AIN 4220 or consent of instructor. Open only to students
who have completed their freshman year. Interactive animation,
script writing, sound design. Material Fee as indicated in the Sched-
ule of Classes (W)

5220  Interactive Art.  Cr. 3
Prereq: AIN 4220. Open only to students who have completed their
freshman year. Overview of multimedia software for visual and per-
forming arts; improvised and controlled interaction between the artist,
the computer, and interactive devices. Background and methodology
for new media: web pages, CD-ROMs MIDI sound design, and virtual
reality as art. Material Fee as indicated in the Schedule of Classes (F)

5830  Directed Projects: Computer/Video/Multimedia.  Cr. 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 Computer Animation. (AIN 7230)
Cr. 3
Prereq: consent of instructor. Advanced study for master’s students.
Material Fee as indicated in the Schedule of Classes (W)

6830  Internship: Computer/Video/Multimedia.  Cr. 3
Prereq: consent of instructor. Supervised field experience in the area
of creative computer graphics, computer animation, video, and multi-
media and/or interactive media, that correlate with classroom theory
and practical work. (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 (F)

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)

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 (F)

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. (F)

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)
METAL ARTS COURSES (AME)

2600  Introduction to Jewelry and Metalsmitting.  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

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

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

4600  Metalsmitting 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

4601  Metalsmitting 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

5600  (AME 3600) Advanced Jewelry and Metalsmitting. (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

5860  Directed Projects: Metal Arts. 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.

PAINTING COURSES (APA)

2100  Basic Painting. Cr. 3
Prereq: ADR 1060 and ADE 1200. Open only to sophomore students or above. Introduction of traditional opaque painting media: oil, gouache, acrylic; materials and techniques. Painting from observation; form and composition. Material Fee as indicated in the Schedule of Classes

2110  Beginning Painting: Water Media. (APA 3110) (APA 5110) Cr. 3
Prereq: APA 2100. Open only to sophomore students or above. Introduction to transparent and opaque water-based media. Compositions based on observation and imagination. Material Fee as indicated in the Schedule of Classes

2120  Beginning Painting: Oil. (APA 3120) (APA 5120) Cr. 3
Prereq: APA 2100. Open only to sophomore students or above. Emphasis on structure of painting within individual's choice of imagery, either observed or invented. Material Fee as indicated in the Schedule of Classes

3110  Intermediate Painting: Water Media. (APA 5110) Cr. 3
Prereq: APA 2110. Open only to art majors in B.A. or B.F.A. program. Continued work with watermedia compositions, based on observation or imagination. Material Fee as indicated in the Schedule of Classes

3120  Intermediate Painting: Oil and Other Media. (APA 5120) Cr. 3
Prereq: APA 2120. Open only to art majors in B.A. or B.F.A. program. 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

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

3140  Figure Painting: Oil and Other Media. (APA 5140) (APA 7140) Cr. 3
Prereq: APA 2120. 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

5060  Advanced Concepts in Drawing and Painting. (APA 7060) Cr. 3-6 (Max. 15)
Prereq: ADR 3070 or APA 3120. 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

5100  Painting Seminar. 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. Philosophical and analytical inquiry into painting issues, past and present. Current values in art criticism and practice. Visits to studios, museums, galleries and private collections.

5110  (APA 2110) Advanced Painting: Water Media. (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 art majors in B.A., B.S., B.F.A. program, or M.A. or M.F.A. art majors. Individual development of work in water media. Representational or abstract compositions. Material Fee as indicated in the Schedule of Classes

5120  (APA 2120) Advanced Painting: Oil and Other Media. (APA 3120) Cr. 3-6 (Max. 18)
Prereq: APA 3120. Election of more than three credits per semester requires consent of instructor. 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. Individual development in painting. Material Fee as indicated in the Schedule of Classes

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
in 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 in 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 in B.A., B.S., B.F.A., M.A. or M.F.A. program. Self-directed work in consultation with graduate faculty on an arranged basis. (F,W)

PHOTOGRAPHY COURSES (APH)

2400 Introductory Photography. Cr. 3
Lectures, demonstrations, projects involving basic camera techniques; medium: color slide film. (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 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 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.F.A. program, or art majors in M.A. 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 Papermaking. (APR 5690) Cr. 3
Prereq: ADR 1060 and ADE 1200. Introduction to hand-made paper. Basic techniques of both sheet and free-formed paper. (I)

3470 Photo-Processes for Printmaking. (APR 5470) (APR 7470) Cr. 3
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 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 Beginning Lithography. (APR 5490) (APR 7490) Cr. 3 (Max. 6)
Prereq: ADR 1060 and ADE 1210. Open only to art majors at sophomore level or above in B.A. or B.F.A. program. Fundamentals of
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

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

3170 Figurative Sculpture I. (ASL 5170) 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

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

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

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. Emphasis on advanced and self-directed problems in figurative sculpture. Development of ideas and skills using either casting or fabrication. Equipment. Material Fee as indicated in the Schedule of Classes

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. Equipment. Material Fee as indicated in the Schedule of Classes

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. Topics to be announced in Schedule of Classes. Material Fee as indicated in the Schedule of Classes

3500 Beginning Serigraphy. (APR 5500) (APR 7500) Cr. 3
Prereq: ADR 1060 and 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

3510 Beginning Relief and Experimental Printmaking. (APR 5510) (APR 7510) Cr. 3
Prereq: ADR 1060, 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

5470 (APR 3470) Advanced Photo-Processes for Printmaking. Cr. 3
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

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

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

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

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 in 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

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)

College of Fine, Performing, and Communication Arts

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5820  Directed Projects.  Cr. 3-6 (Undergrad. 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)

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.  (I)

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, and painting and the applied arts; historical, social and religious background.  (I)

3210  History and Urban Development of Rome.  Cr. 3
Monumental public and private spaces of ancient Rome, from their development through their transformations in the Middle Ages and Renaissance to the modern age. The idea of the city as an imperial capital and the perpetuation of that ideal in art and architecture.  (I)

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  History and Urban Development of Rome.  Cr. 3
Development of Rome as the political and artistic capital of an empire. Influences of its artistic and civic legacy from that time to present day. Taught on site 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  (CD) 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)

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) (CD) 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)

5010  Alternative Media.  Cr. 3
Open only to art history or art majors. 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. Open only to art history majors. 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 only to art history or art majors. Prereq: A H 1110 and A H 1120. Sculpture, painting and architecture of the Greek world from Alexander the Great to Cleopatra.  (I)

5250  Ancient Rome.  Cr. 3
Open only to art history or art majors. Prereq: A H 1110 and A H 1120. 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 only to art history or art majors. Prereq: A H 1110 and A H 1120. 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
Prereq: A H 1110 and A H 1120. Open only to art history or art majors. Painting and sculpture of the Roman Republic and Empire, and their cultural context.  (Y)

5300  The Christian Roman Empire.  Cr. 3
Prereq: A H 1110, 1120. Open only to art history or art majors. 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)

5310  The Ancient City of Athens.  Cr. 3
Open only to art history or art majors. Prereq: A H 1110 and A H 1120. 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 only to art history or art majors. Prereq: A H 1110 and A H 1120. 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 only to art history or art majors. 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
Prereq: A H 1110, A H 1120. Open only to art history or art majors. 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 only to art history or art majors. Art and architecture in Western Europe from the Dark Ages through the twelfth century.  (I)

5410  Gothic Art and Architecture.  Cr. 3
Open only to art history or art majors. Gothic art and architecture in Western Europe from 1140 to 1400, including 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. Open only to art history or art majors. 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
Open only to art history or art majors. 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
Open only to art history or art majors. The art of Leonardo, Raphael, Michelangelo, Titian, and their contemporaries.  (I)

5520  Art of Renaissance Venice.  Cr. 3
Prereq: A H 1120 or 1110. Open only to art history or art majors. 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
Open only to art history or art majors. 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
Open only to art history or art majors. Art of Germany and the Netherlands executed between 1400 and 1570.  (B)

5600  Baroque Art in Italy.  Cr. 3
Open only to art history or art majors. Art of late sixteenth and seventeenth century Italy in its socio-political milieu.  (B)

5610  Baroque Art in the Netherlands.  Cr. 3
Prereq: A H 1120 or 1110. Open only to art history or art majors. Seventeenth-century art in the Netherlands in context of its socio-political milieu.  (I)

5700  Nineteenth Century European Painting.  Cr. 3
Prereq: A H 1110, 1120. Open only to art history or art majors. Major styles, developments and masters.  (B)

5710  Trends in Nineteenth Century Art.  Cr. 3
Prereq: A H 1110, 1120. Open only to art history or art majors. Topics to be announced in Schedule of Classes.  (B)

5715  Modernism: Nineteenth and Twentieth Centuries.  Cr. 3
Prereq: A H 1110, 1120. Open only to art history or art majors. 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. Open only to art history or art majors. 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. Open only to art history or art majors. European and American avant-garde art, Dada and Surrealism, the inter-war period, and Abstract Expressionism.  (B)

5745  Art Since 1945.  Cr. 3
Prereq: A H 1110, 1120. Open only to art history or art majors. 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. Open only to art history or art majors. 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.  (Y)

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. Open only to art history or art majors. 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  Precolumbian 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)

5890  Museums in Art History.  Cr. 3
Prereq: A H 1110, 1120. Open only to art history or art majors. The development and function of the art museum from 300 B.C.E. to the present with emphasis on the museum's role in the institutionalization of art history, collection and criticism.  (B)

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 majors in B.A. or B.F.A. program. Prereq: junior standing, satisfaction of English Proficiency 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)
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 23.

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 17), College degree requirements which include completion of a foreign language through the third semester (see page 186), 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 16, 35, and 181.

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. (Some double majors are not allowed, such as double majors in Public Relations and Speech Communication, 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 (journalism) COM 3400 (speech communication), COM 4170 (public relations), COM 4100 (journalism), COM 5250 (broadcast 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 English Proficiency Examination.

— 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 306) 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-five 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-one 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. 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 Minorities: The Journalism Institute for Minorities 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 their students. For additional information contact: Director, Journalism Institute for Minorities, Wayne State University, Journalism Program, 191 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: Undergraduate majors in this program must take COM 1500, 1600, 2010, and 2210. After completion of these courses with a grade of 'C' or better, students will be allowed to declare a major and to take higher-level courses and may proceed on a course of study: either through the Studies Track, or the Production Track.

Studies Track majors must take COM 2020, 3010 (WI), 5010, 5020 or 5580, 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, 5010, 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 5020, 5270, 5384, 5410, 5420, 5440, 5480, 6190 and 6880. 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, 2160, 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 Speech Communication (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 Speech Communication

A major in Speech Communication offers students an opportunity to develop excellent communication skills and a thorough knowledge of the process of human communication. Speech communication 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. Speech Communication majors find careers in many different fields including business, government, education, law and religion.

The degree of Bachelor of Arts with a major in speech communication is offered in two concentrations — Speech Communication, and Speech Communication Education:

Speech Communication: All majors in this concentration must elect the following core courses: COM 1010, 2110, 2160, 2200, 3400 (WI), 4210, and 5030. COM 5030 is the senior assessment capstone course and should be taken in the last twenty-one credits of the student's program. An additional fifteen credits in speech communication courses are required and should be selected as follows:

(1) At least nine credits from the courses listed below, ideally from one of the following specializations:
   a) Rhetoric and Public Communication: COM 2040, 2170, 2190, 2240, 2500, 5100, 5110, 5120, 6040, 6070.
   b) Interpersonal Communication: COM 2300, 3200, 3220, 3270, 3370, 4030, 4040, 4180, 5220, 6170, 6171, 6200, 6250, 6350.
   c) Organizational Communication: COM 3170, 3250, 3270, 3300, 4170, 5130, 5160, 5220, 6170, 6200, 6250, 6350.

2) Six elective credits in communication (COM) courses in addition to those required by the core and the area of specialization.

Speech Communication Education: All majors in this concentration must elect the following core courses: COM 1010, 2110, 2170, 2200, 3250, 3270, 3400 (WI), 4040, 5030, 6060 and 6070. COM 5030 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 speech communication courses are required and should be selected from among the following: COM 1600, 2160, 2190, 3200, 4030 and 4180.

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 Speech Communication: A minor in this area requires: COM 1010, 2160, 2170, 2200, 3400 and one additional speech communication course selected in consultation with an adviser.

Minor in Journalism: A minor in this area requires: COM 1500, 2030, 2160, 3210, 4100, 5080, and 6190.

Minor in Media Arts and Studies: A minor in this area requires: COM 1500, 1600, 2010, 2210, and six 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.

Communication 203
Departmental Scholarships

See the section on Scholarships and Financial Aid on page 183. 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 Minorities: 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.

SPEECH COMMUNICATION

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-Harrises 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.

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 483.

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 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)

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  (VP) History of Film. (ENG 2460)  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, 2030 or consent of program director. Basic news reporting; gathering the facts and writing them well. Journalism skills course. (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)

2190  Rhetorical Theory  Cr. 3
Prereq: sophomore standing or above, COM 1010 or equiv. Major trends in Western rhetorical theory from classical times to the present; analysis and criticism of theoretical concepts in speechmaking and persuasion. (B)

2200  Interpersonal Communication.  Cr. 3
Introduction to theory and research on interpersonal communication; analysis of everyday communication situations. (Y)

2210  Writing for Radio-Television-Film.  Cr. 3
Prereq: completion of University-required Intermediate-level Composition Course 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 cassette tape recorder. Theory and practice in broadcast newswriting, reporting and performing. 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)

2300 (CD) Intercultural Communication. Cr. 3
Culture-general instructions in intercultural communication skills and theory. Field trips, simulations and conversations between international and U.S. students provide intensive intercultural exposure and exploration. (B)

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 or consent of instructor. Open only to media arts and studies, journalism, 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. Advanced news reporting, focusing on government 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 presentation of techniques, publicity preparation and development of special events. (F,S)

3200 Nonverbal Communication. Cr. 3
Channels and functions of nonverbal communication; contexts include: gender, culture, adult-infant interaction, therapy. Methods of study. (B)

3210 (CL) News Editing. Cr. 4
Prereq: COM 2100. 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)

3220 Health Communication. Cr. 3
Prereq: COM 1010 or equiv. 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. (B)

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
No Ph.D. credit in speech communication. 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: COM 1010 or equiv. and successful completion of English Proficiency Requirement. 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)

3370 Social Science Theories of Persuasion. Cr. 3
Theories of persuasion in communication; how theories can be applied to help solve communication-based social problems. (Y)

3400 (WI) Theories of Communication. Cr. 4
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)

4030 (CD) Gender and Communication. (WS 4030) Cr. 3
Analysis of gender communication issues within interpersonal, group, organizational, intercultural, public, and mass mediated contexts. (B)

4040 (CD) Diversity in Interpersonal Communication. (AFS 5040) Cr. 3
Issues related to the study of interpersonal communication behaviors and patterns in different cultures. (I)

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. Advanced news reporting, focusing on feature writing. (T)

4170 (WI) Public Relations Writing. Cr. 3
Prereq: COM 3170. Writing for public relations purposes: backgrounders, fact sheets, press releases; brochures and newsletters. (F,W)

4180 Family Communication. Cr. 3
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. (I)

4210 Introduction to Research Methods in Communication and Public Relations. Cr. 3
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. 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 (CD) Reporting Race, Gender, and Culture. Cr. 3
Prereq: COM 2100. 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)

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
Open only to media arts and studies, journalism, film, or radio-TV majors; others require prereq: COM 1600 and 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)

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. (Y)

5010 (ST) History of Television and Radio. Cr. 4
Prereq: COM 1500 or graduate standing. Open only to media arts and studies, radio-TV, film, journalism, or communication majors. History of electronic media; development of industry; rise of genres and styles; social and political impact. (T)

5020 Studies in Film History. Cr. 4 (Max. 12)
Prereq: admission to media arts and studies major, or COM 2010 and consent of instructor. Open only to interdisciplinary film studies, media arts and studies, radio-TV, film, or communication majors. 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)

5030 (EI) Communication Ethics. Cr. 3
Capstone course for speech communication majors; must elect in last 21 credits before graduation. Issues of responsible communication in a variety of contexts including mass, organizational, and interpersonal communication. (W)

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. Open only to seniors. Selected topics in communication to be announced in the Schedule of Classes. (I)

5060 Documentary and Non-Fiction Film and Television. Cr. 4
Prereq: COM 2010 or consent of instructor. Open only to interdisciplinary film studies, media arts and studies, radio-TV, film, or communication majors. 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)

5100 Speech Writing. Cr. 3
Prereq: COM 2170 or 2110 or 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)

5110 Studies of Argument. Cr. 3
Prereq: COM 2110 or graduate standing. Uses of argument in a variety of fields and contexts including public and interpersonal contexts such as law, religion and politics. Different methods of studying argument will be examined. (B)

5120 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. (B)

5130 Communication and Social Marketing. Cr. 3
The process of social marketing; student-driven group project. (Y)

5160 Public Relations Campaigns and Issues Management. Cr. 3
Prereq: COM 3170. 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 prominent critical rhetorical approaches to public relations planning and evaluations. (W)

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)

5220 Interviewing. Cr. 3
Theory and research on interviewing across a range of contexts. Topics include: constructing questions and protocols, listening, role, self-presentation, social understanding. Contexts may include screening, counseling, legal, journalism and research. (Y)

5250 (WI) Professional Issues in News Media Management. Cr. 4
Prereq: COM 4100 or consent of instructor. Open only to senior students or above. 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)
Prereq: COM 2210, ENG 3010, 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)

5300 Desktop Publishing. Cr. 4
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 Schedule of Classes. (I)
5310 Investigative Reporting. Cr. 4
Prereq: COM 4100. Advanced reporting techniques involving use of Freedom of Information Act and computer-assisted data base searches; accessing public records.

5380 Video Field Production and Editing. Cr. 3
Open only to media arts and studies or film 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

5381 Television Field Producing and Reporting. Cr. 3
Open only to journalism majors. Prereq: COM 2230 or consent of adviser. Theory and practical application of aesthetics of TV news and feature story telling. Emphasis on preproduction planning, shooting ratio, journalistic interviewing and writing skills, visual support through production values, edit planning and on-camera presentation. Material Fee as indicated in the Schedule of Classes

5382 Broadcast Video Field Production and Editing. Cr. 3
Open only to majors in media arts and studies and journalism. Prereq: COM 4410; or COM 5350 and consent of adviser. Theory and practical application in the technical and aesthetic aspects of image and sound recording, with emphasis on shooting to edit, and non-linear editing under broadcast deadlines. Emphasis on creation of original content for news and feature programming. Material Fee As Indicated In The Schedule of Classes

5384 Topics in Production Design and Theory. Cr. 3 (Max. 6)
Prereq: COM 5380 or COM 5382; or COM 4310 or COM 4410 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

5400 Techniques of Film and Video Production. Cr. 4
Open only to film studies, media arts and studies, journalism, radio-TV, film, or communication majors. Prereq: COM 5380 or COM 5382 or COM 5350, and 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

5410 Producer's Workshop. Cr. 4
Prereq: COM 5380 or AIN 5220 or COM 7400 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

5420 Director's Workshop. Cr. 4 (Max. 8)
Prereq: COM 5400; senior standing or above; production-ready script; 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

5440 Film Production. Cr. 4
Prereq: COM 5400, senior standing or above, 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

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.

5480 Topics in Public Media Studies and Practices. Cr. 4 (Max. 12)
Prereq: COM 1600, COM 2210, and consent of instructor. 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

5500 Publishing on the Internet. Cr. 3
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

5510 (ST) 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.

5700 Political and Governmental Reporting. Cr. 4
Prereq: COM 2230, COM 4100. Covering politics, governmental and public affairs in the media.

5993 (WI) Writing Intensive Course. Cr. 0
Prereq: junior standing, written consent of instructor, satisfactory completion of English proficiency exam. 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.

6040 (CD) Cultures and Rhetorics. Cr. 3
Prereq: junior standing or above. Analysis of philosophical, social and cultural foundations of rhetorical theory and practice in different cultures. Cultural rhetorics may include: African, Asian, Native American, Latin American, Arab, or Jewish.

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.

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.

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.

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.

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.
6200  Theories of Small Group Processes.  Cr. 3  
Prereq: COM 1010 and junior, senior, or graduate standing.  Theory and research on communication in the small, task-oriented group.  
(F)

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  (ST) Computer-Mediated Communication.  Cr. 3  
Analysis of computer-mediated interaction in task-oriented and recreational contexts.  Emphasis on discourse analysis, and interpersonal and group social processes including decision making and emergence of identity, behavioral norms, and social cues.  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.  
(B)
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, including two semesters of performance in the University Dance Company, as well as satisfaction of the University General Education Requirements (see page 17) and College degree requirements (see page 186). This program requires seventy-seven credits in dance courses (specified below), as well as thirty-one credits in University General Education courses and eleven credits in electives within or outside dance. All course work must be completed in accordance with the academic procedures of the University and College of Fine, Performing and Communication Arts governing undergraduate scholarship and degrees (see sections beginning on page 16, 35, and 181), 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

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. 2
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 5410 -- Dance Notation I: Cr. 2
DNC 5560 -- Choreography III: Cr. 2
DNC 5810 -- Creative Dance for Children: Cr. 3
DNC 5993 -- (WI) Writing Intensive Course in Dance: Cr. 0
Total: 34 credits

Performance

DNC 2010 -- Technique Laboratory I: Part I: Cr. 2
DNC 2020 -- Technique Laboratory I: Part 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 2220): Cr. 16
DNC 2460 -- Dance Improvisation: Cr. 2
DNC 3010 -- Technique Laboratory II (two semesters): Cr. 4
DNC 4010 -- Technique Laboratory III (four semesters): Cr. 8
DNC 5000 -- Performance Tour (two semesters): Cr. 2
DNC 5610 -- Dance Company I (two semesters): Cr. 2
DNC 5800 -- Repertory (two semesters): Cr. 2
DNC 5996 -- Senior Capstone Research (Choreography):1 Cr. 3
Total: 43 Credits

Cognate Requirements (elect two of the following courses)

A H 1000 -- (VP) Introduction to Art: Cr. 4
MUH 1340 -- (VP) (CD) 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 is a performing group composed of skilled dance students who must qualify for membership through auditions. It presents concerts, lecture/demonstrations, and performances on campus and in the community, choreographed by visiting artists, faculty, and talented students. All B.F.A. majors must qualify for, and be members of, the Dance Company for two semesters.

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, including two semesters of performance in the University Dance Company, as well as satisfaction of the University General Education Requirements (see page 17) and College degree requirements (see page 186). This program requires fifty-one credits in dance courses (specified below), as well as thirty-one credits in University General Education courses and thirty-five credits in electives. All course work must be completed in accordance with the academic procedures of the University and College of Fine, Performing and Communication Arts governing undergraduate scholarship and degrees (see sections beginning on page 16, 35, and 181), as well as with the requirements of the Maggie Allesee Department of Dance. The fifty-one 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. 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.

B.S. MAJOR REQUIREMENTS

DNC 1330 -- Production Practicum: Cr. 1
DNC 2300 or DNC 2310 -- History of Dance to 1800: 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 3310 -- Dance Production: Cr. 3
DNC 3500 -- Choreography II: Cr. 2
DNC 5993 -- (WI) Writing Intensive Course in Dance: Cr. 0
Total: 21 Credits

Performance

DNC 2010 -- Technique Laboratory I: Part I: Cr. 2
DNC 2020 -- Technique Laboratory I: Part II: Cr. 2
DNC 1220 or 2210 or 2220 or 3210 or 3220 or 4220 (four semesters at two credits per semester): Cr. 8
DNC 3010 -- Technique Laboratory II (four semesters): Cr. 8
DNC 4010 -- Technique Laboratory III (two semesters): Cr. 4
DNC 5000 -- Performance Tour: Cr. 2
DNC 5110 -- Study in Dance Styles: Pilates: Cr. 1
DNC 5120 -- Pilates Equipment Lab (six semesters): Cr. 0
DNC 5610 -- Dance Company I (two semesters): Cr. 2
DNC 5996 -- Senior Capstone Research (Choreography): Cr. 3
Total: 34 credits

General Education Requirement
DNC 2000 -- (VP) Introduction to Dance: Cr. 4

Cognate Requirements (elect two of the following courses)
A H 1000 -- Introduction to Art: Cr. 4
MUH 1340 -- World Music: Cr. 3
MUH 1370 -- Music Appreciation: Cr. 3
THR 1010 -- Introduction to the Theatre: Cr. 3
Total 6-7 Credits

Performance Opportunities: The W.S.U. Dance Company is a performing group composed of skilled dance students who must qualify for membership through auditions. It presents concerts, lecture/demonstrations, and performances on campus and in the community, choreographed by visiting artists, faculty, and talented students. All B.S. majors must qualify for, and be members of, the Dance Company for two semesters.

Teaching Major -- B.F.A. and B.S.

Professional Education Sequence: The 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 3998 -- Assisting in Dance: Cr. 1
DNC 5810 -- 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 -- Methods in Modern Dance and Ballet: 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 State Teacher Certification in any secondary major may add a secondary Dance Certification by completing the Dance Education Minor requirements.

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 183. 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. 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 Alleesee Talent 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.

Alleesee 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, not to exceed one page. The application deadline is early December for a winter semester award.

Meredith Ileen 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.

1. Capstone course to be taken in last twenty-one credits of study.
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 bases 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. Applicants must submit a letter of application, not to exceed one page. The application deadline is 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 483.

DANCE COURSES (DNC)

1010 Contemporary Dance I. Cr. 2
Basic movement techniques and improvisational experiences in concert dance; films and concert viewing. (T)

1020 Contemporary Dance II. Cr. 2 (Max. 6)
Prereq: DNC 1010 or equiv. Continuation of DNC 1010 on an intermediate level. (T)

1210 Fundamentals of Classic 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 Classic Ballet II. Cr. 2 (Max. 8)
Prereq: DNC 1210 or equiv. 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. (T)

1410 Afro-Haitian Dance I. Cr. 2
Introduction to dance elements and dances derived from African/African American cultural experience. Emphasis on dances of Haiti, Brazil, and Cuba. (F)

2000 (VP) (CD) Introduction to 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 Technique Laboratory I: Part I. Cr. 2 (Max. 12)
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 Technique Laboratory I: Part II. Cr. 2 (Max. 12)
Prereq: DNC 2010. 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)

2210 Ballet III. Cr. 2 (Max. 16)
Prereq: DNC 1220 or equiv. 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 repertoire. Material Fee as indicated in the Schedule of Classes (F,W)

2220 Ballet IV. Cr. 2 (Max. 16)
Prereq: DNC 2210. Open only to dance majors. Continuation of DNC 2210 with emphasis on advanced knowledge of classical ballet vocabulary. Material Fee as indicated in the Schedule of Classes (T)

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. Material Fee as indicated in the Schedule of Classes (B:F)

2400 (FC) (CD) 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.
(W)

2460 Dance Improvisation. Cr. 2
Open only to undergraduates. Introduction to dance improvisational
techniques and performance skills as applied to movement invention,
performance, and choreography. (F)

2500 Choreography I. Cr. 2
Prereq: DNC 1020 or equiv.; DNC 2460. Open only to dance
majors. Construction of motifs and dance studies based on nonlinear
and literal thematic materials; emphasis on form and structural con-
cepts. (W)

2610 Jazz I. Cr. 2 (Max. 8)
Introduction to jazz dance technique; emphasis on alignment, move-
ment isolation, rhythmic awareness, basic dance vocabulary, histo-
cial development. (F,W)

3010 Technique Laboratory II. Cr. 2 (Max. 8)
Prereq: DNC 2010 or equiv. Open only to dance majors. Continua-
tion 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
Prereq: DNC 2010 or equiv. Open only to dance majors. Introduc-
tion to analysis of dance movement from an anatomical and mechan-
ical point of view. Relationships between neuromuscular
repatterning, alignment and technique. (B:F)

3190 Movement Analysis. Cr. 2
Prereq: DNC 3180. Continuation of anatomical and mechanical
analyses of dance; emphasis on somatic and dance science
approaches. (B:W)

3210 Ballet V. Cr. 2 (Max. 16)
Prereq: DNC 2210, 2220, or by audition. Open only to advanced
dancers. Open only to dance majors. Technical skill development of
classical ballet dancers. (F,W)

3220 Ballet Pointe Technique. Cr. 1
Open only to advanced dance majors. Prereq: DNC 3210. 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. (F)

3410 Jazz II. Cr. 2 (Max. 4)
Prereq: DNC 2610, consent of instructor. 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. Explora-
tion of time, space, and design tools for choreography; focus on
formal construction of small group studies and dances. (F)

3998 Assisting in Dance. Cr. 1 (Max. 4)
Prereq: consent of dance adviser. Assigned field work in assisting
under faculty supervision. (F,W)

4010 Technique Laboratory III. Cr. 2 (Max. 16)
Open only to dance majors; others by audition. Prereq: DNC 2010 or
equiv. Continuation of DNC 3010. Modern dance technique,
advanced level. Material Fee as indicated in the Schedule of Classes.
(F,W)

4220 Ballet Variations. Cr. 1
Prereq: expertise on pointe; admission audition. Open only to
advanced dancers. Learning various solo exercises from standard
classical repertoire; music by Chopin, Adams, Minkus, Tchaikovsky.
(B)

4610 Jazz III. Cr. 2
Prereq: admission by audition. Continuation of DNC 3410 with
advanced training in jazz technique and styles. (F,W)

4810 Methods in Modern Dance and Ballet. (DNC 4810) Cr. 3
Prereq: DNC 1020 and 1220 or equiv. Analysis of instructional meth-
ods and materials in modern dance and ballet, including technique,
improvisation, composition, curriculum planning and evaluation.
(B:W)

5000 Performance Tour. Cr. 1 (Max. 8)
Prereq: DNC 5610 or 6610. Open by audition only. Development and
performance of touring dance performances off campus including
regional, national, and international festivals; productions for elemen-
tary, 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, 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. Material Fee as indicated in the Schedule of Classes
(F)

5600 Improvisation. Cr. 2
Spontaneous movement exploration in response to a variety of stim-
uli: 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. Two credits required for dance majors. Performing company.
Open to students interested in performing and/or choreographing.
Material Fee as indicated in the Schedule of Classes (F,W)

5710 Workshop in Modern Dance. Cr. 1-6 (Max. 12)
A concentrated period of advanced dance study in technique, com-
position and repertory, often with a visiting artist. (F,W)

5800 Repertory. Cr. 1-4 (Max. 12)
Prereq: DNC 2010; admission by audition. Learning, for perfor-
mance, of dance repertory, dances previously choreographed by fac-
ulty, Labanotation dance, or work of Artist-in-Residence. (F,W)

5810 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 com-
prehensive 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. Supervised professional study in field settings.  (T)

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 English proficiency exam; consent of instructor; coreq: DNC 3310. 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. Satisfies 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)

6010  Technique Laboratory III.  Cr. 1 (Max. 8)
Prereq: DNC 4010 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. 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. Second experience in student teaching.  (F,W)

4810  (DNC 4810) Methods in Modern Dance and Ballet.  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
Interim Chairperson: John D. Vander Weg
Associate Chairperson: Norah Duncan IV
Graduate Officer: Mary A. Wischusen

Academic Services Officers: Lee Dyament, Andrea Lafferty
Web: http://www.music.wayne.edu

Professors
James J. Hartway (Distinguished Professor), Kypros L. Markou, Dennis J. Tini (Distinguished Professor)

Associate Professors
Douglas Bianchi, Karl Braunschweig, Frances Brockington, Abigail Butler, Christopher Collins, Robert Conway, Norah Duncan IV, Terese Volk, John D. Vander Weg, Mary A. Wischusen

Assistant Professor
Laura Roelofs

Lecturers
Jon Anderson, Thomas Court, Russell Miller

Adjunct Professors
Brazeal Dennard, 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), Abigail Butler (Voice/Choral), James Hartway (Composition, Theory, and History), Christopher Collins (Jazz Studies), Dennis Tini (Music Business and Music Technology), Terese Volk (Music Education)

Adjunct Faculty
Geoffrey Applegate (violin, DSO), Gerrie Ball (accompanist), Neal Campbell (tuba), Steven Carryer (jazz guitar ensembles), Marcy Chanteaux (cello, DSO), Keith Claeyss (percussion and percussion ensemble), Carolyn Coade (viola, DSO), Thomas Dennis (music theory), Philip Dikeman (flute, DSO), Maurice Draughn (men’s glee club), Dorothy Duensing (voice), Lee Dyament (classical guitar), Gordon Finlay (voice), Paul Ganson (bassoon, DSO, retired), Gail Gebhart (piano), Ivan Griffin (voice), John Guinn (music history and theory), Max Janowsky (bass, DSO), David Jennings (trumpet, DSO), Robert Jones (music history), Ronald Kischuk (jazz trombone), Gale Kramer (organ), Charles Kronengold (music history), Laura Larson (flute, flute), Joyce Matthews (music education), Clifford Monear (piano, DSO), Michael Naylor (world music), Ted Oien (clarinet, DSO), Johanna Ortegon (piano), Robert Pipho (jazz theory), Dan Pliskow (jazz bass), Ronald Prowse (organ), Tuesday Rambo-McCall (class voice), Richard Rattner (music business), Kim Renas (voice), Brian Roberts (guitar), Ernest Rodgers (jazz ensemble), James Ryan (jazz percussion), Marion Tanau (violin, DSO), David Taylor (jazz percussion), Patricia Terry-Ross (harp and music education), Kenneth Thompkins (trombone, DSO), Denise Tryon (horn, DSO), James Van Valkenburg (viola, DSO), Brian Ventura (oboe, DSO), Kevin Welling (jazz trumpet), Kendra Whitlock (music business, DSO), Robert Williams (bassoon, DSO), Hai Xin Wu, (violin, DSO)

Music 213
Degree Programs

BACHELOR OF ARTS with a major in music

BACHELOR OF MUSIC with a concentration in
- theory/composition, instrumental music education, jazz studies,
- music business, music technology, performance, and vocal music education,

MASTER OF ARTS with a major in music

GRADUATE CERTIFICATE in Orchestral Studies

The music programs at Wayne State offer many of the advantages of studying at a major urban university. As an integral part of the midtown cultural center, the University is enriched by the musical activities of such major institutions as the Detroit Institute of Arts, Orchestra Hall and the Michigan Opera Theatre. Additionally, the close relationship between the department and the Detroit Symphony Orchestra, one of the nation's great orchestras, provides an artistic resource of the highest caliber. Qualified students can find opportunities in performance and arts management with these and other institutions while studying with members of the Detroit Symphony, jazz artists or other distinguished faculty. Music study can also lead to careers in the fields of teaching, business, jazz and commercial music industry.

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 16, 35, and 181.

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 may register for the course one additional time to earn a grade of ‘C’ or better.

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: Music majors must elect Choral Union (MUA 2840) or Concert Chorale (MUA 2850) for degree credit. Non-music majors are encouraged to register for the Choral Union (the large mixed-voice choir), Men's Glee Club or Women's Chorale. Concert Chorale is the Department's most select vocal ensemble; auditions are especially competitive.

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.

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 23, 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 17), College degree requirements (see page 186), and Bachelor of Arts curriculum requirements listed below. Students pursuing a Bachelor of Arts degree must also fulfill the foreign language requirement (see page 181). 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:

Music History, Theory, and Technology (31 credits)

MUH 1345 -- (VP, CD) Music Cultures: Cr. 3
MUH 1330 -- Music History III: Cr. 3
MUH 3310 -- Music History I: Cr. 3
MUH 3320 -- (WI) Music History II: Cr. 3
MUH 3330 -- Music History III: Cr. 3

(Total 9 Credits)

Music History, Theory, and Technology (31 credits)

MUA 1795 -- Piano Skills I: Cr. 2
MUA 2795 -- Piano Skills II: Cr. 2
MUH 3310 -- Music History I: Cr. 3
MUH 3320 -- (WI) Music History II: Cr. 3
MUH 3330 -- Music History III: Cr. 3

(Total 19 Credits)

Musical Literacy (12 credits)

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 4 Credits)

Requirements (47 – 48 Total Credits)

General Lectures and Concerts (0 credits)

MUH 2690: General Lectures and Concerts: Cr. 0

(Four terms of satisfactory grade)

Music History, Theory, and Technology (31 credits)

MUA 1795 -- Piano Skills I: Cr. 2
MUA 2795 -- Piano Skills II: Cr. 2
MUH 3310 -- Music History I: Cr. 3
MUH 3320 -- (WI) Music History II: Cr. 3
MUH 3330 -- Music History III: Cr. 3

(Total 9 Credits)

Music History, Theory, and Technology (31 credits)

MUA 1795 -- Piano Skills I: Cr. 2
MUA 2795 -- Piano Skills II: Cr. 2
MUH 3310 -- Music History I: Cr. 3
MUH 3320 -- (WI) Music History II: Cr. 3
MUH 3330 -- Music History III: Cr. 3

(Total 19 Credits)

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

(Total 0 Credits)

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 4 Credits)

Music History, Theory, and Technology (31 credits)

MUA 1795 -- Piano Skills I: Cr. 2
MUA 2795 -- Piano Skills II: Cr. 2
MUH 3310 -- Music History I: Cr. 3
MUH 3320 -- (WI) Music History II: Cr. 3
MUH 3330 -- Music History III: Cr. 3

(Total 9 Credits)

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 4 Credits)

Music History, Theory, and Technology (31 credits)

MUA 1795 -- Piano Skills I: Cr. 2
MUA 2795 -- Piano Skills II: Cr. 2
MUH 3310 -- Music History I: Cr. 3
MUH 3320 -- (WI) Music History II: Cr. 3
MUH 3330 -- Music History III: Cr. 3

(Total 19 Credits)

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 5040 -- History of Music Theory: Cr. 3
- MUT 5240 -- Analysis of Twentieth-Century Music: Cr. 3
- MUT 5260 -- Topics in Music Analysis: Cr. 3

B.A. Project (2 Credits)
- 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 this 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 23) 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 17), College degree requirements (see page 186), 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

Theory/Composition (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 1755: Piano Skills I: Cr. 2
- MUA 2795: Piano Skills II: Cr. 2
Six terms of appropriate MUP: private instruction in principal instrument or voice, one credit per term (total six credits). See MUP course table (page 220) for course numbers.

If Piano is not the principal instrument, four terms of MUP 1211-1214, Piano (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

Music Electives selected in consultation with program advisor
(6-8 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 (12 Credits)
MUA 1795: Piano Skills I: Cr. 2
MUA 2795: Piano Skills II: Cr. 2

Seven terms of appropriate MUP: private instruction in principal instrument, one credit per term (total seven credits). See MUP course table (page 220) 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 string principals)

One term of secondary performance ensemble selected from:
- MUA 2820 -- Jazz Big Band: Cr. 1
- MUA 2830 -- Men's Glee Club: Cr. 1
- MUA 2840 -- Choral Union: Cr. 1
- MUA 2870 -- Women's Chorale: Cr. 1
- MUA 5641 -- Electronic Music Ensemble: Cr. 1
  (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 of satisfactory grade)

Music History, Theory, and Technology (32–33 credits)
MUH 3310 -- Music History I: Cr. 3
MUH 3320 -- (WI) Music History II: Cr. 3
MUH 3330 -- Music History 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 2300 -- Orchestration: Cr. 2
MUT 5997 -- Analytical Techniques: Cr. 3
  (Total 21 Credits)
MUA 5610 or MED 5590
  -- Music Technology: Cr. 3
  -- Computer Applications in Music Teaching: Cr. 2

Instrumental Methods and Conducting (16 Credits)
MUA 1720 -- Class Voice 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 12 Credits)
MUA 3670 -- Conducting Techniques I: Cr. 2
MUA 3680 -- Conducting Techniques II: Cr. 2
  (Total 4 Credits)

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 -- (CD) Educational Psychology: Cr. 3
RLL 4431 -- Reading for Middle and Secondary Subject Areas: Cr. 3
TED 5790 -- Student Teaching and Conference: Cr. 8

NOTE: Music Education and the College of Education

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.

Vocal Music Education (127–128 Credits)

General Education Requirement: The Department requires election of MUH 1345: (VPRCD) 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 (23 Credits)
MUA 1795 -- Piano Skills I: Cr. 2
MUA 2795 -- Piano Skills II: Cr. 2

Six terms of MUP: Voice private instruction, 1 cr. per term, AND six terms of MUP: Piano private instruction, 1 cr. per term (total 12 credits). See MUP course table (page 220) for course numbers.

Six terms of major ensemble (must be elected concurrently with MUP private instruction) chosen from:
- MUA 2830 -- Men's Glee Club: Cr. 1
- MUA 2850 -- Concert Chorale: Cr. 1
  (Total 6 Credits)

One term of secondary ensemble chosen from:
- MUA 2820 -- Jazz Big Band: Cr. 1
- MUA 2840 -- Choral Union: Cr. 1
- MUA 2850 -- Concert Chorale: Cr. 1
  (Total 6 Credits)

General Lectures and Concerts (0 Credits)
MUA 2690: General Lectures and Concerts: Cr. 0
  (four terms of satisfactory grade)

Music History, Theory, and Technology (30–31 Credits)
MUH 3310 -- Music History I: Cr. 3
MUH 3320 -- (WI) Music History II: Cr. 3
MUH 3330 -- Music History 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 19 Credits)
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
  -- Strings 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 6 Credits)
MUA 3670 -- Conducting Techniques I: Cr. 2
MED 5550 -- Choral Conducting and Rehearsal Techniques: Cr. 3
**Music Education** (22 credits)

- 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 -- (CD) Educational Psychology: Cr. 3
- RLL 4431 -- Reading for Middle and Secondary Subject Areas: Cr. 3

**Music Business** (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. Other general education requirements total approximately 32 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: private instruction in principal instrument or voice, one credit per term. See MUP course table (page 220) 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 6 Credits)

**General Lectures and Concerts** (0 Credits)

- MUA 2690: General Lectures and Concerts: Cr. 0

(four terms of satisfactory grade)

**Music History, Theory, and Technology** (31 Credits)

- MUH 3310 -- Music History I: Cr. 3
- MUH 3320 -- (WI) Music History II: Cr. 3
- MUH 3330 -- Music History 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 19 Credits)

- MUA 5610 -- Music Technology: Cr. 3

**Music Business Requirements** (21 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. 3
- MUA 5700 -- Music Business III: Cr. 3
- MUA 5800 -- Music Business IV: Cr. 3

(Total 15 Credits)

- MUA 4650 -- Directed Study: Internship: Cr. 1-3

(two terms: 4 credits, typically one- and three-credit elections)

**Business Courses and Related Requirements** (24-26 Credits)

- ACC 3010 -- Introductory Financial Accounting Theory: Cr. 3
- CSC 1000 -- (CL) Introduction to Computer Science: Cr. 3
- ECO 2010 -- (SS) Principles of Microeconomics: Cr. 3-4
- ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 3-4
- ISM 2300 -- Quantitative Methods I: Cr. 3
- MAT 1500 -- College Algebra for Social and Management Sciences: Cr. 3
- MGT 2530 or (former) MGT 4530
  -- Management: Organizational Behavior: Cr. 3
  -- Management of Organizational Behavior: Cr. 3
- MKT 2300 -- Marketing Management: Cr. 3

Note: Music Business majors may obtain a Minor in Business Administration by electing FIN 4290 -- Business Finance: Cr. 3 and one additional elective course in the School of Business Administration. See page 69, Minor in Business Administration, for further information.

**Music Technology** (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** (16 credits)

- MUA 1795: Piano Skills I: Cr. 2
- MUA 2795: Piano Skills II: Cr. 2

Six terms of appropriate MUP: private instruction in principal instrument or voice, 1 cr. per term. See MUP course table (page 220) for course numbers.

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 6 Credits)

**General Lectures and Concerts** (0 Credits)

- MUA 2690: General Lectures and Concerts: Cr. 0

(four terms of satisfactory grade)

**Music History, Theory, and Technology** (31 Credits)

- MUH 3310 -- Music History I: Cr. 3
- MUH 3320 -- (WI) Music History II: Cr. 3
- MUH 3330 -- Music History 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 19 Credits)

- MUA 5610 -- Music Technology: Cr. 3

**Music Business Requirements** (21 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. 3
- MUA 5700 -- Music Business III: Cr. 3
- MUA 5800 -- Music Business IV: Cr. 3

(Total 15 Credits)

- MUA 4650 -- Directed Study: Internship: Cr. 1-3

(two terms: 4 credits, typically one- and three-credit elections)

**Business Courses and Related Requirements** (24-26 Credits)

- ACC 3010 -- Introductory Financial Accounting Theory: Cr. 3
- CSC 1000 -- (CL) Introduction to Computer Science: Cr. 3
- ECO 2010 -- (SS) Principles of Microeconomics: Cr. 3-4
- ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 3-4
- ISM 2300 -- Quantitative Methods I: Cr. 3
- MAT 1500 -- College Algebra for Social and Management Sciences: Cr. 3
- MGT 2530 or (former) MGT 4530
  -- Management: Organizational Behavior: Cr. 3
  -- Management of Organizational Behavior: Cr. 3
- MKT 2300 -- Marketing Management: Cr. 3

Note: Music Business majors may obtain a Minor in Business Administration by electing FIN 4290 -- Business Finance: Cr. 3 and one additional elective course in the School of Business Administration. See page 69, Minor in Business Administration, for further information.
MUT 5997 -- Analytical Techniques: Cr. 3
(Total 19 Credits)

MUA 5610 -- Music Technology: Cr. 3

Music Technology Requirements (46 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
(two terms: 4 credits, typically one- and three-credit elections)
MUA 5600 -- Music Business II: Cr. 3
MUA 5630 -- Recording Techniques I: Cr. 3
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 (122 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: private instruction in principal instrument, one credit per term, total six credits. See MUP course table (page 220) for course numbers.

Two terms of appropriate MUP: private instruction in principal instrument, three credits per term, total six credits. See MUP course table (page 220) 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 8 Credits)

Two terms of jazz combos chosen from:
MUA 2824 -- Jazztet: Cr. 1
MUA 2826 -- Jazz Combos: Cr. 1
(Total 2 Credits)

General Lectures and Concerts (0 Credits)
MUA 2690: General Lectures & Concerts: Cr. 0 (four terms of satisfactory grade)

Music History, Theory, and Technology (31 credits)

MUH 3330 -- Music History I: Cr. 3
MUH 3332 -- (WI) Music History II: Cr. 3
MUH 3333 -- Music History 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 19 Credits)

MUH 5610 -- Music Technology: Cr. 3

Jazz Studies Requirements (28 Credits)

MUH 3360 -- Jazz History: Cr. 3
MUT 2120 -- Jazz Theory and Harmony: Cr. 3
MUT 2885 -- Jazz Improvisation: Cr. 1 (2 req.)
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

MUH 3670 -- Conducting Techniques I: Cr. 2
MUA 5610 -- Music Business II: Cr. 3
MUA 5630 -- Recording Techniques I: Cr. 3
MUA 5690 -- Stage Band Direction: Cr. 1
Senior Recital: Cr. 0

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: major instrument or voice, three credits per term (total: twenty-four credits). See MUP course table (page 220) for course numbers.

Eight terms of major ensemble (must be elected concurrently with MUP private instruction) chosen from:
MUA 2820 -- University Bands: Cr. 1
MUA 2810 -- University Symphony Orchestra: Cr. 1
MUA 2840 -- Choral Union: Cr. 1
MUA 2850 -- Concert Chorale: Cr. 1
(Total 8 Credits)

General Lectures and Concerts (0 Credits)
MUA 2690: General Lectures and Concerts: Cr. 0

Music History, Theory, and Technology (31 Credits)

MUH 3310 -- Music History I: Cr. 3
MUH 3320 -- (WI) Music History II: Cr. 3
MUH 3330 -- Music History 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 19 Credits)

MUA 5610 -- Music Technology: Cr. 3

Performance Major Requirements (13-14 Credits)
MUT 2100 -- Counterpoint: Cr. 2
MUH 5530 -- Performance Literature and Pedagogy: Cr. 3
MUP (appropriate) secondary instrument: Cr. 1 (2 req.)

One shared junior-level recital and one complete senior-level recital (0 credits)

Additional concentration requirements (11-14 Credits):
Piano Majors:
MUT 2040 -- Keyboard Harmony: Cr. 1
MUT 3000 -- Orchestration: Cr. 2
MUA 2880 -- Chamber Music: Cr. 1 (4 req.)
ORGAN MAJORS:
MUT 2040 -- Keyboard Harmony: 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.)

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 (4-7 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 table below 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, Theory/Composition, 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 table below 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, 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.
### Principal and Secondary Private Instruction Courses

<table>
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<tr>
<th>Instrument</th>
<th>Freshman</th>
<th>Sophomore</th>
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### Major Private Instruction Courses

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220 College of Fine, Performing, and Communication Arts
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 12 Credits)

MUSIC HISTORY: two courses selected from:
- MUH 1345 -- (VP) (CD) Music Cultures: Cr. 3
- MUH 3310 -- Music History & Literature I: Cr. 3
- MUH 3320 -- Music History & Literature II: Cr. 3
- MUH 3330 -- Music History & Literature III: Cr. 3
(Total 6 Credits)

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: Cr. 1 (2 req.)
- 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 183. 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.


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.

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 483.

MUSIC EDUCATION COURSES (MED)

2500 Piano Skills for the Music Classroom. Cr. 2
Prereq: MUA 1790, MUA 2790, MUA 3790 or equiv. Open only, by audition, to students in the vocal music education curriculum. Continuation of MUA 3790. 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. (W)

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 baccalaureate 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 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)

5550 Choral Conducting and Rehearsal Techniques. Cr. 3
Prereq: MUA 3670 or equiv. Conducting and rehearsal methods and materials for secondary schools. (W)

5560 Secondary School Music Workshop. Cr. 2 (Max. 6)
Group participation in the study of class materials and teaching procedures for secondary music teachers. (Y)

5575 Topics in Music Education. Cr. 1
Course work requires attendance at Michigan Music Education Association State Inservice 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 General Education computer literacy (CL) requirement; MUA 5610 or equiv. 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. 6)
Group participation in the study of class materials and teaching procedures for elementary music teachers. (Y)

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. 6)
Current problems, procedures and materials pertaining to development of the instrumental music program in the schools. (S)

MUSIC APPLIED COURSES (MUA)

1700 Guitar Class. Cr. 2 (Max. 8)
Prereq: consent of instructor. Fundamentals in guitar playing; techniques, hand positions, bar chords, general performance practices. Material Fee as indicated in the Schedule of Classes (Y)

1710 Piano Class. Cr. 2 (Max. 8)
Not open to music majors after MUA 1790. 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. Open only to instrumental and vocal music education students. Fundamentals in voice training and pedagogy for music education majors. (Y)

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,W)

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,W)

1795 Piano Skills I. Cr. 2
Open only to students in B.A. or B.Mus. programs. Prereq: MUT 1140 and MUA 1710, placement by audition, or consent of instructor. Repertoire, scales, sight reading, harmonization, and simple transpositions. Material Fee as indicated in Schedule of Classes. (F,W)
2400 Music Business I. Cr. 3
Open only to music majors; others by consent of instructor. Comprehensive overview of the music business and music management; career options/development; necessary training/experience; music in the marketplace, mass media, technology/digital implications and future trends, arts administration, industry networking, internship development; professional organization-association-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)

2720 Voice Class. Cr. 2 (Max. 8)
Fundamentals in voice training. Correct breathing: tone placement: articulation vocalises. (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. Continuing of MUA 1795; development of basic piano skills to a higher level. Material fee as indicated in Schedule of Classes. (F,W)

2800 University Bands. Cr. 1
Prereq: consent of director. Members of the Marching Band may have to participate in special rehearsals before the official opening of the fall semester; members of the Symphony Band are required to perform at the Commencement exercises, and exercises may take place after the official close of the fall or winter semesters. Material Fee as indicated in the Schedule of Classes. (F,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 Glee Club. 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 (MUA 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
All forms including: jazz improvisation, percussion ensemble, trios and quartets, and wind ensemble. 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 I. Cr. 2
Prereq: MUA 2795, placement by audition, or consent of instructor. Open only to music majors in the B.Mus. program. Continuation of MUA 2795. Satisfactory completion of MUA 3795 leads to fulfillment of the undergraduate core piano proficiency requirement and to certification. Material Fee as indicated in Schedule of Classes. (F,W)

4650 Directed Study: Internships. Cr. 1-3 (Max. 6)
Open only to music majors in the B.Mus. program. Directly supervised professional experience in the music and creative arts industries and related fields (marketing, music technology, recording, publicity, public relations). (T)

5600 Music Business II. Cr. 3
Prereq: MUA 2400 or consent of instructor. Open only to music majors; others by 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 undergraduate music majors. Prereq: MUT 1150. 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. (F)

5630 Recording Techniques I. Cr. 2
Prereq: MUA 5610. 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. (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
Open only to music majors; others require consent of instructor. Prereq: MUA 5630. 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. (F)
5661 Recording Techniques III. Cr. 2
Open only to music majors; others require consent of instructor. Prereq: MUA 5660. Advanced studio production techniques and mastering editing for product release; post production and packaging of material. Material Fee as indicated in the Schedule of Classes. (W)

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 II. Cr. 3
Prereq: MUA 5600 or consent of instructor. Nonprofit organizations and the music business. Topics include nonprofit management and management and art business, including organizational structures, artistic planning, fundraising / grantwriting / corporate sponsorship, budget planning, and arts marketing. (W)

5730 Harpsichord Class. Cr. 2 (Max. 8)
Prereq: MUA 3790 or equiv. (F,W)

5790 Piano Accompanying. Cr. 2
Techniques of accompanying at the piano; analysis of styles, performance practices, and historical comparisons. Graduate students assigned special project and research paper. (F)

5800 Music Business IV. Cr. 3
Prereq: MUA 5600 or consent of instructor. Individual study of specific areas of music business/management and the music industry at the local, national, and international levels. Areas may include: live concert production/touring, film music and music video, marketing/communication, music business/industry associations, and technology/digital implications. Comprehensive research project required. Material Fee as indicated in the Schedule of Classes. (W)

MUSIC HISTORY COURSES (MUH)

1340 (VP) (CD) Music Appreciation: World Music. Cr. 3
Open to non-music majors only. Introduction to the musical styles of Africa, Asia, South America, and the Middle East. (F,W)

1345 Music Cultures. Cr. 3
Open only to B.A. in music and B.Mus. music majors; not open to students who have completed MUH 1340. Introduction to the indigenous musics and cultures of Asia, Africa, and the Americas. Special emphasis is placed on those 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 of American Popular Music: 1940 to the Present. Cr. 3
Exploration of American “mainstream” and “subcultural” popular music; focus on art, technology, business, cultural contexts. (F,W)

Development of the blues and its influence on American popular musical styles, including jazz, gospel, r & b, country, bluegrass, hip hop, and rock. (F,W)

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. (F)

2320 History of Opera. Cr. 3
Survey of opera, its history, development and literature. (B)

2330 History of Oratorio. Cr. 3
Prereq: MUH 2320. Survey of oratorio, its history, development and literature. (B)

3310 Music History and Literature I. Cr. 3
Prereq: sophomore standing; 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 (WI) Music History and Literature II. Cr. 3
Prereq: MUT 1160 or equiv.; MUH 3310 or equiv. Baroque and Classical (1600-1800). Survey of important developments in western music history from 1600 to 1800. Concentration on major composers and styles, as well as on significant historical, philosophical, artistic and cultural influences. (W)

3330 Music History and Literature III. Cr. 3
Prereq: MUT 1160 or equiv. and 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) 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)

5340 Survey of World Music. Cr. 3
Prereq: upper division or graduate standing. 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. 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
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
Prereq: MUH 5370. Singers’ diction in German, Hebrew, Russian and English; methodologies, solo and chamber repertoire in these languages. (B)

5600 Survey of Music History. Cr. 3
Open only to senior level and graduate students. General overview of the development of ideas in music history from ancient times to the present. (F)

5993 (WI) Writing Intensive Course in Music. Cr. 0
Prereq: MUT 2160; junior standing, satisfactory completion of English proficiency exam, consent of instructor; coreq: MUT 5997. Offered for S and U grades only. No degree credit. Open only to undergraduate transfer students; required for majors. Writing assignments under the direction of a faculty member. Satisfies the University General Education Writing Intensive Course in the Major requirement. (F)
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: Principal or Secondary Private Instruction, MUP 1xxx and 3xxx, are available for 1 credit each and are intended for students studying instruments as required in the concentrations: B.A. in music, Theory/Composition, 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 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 and Secondary 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 Schedule of Classes. (F,W)

1202 Organ: Principal and Secondary 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 Schedule of Classes. (F,W)

1203 Organ: Principal and Secondary 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 Schedule of Classes. (F,W)

1204 Organ: Principal and Secondary 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 Schedule of Classes. (F,W)

1211 Piano: Principal and Secondary 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 Schedule of Classes. (F,W)

1212 Piano: Principal and Secondary 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 Schedule of Classes. (F,W)

1213 Piano: Principal and Secondary 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 Schedule of Classes. (F,W)

1214 Piano: Principal and Secondary 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 Schedule of Classes. (F,W)

1221 Voice: Principal and Secondary 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 Schedule of Classes. (F,W)

1222 Voice: Principal and Secondary 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 Schedule of Classes. (F,W)

1223 Voice: Principal and Secondary 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 Schedule of Classes. (F,W)

1224 Voice: Principal and Secondary 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 Schedule of Classes. (F,W)

1231 Strings: Principal and Secondary 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 Schedule of Classes. (F,W)

1232 Strings: Principal and Secondary 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 Schedule of Classes. (F,W)

1233 Strings: Principal and Secondary 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 Schedule of Classes. (F,W)
1234  Strings: Principal and Secondary 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 cred-
its or more. Material fee as indicated in Schedule of Classes. (F,W)

1241  Woodwinds: Principal and Secondary Instruction.
Cr. 1 (Max. 2)
Prereq: written consent of music department; coreq: MUA 28XX per-
formance 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 Schedule of Classes. (F,W)

1242  Woodwinds: Principal and Secondary 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 cred-
its or more. Material fee as indicated in Schedule of Classes. (F,W)

1243  Woodwinds: Principal and Secondary 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 cred-
its or more. Material fee as indicated in Schedule of Classes. (F,W)

1244  Woodwinds: Principal and Secondary 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 cred-
its or more. Material fee as indicated in Schedule of Classes. (F,W)

1251  Brasswinds: Principal and Secondary Instruction.
Cr. 1 (Max. 2)
Prereq: written consent of music department; coreq: MUA 28XX per-
formance 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 Schedule of Classes. (F,W)

1252  Brasswinds: Principal and Secondary 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 cred-
its or more. Material fee as indicated in Schedule of Classes. (F,W)

1253  Brasswinds: Principal and Secondary 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 cred-
its or more. Material fee as indicated in Schedule of Classes. (F,W)

1254  Brasswinds: Principal and Secondary 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 cred-
its or more. Material fee as indicated in Schedule of Classes. (F,W)

1261  Percussion: Principal and Secondary Instruction.
Cr. 1 (Max. 2)
Prereq: written consent of music department; coreq: MUA 28XX per-
formance 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 Schedule of Classes. (F,W)

1262  Percussion: Principal and Secondary 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 cred-
its or more. Material fee as indicated in Schedule of Classes. (F,W)

1263  Percussion: Principal and Secondary 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 cred-
its or more. Material fee as indicated in Schedule of Classes. (F,W)

1264  Percussion: Principal and Secondary 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 cred-
its or more. Material fee as indicated in Schedule of Classes. (F,W)

1271  Harp: Principal and Secondary Instruction.
Cr. 1 (Max. 2)
Prereq: written consent of music department; coreq: MUA 28XX per-
formance 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 Schedule of Classes. (F,W)

1272  Harp: Principal and Secondary 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 cred-
its or more. Material fee as indicated in Schedule of Classes. (F,W)

1273  Harp: Principal and Secondary 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 cred-
its or more. Material fee as indicated in Schedule of Classes. (F,W)

1274  Harp: Principal and Secondary 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 cred-
its or more. Material fee as indicated in Schedule of Classes. (F,W)

1281  Classic Guitar: Principal and Secondary Instruction.
Cr. 1 (Max. 2)
Prereq: written consent of music department; coreq: MUA 28XX per-
formance 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 Schedule of Classes. (F,W)

1282  Classic Guitar: Principal and Secondary 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 cred-
its or more. Material fee as indicated in Schedule of Classes. (F,W)

1283  Classic Guitar: Principal and Secondary 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 cred-
its or more. Material fee as indicated in Schedule of Classes. (F,W)
1284 Classic Guitar: Principal and Secondary 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 Schedule of Classes. (F,W)  

1321 Jazz Piano: Principal and Secondary 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 Schedule of Classes. (F,W)  

1322 Jazz Piano: Principal and Secondary 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 Schedule of Classes. (F,W)  

1323 Jazz Piano: Principal and Secondary 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 Schedule of Classes. (F,W)  

1324 Jazz Piano: Principal and Secondary 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 Schedule of Classes. (F,W)  

1331 Jazz Strings: Principal and Secondary 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 Schedule of Classes. (F,W)  

1332 Jazz Strings: Principal and Secondary 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 Schedule of Classes. (F,W)  

1333 Jazz Strings: Principal and Secondary 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 Schedule of Classes. (F,W)  

1334 Jazz Strings: Principal and Secondary 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 Schedule of Classes. (F,W)  

1341 Jazz Woodwinds: Principal and Secondary 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 Schedule of Classes. (F,W)  

1342 Jazz Woodwinds: Principal and Secondary 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 Schedule of Classes. (F,W)  

1343 Jazz Woodwinds: Principal and Secondary 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 Schedule of Classes. (F,W)  

1344 Jazz Woodwinds: Principal and Secondary 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 Schedule of Classes. (F,W)  

1351 Jazz Brasswinds: Principal and Secondary 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 Schedule of Classes. (F,W)  

1352 Jazz Brasswinds: Principal and Secondary 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 Schedule of Classes. (F,W)  

1353 Jazz Brasswinds: Principal and Secondary 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 Schedule of Classes. (F,W)  

1354 Jazz Brasswinds: Principal and Secondary 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 Schedule of Classes. (F,W)  

1361 Jazz Percussion: Principal and Secondary 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 Schedule of Classes. (F,W)  

1362 Jazz Percussion: Principal and Secondary 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 Schedule of Classes. (F,W)  

1363 Jazz Percussion: Principal and Secondary 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 Schedule of Classes. (F,W)
Jazz Percussion: Principal and Secondary 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 Schedule of Classes. (F,W)  

Jazz Guitar: Principal and Secondary 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 Schedule of Classes. (F,W)  

Jazz Guitar: Principal and Secondary 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 Schedule of Classes. (F,W)  

Jazz Guitar: Principal and Secondary 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 Schedule of Classes. (F,W)  

Jazz Guitar: Principal and Secondary 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 Schedule of Classes. (F,W)  

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 Schedule of Classes. (F,W)  

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 Schedule of Classes. (F,W)  

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 Schedule of Classes. (F,W)  

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 Schedule of Classes. (F,W)  

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 Schedule of Classes. (F,W)  

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 Schedule of Classes. (F,W)  

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 Schedule of Classes. (F,W)  

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 Schedule of Classes. (F,W)  

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 Schedule of Classes. (F,W)  

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 Schedule of Classes. (F,W)  

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 Schedule of Classes. (F,W)  

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 Schedule of Classes. (F,W)  

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 Schedule of Classes. (F,W)  

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 Schedule of Classes. (F,W)  

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 Schedule of Classes. (F,W)  

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 Schedule of Classes. (F,W)  

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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 Schedule of Classes. (F,W)

3201 Organ: Principal and Secondary 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 Schedule of Classes. (F,W)

3202 Organ: Principal and Secondary 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 Schedule of Classes. (F,W)

3203 Organ: Principal and Secondary 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 Schedule of Classes. (F,W)

3204 Organ: Principal and Secondary 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 Schedule of Classes. (F,W)

3211 Piano: Principal and Secondary 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 Schedule of Classes. (F,W)
3212 Piano: Principal and Secondary 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 Schedule of Classes. (F,W)

3213 Piano: Principal and Secondary 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 Schedule of Classes. (F,W)

3214 Piano: Principal and Secondary 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 Schedule of Classes. (F,W)

3221 Voice: Principal and Secondary 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 Schedule of Classes. (F,W)

3222 Voice: Principal and Secondary 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 Schedule of Classes. (F,W)

3223 Voice: Principal and Secondary 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 credits or more. Material fee as indicated in Schedule of Classes. (F,W)

3224 Voice: Principal and Secondary 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 Schedule of Classes. (F,W)

3231 Strings: Principal and Secondary 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 Schedule of Classes. (F,W)

3232 Strings: Principal and Secondary 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 Schedule of Classes. (F,W)

3233 Strings: Principal and Secondary 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 Schedule of Classes. (F,W)

3234 Strings: Principal and Secondary 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 Schedule of Classes. (F,W)

3241 Woodwinds: Principal and Secondary 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 Schedule of Classes. (F,W)

3242 Woodwinds: Principal and Secondary 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 Schedule of Classes. (F,W)

3243 Woodwinds: Principal and Secondary 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 Schedule of Classes. (F,W)

3244 Woodwinds: Principal and Secondary 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 Schedule of Classes. (F,W)

3251 Brasswinds: Principal and Secondary 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 Schedule of Classes. (F,W)

3252 Brasswinds: Principal and Secondary 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 Schedule of Classes. (F,W)

3253 Brasswinds: Principal and Secondary 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 Schedule of Classes. (F,W)

3254 Brasswinds: Principal and Secondary 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 Schedule of Classes. (F,W)

3261 Percussion: Principal and Secondary 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 Schedule of Classes. (F,W)
Music 231

3262 Percussion: Principal and Secondary 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 Schedule of Classes. (F,W)

3263 Percussion: Principal and Secondary 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 Schedule of Classes. (F,W)

3264 Percussion: Principal and Secondary 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 credits or more. Material fee as indicated in Schedule of Classes. (F,W)

3271 Harp: Principal and Secondary 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 Schedule of Classes. (F,W)

3272 Harp: Principal and Secondary 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 Schedule of Classes. (F,W)

3273 Harp: Principal and Secondary 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 Schedule of Classes. (F,W)

3274 Harp: Principal and Secondary 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 Schedule of Classes. (F,W)

3281 Classic Guitar: Principal and Secondary Instruction.
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 Schedule of Classes. (F,W)

3282 Classic Guitar: Principal and Secondary 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 Schedule of Classes. (F,W)

3283 Classic Guitar: Principal and Secondary 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 Schedule of Classes. (F,W)

3284 Classic Guitar: Principal and Secondary 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 Schedule of Classes. (F,W)

3321 Jazz Piano: Principal and Secondary 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 Schedule of Classes. (F,W)

3322 Jazz Piano: Principal and Secondary 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 Schedule of Classes. (F,W)

3331 Jazz Strings: Principal and Secondary 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 Schedule of Classes. (F,W)

3332 Jazz Strings: Principal and Secondary 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 Schedule of Classes. (F,W)

3341 Jazz Woodwinds: Principal and Secondary 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 Schedule of Classes. (F,W)

3342 Jazz Woodwinds: Principal and Secondary 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 Schedule of Classes. (F,W)

3351 Jazz Brasswinds: Principal and Secondary 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 Schedule of Classes. (F,W)

3352 Jazz Brasswinds: Principal and Secondary 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 Schedule of Classes. (F,W)

3361 Jazz Percussion: Principal and Secondary 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 Schedule of Classes. (F,W)
3362 Jazz Percussion: Principal and Secondary 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 Schedule of Classes. (F,W)

3371 Jazz Guitar: Principal and Secondary 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 Schedule of Classes. (F,W)

3372 Jazz Guitar: Principal and Secondary 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 indi-
cated in 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 indi-
cated in 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 indi-
cated in Schedule of Classes.  (F,W)

MUSIC THEORY COURSES (MUT)

1100  Elementary Music Theory.  Cr. 3
No degree credit for music majors. Terminology and standard nota-
tion, including intervals, triads, scales, rhythm, correlated ear train-
ing, 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 signa-
tures. 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, soffegg-
gio, 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 (toniciz-
ing chords, modal mixing), and modulation. Binary design and corre-
lated 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)

2040  Keyboard Harmony.  Cr. 1
Prereq: MUA 2795. Harmonic progressions applied to keyboard; fig-
ured bass; harmonization of soprano or bass; modulation transposition
and score reading.  (Y)

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 orga-
nization; analysis of same.  (F)

2150  Ear Training III.  Cr. 1
Prereq: MUT 1170. Sight singing and dictation of chromatic materi-
als; more advanced work with rhythm and meter.  (F)

2160  Theory IV.  Cr. 3
Prereq: MUT 2140. Twentieth century; impressionistic tech-
niques. 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.  Cr. 1 (Max. 2)
Open only to music majors. Prereq: MUT 1160 and MUT 1170.
Techniques of individual jazz improvisation.  (F,W)

3000  Orchestration.  Cr. 2
Prereq: MUT 2160. Practical course in arranging music for orches-
tra, 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. Introduction to creative writing. Creative proper-
ties of melodic line in relation to rhythm, tonality, cadence and form;
aesthetic considerations. Writing for unaccompanied instruments.
(F)

3110  Composition II.  Cr. 2
Prereq: MUT 3100. Continuation of MUT 3100. Emphasis on cre-
ative aspects of rhythm, cadence, tonal polarity, concepts of conson-
ance and dissonance within framework of larger texture.  (W)

4100  Composition III.  Cr. 2
Prereq: MUT 3110 and 5997. Creative writing in twentieth-century
idioms. Aesthetic, stylistic and formal problems in composition
employing contemporary techniques.  (F)

4110  Composition IV.  Cr. 2
Prereq: MUT 4100. Continuation of MUT 4100.  (W)

4990  (MUH 4990) B.A. Project.  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. 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 for MUT
7085. Theoretical writings from Plato to Rameau to Schenker, in his-
torical contexts.  (I)

5110  Jazz Arranging and Composition I.  Cr. 3
Prereq: MUT 2160 and 2170. 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. Creative writing for larger jazz and pop ensem-
bles; jazz arranging for six to eighteen pieces combining various tex-
tures and timbres.  (W)

5130  Jazz Arranging and Orchestration.  Cr. 3
Prereq: MUT 3000, 5120. Arranging pieces with concentration on
orchestrating large jazz ensembles.  (F)

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)

5260  Seminar in Contemporary Music Analysis. (MUT 7060)
Cr. 3
Open only to undergraduate music majors. Prereq: completion of
MUT 5997 or consent of instructor. Nontraditional analytical
approaches to various repertoires.  (I)

5600  Survey of Music Theory.  Cr. 3
Open only to upper division and graduate students. General over-
view of the development of harmony, voice-leading, and form.  (F)

5997  Analytic Techniques.  Cr. 3
Prereq: MUT 2140, 2150; MUH 3330. Capstone course for Music
Department. Structural analysis of tonal music in historical perspec-
tive.  (W)

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Theatre

Office: 3225 Old Main; 313-577-3508
Chairperson and Director, University Theatres: Blair Anderson
Website: http://www.theatre.com.wayne.edu

Professors
N. Joseph Calarco, Robert T. Hazzard (Emeritus), Lazar Kaushansky,
Leonard Leone (Distinguished Professor Emeritus), David J. Magidson,
Nira Pullin, Anthony B. Schmitt (Emeritus), Thomas H. Schraeder, Russell
E. Smith (Emeritus), James Thomas

Associate Professors
Blair Anderson, John Woodland

Assistant Professors
Michael Barnes, Fred Florkowski, Lavinia Hart, James Luse, Anthony
Rhine

Senior Lecturer
Aku Kadogo

Lecturers
Mary Cooney, Mary Copenhagen

Theatre Support Staff
Michael Donohue, Ken Faulkner, Corey Globke, Matthew Gribbin

Adjunct Faculty
Dana Gamarra, James Hart, Aaron Moore, Mark Robson, Greg Trzaskoma

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 The-
atre, 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, perform-
ance practice and theatrical design dynamics for students inter-
ested 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 23.

Matriculation: 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 17), College degree requirements (see page 186), 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 181). 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 16, 35, and 181. 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 the Bulletin.

Major Requirements: Students pursuing the degree Bachelor of Arts with a major in theatre must complete a minimum of forty-five credits, distributed as follows:

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) (CD) 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 (1 each year for total of 4)
- 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 -- 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 2180 -- Stage Management Cr. 3
- THR 3050 -- Principles of Makeup: Cr. 2
- THR 5010 -- Theatre Costuming I: Cr. 3
- THR 5070 -- Stage Lighting: Cr. 3
- THR 5090 -- 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 23), 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: 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 must be taken in the freshman and sophomore years, as prerequisites for 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 17), College degree requirements (see page 186), 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 16, 35, and 181. 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 the Bulletin.

ACTING 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 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 Laboratory: Cr. 1 (Total of 4 credits)
- THR 2110 -- Voice Lab II: Cr. 2
- THR 2130 -- Stagecraft: Cr. 3
- THR 3010 -- Acting V: Cr. 3
- THR 3020 -- Stage Movement III: Cr. 2

236 College of Fine, Performing, and Communication Arts
students pursuing a Minor in Theatre must
Minor Requirements: opportunity for a minor emphasis in either acting, directing, or design.
also creates an valuable competencies for educational situations. It offers a vocational interest in theatre or those who may wish to
Connecting relative to the special area of the drama. (Y)
required of B.F.A. acting majors. Recommended for all second year acting students. Introduction to the principles, prac-
licences, and exercises in body technique and stage movement. Material Fee as indicated in the Schedule of Classes (F)

2020 Stage Movement II. Cr. 2

2030 Acting III. Cr. 3
Open only to B.F.A. acting majors in theatre. 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 B.F.A. acting majors in theatre. 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. technical students; max. 3, 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
Prereq: THR 1010 or 1030 recommended. 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 theatre majors in B.F.A. program with sophomore standing or above. Continuation of vocal production work and an introduction to consonant sounds. (Y)

2180 Stage Management. Cr. 3
Prereq: consent of adviser. 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)

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 (Max. 6)
Prereq: THR 2040. Open only to and required of B.F.A. theatre acting majors. May be repeated as elective with consent of instructor. Theories and methods of acting verse drama. (F)

3020 Stage Movement III. Cr. 2

3030 Acting VI. Cr. 3 (Max. 6)
Prereq: THR 3010. Open only to and required of theatre majors in B.F.A. acting program. May be repeated as elective with consent of instructor. Acting classic and modern theatrical styles of comedy. Emphasis on American musical theatre. (W)

3040 Stage Movement IV. Cr. 2

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 theatre majors in B.F.A. program. 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 theatre majors in B.F.A. program. 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. Prereq: sophomore standing. 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
Prereq: consent of instructor. 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
Prereq: consent of instructor. 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)
Prereq: consent of instructor. Supervised students work in schools, with youth programs, and in community service settings, implementing applied theatre projects. (Y)

3990 Directed Study. Cr. 1-3 (Max. 9)
Prereq: theatre major with 16 credits in the Department. (T)

4970 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
Prereq: THR 1010 or 1030 recommended. 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
Prereq: THR 5010. 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)

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)
Prereq: THR 2500. 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)
Prereq: THR 5080. Open only to theatre majors in upper division or above. 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
Prereq: THR 2130. 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
Prereq: THR 5140. 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
Prereq: THR 5010. 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. (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, Amin 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)

5600 Study Abroad: Moscow Art Theatre School. (THR 7600) Cr. 4
Prereq: audition and/or interview. Open only to theatre majors. Intensive training in acting or another branch of theatre. Study is con-
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 English proficiency exam; coreq: THR 5100, 5120, 5210, 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)

6020 Studio II. Cr. 1-3
Prereq: THR 6010. Open only to Hilberry company members in M.F.A. theatre program. Continuation of THR 6010. (W)

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)

6050 Voice and Speech for the Stage I. Cr. 1
Open only to Hilberry company members in M.F.A. theatre program. Introduction to American standard speech using Edith Skinner's technique; introduction to FitzMaurice vocal technique. (F)

6070 Theatrical Movement and Dance Styles I. Cr. 1
Open only to Hilberry company members in M.F.A. theatre program. Pilates Method of body conditioning; learning and perfecting movements of the body at beginning and intermediate levels. (F)

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 prostheses and design for problem makeup. Material Fee as indicated in the Schedule of Classes (I)

6090 Professional Lighting Design I. Cr. 3
Prereq: THR 5300 or consent of instructor. Open only to theatre majors in M.F.A. program. Examination of the responsibilities and skills needed to function as a professional lighting designer. Varied styles of theatrical production, the lighting designer's communication with other professionals, use of computers in lighting design process, graphic presentation of lighting design concepts. (Y)

6100 Voice and Speech for the Stage II. Cr. 1
Prereq: THR 6050. Open only to Hilberry company members in M.F.A. theatre program. Continuing instruction in Skinner and FitzMaurice/Linklater. (W)

6110 Theatrical Movement and Dance Styles II. Cr. 1
Prereq: THR 6070. Open only to Hilberry company members in M.F.A. theatre program. Continuation of THR 6070. Advanced level. (W)

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)

6190 Professional Lighting Design II. Cr. 3
Prereq: THR 5300 or consent of instructor. Open only to graduate theatre students in M.F.A. program. Continuation of THR 6090. Employment of theatrical lighting techniques in non-theatrical applications such as film and video; preparation and presentation of a lighting design portfolio; roles of unions in theatrical lighting design. (B: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)

6350 Human Resources and Financial Management for Theatres. Cr. 3
Open only to M.F.A. theatre management students; or by consent of instructor. Topics include: leadership, group dynamics, staffing, employment and production-related contracts, accounting and budgeting for non-profit. (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)
LAW SCHOOL

DEAN: Frank H. Wu
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 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.

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.

Arthur Neef Law Library

Wayne State University’s Law Library is the second largest in Michigan, and twenty-first largest in the United States. It is a major resource for faculty and students of the Law School, and for members of the local and state bar, representatives of state and federal agencies, and alumni. A modern computer laboratory provides the setting for training of students in computerized legal research. A complete description of the library, its facilities and collections, may be found on page 59.

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

242 Law School
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, 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, Civil Procedure, 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 courses 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 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 ILPI 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.

Center for Legal Studies
The Center for Legal Studies seeks to foster the development of a community of scholars in several disciplines who are devoted to interdisciplinary legal scholarship, and to provide opportunities for undergraduate, graduate, and Law School students to engage in the interdisciplinary study of law and law-related subjects.

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 combined 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.

Combined Degree Programs: The Law School offers the following joint 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.
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 Administration 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 the following factors in reaching admissions decisions:

1) the applicant’s academic achievement and potential, as shown by the LSAT score and undergraduate grade point average;

2) any special features of the applicant’s academic record which may have had an impact on his or her grade point average such as the age of the undergraduate grades or any marked improvement in grades shown in the later years of college;

3) other relevant personal qualities and characteristics of significance such as cultural/ethnic background, socio/economic and educational disadvantage, work and volunteer experience, leadership qualities, commitment to community service and communication skills.

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 mandated, 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 1800 applications for the 2004-2005 academic year, and fewer than one-third of the applicants were offered admission. The median undergraduate grade point average of the 2004-2005 entering class was 3.52 and the median LSAT score was 155. 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.

Law School Directory

Admission — J.D. Program: 313-577-3937
Financial Aid: 313-577-5142
Records and Registration, Law School: 313-577-3978
Academic Services: 313-577-3993
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.
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 APPLIED STUDIES with a major in Sociology

BACHELOR OF ARTS with majors in:
- Africana Studies
- American Studies
- Anthropology
- Biological Sciences
- Chemistry
- Classics
- Computer Science
- Economics
- English
- Film Studies
- Geography
- Geology
- German
- History

BACHELOR OF ARTS HONORS with majors in:
- Anthropology Honors
- Biological Sciences Honors
- Chemistry Honors
- Classics Honors
- Economics Honors
- English Honors
- Geography Honors
- Geology Honors
- German Honors
- History Honors

BACHELOR OF SCIENCE with majors in:
- 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)
- Interdisciplinary Studies (Bachelor of Interdisciplinary Studies)
- Physics (Bachelor of Science in Physics)
- Public Affairs (Bachelor of Public Affairs)
- Slavic Studies (Bachelor of Arts in Slavic Studies)
- Technical and Interdisciplinary Studies
  (Bachelor of Technical and Interdisciplinary 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

248 College of Liberal Arts and Sciences
MASTER OF ARTS with majors in:
- Anthropology
- Applied Mathematics
- Biological Sciences
- Chemistry
- Classics
- Comparative Literature
- Computer Science
- East European Studies
- Economics
- English
- French
- German
- History
- Italian
- Linguistics
- 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 HUMAN DEVELOPMENT
MASTER OF INDUSTRIAL RELATIONS
MASTER OF INTERDISCIPLINARY STUDIES
MASTER OF PUBLIC ADMINISTRATION with majors in
- Criminal Justice
- Public Administration

MASTER OF SCIENCE with a major in:
- Audiology
- Biological Sciences
- Chemistry
- Computer Science
- Criminal Justice
- Geology
- Molecular Biotechnology
- Nutrition and Food Science
- Physics

MASTER OF URBAN PLANNING

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
- Sociology
- Speech-Language Pathology

DOCTOR OF AUDIOLOGY
GRADUATE CERTIFICATE IN AMERICAN STUDIES
GRADUATE CERTIFICATE IN SCIENTIFIC COMPUTING

College Directory
DEAN: Robert L. Thomas: 2155 Old Main; 313-577-2515
ASSOCIATE DEANS:
- Miriam Greenberg: 2155 Old Main; 313-577-2516
- David L. Njus: 2155 Old Main; 313-577-2520
- Donald Spinelli: 2155 Old Main; 313-577-8895

STUDENT SERVICES OFFICE
Office: 2155 Old Main; 313-577-5188, 313-577-3117
Andrea Harp: 2155 Old Main; 313-577-5188
Linda Ludke: 2155 Old Main; 313-577-2542

DEPARTMENTAL/PROGRAM OFFICES
- Africana Studies: Rm. 11002, 5057 Woodward; 313-577-3399
- American Studies: Rm. 9201.1, 5057 Woodward; 313-577-8627
- Anthropology: 137 Manoogian; 313-577-2935
- Biological Sciences: 1360 Biological Sciences; 313-577-2873
- Canadian Studies: 3125 Faculty/Admin. Bldg.; 313-577-2799
- Chicano-Boricua Studies: 3324 Faculty Admin. Bldg.; 313-577-4378
- Chemistry: 123 Chemistry; 313-577-2595
- Classics, Greek and Latin: 431 Manoogian; 313-577-3032
- Communication Sciences and Disorders:
- Comparative Literature: Rm. 9305.2, 5057 Woodward; 313-577-2452
- Composition Program: 51 W. Warren; 313-577-7696
- Computer Science: 431 State Hall; 313-577-2477
- Criminal Justice: 2305 Faculty Administration Bldg.; 313-577-2705
- Economics: 2074 Faculty Administration Bldg.; 313-577-2701
- English: Rm. 9408, 5057 Woodward; 313-577-2450
- Film Studies Program: Rm. 9311, 5057 Woodward; 313-577-2978
- Geology: 0224 Old Main; 313-577-2506
- German and Slavic Studies: 443 Manoogian; 313-577-3024
- Geopolitics Program: 437 Manoogian; 313-577-8072
- Geopolitical Science: 385 Manoogian; 313-577-3022
- Geography and Urban Planning: 3198 Faculty/Admin. Bldg.; 313-577-2701
- German Studies: 437 Manoogian; 313-577-8072
- German Studies Program: 437 Manoogian; 313-577-8072
- Geopolitical Science: 385 Manoogian; 313-577-3022
- Comparative Literature: Rm. 9305.2, 5057 Woodward; 313-577-2452
- Composition Program: Rm. 2105, 5057 Woodward; 313-577-2525
- International Studies Program: 355 Manoogian; 313-577-3035
- Interdisciplinary Studies: 2nd Floor AAB 5700 Cass, 313-577-4627
- Interdisciplinary Studies Program: 471 Manoogian; 313-577-4605
- Linguistics Program: Rm. 10303.1, 5057 Woodward; 313-577-8642
- Master of Arts in Industrial Relations: 3146 FAB; 313-577-0175
- Mathematics: 1150 Faculty/Administration Bldg.; 313-577-2479
- Near Eastern and Asian Studies: 437 Manoogian; 313-577-3015
- Nutrition and Food Science: 3009 Science Hall; 313-577-2500
- Peace and Conflict Studies: 656 W. Kirby 2320 FAB; 313-577-3453
- Philosophy: Rm. 1202, 5057 Woodward; 313-577-2747
- Physics and Astronomy: 135 Physics; 313-577-2721
- Political Science: 2040 Faculty Administration Bldg.; 313-577-2630
- Psychology: 71 W. Warren; 313-577-2800
- Public Affairs Program: 2040 Faculty/Admin. Bldg.; 313-577-2630
- Religious Studies Program: Rm. 9203.1, 5057 Woodward Avenue; 313-577-7717
- Romance Languages & Literature: 487 Manoogian; 313-577-3002
- Sociology: 2228 Faculty Administration Bldg.; 313-577-2930
- Women's Studies Program: Rm. 12103.2, 5057 Woodward Avenue; 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

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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. (See ‘Restrictions on Credit’ below.)

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 40.

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 17) 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 use 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 17).

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 17). However, they are not identical, and students must make sure that their course elections satisfy both sets of requirements.

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 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 17. 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, except that the College list does not include ISP 3420 and ISS 1510. 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, SWH, 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 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, except that the College list does not include ISP 3160. 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 except IST 2310 and 2420. Also, students may elect NFS 2210 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, except that the College list does not include I H 2710. 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, except that the College list does not include ISP 3480 and

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ISS 2710. Two courses (taken from different departments) are required.

VISUAL AND PERFORMING ARTS (VP): The College list is the same as the University list, except that the College list does not include I H 2730. 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 or eventual professional choice. 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 255.

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 Adaman 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 Adaman Library.

For an index to all minor programs described in this bulletin see page 16.

Bachelor's Degree Requirements 251
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, Urban 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. 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 Credit: 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 2630 -- University Bands: Cr. 1
- MUA 2610 -- University Symphony Orchestra: Cr. 1
- MUA 2920 -- Jazz Lab Band: Cr. 1
- MUA 2830 -- Men's Glee Club: 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 16. 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 Program

Students in the College are eligible to take honors courses if they have a cumulative grade point average of 3.0 or above. For a description of the Honors Program and a list of classes, see page 330.

‘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 40.)

Academic Probation

Low Grade Point Average: If a student’s 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.

Academic Regulations 253
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 two 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 33) 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.

Elliott Dow 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 67.

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 a student 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 132.

Pre-Law

— See page 245.

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.

Undergraduate Curricula 255
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-Clinical Laboratory Science
— See page 430.

— Cytotechnology Concentration
— See page 432.

Pre-Mortuary Science
— See page 436.

Pre-Nursing
— See page 413.

Pre-Occupational Therapy
— See page 443.

Pre-Optometry
Satisfactory completion of University General Education Requirements, College Group Requirements, a major field, and the courses listed below lead to the bachelor’s degree and qualify a student for consideration by most schools of optometry. Although some schools will accept students who have completed only two years of undergraduate work, preference is given to those who have earned the bachelor’s degree.

- Algebra and Trigonometry: Cr. 3-4
- Biology, including microbiology, with laboratory: Cr. 12-16
- Calculus: Cr. 6-8
- English: Cr. 6-8
- Inorganic chemistry with laboratory: Cr. 8-10
- Physics with laboratory: Cr. 8-10
- Psychology: Cr. 3
- Statistics: Cr. 3

Recommended electives include biochemistry and social sciences. Information about specific schools is available from the Association of Schools and Colleges of Optometry, 6220 Executive Blvd., Suite 690, Rockville, Maryland 20852.

Pre-Pathologists’ Assistant
— See page 438.

Pre-Pharmacy
— See page 432.

Pre-Physical Therapy
— See page 447.

Pre-Radiation Therapy Technology
— See page 451.

Pre-Social Work
— See page 466.

Pre-Veterinary Medicine
Satisfactory completion of University General Education requirements, College Group Requirements, a major field, and the courses listed below lead to the bachelor’s degree and qualify a student for consideration by the College of Veterinary Medicine at Michigan State University.

- BIO 1500 — Basic Life Diversity: Cr. 4
- BIO 1510 — (LS) Basic Life Mechanisms: 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 II Lab: Cr. 2
- CHM 2280 — General Chemistry II: Analytical Chemistry: Cr. 3
- CHM 2290 — General Chemistry II: Analytical Chemistry Lab.: Cr. 2
- CHM 5600 or CHM 6620 — General Chemistry II: Analytical Chemistry: Cr. 3
- -- Metabolism: Cr. 3
- MAT 1800 — Elementary Functions: Cr. 4
- PHY 2130/2131 or PHY 2170/2171 — (PS) General Physics/General Physics Lab: Cr. 4
- (PS) General Physics/General Physics Lab: Cr. 5
- PHY 2140/2141 or PHY 2180/2181 — General Physics/General Physics Lab: Cr. 4
- General Physics/General Physics Lab: Cr. 5
- English (ENG): Cr. 6-8

Other requirements in social sciences and humanities may be satisfied by meeting the Liberal Arts and Sciences Group Requirements. Recommended electives include: comparative vertebrate zoology, microbiology, statistics, and psychology.

TEACHER PREPARATION CURRICULA
Since most students preparing to teach in one of the fields listed below will register in the College of Liberal Arts and Sciences for their freshman and sophomore years and transfer to the College of Education at the beginning of their junior year, during the first two years they will see the academic advisers in the University Advising Center for general counseling. Application for entrance to the College of Education should be made after completing fifty-three credits with a minimum 2.5 cumulative grade point average and after having achieved a passing score on the University English Proficiency Examination. Students should also have satisfied the University’s mathematics competency requirement and passed the state Basic Skills Test.

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.

Degree in the College of Liberal Arts and Sciences: 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.

Degree in the College of Education: Students apply for admission to the College of Education after completing fifty-three credits in course work, transfer to that college at the beginning of the junior year, and follow the degree requirements of the College of Education.

K-12 Majors

Students wishing to major in Art Education should see an adviser in Room 163, Community Arts Building.

Students wishing to major in Physical Education should see an adviser in Room 264, Matthaei Building.

Students wishing to major in Music Education should consult an adviser in Room 1321 Old Main Building.

Secondary Teaching

— See page 110.

Students planning to teach English, foreign language, mathematics, science, social studies or speech on the secondary level should complete in their first two years the following preprofessional course requirements:

University General Education Requirements: see page 17.

College of Education general requirements: PSY 1010, HEA 2310 (or equivalent).

English Speech Group: four courses, including ENG 1020, a 2000-level English course, COM 1010 and an English or speech elective.

Social Studies Group: four courses from anthropology, economics, geography, history, political science, or sociology, including the American Society and Institutions requirement.

Science/Psychology Group: three courses, one from each of the following areas: life science; physical science; and Psychology 1010.

Mathematics Competency: See General Education Requirements, page 17.

Pre-secondary students should also elect courses in their proposed teaching major and minor. Major/minor worksheets may be obtained from the University Advising Center, or in Room 489, Education Building.

Career and Technical Education

— See page 115.

Elementary Teaching

— See page 106.

Pre-elementary majors should include the following requirements in their first two years’ work:

University General Education Requirements: see page 17.

College of Education requirements: PSY 1010, HEA 2310 (or equivalent), and MAT 1110 and 1120.

English/Speech Group: ENG 1020, intermediate composition and COM 1010.

Social Studies Group: four courses: P S 1010 or 1030, PSY 1010, GPH 1100 and HIS 2040 or 2050.

Science Group: three courses, including at least one course from the life sciences and one course from the physical sciences. One of the three courses must include a laboratory section.

Pre-elementary students should also elect courses in their proposed teaching majors and minors. Major/minor worksheets may be obtained from the University Advising Center, or in Room 469 Education Building.

Special Education

— See page 114.

The curriculum in special education prepares teachers for work with students with cognitive impairments in elementary schools, residential institutions and diagnostic-clinical centers.

In the first two years of work, students should take courses to establish a twenty-four credit minor and complete the following general education requirements:

University General Education Requirements: see page 17.

College of Education general requirements: PSY 1010, HEA 2330, and MAT 1110.

Special Education requirements: BIO 1510 and 2870 and SED 6000 with grades of ‘C’ or better are required of all students prior to admission to the College of Education.

SED 6000, with the topic Critical Epochs and Child Development (Prerequisite: BIO 2870), is to be taken in the spring semester prior to admission to the College of Education.

English/Speech Group: ENG 1020, a 2000-level English course and COM 1010.

A Planned (non-teaching) minor must be completed prior to admission to Education. Required courses include: ANT 2100, BIO 2870, P S 1010, PSY 2300, SOC 2000, ELE 3200, and SED 6000.

Students can obtain major/minor worksheets for Special Education in the University Advising Center, 1600 Adamany Library.

Curriculum in Special Education with a Concentration in Speech Impaired

The major in special education with a concentration in speech and language impaired is offered by the College of Education in conjunction with the Department of Audiology and Speech-Language Pathology. Students earn a B.S. degree with a major in special education — speech impaired. Upon completion of the master's degree in speech-language pathology, they also receive elementary (K-8) certification and a teaching endorsement in speech and language impaired (K-12). This prepares teachers to work with children who have speech and language disorders. Students register in the College of Liberal Arts and Sciences for the first two years, apply for admission to the College of Education after completing fifty-three credits in course work, and transfer to the College of Education at the beginning of the junior year. Those interested in this program should consult an academic adviser, who will supply a curriculum outline and provide guidance. They should also consult the undergraduate adviser in the Department of Audiology and Speech-Language Pathology, 581 Manoogian, as early as possible.
INTERDISCIPLINARY MINOR

Religious Studies

Director: Ken Jackson; 313-577-7717
Email: a4054@wayne.edu
Office: Room 10411, 5057 Woodward

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, interdisciplinary, and interdepartmental 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 -- Topics in Sociology: Cr. 3
   (when offered as The Sociology of Religion) OR
   SOC 3350 -- Cults, Myths, and Religions in Society: Cr. 3

3) Broadly based courses on two of the following religions:
   *ENG 2500 -- (FL) The English Bible as Literature: Cr. 4
   *N E 2000 -- (FC) Introduction to Islamic Civilization of the Near East: Cr. 3
   *N E 3010 -- 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 -- (CD) 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.
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.
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: 4711/473 Manoogian Hall; 313-577-4605; Fax: 313-577-3266
e-mail: jym@wayne.edu
http://www.langlab.wayne.edu/JuniorYear/JyrYrHome.html
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 Munchener Folkatheater which stages contemporary productions — all of which are available at reduced student rates. Additionally, there are numerous 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 Praktikum, 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: 313-577-3032
Coordinator: Kathleen McNamee

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 secretary of the Department of Classics, Greek and Latin, 431 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
Web: http://www.clas.wayne.edu/africanastudies

Professors
Melba J. Boyd, Eboe Hutchful, Perry Mars

Associate Professor
Beth Bates

Assistant Professors
Ollie A. Johnson III, Lisa Ze-Winters

Lecturers
Todd Duncan, Mark Shapley

Adjunct Professors
Ron Brown, Jorge Chinea, Michael Goldfield, Kathryn Lindberg, Guerin Montilius, Daphne Ntiri

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, Afri cana 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 23.

DEGREE REQUIREMENTS: Candidates must complete 120 credits in course work including satisfaction of the University General Education Requirements (see page 17) and the College of Liberal Arts and Sciences Group Requirements (see page 250), 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 16, 35, and 250.
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 study in an approved area of concentration (twenty-nine credits).
3. Writing Intensive Requirement: Field Work (AFS 5991) and/or Directed Study (AFS 6990) (three to eight credits).

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, 3250, 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 (ISP) 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, 6310; 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) 3380, AFS (HIS) 5320, AFS (HIS) 5580; AFS (W S) 5110; AFS (PS) 5030; AFS (ISP) 5130; AFS (PSY) 5700; AFS (P S) 5740; AFS 6600.
3. Two courses from: AFS (SOC) 3860, AFS (SOC) 5580; AFS (ISP) 5130; AFS (PSY) 5700.
4. One cognate from: AFS (GPH) 2500; ANT 3110, 3520, 6230; AFS (ISP) 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 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 courses in this department. These 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.

Financial Aid

Pamela Anise Tinsley Memorial Scholarship Fund: Any student in the College of Liberal Arts and Sciences is eligible for this scholarship, which was created to encourage the study of Black History. An essay on any topic related to Black History is a requirement of the application. Two $2,500 scholarships for undergraduates are awarded for the fall semester.

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 the Caribbean. 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 this department. (See page 263.)

UNDERGRADUATE COURSES

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 483.

Africana Studies Courses (AFS)

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.

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.

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.

2390 (ENG 2390) (IC) Introduction to African-American Literature: Literature and Writing. Cr. 4
Prereq: ENG 1020 or equiv. Introduction to major themes and some major writers of African-American literature, emphasizing modern
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2500</td>
<td>Geography of Africa.</td>
<td>Cr. 4</td>
<td>(GPH 2500) Geography of Africa: regions, countries, peoples. Physical environment, resource potential, population groups, migrations, economics, development, political systems and conflicts.</td>
<td>(I)</td>
</tr>
<tr>
<td>2600</td>
<td>(CD) Race and Racism in America. (SOC 2600)</td>
<td>Cr. 3</td>
<td>Examination of the nature and practice of racism in American society from its historical foundations to its contemporary institutional forms.</td>
<td>(B)</td>
</tr>
<tr>
<td>3140</td>
<td>(HIS 3140) The Black Experience in America I: 1619-1865.</td>
<td>Cr. 3-4</td>
<td>The black experience in national life since emancipation.</td>
<td>(W)</td>
</tr>
<tr>
<td>3150</td>
<td>(HIS 3150) The Black Experience in America II: 1865 to the Present.</td>
<td>Cr. 3-4</td>
<td>The historical experience of African Americans in urban areas; impact of their communities on urban development from 1860 to contemporary times.</td>
<td>(B)</td>
</tr>
<tr>
<td>3170</td>
<td>(HIS 3170) (CD) Ethnicity and Race in American Life. (AFS 6170) (HIS 6170)</td>
<td>Cr. 3-4</td>
<td>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”?</td>
<td>(B)</td>
</tr>
<tr>
<td>3180</td>
<td>(HIS 3180) (CD) Black Social Movements.</td>
<td>Cr. 4</td>
<td>Prereq: AFS 2210 recommended. Survey of mass or popular black movements with emphasis on their political and cultural impact, historical continuity and organization.</td>
<td>(Y)</td>
</tr>
<tr>
<td>3200</td>
<td>The African-American Film Experience</td>
<td>Cr. 4</td>
<td>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.</td>
<td>(Y)</td>
</tr>
<tr>
<td>3250</td>
<td>(FC) Politics and Culture in Anglophone Caribbean.</td>
<td>Cr. 3</td>
<td>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.</td>
<td>(Y)</td>
</tr>
<tr>
<td>3360</td>
<td>(CD) Black Workers in American History. (HIS 3360)</td>
<td>Cr. 4</td>
<td>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.</td>
<td>(F,W)</td>
</tr>
<tr>
<td>3420</td>
<td>Pan Africanism: Politics of the Black Diaspora. (P S 3820)</td>
<td>Cr. 4</td>
<td>Interplay of Pan Africanism as a cultural and socio-political movement in world politics from its origins as a concept to organizing practice worldwide.</td>
<td>(Y)</td>
</tr>
<tr>
<td>3610</td>
<td>(ISP 3610) (FC) (CD) Interdisciplinary Perspectives on Foreign Culture: The Africans. Cr. 4</td>
<td>Cr. 4</td>
<td>Prereq: upper division standing. Humanistic aspects, history, sociocultural institutions of African cultures; theory and methods, comparativist perspectives.</td>
<td>(Y)</td>
</tr>
<tr>
<td>3750</td>
<td>(A H 3750) (CD) African American Art. Cr. 3</td>
<td>Cr. 3</td>
<td>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.</td>
<td>(Y)</td>
</tr>
<tr>
<td>3860</td>
<td>(CD) Race, Class and the Criminal Justice System. (SOC 3860)</td>
<td>Cr. 3</td>
<td>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.</td>
<td>(T)</td>
</tr>
<tr>
<td>4240</td>
<td>African Americans in Broadcasting. Cr. 4</td>
<td>Cr. 4</td>
<td>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.</td>
<td>(Y)</td>
</tr>
<tr>
<td>4750</td>
<td>(N E 4750) Colonization and Decolonization in North Africa: The Example of Algeria. Cr. 3</td>
<td>Cr. 3</td>
<td>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.</td>
<td>(Y)</td>
</tr>
<tr>
<td>5030</td>
<td>(P S 5030) (CD) African American Politics. Cr. 4</td>
<td>Cr. 4</td>
<td>Nature and texture of Black politics; various perspectives on politics by Blacks; the impact of Blacks on American politics.</td>
<td>(Y)</td>
</tr>
<tr>
<td>5040</td>
<td>(COM 4040) (CD) Diversity in Interpersonal Communication. Cr. 3</td>
<td>Cr. 3</td>
<td>Issues and topics related to the study of communication behaviors and patterns in gender, race, social class, and sexual orientation within the United States.</td>
<td>(Y)</td>
</tr>
<tr>
<td>5110</td>
<td>(CD) Black Women in America. (W S 5110)</td>
<td>Cr. 3</td>
<td>Social, cultural, artistic and economic development of Black women in America; topics include: racism, sexism, marriage, motherhood, feminism, and the welfare system.</td>
<td>(Y)</td>
</tr>
<tr>
<td>5130</td>
<td>(AFS 5130) (CD) The Black Family. (ISP 5130)</td>
<td>Cr. 4</td>
<td>Prereq: upper division undergraduate standing. Survey and analysis of historical and social forces relative to the study of the Black family.</td>
<td>(Y)</td>
</tr>
<tr>
<td>5220</td>
<td>(THR 5220) Black Dramatic Literature.</td>
<td>Cr. 3</td>
<td>Critical study of significant Black dramatists of the American stage: Willis Richardson, Marita Bonner, Randolph Edmonds, Langston Hughes, Alice Childress, Lorraine Hansberry, Ed Bullins, Amir Baraka, Ntozake Shange, and August Wilson.</td>
<td>(Y)</td>
</tr>
<tr>
<td>5260</td>
<td>(ANTS 5260) (CD) The African Religious Experience: A Triple Heritage. (ISP 5260)</td>
<td>Cr. 3</td>
<td>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.</td>
<td>(Y)</td>
</tr>
<tr>
<td>5310</td>
<td>Special Topics in Africana Studies. Cr. 3</td>
<td>Cr. 3-4</td>
<td>Topics to be announced in Schedule of Classes; topics may include: Caribbean politics, African development, male-female relationships, Ngritute.</td>
<td>(B)</td>
</tr>
<tr>
<td>5320</td>
<td>(CD) Black Labor History. (HIS 5320)</td>
<td>Cr. 3</td>
<td>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.</td>
<td>(I)</td>
</tr>
</tbody>
</table>
Africana Studies

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) (CD) 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 (CD) 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 (CD) 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) (CD) 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)

6100 (P S 6050) (CD) 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. 2
An examination of the variety of points of view and trends within the Black community as a background for social work assessment and intervention. (Y)

6990 Directed Study. Cr. 3-8
Prereq: written consent of instructor. Open only to majors and graduate students. Reading and research projects. (Y)

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)
American Studies

Director: Renata R.M. Wasserman
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Office: 5087 Woodward, Room 9201.1; 313-577-8627
Web: http://www.americanstudies.wayne.edu

Advisory Committee

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Art and Art History: Marian Jackson
Chicano-Boricua Studies: Jose Cuello


German and Slavic Studies: Alfred Cobbs, Donald Haase
History: Marc Kruman, Sandra VanBurkleo, Denver Brunsman, Jorge Chinea, Elizabeth Faue, Liette Gidlow, Kidada Williams

Interdisciplinary Studies: Francis Shor

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 interdepartmental program administered by an advisory committee composed of specialists on American culture, offering undergraduates an opportunity for a flexible and diversified major. By enrolling in a core of required courses and by choosing electives among the humanities and social sciences, majors concentrate on the study of the nature and development of American (North, South and Central) societies and cultures. Depending on individual interests, electives may be chosen from the departments of Africana Studies, Anthropology, Art and Art History, Economics, English, Geography, History, Humanities, Philosophy, Political Science, Romance Languages, Sociology, and some interdisciplinary programs, such as Chicano-Boricua Studies and Urban Studies. Interested students should consult the director or those committee members whose fields most closely approximate their own interests.

Bachelor of Arts Program

Admission Requirements: See the general requirements for undergraduate admission to the University, page 23.

DEGREE REQUIREMENTS: Candidates must complete 120 credits in course work including satisfaction of the University General Education Requirements (see page 17) and the College of Liberal Arts and Sciences Group Requirements (see page 250), 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 16, 35, and 250.

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 course work, 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 483.

2010 Introduction to American Culture. Cr. 3-4
Conflicts and changes in American values, ideas, heroes, and national self-definition introduced through the study of literature, art, films, and other cultural expression. (T)

3400 Themes and Genres in American Studies. Cr. 3

5010 Topics in American Studies. Cr. 3-4 (Max. 12)
Inquiry into the values of American civilization as revealed in a wide variety of evidence from the beginnings of the American experience to the present, with a view to understanding the distinctive characteristics of the American peoples. (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. Topics to be announced in Schedule of Classes. (I)

264 College of Liberal Arts and Sciences
Anthropology

Office: 137 Manoogian; 313-577-2935
Chairperson: Andrea Sankar
Academic Services Officer: Susan LaLiberte
Undergraduate Adviser: Susan Frekko
Web: http://www.clas.wayne.edu

Professors
Barbara C. Aswad (Emerita), Bernice A. Kaplan (Emerita), Barry Lyons, Guerin Montilus, Bernard Ortiz de Montellano (Emeritus), Mark Luborsky, Andrea Sankar

Associate Professors
Allen W. Batteau, Tamara L. Bray, Gordon L. Grosscup (Emeritus), Thomas W. Killion

Assistant Professors
David A. Barondess, Sherylyn H. Briller, Jacalyn Harden, Pamela Crespin

Lecturer
Susan Frekko

Adjunct Professors
Morris Goodman, Eugene Perrin, Mark L. Weiss

Adjunct Associate Professors
Elizabeth Briody, Linda Darga, Dorothy Nelson, Stewart Nuefeld, Sharon Popp

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 and a concentration in applied medical 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 23.

DEGREE REQUIREMENTS: Candidates must complete 120 credits in course work including satisfaction of the University General Education Requirements (see page 17) and the College of Liberal Arts and Sciences Group Requirements (see page 250), 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 16, 35, and 250.

Major Requirements: Students majoring in anthropology are required to elect a minimum of thirty-one credits in anthropology, including Anthropology 2100, 2110, 3100, 3200, 5210, 5310, 5380, 5993 (taken concurrently with ANT 5310 or 5996), and 5996. In addition, at least one culture area course (e.g., 3520, 3540, 3550, 6290, or an acceptable alternative) and one other elective course (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.

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 further information about honors credits available each semester, see the Liberal Arts section of the University Schedule of Classes under ‘Honors Program’; or contact the Director of the Honors Program. For additional information on the Honors Program in Anthropology, contact the Departmental Honors Adviser.

Combined Degree
Students pursuing a degree at an approved school of dentistry, medicine, or law may obtain a combined degree with anthropology; see page 252.

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 5320; and 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 simultaneoulsy 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 483.

2100 (SS) Introduction to Anthropology. Cr. 3-4
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.

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.

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.

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.

3100 (CD) 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.

3110 (CD) 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.

3150 (FC) (CD) Anthropology of Business. Cr. 3-4
Differences between American culture/business practice and the culture/business practice of other countries: assumptions, world view and family structure, organization and language.

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.

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.

3220 The Inca and their Ancestors. (ANT 6510) Cr. 3
Prereq: ANT 2100, 3200, or consent of instructor. Introduction to precolombian civilizations of South America. Archaeological and ethnohistorical data on ancient cultures; foundations of Inca civilization; major cultures from different regions and periods.

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.

3530 (CD) Native Americans. Cr. 3
Survey of Native American cultures north of Mexico in historical and comparative perspective; contemporary Native American issues.

3540 (FC) (CD) 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.

3550 (FC) (CD) 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 discus-
cussion 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; linguistic). 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 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)

5200  The Ethnography.  Cr. 3
Prereq: ANT 2100 or consent of instructor. Critical reading of classical and contemporary ethnographies (anthropological descriptions and interpretations of societies and cultures, based on fieldwork). Analysis of theoretical approaches to the study of culture, social relations, and social organizations; ethnographies in historical and comparative perspectives; nature of ethnographic representation and knowledge.  (Y)

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)

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  (CD) The African Religious Experience: A Triple Heritage. (AFS 5260) (ISP 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  (CD) 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  (CD) 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  Community Health Ethnography.  Cr. 4
Prereq: consent of instructor. Field placement in a health service agency. Students provide volunteer assistance to an agency while

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conducting participant observation research exercises. Utilization of field experience to learn about urban health issues and research methodology. (I)

5430  
(ISP 5510) (CD) End-of-Life Issues. (ANT 7430) (ISP 7510)  
(LIS 7635) (NUR 7515) (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 the practice 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)

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  
(Wei) Writing Intensive Course in Anthropology.  Cr. 0  
Prereq: junior standing, satisfactory completion of English proficiency exam, 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)

6300  
Anthropological Theory I.  Cr. 3  
Required for first year graduate students. Examination of some major debates in anthropology in historical and contemporary perspective; continuities and breakthroughs.  (Y)

6310  
Anthropological Theory II.  Cr. 3  
Prereq: ANT 6300. Required for first-year Ph.D. students. Continuation of ANT 6300.  (B)

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 utopia 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 specific health problem (e.g., AIDS, aging); analysis of social construction of the problem, and political and medical aspects.  (I)

6510  
The Inca and their Ancestors.  Cr. 3  
Prereq: ANT 2100, 3200, or consent of instructor. Study of pre columbian 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)

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)

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

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Chairperson: James D. Tucker
Associate Chairperson: John M. Lopes
Academic Services Officer: Gayle Chlebnik, Krystyn Purvis, Linda VanThiel
Academic Adviser: Kimberly Walkowiak Hunter
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Professors


Associate Professors


Assistant Professors

Athar Ansari, Karen A. Beningo, William W. Branford, Choong-Min Kang, Daniel M. Kashian, Karen Myhr, Lori Pile,

Degree Programs

BACHELOR OF SCIENCE in Biological Sciences
BACHELOR OF ARTS with a major in Biological Sciences
MASTER OF SCIENCE with a major in Biological Sciences
MASTER OF ARTS 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 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 23.

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 250) and the University General Education Requirements (see page 17), 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 16, 36, and 250. 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 ‘A’ 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 CORE COURSES

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. 4
BIO 3100 -- Cellular Biochemistry: Cr. 3
BIO 4110 -- (WI) Biomedical Technology & Molecular Biology: Cr. 4 or 4120 -- (WI) Principles of Physiology: Cr. 4 or 4130 -- (WI) Ecology: Cr. 4
BIO 4200 -- Evolution: Cr. 3

BIO Electives 4000 level and above: Cr. 11 (total)
-- courses may include BIO 3990: Cr. 4 (Max. 4) and must include a minimum of two lecture based 4000 - 6000 level BIO electives

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 postgraduate 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 student will specialize in one of three overlapping curricular tracks: Biomedical, Biotechnology, and Biodiversity. 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 250) and the University General Education Requirements (see page 17), 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 16, 36, and 250. 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. Suggested courses for each specialization track are shown below. 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.

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 of Science in Biological Sciences Tracks:

**BIOMEDICAL TRACK**

The Biomedical Track is intended for students planning careers in medicine and health care, as well as in biomedical research. The emphasis is on cell biology and physiology and provides a solid foundation in cellular and physiological processes underlying human health and disease. This track is designed to enhance success in aptitude tests for medical school and other professional schools.

**Biomedical Track BIO Requirements:**

- BIO 1500 -- Basic Life Diversity: Cr. 4
- BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
- BIO 2220 -- (LS) Introductory Microbiology: Cr. 4
- BIO 2600 -- Intro. to Cell Biology: Cr. 3
- BIO 3070 -- Genetics: Cr. 4
- BIO 3100 -- Cellular Biochemistry: Cr. 3
- BIO 4120 -- (WI) Principles of Physiology: Cr. 4
- BIO 4200 -- Evolution: Cr. 3
- BIO Electives 4000 level and above: Cr. 11 (total)
  -- courses may include BIO 3990: Cr. 4 (Max. 4) and must include a minimum of two lecture based 4000 - 6000 level BIO electives

**Electives:** The following courses constitute some suggested electives for the Biomedical Track: BIO 5080, 5610, 5620, 5630, 5640, 5680, 5750, 6000, 6010, 6030, 6070, 6840, 6690.

NOTE: In addition to the courses outlined above, students must satisfy the listed Cognate requirements for a B.S. and all general education requirements and elect sufficient additional credits to achieve the minimum 120 credits required for graduation.

**BIOTECHNOLOGY TRACK**

The Biotechnology Track is designed for students interested in careers in biotechnology and molecular medicine, in the private and academic sectors. The curricular emphasis is on molecular biology and genetics, microbiology, and emerging areas such as bioinformatics and genomics.

**Biotechnology Track BIO Requirements:**

- BIO 1500 -- Basic Life Diversity: Cr. 4
- BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
- BIO 2220 -- (LS) Introductory Microbiology: Cr. 4
- BIO 2600 -- Intro. to Cell Biology: Cr. 3
- BIO 3070 -- Genetics: Cr. 4
- BIO 3100 -- Cellular Biochemistry: Cr. 3
- BIO 4110 -- (WI) Biomedical Technology & Molecular Biology: Cr. 4
- BIO 4200 -- Evolution: Cr. 3
- Electives: BIO 4000 level and above: Cr. 11 (total)
  -- courses may include BIO 3990: Cr. 4 (Max. 4) and must include a minimum of two lecture based 4000 - 6000 level BIO electives

Electives: The following courses are some suggested electives for the Biotechnology Track: BIO 5330, 6000, 6010, 6060, 6070, 6120, 6330.

NOTE: In addition to the courses outlined above, students must satisfy the listed Cognate requirements for a B.S. and all general education requirements and elect sufficient additional credits to achieve the minimum 120 credits required for graduation.

**BIODIVERSITY TRACK**

The Biodiversity Track emphasizes principles of ecology, evolution, and systematics. It provides the student with a solid foundation for environmental biology and for investigating factors underlying evolutionary change and generation diversity.

**Biodiversity Track BIO Requirements**

- BIO 1500 -- Basic Life Diversity: Cr. 4
- BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
- BIO 2220 -- (LS) Introductory Microbiology: Cr. 4
- BIO 2600 -- Intro. to Cell Biology: Cr. 3
- BIO 3070 -- Genetics: Cr. 4
- BIO 3100 -- Cellular Biochemistry: Cr. 3
- BIO 4130 -- (WI) Ecology: Cr. 4
- BIO 4200 -- Evolution: Cr. 3
- Electives: BIO 4000 level and above: Cr. 11 (total)
  -- courses may include BIO 3990: Cr. 4 (Max. 4) and must include a minimum of two lecture based 4000 - 6000 level BIO electives

Electives: The following courses constitute some suggested electives for the Biodiversity Track: BIO 5040, 5080, 5550, 5700, 5720, 5740, 6060, 6090.

NOTE: In addition to the courses outlined above, students must satisfy the listed Cognate requirements for a B.S. and all general education requirements and elect sufficient additional credits to achieve the minimum 120 credits required for graduation.

**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 the University’s goals and bachelor’s 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 in Biological Sciences requires fourteen honor credits in Biology and at least ten additional honor credits, which includes an Honors Program 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.
Advanced Placement in Biological Sciences may be obtained by earning the following scores in the AP Qualifying Examination:

**Score of 3 or 4:** Credit is awarded for BIO 1500 and 1510 (eight credits). Students are eligible to enroll in subsequent courses providing the prerequisites for them have been met.

**Score of 5:** Credit is awarded for BIO 1500 and 1510 (eight credits). Students are eligible to enroll in subsequent courses providing the prerequisites for them have been met.

### Minor in Biological Sciences
Completion of the minor in biological sciences requires twenty-one 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 4120.

### Departmental Academic Policies

**Prerequisites/Corequisites:** Students are to follow all prerequisites and corequisites listed for each Biology course. Students who do not follow the listed prerequisites or corequisites may be dropped from courses.

**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 sciences 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 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 483.

**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. 3-4 (LCT: 3; OR LCT: 3; LAB: 3)

Meets General Education Laboratory Requirement when elected for 4 credits. For the non-science major and certain pre-professional programs. 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: high school biology, or BIO 1050. Required of all biological sciences majors. No credit after former BIO 1520. Physiology, 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. 3-4 (LAB: 3; LCT: 3)

Prereq: high school biology or BIO 1050. Only Engineering students may elect for three credits. BIO 1500 and BIO 1510 required of all biology majors. Factual and conceptual treatment of cell molecules, cell structure, metabolism, genetics, and development. For the science major and certain pre-professional 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; 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. 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. 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. 4-5

Prereq: BIO 2200 and BIO 2600. 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 1240/1250. Biosynthesis and metabolism of proteins, carbohydrates, lipids, steroids, amino acids and nucleic acids. The basic principles of enzyme kinetics in living systems. (T)

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. No major credit for Biological Sciences majors. 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 at least three short (3 p. minimum) critiques of appropriate scientific papers and one long (15 p. minimum) paper on topic approved by instructor, in addition to other course writing requirements. (F,W)

4120 (WI) Principles of Physiology. Cr. 4 (LCT: 3)
Prereq: BIO 3070 and BIO 3100. Physiological processes at the molecular, cellular, and organismal levels. Major physiological systems in mammals: metabolic regulation and system homeostasis. Lab consists of computer and web-based exercises that allow students to test and explore major conceptual themes in physiology in an interactive fashion. Fulfills General Education Writing Intensive Course in the Major requirement; each student writes at least three short (3 p. minimum) critiques of appropriate scientific papers and one long (15 p. minimum) paper on topic approved by instructor, in addition to other course writing requirements. Material Fee as indicated in the Schedule of Classes (T)

4130 (WI) Ecology. Cr. 4 (LAB: 3;LCT: 3)
Prereq: BIO 3070 and BIO 3100 and MAT 1800 with grade of C or above; consent of adviser for Environmental Science 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 p. minimum) critiques of appropriate scientific papers and one long (15 p. minimum) paper on topic approved by instructor, in addition to other course writing requirements. Material Fee as indicated in the Schedule of Classes (T)

4200 Evolution. Cr. 3
Prereq: completion of Core Courses; and BIO 4110, 4120, or 4130. 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)

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. Philosophes of evolutionary biology, paleontology, and techniques of cladism and phylogenetic reconstruction. Material Fee as indicated in the Schedule of Classes (S)

5040 Biometry. Cr. 4 (LCT: 3;LAB: 3)
Prereq: BIO 3070 or 4130; MAT 1800. 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 (B)

5060 Special Topics. Cr. 1-6 (Max. 6)
Prereq: BIO 1500 or consent of instructor. 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
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)

5180 Field Investigations in Biological Sciences. Cr. 2-12 (Max. 20) (FLD: 6)
Prereq: 12 credits in biology, consent of instructor. 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 Recombinant DNA I. Cr. 3
Prereq: BIO 2200, 3100, 3070 or equiv. Review of origins of molecular biotechnology and its characteristic technologies; survey of applications of biotechnology to problems in industries. (F)

5480 (BIO 5480) Plant Pathology. (BIO 7480) Cr. 3
Prereq: BIO 1500 and BIO 2200. Principles of plant infection, structure and life cycle of plant pathogens, defense mechanisms, spread and control of plant disease. (S)

5550 Systematic Botany. Cr. 3 (LAB: 3;LCT: 2)
Prereq: BIO 1500. Principles and methods of taxonomy and identification of native vascular plants. Material Fee as indicated in the Schedule of Classes (I)

5610 Structural Embryology. Cr. 1 (LAB: 4)
Prereq, or coreq: BIO 5620. 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. 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)

5630 Histology. Cr. 4 (LAB: 4;LCT: 3)
Prereq: BIO 2870 or 4120. 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)

5640 Cancer Biology. Cr. 3 (LCT: 3)
Prereq: BIO 4120. Introduction to integrated analysis of cancer and cell biology, pathology, etiology and therapy. (F)

5680 (PSL 5680) Basic Endocrinology. Cr. 3
Prereq: PSL 3220 or BIO 4120 or equiv., or coreq: PSL 7010. 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)
5690 Animal Behavior. Cr. 3 (LCT: 3)
Prereq: 16 credits in biology. Function, biological significance, causation, and evolution of species-typical behaviors which are part of the animal's behavioral repertoire under natural conditions. (I)

5700 Natural History of Vertebrates. Cr. 3 (LAB: 3; LCT: 2)
Prereq: 16 credits in biology. Life histories, survival and evolutionary strategies, laboratory and field identification, including study techniques of vertebrates; Michigan wildlife. Field trips. Material Fee as indicated in the Schedule of Classes (I)

5720 Natural History and Ecology of Michigan Birds. Cr. 3 (LAB: 3; LCT: 2)
Prereq: BIO 1500. Ecology and natural history of Michigan birds in an evolutionary context; emphasis on ecological adaptations, distributions, behavior, and evolutionary history. Laboratories comprise weekly field trips. Material Fee as indicated in the Schedule of Classes (I)

5730 Mammalogy. Cr. 4 (LCT: 2; LAB: 6)
Prereq: 16 credits in biology. Systematics, geographical distribution, ecology, adaptive radiation, patterns of growth and reproduction, physiology. Field trips. Material Fee as indicated in the Schedule of Classes (S)

5740 Entomology. Cr. 4 (LAB: 6; LCT: 2)
Prereq: BIO 1500 or 1520. The systematics, classification, and functional morphology of insects; methods of collection and study of insect specimens. Material Fee as indicated in the Schedule of Classes (I)

5750 (BIO 5750) Biology of Aging. (BIO 7750) Cr. 3 (LCT: 3)
Prereq: BIO 3070 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 English proficiency exam; consent of department; coreq: BIO 4120 or BIO 5997 or BIO 6987. 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 4110 or 4120. Analysis of cell structure at the molecular and cellular levels and the physiological consequences of these structures: isolation, physico-chemical 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. 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. 2-4 (LCT: 2, or LAB: 6; LCT: 2)
Prereq: one year of chemistry and biology. Theory and application of instruments and procedures used in biological materials analysis. Topics include: error analysis, basic electronics, solutions and buffers spectroscopy, separation techniques, elemental analyses, laboratory application of computers. Material Fee as indicated in the Schedule of Classes (F)

6030 Physiological Genetics of Modern Disease. (BIO 7030) Cr. 3 (LCT: 3)
Prereq: BIO 3070. 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. (Y)

6055 (ANA 6050) Biology of the Eye. (PYC 6050) Cr. 3
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 and 4200 or 4130. 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. 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. (B)

6080 Microbial and Cellular Genetics. (BIO 7080) Cr. 4 (LCT: 4)
Prereq: BIO 3070 or equiv. 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. (Y)

6090 Population Genetics. Cr. 3 (LCT: 3)
Prereq: BIO 4200 or 4130. Theoretical bases for microevolutionary change in natural populations of organisms; basic to study of evolutionary genetics and evolutionary ecology. (B)

6120 Molecular Biology Laboratory I. Cr. 3 (LCT: 1; LAB: 6)
Prereq: BIO 6010 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 (Y)

6160 Molecular and Cellular Biophysics. Cr. 3 (LCT: 3)
Prereq: one year of biology, chemistry and physics. Analysis of the biologically important aspects of thermodynamics, chemical bonding, macromolecular structure, biomembranes and transport processes. (W)

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 physio-
logical properties. Structural, dynamic, and physiological properties examined, including molecular and macromolecular assemblies, physical and chemical analysis of molecular motion, functional aspects including trans-membrane signalling. (Y)

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. (Y)

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. (Y)

6330 Recombinant DNA II. Cr. 3
Prereq: BIO 5330 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. 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 4130 or 4200 or equiv. 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. (B)

6640 Advanced Ecology. Cr. 3 (LCT: 3)
Prereq: BIO 4130. Discussion and analysis of recent topics in ecological theory. (I)

6670 Comparative Marine Animal Physiology and Biochemistry. (BIO 7670) Cr. 5 (LCT: 2; LAB: 9)
Prereq: written consent of instructor obtained in semester prior to registration; introductory biology and organic chemistry recommended. Intensified two-week program at a marine biological station. In-depth study of comparative physiology and biochemistry of marine animals. Daily field collecting, laboratory sessions and evening lectures. Individualized research projects; presentation at concluding symposium. Material Fee as indicated in the Schedule of Classes (S)

6690 Neurobiology I. Cr. 3 (LCT: 3)
Prereq: BIO 4120 and 3100. 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. (F)

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)
Interdisciplinary Minor in Canadian Studies

Specialization in Canadian Studies is offered only as a minor concentration at Wayne State University. The program is interdisciplinary and is intended to offer students an opportunity to focus on linkages that exist between the United States and Canada. Included in the courses comprising the minor are offerings in both the social sciences and the humanities, including disciplines such as geography, political science, English, and history.

An academic minor in Canadian Studies allows students to select a major in an established discipline, while still making possible the pursuit of interests in Canada.

Students planning to minor in Canadian Studies should consult with the Canadian Studies Director at the beginning of their junior year.

The minimum requirement for a minor in Canadian Studies is eighteen credits, distributed as follows:

1. P S 2700 -- (FC) Introduction to Canadian Studies (GPH 2700, HIS 2700, ENG 2670): Cr. 3
2. Fifteen additional credits in Canadian-content courses, of which at least twelve must be from classes at the 3000 level (or their University of Windsor equivalent) or higher.

Students are especially encouraged to enroll in HIS 3993 -- Topics in Canadian History, Society, Politics, and Culture (GPH 3993, PS 3993, ENG 3993, SOC 3993). Other Canadian-content courses are offered on an occasional basis by participating Wayne State University departments or, through the Wayne-Windsor Exchange Agreement, at the University of Windsor. Contact the Program Director for information about these at aa2092@wayne.edu and consult the Canadian Studies Program website: http://www.clas.wayne.edu/canadianstudies.
tion 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 23. Students planning to major in chemistry should consult with an advisor 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 17) and the College Group Requirements (see page 250), 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 16, 35, and 250.

**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.
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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHM 1220/1230 (or 1410)</td>
<td>Cr. 5-6</td>
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<tr>
<td>English 1020 (BC)</td>
<td>Cr. 4</td>
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<tr>
<td>Mathematics 1010</td>
<td>Cr. 4</td>
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<tr>
<td>Group Requirement</td>
<td>Cr. 3</td>
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**Winter Semester**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHM 1240/1250 (or 1420)</td>
<td>Cr. 5-6</td>
<td></td>
</tr>
<tr>
<td>English (2000 level)</td>
<td>Cr. 3</td>
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<tr>
<td>Mathematics 2010</td>
<td>Cr. 4</td>
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<tr>
<td>Group Requirement</td>
<td>Cr. 4</td>
<td></td>
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<tr>
<td>Total credits: 16-17</td>
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</table>
SECOND YEAR

Fall Semester
- CHM 2220/2230: Cr. 5
- Physics 2170/2171: Cr. 5
- Mathematics 2030: Cr. 4
- Group Requirement: Cr. 3
Total credits: 17

Winter Semester
- CHM 2280/2290: Cr. 5
- Physics 2180/2181: Cr. 5
- Group Requirement: Cr. 3
- Elective: Cr. 3
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
- Electives: Cr. 8
Total credits: 14-16

Winter Semester
- CHM 5550 (WI) (or CHM elective): Cr. 2-4
- Electives: Cr. 9
Total credits: 11-13

— With Honors in Chemistry

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. The recommended chemistry honors courses are: CHM 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, 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.


4. Language requirement: 3 credits in independent research (Chemistry 2999 or 5999).

5. 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.

6. Submission of a B.A. thesis or of a manuscript suitable for publication in a refereed chemical journal covering the undergraduate research project (see page 250). If a manuscript is submitted, the recommended chemistry honors courses, the Honors Program HON 4200-level seminar, and honors credits in other departments or from the Honors Program.

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 23. 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 17) and the College Group Requirements (see page 250), 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 16, 35, and 250.

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, 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.


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 (or 1410): Cr. 5-6
English 1020 (BC): Cr. 4
Mathematics 2010: Cr. 4
Group Requirement: Cr. 3
Total credits: 16-17

Winter Semester
CHM 1240/1250 (or 1420): Cr. 5-6
English (2000 level): Cr. 3
Mathematics 2020: Cr. 4
Group Requirement: Cr. 3
Total credits: 15-16

SECOND YEAR

Fall Semester
CHM 2220/2230: Cr. 5
Mathematics 2030: Cr. 4
Physics 2170/2171: Cr. 5
Group Requirement: Cr. 3
Total credits: 17

Winter Semester
CHM 2280/2290: Cr. 5
CMH 3020: 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 Requirement: Cr. 4
Total credits: 14

FOURTH YEAR

Fall Semester
CHM 5020: Cr. 3
CHM 5999 (or 5998): Cr. 2-4
Language III: Cr. 4
CHM 5160: Cr. 3
Total credits: 12-14

Winter Semester
Advanced CHM Course: 1 Cr. 3
CHM 5570: Cr. 3
Group Requirements: Cr. 9
Total credits: 15

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.


3. Biology 1510, 2200, and 3070 or 6000.


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 (or 1410): Cr. 5-6
English 1020 (BC) or 1050 (BC): Cr. 4
Mathematics 2010: Cr. 4
Group Requirement: Cr. 3
Total credits: 16-17

Winter Semester
CHM 1240/1250 (or 1420): Cr. 5-6
English (2000 level): Cr. 3
Mathematics 2020: Cr. 4
Group Requirement: Cr. 3
Total credits: 15-16
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, 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 33.

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 3; contact the Chemistry Department, 221 Chemistry Building.

George H. Wheatley Scholarship: Award open to full-time undergraduate or graduate students majoring in chemistry with a minimum 3.0 g.p.a. Application deadline is April 3; contact the Chemistry Department, 221 Chemistry Building.

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 483.

NOTE: A minimum grade of 'C' is required in prerequisite courses.

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) (ST) Chemistry and Your World.  Cr. 3-4 (LCT: 3; QUIZ: 1; 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

1020 (PS) Survey of General Chemistry.  Cr. 4 (LCT: 3; QUIZ: 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

1030 Survey of Organic/Biochemistry.  Cr. 4 (LCT: 3; QUIZ: 1; LAB: 3)

Prereq: 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

— With Honors in Chemistry

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, 5999); this should commence in the junior year (or earlier).

4. Completion of one semester of an Honors Program HON 4200-level seminar (consult the Schedule of Classes under ‘Honors Program’). This course may be used to partially fulfill college Group Requirement. This course may be used to partially fulfill college Group Requirement. This course may be used to partially fulfill college Group Requirement.

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.
regulation. Material Fee as indicated in the Schedule of Classes  

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. (T)

1220 (PS) General Chemistry I. Cr. 4  
Prereq: passing score on chemistry placement exam or CHM 1040; placement beyond MAT 0995; 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. 3  
Open only to students in College of Engineering. Prereq: passing score on chemistry placement exam or CHM 1040, placement beyond MAT 0995; 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. 4  
Prereq: CHM 1220 and 1230 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. 1  
Prereq: passing score on chemistry placement exam or 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)

1410 (PS) Chemical Principles I: General/Organic Chemistry. Cr. 6  
Prereq: two years of high school chemistry; or advanced placement in chemistry with a score of 3, 4, or 5; or Presidential Scholar status; or outstanding performance on chemistry placement exam; 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. 6  
Prereq: 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. 3  
Prereq: 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 bioorganic chemistry. (T)

2230 Organic Chemistry II Laboratory. Cr. 2  
Prereq: CHM 1250 or equiv.; prereq or coreq: CHM 2220. Synthesis of organic and bio-organic compounds. Material Fee as indicated in the Schedule of Classes (T)
compounds. Material Fee as indicated in the Schedule of Classes

5550 (WI) Physical Chemistry Laboratory. Cr. 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)

5570 Instrumental Analytical Chemistry Laboratory.
Cr. 3 LCT:1;LAB:6
Prereq.: or coreq.: 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 (F,W)

5600 Survey of Biochemistry. Cr. 3

5740 Topics in Chemistry for High School 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. (T)

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. (Y)

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 direction of 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.: CHM 5020 and 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 (F)

6610 Biological Chemistry Laboratory. Cr. 3
Prereq.: CHM 6620 or equiv. Open only to chemistry majors. 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
Prereq.: CHM 2220 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. Cannot be used to satisfy the graduate proficiency requirement in biochemistry. (F)

6640 Molecular Biology. (CHM 7640) Cr. 3
Prereq.: 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)

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)

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
Assistant Director for Recruitment and Retention: Ethriam Cash Brammer
Counselors: Gloria Rodriguez (e-mail: ap2353@wayne.edu) and Robert Buentello (e-mail: ad1669@wayne.edu)

Teaching Faculty
Jorge L. Chinea, Jose Cuello, Nicole Trujillo-Pagán

Affiliate Faculty
Jorgelina Corbatta

Purpose
The mission of the Center for Chicano-Boricua Studies (CBS) is to transform the University, and ultimately society, by providing equitable access to a quality university education to students interested in 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 reality-check and academic self-empowerment model. The Program is designed to enhance the transition from high school to the University. It strengthens students’ abilities to analyze 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 just a job, but also to become conceptually aware 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: Requirements include submission of an official Wayne State Application for Undergraduate Admission, a minimum high school grade point average (g.p.a.) of 2.5, and minimum scores of 15 on the ACT Reading, English, and Composite sections. The average g.p.a. for incoming classes is usually higher than 2.75.

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 251 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
- SPA 4630 or 4640 -- Survey of Spanish American Literature I: 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 483.

1410 Student Success Seminar. Cr. 1 (Max. 2)
Prereq: consent of instructor. Open only to students in Chicano-Boricua Studies program. Developing academic and leadership skills; self-empowerment.

2100 Chicano Literature and Culture. (SPA 2400) Cr. 3
Examination of Chicano literature. Themes and figures in a social and historical context.

2110 Puerto Rican Literature and Culture. (SPA 2500) Cr. 3
Examination of Puerto Rican literature. Themes and figures in a social and historical context.

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.

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.
Classics, Greek, and Latin

Office: 431 Manoogian Hall; 313-577-3032
Chairperson: Kathleen McNamee
e-mail: k.mcnamee@wayne.edu
Website: http://www.clas.wayne.edu/cgl/

Professors
Kathleen McNamee, Richard W. Minadeo (Emeritus)

Associate Professors
Ernest J. Ament (Emeritus), Joel B. Itzkowitz, Michele Valerie Ronnick, Jennifer Sheridan Moss, Kenneth R. Walters

Assistant Professor
Thomas D. Kohn

Lecturer
Vasilios Kosmidis

Degree Programs

BACHELOR OF ARTS with a major in Classics
MASTER OF ARTS with a major in Classics

This department offers courses and programs of language instruction in Latin and Greek (both ancient and modern) and also (in English) in the cultures and the literatures of ancient Greece and Rome. These studies have been the basis of Western civilization and education for over two thousand years. The study of the classics sharpens analytical and reasoning skills, deepens understanding of English, and enhances the quality of a person's writing. Classics therefore gives excellent grounding for various professional programs, including law, business, medicine or health sciences (when combined with science study), teaching at the high school or university level, library and information science, and museum practice. Classics is also an excellent grounding for students interested in pursuing careers that do not require post-graduate education, for example, in government, publishing, tourism and business-in any field, that is, in which intelligence and a broad liberal education are valued. The Department offers programs of both major and minor concentration as well as cognate work that can provide other perspectives for majors in other departments.

Bachelor of Arts Degrees

Admission requirements for this program are satisfied by the requirements for undergraduate admission; see page 23.

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 17) and the College of Liberal Arts and
MAJOR REQUIREMENTS IN CLASSICS: A major in Classics consists of one of the following:

A concentration in Ancient Greek, requiring twenty-eight credits in Ancient Greek (exclusive of Greek 1010 and 1020), Classics 1010 (Classical Civilization, preferably taken during the freshman or sophomore year), and one Classics course at the 2000-level or above.

A concentration in Latin, requiring twenty-eight credits in Latin (exclusive of Latin 1010 and 1020), Classics 1010 (Classical Civilization, preferably taken during the freshman or sophomore year), and one Classics course at the 2000-level or above.

A concentration in both Ancient Greek and Latin, requiring twenty credits in either Ancient Greek or Latin (exclusive of Greek 1010 and 1020), sixteen credits of course work in the other language, and Classics 1010 (Classical Civilization, which should preferably be taken during the freshman or sophomore year).

A concentration in Classical Civilization, requiring Greek or Latin 2010, Classical Civilization (CLA 1010, preferably taken during the freshman or sophomore year), three Classics courses from Classics 2000 and above, Art History 5210 (Hellenistic Art) or 5260 (Classical Greek Art), Art History 5250 (Ancient Rome) or 5270 (Roman Painting and Sculpture) (please note that enrollment in A H courses requires special permission; contact the Classics undergraduate advisor), History 5330 (History of Ancient Greece), CLA 3700 (The Golden Age of Rome), Philosophy 2100 (Ancient and Medieval Philosophy), and two courses from the following list:

- ANT 3200 -- (HS) Lost Cities and Ancient Civilizations: Cr. 3
- ANT 3220 -- The Inca and their Ancestors: Cr. 3
- ANT 5270 -- Introduction to Archaeology: Cr. 3
- ANT 5310 -- (CD) Language and Culture: Cr. 3
- ANT 5370 -- Magic, Religion and Science: Cr. 3
- ANT 5510 -- Mesoamerican Civilization: Cr. 3
- ANT 5600 -- Museum Studies: Cr. 3

Note: enrollment in A H courses requires special permission. Contact the Classics undergraduate adviser.

A H 3070 -- Art & Archaeology of Ancient Egypt: Cr. 3
A H 3240 -- Mythology in Greek 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

CLA 2000 -- Greek Mythology: Cr. 3-4
CLA 2100 -- (PL) (CD) 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 3080 -- Medea in African American Literature: Cr. 1
CLA 3100 -- Law and Ancient Society: Cr. 3-4
CLA 3190 -- (CD) Topics in Women in Antiquity: Cr. 3 (max 6)
CLA 3250 -- The Ancient City: Cr. 3-4
CLA 3300 -- Coinage Ancient of the Greeks and Romans: Cr. 1-2
CLA 3350 -- Plutarch’s Lives of the Noble Greeks and Romans: Cr. 3
CLA 3600 -- Religious Experience: Ancient Greeks & Romans: Cr. 3
CLA 3700 -- The Golden Age of Rome: Cr. 3-4
CLA 3999 -- Further Studies in Mythology: Cr. 3
CLA 5200 -- Special Studies: Cr. 1-4 (max. 8)
COM 2190 -- Rhetorical Theory: Cr. 3
GRK 2600 and above; GRK 1010-2010 if Latin is major language
GRK 3710 -- (FC) (CD) Modern Greek Literature and Culture in English: Cr. 3
HIS 3330 -- History of Ancient Greece: Cr. 3
HIS 3340 -- History of Ancient Rome: Cr. 3
HIS 3560 -- The Early Middle Ages: 300-1000: Cr. 3
LAT 2600 and above; LAT 1010-2010 if Greek is 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 257.

Honors Program
Qualified majors may apply for participation in the Departmental Honors Program. Only the student who has demonstrated superior ability in the field of Classical languages and/or literature 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 one of the languages (ideally, both) and is encouraged to elect Classics 1010 (Classical Civilization) and 2010 (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 Classics 4990, which will prepare and guide them in the writing of a Senior Honors Essay. One of the 4000-level interdisciplinary seminars offered by the Honors Program must also be completed, and the student must have acquired at least fifteen credits in honors-designated course work, including Classics 4990 and the Honors Program seminar (HON 4280). 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 additional honors-designated course work available each semester, contact the Director of the Honors Program (313-577-3030) or see the Liberal Arts section of the University Schedule of Classes under ‘Honors Program.’

Minors and Cognate Study

Minor Requirements in Classics: A minor in Classics consists of one of the following:

A concentration in Ancient Greek, consisting of twenty credits exclusive of Greek 1010 and 1020 and Classics 1010 (Classical Civilization). Students are also encouraged to elect Classics 2000 (Greek Mythology) during their freshman or sophomore year.
A concentration in Latin, consisting of twenty credits exclusive of Latin 1010 and 1020 and Classics 1010 (Classical Civilization). Students are also encouraged to elect Classics 2000 (Greek Mythology) during their freshman or sophomore year.

A concentration in both Ancient Greek and Latin, consisting of twelve to sixteen credits in either Ancient Greek or Latin, exclusive of Greek or Latin 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-three to twenty-six credits distributed as follows:

1. Greek or Latin 1010 and 1020 (eight credits).
2. Classical Civilization (CLA 1010, three to four credits)
3. One additional Classics course numbered CLA 2000 or higher (three to four credits).
4. Art History 5210 (Hellenistic Art) (three credits), 5250 (Ancient Rome) (three credits), 5260 (Classical Greek Art) (three credits), or 5270 (Roman Painting and Sculpture) (three credits). (Please note that A H courses require special permission. Contact the Classics undergraduate adviser.)
5. History 5330 (History of Ancient Greece) or Classics 3700 (The Golden Age of Rome) or History 5340 (History of Ancient Rome) (three credits).
6. Philosophy 2100 (Ancient and Medieval Philosophy), 5400 (Presocratic Philosophy), 5410 (Plato) or 5420 (Aristotle) (three 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 GRK 1110\(^1\), 1120\(^1\), 2110, 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, 2300, 2500, 2900, 3100, 3190, 3250, 3300, 3600, 3700, 3999, 5000; HIS 5330, 5340, 5350; 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 (p. 288, above) approved for the major with a concentration in Classical Civilization, as well as in the literatures of other languages, including English.

General Education Group Requirements

Foreign Language

The student may satisfy the Foreign Language Group Requirement (see page 200) by completing the third course of the elementary language sequence of either Ancient or Modern Greek or Latin, or by a special examination through which one might place out of the requirement. Students continuing the study of any of the above languages begun in high school or in another college should consult with the Department undergraduate adviser to determine the level of study at which to continue in the Department (phone: 313-577-3032).

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 17). Modern Greek 3710 also satisfies the Foreign Culture Requirement. Classics 1010, 2100, and 3190, Greek 2010, 2110, and 3710, and Latin 2010 satisfy the Cultural Diversity (CD) requirement. Classics 1010 and 2100 satisfy the Philosophy and Letters (PL) requirement; and Classics 2000 satisfies the College of Liberal Arts and Sciences Civilization and Societies Requirement.

Scholarships

Study Abroad: Students in Classics and Modern Greek are strongly urged to make study abroad a priority during their college experience. Through its consortial relationship with the Hellenic Society Paidia, 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 254, above, and the section on the Office of Student Financial Aid, page 33.

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 483.

CLASSICS IN ENGLISH TRANSLATION COURSES (CLA)

NOTE: All of the Classics courses listed below are taught in English translation, with no knowledge of Greek or Latin required.

1010 (PL) (CD) 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. (I)

2000 Greek Mythology. Cr. 3-4
Typical myths related to religion, custom, ethics, philosophy, art, literature. (T)

2100 (PL) (CD) 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 5100) Cr. 1
Open only to undergraduates. 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
Open only to undergraduates. 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. 1
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)

3190 (CD) 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)

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. 1-2
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 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 exploration of Plutarch's Parallel Lives in translation. (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
CLA 5700 offered only for graduate credit. Interdisciplinary approach to the most important period of Roman history: the beginning of the Roman Empire under Augustus; history, politics, literature, art. (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 Tribes. 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)
Graduate-level 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)

5750 (ENG 5750) Theories of Second Language Acquisition. (FRE 5750) (GER 5750) (ITA 5750) (LIN 5750) (N E 5750) (SPA 5750) Cr. 3
Investigation of theories in second language acquisition. Review of research in development of second language competence; acquisition of phonology, lexicon, semantics, syntax, discourse, and pragmatics. (I)

5810 (FRE 5810) Teaching Foreign Languages: Receptive Skills. (CLA 7810) (FRE 7810) (GER 5810) (GER 7810) (ITA 5810) (ITA 7810) (LED 5810) (LED 7810) (N E 5810) (N E 7810) (SPA 5810) (SPA 7810) Cr. 3
Prereq: CLA 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 (FRE 5820) Teaching Foreign Languages: Productive Skills. (CLA 7820) (FRE 7820) (GER 5820) (GER 7820) (ITA 5820) (ITA 7820) (LED 5820) (LED 7820) (N E 5820) (N E 7820) (SPA 5820) (SPA 7820) Cr. 3
Prereq: CLA 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 (GER 5830) Technology in the Foreign Language Classroom. (CLA 7830) (FRE 5830) (FRE 7830) (GER 7830) (ITA 5830) (ITA 7830) (LED 5830) (LED 7830) (N E 5830) (N E 7830) (SPA 5830) (SPA 7830) Cr. 3
Prereq: CLA 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 (GER 5850) Foreign Language Instruction. (CLA 7850) (FRE 5850) (FRE 7850) (GER 7850) (ITA 5850) (ITA 7850) (LED 5850) (LED 7850) (N E 5850) (N E 7850) (SPA 5850) (SPA 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 (GER 5860) Foreign Language Testing. (CLA 7860) (FRE 5860) (FRE 7860) (GER 7860) (ITA 5860) (ITA 7860) (LED 5860) (LED 7860) (N E 5860) (N E 7860) (SPA 5860) (SPA 7860) Cr. 3
Prereq: CLA 5750 or 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)

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 (W) Writing Intensive Course in Classical Civilization. Cr. 0
Prereq: junior standing, satisfactory completion of English proficiency exam, consent of instructor; coreq: any CLA, LAT, or GRK 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)

GREEK COURSES (GRK)

Ancient Greek

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: GRK 1010. Continuation of GRK 1010 with increasing emphasis on reading ability. (W)

2010 (FC) (CD) Intermediate Ancient Greek. Cr. 4
Prereq: GRK 1020. Readings in Ancient Greek from representative authors such as Plato, Lysias, Euripides, and others. (F)

2600 Homer. Cr. 4
Prereq: GRK 2010 or equiv. or consent of instructor. Reading of selected passages from the Iliad or the Odyssey; study of the fundamentals of Homeric Greek. (Y)

3300 Greek Tragedy. Cr. 4
Prereq: GRK 2600 or consent of instructor. One tragedy of Euripides, Sophocles, or Aeschylus, supplemented by selections from the dramas of the other two playwrights. (B)

5100 Greek Prose Composition. Cr. 2-4
Prereq: GRK 2010 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 Greek Lyric Poetry. Cr. 4
Prereq: GRK 2600 or consent of instructor. Personal lyric poetry as a reflection of individual and society in the culture of the post-Homeric Greek world. (I)

5500 Greek Historians. Cr. 4
Prereq: GRK 2600 or equiv., or consent of instructor. Prose style and historiographic techniques of ancient historians; selections from Herodotus, Thucydides, Xenophon, and Polybius. (I)

5600 Epic Poetry. Cr. 4
Prereq: GRK 2600 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)

5990 Directed Study. Cr. 1-4 (Max. 8)
Prereq: undergrad., written consent of chairperson; grad., consent of chairperson and graduate officer. (T)

Modern Greek

1110 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)

1120 Elementary Modern Greek II. Cr. 4
Prereq: GRK 1110 or equiv. Continuation of GRK 1110. Material Fee as indicated in the Schedule of Classes (W)

2110 (FC) (CD) Intermediate Modern Greek I. Cr. 4
Prereq: GRK 1120 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)

2610 Intermediate Modern Greek II. Cr. 4
Prereq: GRK 2110 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)

3710 (FC) (CD) 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. (I)

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) (CD) Intermediate Latin. Cr. 4
Prereq: LAT 1020. Representative selections of Latin prose and poetry. (F)

2600 Introduction to Latin Literature. Cr. 4 (Max. 8)
Prereq: LAT 2010 or equiv. or consent of instructor. Selections from Latin prose authors and poets. (Y)
3150  Cicero.  Cr. 4
Prereq: LAT 2010 or 2600 or equiv. Selections from the basic philosophical and rhetorical writings of Cicero and from his letters.  (I)

3210  Latin Poetry.  Cr. 4
Prereq: LAT 2600 or equiv. or consent of instructor. Intermediate-level course for reading representative samples of poetry by prominent Latin authors.  (F)

3220  Latin Prose.  Cr. 4
Prereq: LAT 2600 or equiv. or consent of instructor. Intermediate-level course for reading representative samples of prose by Latin authors.  (W)

5810  Roman Historians.  Cr. 4
Prereq: LAT 2600 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 2600 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 2600 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 2600 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., written consent of chairperson; grad., written consent of chairperson and graduate officer.  (T)

6500  Roman Epistolography.  Cr. 4
Prereq: LAT 2600 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 2600 or equiv. or consent of instructor. Study of Roman rhetorical theory and practice.  (I)

6840  Roman Drama.  Cr. 4
Prereq: LAT 2600 or equiv. or consent of instructor. 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 2600 or equiv. or consent of instructor. Readings in the works of satirists such as of Horace, Persius and Juvenal.  (I)

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Communication Sciences and Disorders

Office: 207 Rackham Memorial Building; 313-577-3339
Chairperson: Alex Johnson
Graduate Officer: Margaret Greenwald
Undergraduate Officer: Karen S. O'Leary
Coordinator of Clinical Programs: Kristine V. Sbaschnig
Web: http://www.clas.wayne.edu/CSD

Professors
Alex Johnson, William Leith (Emeritus), John Panagos (Emeritus)

Associate Professors
Jean Andruski, Margaret Greenwald, Thomas H. Simpson, Jinsheng Zhang

Assistant Professors
Heather Balog, Li Hsieh

Instructors
Karen S. O'Leary, Gilmour M. Peters, Kristine V. Sbaschnig

Lecturer
Joan Cortright

Adjunct Faculty
Colleen Allen, Pat Backoff, Kenneth R. Bouchard, Michael W. Church, Frances E. Eldis, Susan Fleming, Ginette Lezotte, John O'Leary, Mark Simpson, Brad Stach

Degree Programs
BACHELOR OF ARTS with a major in communication sciences and disorders
MASTER OF ARTS with a major in speech-language pathology
MASTER OF SCIENCE with a major in audiology
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 23.

**DEGREE REQUIREMENTS:** Candidates for the Bachelor’s degree must complete 120 credits of course work including satisfaction of the College Group Requirements (see page 250) and the University General Education Requirements (see page 17), 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 16, 35, and 250.

It is expected that a major will complete at least thirty but not more than forty-six credits in SLP 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, and the declaration of major form should be completed no later than their junior year. 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 3990 (one credit), 5080, 5090, 5120, 5300, 5320, 5360, 6460, 6480; AUD 5400 and 5420. 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.

An adviser should be consulted early in the student's program so that course work is taken in the proper sequence for both the B.S. degree in education and the Michigan Teaching Certificate, as well as the speech-language major program. For the Bachelor of Science degree the College of Education also requires a planned minor elected in consultation with an adviser in the College of Education. Inquiries should be directed to the Undergraduate Officer at 207 Rackham Memorial Building (313-577-3339). For further details, consult the CSD Undergraduate Student Handbook, available from the Department.

**Advising:** Initial questions about the major, including work required in the College of Education, should be directed to the Undergraduate Officer. For questions concerning clinical certification, contact the Coordinator of Clinical Programs.

**Financial Aid:** See Office of Student Financial Aid, page 33. The following award is available to students in this department:

**Clara B. Stoddard Endowment Scholarship Award:** Awarded to majors in the Department specializing in school speech-language pathology.

**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 483.

**AUDIOLOGY COURSES (AUD)**

5400 **Introduction to Audiology.** Cr. 3

Introduction to physics of sound, anatomy of the hearing mechanism, audiology, 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

6000 **Electrophysiological Procedures.** Cr. 4

Prereq: AUD 5400; graduate standing in audiology or speech-language pathology, or consent of instructor. Two distinct electrophysiological procedures, auditory evoked potentials and otoacoustic emissions, are presented. Both procedures consist of several sub-tests used to assess the auditory system from the middle ear to the cortex, in normal and disordered ears.

6020 **Scientific and Clinical Measurements in Audiology.** Cr. 2

Foundations of mathematics, including algebra, scientific notation, systems of measurement, and physical concepts as they apply to measurement techniques and instrumentation.

6030 **Instrumentation in Audiology.** Cr. 3

Prereq: AUD 6020. Operation, hook-up, calibration and repair of instruments and software used in clinical audiology.

6300 **Practicum in Audiology.** Cr. 3

Prereq: AUD 5400, 5420. Supervised training and practice in pure tone threshold measurement and aural rehabilitation. Material Fee as indicated in the Schedule of Classes

6410 **Basic Audiologic Evaluation.** Cr. 3

Prereq: graduate standing in audiology or speech-language pathology recommended. Principles and application of pure-tone and speech audiometry, clinical masking, and impedance/immitance testing.

6411 **Audiology Clinical Laboratory I.** Cr. 2

Prereq: AUD 6410. Development of basic competencies in clinical interviewing and routine test administration.

6412 **Audiology Clinical Laboratory II.** Cr. 2

Prereq: AUD 6404, 6411. Continuation of basic skills development in patient testing. Special tests for site of lesion and pseudohypacusis, and associated laboratory exercises; laboratory experiences in cerumin removal and deep canal impressions.

6420 **Special Audiologic Procedures.** Cr. 2

Prereq: AUD 6410. Special applications of pure-tone and speech stimuli in the assessment of peripheral and central auditory problems. Use of physiological tests in the diagnostic process.

6430 **Principles of Amplification I.** Cr. 3

Prereq: AUD 6410. Electroacoustic and clinical aspects of acoustic amplifiers and developmental history of hearing aids.
6530  Principles of Amplification II.  Cr. 3
Prereq: AUD 6430.  Fundamentals of digital technology, compression, channeling and programming, and applications to various hearing impairment parameters.  (F)

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.  (Y)

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  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  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  (F,W)

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
Prereq: SLP 5300, 5080, 5090.  Speech production, acoustics of sound, perception of the speech signal.  (W)

5300  Introduction to Speech-Language Pathology.  Cr. 3-4
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 5080, 5090, 5300, 5320.  Procedures and materials for clinical diagnosis of articulatory, language, rhythm, and voice deficits of organic and non-organic causation.  (I)

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  (F,S)

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. 4
Prereq: SLP 5080, 5090, 5300, 5320.  Introduction to the clinical management of articulation and language disorders.  (W)

6480  Organic and Fluency Disorders.  Cr. 4
Prereq: SLP 5080, 5090, 5300, 5320.  Introduction to the clinical management of cleft palate, voice, and stuttering disorders.  (W)
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 worldwide will provide our students with the highest standards, goals, and professional practices.

Bachelor of Arts with a Major in Computer Science

BACHELOR'S DEGREE PROGRAMS

Admission requirements for the College are satisfied by the general requirements for undergraduate admission to the University; see page 23. 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 Department 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. Most of the introductory courses require mathematics preparation equivalent to MAT 0995 or MAT 1800. (See course descriptions regarding the required prerequisites, page 348.) 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 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 17) and the College Group Requirements (see page 250). All course work must be completed in accordance with the regulations of the University governing undergraduate scholarship and degrees; see sections beginning on page 16, 35, and 250.

Bachelor of Science with a Major 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.)

2. Computer Science course work as follows:
(Please note that the core courses have been updated and include mandatory instructional labs. These laboratories should be taken concurrently with 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, respectively.

Students declaring their major must consult an adviser for a written assessment of current requirements.

Recommended Program: A recommended four-year course schedule is available on our website:


— With Honors in Computer Science

Students in the 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 with a Major 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 Honors Program Adviser. Interested students should contact the Honors Program 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 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 a minimum of 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).

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 Program,’ 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 291.

DEGREE REQUIREMENTS: See page 291.

COURSE REQUIREMENTS:

(Please note that the core courses have been updated and include mandatory instructional labs. These laboratories should be taken concurrently with corequisite lecture.)


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 recommended four-year course schedule is available on our website:


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 291.

DEGREE REQUIREMENTS: See page 291.

COURSE REQUIREMENTS:

(Please note that the core courses have been updated and include mandatory instructional labs. These laboratories should be taken concurrently with corequisite lecture.)

1. Mathematics 2010 and 2210.

2. Computer Science 1100, 1101, 1500, 1501, 2110, 2111, 2200, 2201, 3100, 3101, 4110, 4111, 4420, 4421, 4710 (or ISM 5994), 4996, 4997, 5750.

3. Two additional computer science courses at the CSC 4000 level or above.


5. Business Administration course work to include: Accounting 3010, Finance 4290, Management 2530, and Marketing 2300.

6. Suggested General Education - Group Requirement selections:

292 College of Liberal Arts and Sciences
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:**

2. Computer Science course work as follows:
   (Please note that the core courses have been updated and include mandatory instructional labs. These laboratories should be taken concurrently with corequisite lecture.)
   a) Computer Science 1100, 1101, 1500, 1501, 2110, 2111, 2200 and 2201.
   b) One additional Computer Science course 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 250) 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.
3. Computer Science course work as follows:
   (Please note that the core courses have been updated and include mandatory instructional labs. These laboratories should be taken concurrently with 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, under “research”. 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, under “resources.”

Financial Aid

Also see Office of Student Financial Aid, page 33.

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. Helper, 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. The 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, located under ‘Scholastic Awards.’

Additional sources for scholarships available can be accessed through: http://scholarships.wayne.edu/index.html.

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 483.

0900 Office Applications: Excel. Cr. 0

Offered on a Pass-No Pass Basis only. Basic spreadsheet design and development. Topics include: manipulation of cells, rows, columns, functions, worksheets, formulas and functions, formatting spreadsheets, sorting tables, printing, and creating charts. Student learns to design and print basic spreadsheets and charts. (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 co-op/internship program. (T)

1000 (CL) Introduction to Computer Science. Cr. 3

Material fee as given in Schedule of Classes. 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). Overview of current computing technology, organization, and use. Data representation and storage, hardware and software organization, communications technologies, ethical and security issues. Hands-on training in common application software: word processing, spreadsheets, presentation, electronic telecommunications, e-mail, Internet and database searches. The University resources emphasized. (T)

1050 (CL) Introduction to C and Unix. Cr. 2

Prereq: MAT 1800. No credit for computer science students after CSC 1100. Material fee as given in Schedule of Classes. Introduction to Unix, Unix editor, and C Programming Language. Unix development tools and fundamentals of C language discussed. (T)

1100 (CL) Problem Solving and Programming. Cr. 3

Prereq: CSC 1000 or successful passing of Computer Literacy Exam; MAT 1800; 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; MAT 1800; coreq: CSC 1101. No credit after any other programming language; no credit for students in CSC B.S. program. Material fee as given in Schedule of Classes. 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. (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 2010; 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; MAT 2010; coreq: CSC 1500. Material fee as given in Schedule of
Classes. Discussion and supervised hands-on exercises to complement CSC 1500. (T)

2000 Introduction to C++ Programming Language. Cr. 3
Prereq: placement out of MAT 1800 and CSC 1000. No credit for Computer Science majors. Material fee as given in Schedule of Classes. Elements of C++; arrays, pointers and references; operators; classes and objects. (T)

2110 (CL) Computer Science I. Cr. 3
Prereq: one of the following: successfully pass Computer Science Placement Exam, or CSC 1100 with grade of C or better; coreq: CSC 2111 and MAT 2100. 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; coreq: CSC 2110. Material fee as given in Schedule of Classes. 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. (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. 4
Prereq: CSC 1500 and CSC 1501, CSC 2110 and CSC 2111, all with grade of C or better; coreq: CSC 2200. Material fee as given in Schedule of Classes. 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. (T)

3100 Computer Architecture and Organization. Cr. 3
Prereq: CSC 2200 and 2201, both with grade of C or better; coreq: CSC 3101. Organization and architecture of computer systems. Topics include: digital logic and digital systems; machine-level 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. (T)

3101 Computer Architecture and Organization: Lab. Cr. 1
Prereq: CSC 2200 and CSC 2201, both with grade of C or better; coreq: CSC 3100. Material fee as given in Schedule of Classes. Two-hour closed lab; students explore and experiment with assembly language programming, data representation, and simple circuit design. Lab attendance is mandatory. (T)

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. (T)

3200 Programming Languages. Cr. 3
Prereq: CSC 2200. 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. (T)

3400 Human-Computer Communication. Cr. 3
Prereq: CSC 2200. 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, News groups, 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; 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 (T)

4111 Software Engineering: Lab. Cr. 1
Prereq: CSC 2200 and CSC 2201, both with grade of C or better; coreq: CSC 4110. Material fee as given in Schedule of Classes. Mandatory two-hour closed lab; lecture materials and hands-on exercises which complement CSC 4110. (T)

4420 Computer Operating Systems. Cr. 3
Prereq: CSC 2200 and CSC 2201, both with grade of C or better; CSC 3100; 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. Material fee as given in Schedule of Classes. Mandatory two-hour closed lab; lecture materials and hands-on exercises which complement CSC 4110. System call interface; use of simulation to better understand operating systems behavior. (T)

4500 Introduction to Theoretical Computer Science. Cr. 3
Prereq: CSC 2200 or 5050. Finite automata and regular expressions; context-free grammars; pushdown automata; Turing machines; hierarchy of formal languages and automata; computability and decidability. (T)

4710 Information Systems Design. Cr. 3
Prereq: CSC 2200, 4110. 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 or consent of instructor. Maximum of six credits may be applied to satisfying the computer science elective, in any
computer science degree program. Material fee as given in Schedu-
le of Classes. Topics to be announced in the Schedule of Classes.

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.

4996 (WI) Senior Project and Computer Ethics. Cr. 3
Prereq: CSC 4110 and CSC 4111, senior standing in computer sci-
ence; coreq: CSC 4997. Development of skills for planning, manag-
ing, implementing, and documenting complex software projects;
legal, social and ethical issues in software development and com-
puter use. Project management techniques; professional conduct,
social responsibility, liability, ownership of information, privacy, secu-
rrity and crime.

4997 Senior Project Lab. Cr. 1
Prereq: CSC 4110 and CSC 4111, senior standing in computer sci-
ence; coreq: CSC 4996. Material fee as given in Schedule of Classes.
Development of project management skills while managing,
implimenting 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. Man-
datory lab.

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 commit-
tee. Independent study under supervision.

5000 (SCP 7100) Scientific Systems Programming. (ECE 7225)
Cr. 3
Not for CSC or ECE major credit. Prereq: working knowledge of For-
tran 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.

5250 Network, Distributed, and Concurrent Programming.
Cr. 3
Prereq: CSC 4420. 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.

5270 Computer Systems Security. Cr. 3
Prereq: CSC 4420 and CSC 5250 or consent of instructor. Funda-
mental technologies for enabling an e-society which is more predict-
able, more accountable, and less vulnerable to attacks. Covers three
components: security requirements and protocols, cryptography
algorithms, and case studies.

5710 Design of Intelligent Information Systems. Cr. 3
Prereq: CSC 4710, 5800. Object-oriented data modeling; intelligent
office information systems; decision support systems; deductive
 databases; hypertext; specific applications in interfacing commercial
databases and expert systems.

5750 Principles of Web Technology. Cr. 3
Prereq: CSC 3750 or senior or graduate standing. History and devel-
opment 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.

5800 Expert Systems: Tools and Languages. Cr. 3
Prereq: CSC 2200 or 5050. Survey of languages and tools for the
development of expert systems applications. Introduction to func-
tional, logical, and object-oriented programming and to various com-
mercially available expert system environments; specific applications
in areas of computer science, medicine, and engineering.

5830 Computational Modeling of Complex Systems. Cr. 3
Prereq: knowledge of a programming language; MAT 2010. Intro-
duction 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.

5860 Introduction to Pattern Recognition and Document
Analysis. Cr. 3
Prereq: senior standing. Model of a pattern recognition system; rep-
resentation techniques of classifiers; parametric and nonparametric
classification methods; clustering; feature selection and extraction
document processing, analysis, and classification.

5870 Computer Graphics I. Cr. 3
Prereq: CSC 2200 or 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.

5880 Principles of Natural Computing. Cr. 3
Prereq: senior or graduate standing. Introduction to basic principles
of information processing in biological systems; similarities and differ-
ces between biological systems and computing machines; implica-
tion of biological information processing principles and mechanisms
for artificial intelligence.

5991 Special Topics in Computer Science. Cr. 1-4 (Max. 8)
Prereq: senior or graduate standing. Topics to be announced in the
Schedule of Classes.

6110 Software Engineering. Cr. 3
Prereq: CSC 2200 or 5050. 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-ori-
ented development.

6140 Knowledge-Based Software Engineering. Cr. 3
Prereq: CSC 4110 or 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 comprehen-
sion; knowledge-based approaches to software maintenance and
reuse; computer-supported cooperative work.

6170 Structure of Compilers I. Cr. 3
Prereq: CSC 4500 and 3200. Lexical analysis; syntactic analysis;
error detection; translation into intermediate code; storage allocation;
optimization techniques.

6220 Parallel Computing I: Programming. Cr. 3
Prereq: CSC 2200, CSC 4100, or consent of instructor. Parallel com-
puting concepts, examples of parallel computers, parallelism in algo-
rithms / data / programs, experiences with state of the art parallel
computers.

6280 Advanced Operating Systems. (ECE 5640) Cr. 4
Prereq: CSC 4420. Distributed operating system design issues
including communication, synchronization, processes, file systems,
and memory management; study and discussion of systems such as
UNIX, MACH, AMOEBA, and CHORUS.
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)

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 2200.  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. (I)

6620  Matrix Computation I. (ECE 5020)  Cr. 4  
Prereq: CSC 2110 or equiv.; and MAT 2250 for computer science students, or 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 2200 or 5050.  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 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. 8)  
Prereq: senior or graduate standing. Current topics to be announced in the Schedule of Classes. (Y)

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)

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Criminal Justice

Office: 2305 Faculty/Administration Building; 313-577-2705
Chairperson: Joseph Rankin
Academic Services Officer: Marianka Holloway
Website: http://www.clas.wayne.edu/CRJ

Professors
Joseph Rankin, Steven Stack, Marvin Zalman

Associate Professors
Thomas Kelley, Brad Smith

Assistant Professors
Irshad Altheimer, Jennifer Wareham

Lecturer
Michael Swope

Adjunct Faculty
Michael Falvo, Jennifer Hatten-Flisher, Kerry Horton, Michael Kusluski, Thomas Martinelli, John O'Neill, Brent Triest, Stephen White, James Windell

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 which seek to prevent, control, adjudicate, punish, correct, and defend juvenile delinquents, criminal suspects, and convicted offenders. The core of the criminal justice system is comprised of police agencies, prosecutors, defense attorneys, courts, and correctional agencies. This system enforces federal and state laws as part of a larger administration of justice complex which involves court administration, juvenile justice, and public 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 various components. The analytical and research skills stressed by this program enable students 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 program also promotes a multidisciplinary understanding of the sources of criminal behaviors, including perspectives and contributions from criminology, psychology, and sociology. The curriculum exposes students to knowledge of the major types of crime, including crimes of violence such as street crime and domestic violence, property crimes such as burglary and larceny, public order crimes such as disorderly conduct and sexual offenses, delinquency, and crimes by gangs and organizations. The study of innovative, theoretically based programs in the criminal justice system to reduce the incidence of crime is 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 and correctional officers for whom a college degree is mandatory, such as probation officers, parole officers, and community corrections specialists. 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. An emphasis on analytical and writing skills is consonant with the growing sophistication of 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 courses (twenty-eight credits) include classes on theories of criminal behavior, criminal law, 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.

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 23.

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 17) and the College of Liberal Arts and Sciences Group Requirements (see page 250), 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 16, 35, and 250. 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 Core courses and four of the twelve credits in Elective courses must be earned at Wayne State University.

Major Requirements: It is the student’s responsibility to meet with a Criminal Justice adviser to officially file a Declaration of Major form with the Department and to identify all major requirements. Students majoring in criminal justice must complete a minimum of forty and no more than forty-six credits. A minimum of twenty-eight credits must be completed in core courses, and a minimum of twelve credits in elective courses.

I. REQUIRED CORE COURSES (Twenty-eight credits total)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ 2000</td>
<td>Intro to Criminal Justice</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 4000</td>
<td>Criminological Theories</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 4300</td>
<td>Corrections</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 4600</td>
<td>Police and Society</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 4860</td>
<td>Research Methods in Criminal Justice</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 5710</td>
<td>Constitutional Criminal Procedure</td>
<td>Cr. 4</td>
</tr>
</tbody>
</table>

One of the following process courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ 4400</td>
<td>The Judicial Process</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 4410</td>
<td>Juvenile Justice</td>
<td>Cr. 4</td>
</tr>
</tbody>
</table>

II. APPROVED ELECTIVES (Minimum twelve credits required)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ 3120</td>
<td>Politics of the Criminal Justice Process (P S 3120)</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 3260</td>
<td>Investigation</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>CRJ 3510</td>
<td>Introduction to Security</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 3710</td>
<td>Legal Writing for Criminal Justice</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 3750</td>
<td>(CD) Diversity in Criminal Justice (W S 3750)</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 4400</td>
<td>Judicial Process</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 4410</td>
<td>Juvenile Justice</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 4750</td>
<td>Domestic Violence and Criminal Justice</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 4800</td>
<td>(SOC 4800) Outsiders and Deviants</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>CRJ 4970</td>
<td>Internship in Criminal Justice</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>CRJ 4990</td>
<td>Directed Study</td>
<td>Cr. 1-3</td>
</tr>
<tr>
<td>CRJ 4998</td>
<td>Honors Thesis</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>CRJ 5060</td>
<td>Comparative Criminal Justice Systems</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>CRJ 5150</td>
<td>Criminalistics</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 5340</td>
<td>Community Based Corrections</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>CRJ 5430</td>
<td>Correctional Counseling Methods</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>CRJ 5500</td>
<td>Child Abuse and Neglect</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>CRJ 5720</td>
<td>Criminal Law</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 5790</td>
<td>Topics in Justice and Law</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 5810</td>
<td>(SOC 5810) Law in Human Society</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>CRJ 5910</td>
<td>Seminar in Crime, Victimization, and Society</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 5994</td>
<td>(PCS 5000) Dispute Resolution (PSY 5710)</td>
<td>(P S 5890): Cr. 3</td>
</tr>
<tr>
<td>CRJ 5995</td>
<td>Special Topics</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>CRJ 6750</td>
<td>Administrative Law in Criminal Justice</td>
<td>Cr. 3</td>
</tr>
</tbody>
</table>

MINIMUM PROGRAM REQUIREMENTS: Forty Credits

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, 3510, 3710, 3750, 4000, 4300, 4400, 4410, 4600, 4750, 4860, 4970, 4990, 4998, 5060, 5150, 5430, 5500, 5720, 5790, 5910, 5995, or 6750.

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ 2000</td>
<td>Introduction to Criminal Justice</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 4300</td>
<td>Corrections</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 4400</td>
<td>The Judicial Process</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 4600</td>
<td>Police and Society</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CRJ 5710</td>
<td>Constitutional Criminal Procedure</td>
<td>Cr. 4</td>
</tr>
</tbody>
</table>

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 2000 -- Intro. to Criminal Justice: Cr. 4
- CRJ 3260 -- Investigation: Cr. 3
- CRJ 3710 -- Legal Writing for Criminal Justice: Cr. 4
- CRJ 4400 -- Introduction to 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 their undergraduate adviser for further information.

Transfer Credit: Students should consult with a 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 Office (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, including honors requirements within Criminal Justice and at least one 4000-level Honors Program seminar (consult the Schedule of Classes under ‘Honors Program’). 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 483.

2000 Introduction to Criminal Justice. Cr. 4
No credit after former CRJ 1010. 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.

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.

3260 Investigation. Cr. 3
Prereq: CRJ 2000 or former 1010. Overview of the history of criminal investigation, the functions of police investigators, crime scene search and evidence processing, an introduction to criminolitics, locating and interviewing witnesses, examining the elements of proof required in specific criminal offenses and interrogation techniques (pre- and post-Miranda).

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.

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.

3750 (CD) 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.

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.

4300 Corrections. (SOC 3840) Cr. 4
Prereq: CRJ 2000 or former 1010. 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.

4400 The Judicial Process. Cr. 4
Prereq: CRJ 2000 or former 1010. No credit after former CRJ 2400. Structure, powers and judicial processes including origin, nature and functions of judicial review in the criminal justice system.

4410 Juvenile Justice. Cr. 4
Prereq: CRJ 2000 or former CRJ 1010. No credit after former CRJ 2410 or CRJ 2991. Overview of the theoretical background, struc-
ture, and processes of contemporary juvenile justice, as well as the correlates and characteristics of delinquency. (T)

4600 Police and Society. Cr. 4
Prereq: CRJ 2000 or former 1010. 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. (F)

4760 (SOC 4800) Outsiders and Deviants. Cr. 3
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. Prereq: completion of English Proficiency requirement. Criminal justice data sources; designs for research; analysis and application of descriptive and inferential statistics in criminal justice planning and evaluation. (F,W)

4970 Internship in Criminal Justice. Cr. 3
Open only to Criminal Justice majors. Prereq: CRJ 2000; 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

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 2000 or former 1010; completion of English Proficiency requirement. 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 2000 (or former 1010) 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: junior standing, satisfactory completion of English proficiency exam, consent of instructor; coreq: CRJ 3120, 3260, 3510, 3710, 3750, 4000, 4300, 4400, 4410, 4600, 4750, 4860, 4970, 4990, 4998, 5060, 5150, 5430, 5500, 5720, 5790, 5910, 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 2000 or former 1010. 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. (S)
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

Associate Professor
Kevin D. Cotter

Assistant Professors
Sheng-Kai Chang, Tomomi Kumagai, Emiko Usui, Tatsuma Wada

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
(Also see Master of Urban Planning with specialization in economics, and Master of Arts in Industrial Relations, in the Wayne State University Graduate Bulletin)

Economics is the study of how individuals and societies allocate limited resources to try to satisfy unlimited wants. Economics 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 23, as well as the instructions for declaring a major (page 251). 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 250) and the University General Education Requirements (see page 17), 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 16, 35, and 250.

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 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. In addition, all majors must receive a minimum grade of ‘C-minus’ in each of the Department’s core courses (ECO 5000, 5050, and 5100).

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 208 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.

Honors majors must take Economics 4997, the Senior Honors Seminar, during each of their last two semesters before graduation. They conduct research for the seminar under the close supervision of an Economics faculty member and write their results 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 Program. (See the Schedule of Classes under ‘Honors Program’ for seminar topics.) Finally, the student must accumulate at least fifteen credits in honors-designated course work, including Economics 4997 and the Honors Program 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’. For additional information, see Honors Program in this bulletin, page 330.

Minor in Economics

A minor consists of ECO 2010, ECO 2020, and any three elective courses at the 5000-level or above. At least three courses must be taken at this department. Students must have a cumulative grade point average of 2.0 or better in economics courses.

‘AGRADE’ Program

Accelerated Graduate Enrollment: The Economics Department actively participates in the ‘AGRADE’ Program, which enables quali-
Field 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 ‘GRADE’ should contact the Director of Undergraduate Studies: 313-577-3345.

ECONOMICS COURSES (ECO)

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 483.

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, rents, 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  Fundamentals of Economic Analysis. (ECO 7020)  Cr. 4
Prereq: ECO 5000 and MAT 5010 or equiv. ECO 5020 offered for undergraduate credit only; ECO 7020 offered for graduate credit only. Basic mathematical methods applied to economic analysis, including applications of differential and integral calculus, analytical geometry, and linear algebra. Problems used to illustrate applications in microeconomics and macroeconomics.  (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)

6000  Price and Allocation Theory.  Cr. 4
Prereq: ECO 5000 or equiv.; MAT 2010 or equiv. Introduction to the theory of consumer choice and the theory of production, and other selected topics. Primarily for M.A. students and for Ph.D. students who want to review.  (F)

6050  Macroeconomics.  Cr. 4
Prereq: ECO 5050 or equiv. No credit after ECO 7050. Determination of national income, unemployment and interest rates; theories of inflation; effectiveness of macroeconomic public policies. Primarily for M.A. students and for Ph.D. students who want to review.  (W)

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. 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)

5120  Statistics and the Law.  Cr. 3
Prereq: MAT 1800 or equiv. or consent of instructor. Available for Law School credit only to Law students. Not for Economics major credit. Application of statistics and economic analysis to issues arising in the legal system and the practice of law. Topics include: descriptive statistics, elements of probability, regression, and price theory.  (W)

Field C: Industrial Organization

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  (ST) Market Power and Economic Welfare. (ECO 6210)  Cr. 4
Prereq: ECO 2010. 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  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)

Field D: International Economics

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
Field E: Labor and Human Resources

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  (CD) 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)

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)

6420  Labor Relations and Public Policy. Cr. 3
Prereq: ECO 2010 or graduate standing. Overview of labor force trends; U.S. unionism; management of labor relations; collective bargaining; procedure and substance; bargaining power in the private and public sectors. Comparative trends and principles in industrial relations systems of other societies also examined. (F, S)

6480  Advanced Labor Markets. Cr. 3
Prereq: ECO 2010. Labor supply; causes of and remedies for unemployment; labor mobility and the operation of labor markets; productivity and real wages; wage determination; human capital, income distribution, and economic development; poverty and its causes; economic impact of collective bargaining. (Y)

Field F: Public Economics

5500  Public Finance: Taxation and Expenditure Theory. (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  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  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. Roles of hospitals, physicians, and health insurance; market imperfections and their role in economics of health care. (Y)

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  Money and Banking. (ECO 6700) Cr. 4
Prereq: ECO 2010. 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  Financial Economics. (ECO 6720) Cr. 4
Prereq: ECO 2010, ECO 2020, MAT 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)

Field H: Urban and Regional Economics

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) (PS 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  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)
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)

4991 Research in Economics. Cr. 3-12
Prereq: consent of Director of Undergraduate Studies prior to registration; senior standing with 16 or more credits in economics; all credits with grade A or B. Does not count toward 32-credit requirement for the major. Economic research on an appropriate topic of the student's choice, conducted under faculty supervision. (T)

4997 Senior Honors Seminar. Cr. 4 (8 req.)
Prereq: consent of Director of Undergraduate Studies prior to registration; economics honors program, senior standing, major in economics. Must be elected two successive semesters. Research methodology, reading and discussion in areas selected by the seminar instructor. A senior honors essay. (T)

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)

5992 Directed Study: Economics for High School Teachers. Cr. 4
Prereq: consent of adviser. Open to area high school teachers. Designed for Detroit-area high school teachers and covering material taught in high school: micro- and macroeconomic concepts, urban issues, international economics; methods for teaching economics. (T)

5993 (WI) Writing Intensive Course in Economics. Cr. 0
Prereq: junior standing; satisfactory completion of English Proficiency Examination; consent of instructor; coreq: any economics course at the 5000 level or above. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignment 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: Richard Grusin
Associate Chairperson: Elizabeth S. Sklar
Academic Services Officer: Margaret M. Maday
Undergraduate Adviser: Roynne R. Smith
Website: http://www.clas.wayne.edu/english

Professors

Associate Professors
Robert Aguirre, Cynthia Erb, Gwendolen Gorzelsky, Kenneth Jackson, Janet C. Langlois, Bernard Levine, Geoffrey Nathan, Ross J. Pudaloff, Frances Ramsey, Martha Ratliff, Kirsten Thompson

Assistant Professors
Sarika Chandra, Jonathan Flatley, Bruce S. Morgan, Jeffrey Pruchnic, Jeff Rice, Lisa Ze Winters

Senior Lecturers
Todd Duncan, Carla Harryman, Margaret Jordan, Michael L. Liebler, Chris Tysh

Lecturers
Marta O. Dmytrenko-Ahrabian, Christopher Bierman, Dean-Michael Lynn, Sara Tipton

Director, English Language Institute
Bruce S. Morgan

Emeritus / Emerita Professors

Emeritus / Emerita Associate Professors

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 23.

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.

English majors and minors are NOT exempt from the English Proficiency Examination in Composition.

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 250) and the University General Education Requirements (see page 17), 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 16, 35, and 250.

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 17), and Liberal Arts and Sciences Group Requirements (see page 250). 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.
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. 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

The English Department participates in the Liberal Arts and Sciences Honors Program. To graduate with honors in English an undergraduate student must have a minimum 3.5 g.p.a. in English.

Honors 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. In addition, students must 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 36 credits (46 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 256.

**Cognate Study in English**

**College and University Requirements:** All students in the University must pass English 1020 (Introductory College Writing), 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 20).

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 202), 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 Robert Burgoyne 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 23.

**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 250) and the University General Education Requirements (see page 17), 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 16, 35, and 250.

**Major Requirements:** Students majoring in film studies must complete a minimum of thirty-five credits, distributed as follows:

**CORE COURSES (Fifteen Credits)**

- COM 1600 -- Introduction to Audio-TV-Film Production: Cr. 3
- ENG 2450 -- (VP) Introduction to Film (COM 2010): Cr. 4
- ENG 2460 -- (COM 2020) (VP) History of Film: Cr. 3
- ENG 4997 or ENG 5990
  - Senior Assessment Essay in Film Studies: Cr. 1
  - Directed Study in English: Cr. 1
- ENG 5040 -- Film Criticism and Theory: Cr. 4
- ENG 5993 -- (WI) Writing Intensive Course in English. Cr. 0 (generally taken with ENG 5040)

**ELECTIVE COURSES (Twenty Credits)**

Students should consult with their adviser in selecting electives. Electives should be selected in conjunction with either the English or Communication Department.

- AFS 3200 -- The African American Film Experience: Cr. 4
- COM 5020 -- Studies in Film History: Cr. 4 (Max. 12)
- COM 5060 -- Documentary and Non-Fiction Film and TV: Cr. 4
- COM 5270 -- Screenwriting: Cr. 3
- COM 5400 -- Techniques of Film and Video Production: Cr. 4
- COM 5440 -- Film Production: Cr. 4
- COM 6680 -- Individual Project in Media Arts & Studies: Cr. 3 (Max. 6)
- ENG 3040 -- Major Works of World Cinema: Cr. 4
- ENG 5050 -- Concepts in Film Studies: Cr. 3-4 (Max. 12)
- ENG 5060 -- Styles and Genres in Film: Cr. 4 (Max. 12)
- ENG 5070 -- Topics in Film: Cr. 4 (Max. 12)
- ENG 5990 - Directed Study in English: Cr. 1-3 (Max. 6)
- ITA 5150 -- Italian Cinema Since 1942: Cr. 3 (Max. 9)
- SLA 3710 -- (VP) Russian & East European Film: Cr. 3

**MINOR IN FILM STUDIES:** Completion of a minor in film studies requires nineteen 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 254, above, and the section on the Office of Student Financial Aid, page 33. 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.

Lougeh-Eldredge Endowed Scholarships in Creative Writing: Awards 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: Awards 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 Shell Endowed Memorial Scholarship: Awards 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: Awards open to full-time degree-seeking students majoring in English who have completed at least fifteen credits in residence and demonstrated high achievement in creative writing. 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 5000-9999 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 483.

NOTE: English 1020 or its equivalent is prerequisite to all English courses numbered above 1999.

0500 English Language Institute. Cr. 1-12 (Max. 12)
Offered for S and U grades only. No degree credit. 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 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 the English Qualifying Examination. (T)

1020 (BC) Introductory College Writing. Cr. 4
Prereq: placement through English Qualifying Examination or passing grade in ENG 1010. A course in writing and critical reading, including at least one appropriately documented paper based upon outside sources. (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)

1080 (EP) Writing Workshop. Cr. 2
Prereq: ENG 1020 or equiv. Offered for S and U grades only. Open only to those failing the English proficiency exam. Only two credits apply toward degree. Review of basic skills in writing and critical reading. Students must demonstrate writing proficiency on final exam in order to receive credit. Achieving an S grade in English 1080 satisfies the English Proficiency Examination requirement. (T)

2050 (IC) Freshman Honors: English II. Cr. 4
Open only to Honors Program students. Continuation of ENG 1050. (W)

2100 (IC) Introduction to Poetry: Literature and Writing. Cr. 3
Prereq: 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: 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: 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: 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: 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: 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)

2460 (COM 2020) (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 important historical periods and genres. 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  (CD) 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) (CD) Literature By and About Women: Literature and Writing.  Cr. 3
Prereq: 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  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.  (B)

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: ENG 1020 or equiv. Intermediate course in writing and critical reading, building upon skills taught in ENG 1020. Areas of emphasis may include: analyzing and synthesizing written material, writing essays in a variety of rhetorical modes, developing style, and improving research skills.  (T)

3040  Major Works of World Cinema.  Cr. 4
Prereq: ENG 2450 recommended. Non-anglophone films of major directors viewed and studied; practice in film analysis; introduction to historical/cultural context. Emphasis on Europe and Asia, Latin America, Africa, Australia, and other areas may be included. Material Fee as indicated in the Schedule of Classes.  (I)

3050  (IC) Technical Communication I: Report Writing.  Cr. 3
Prereq: ENG 1020 or equiv., sophomore standing; coreq: ENG 0500 (1 credit) required for international students with serious ESL writing problems. Instruction in basic technical writing skills. Requirements include writing letters and memos, summaries, technical instructions, proposals, and reports. Topics include: audience and purpose analysis, visual support of texts, and formatting.  (T)

3060  (OC) Technical Communication II: Writing and Speaking.  Cr. 3
Prereq: grade of C or better in ENG 3050; coreq: ENG 0500 (1 credit) required for international students with serious ESL writing problems. Continuation of technical reporting techniques introduced in ENG 3050, emphasizing instruction and practice in oral technical reporting. Requirements include: process demonstrations, mechanism descriptions, press conferences, and a group project culminating in a written feasibility report and formal oral presentation.  (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)

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.  (T)

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.  (F,W)

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)

5030  (CD) 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  Concepts in Film Studies.  Cr. 3-4 (Max. 12)  May not be elected more than three times. Specific movements or tendencies in film historiography. Topics to be announced in Schedule of Classes. Material Fee as indicated in the Schedule of Classes.  (B)

5060  Styles and Genres in Film.  Cr. 4 (Max. 12)  Study of significant works within selected genres: the western, the horror film, comedies. Emphasis on styles of particular directors. Topics to be announced in Schedule of Classes. Material Fee as indicated in the Schedule of Classes.  (Y)

5070  Topics in Film.  Cr. 4 (Max. 12)  Topics (such as film and fusion of the arts) to be announced in Schedule of Classes. Material Fee as indicated in the Schedule of Classes.  (Y)

5080  (CD) 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 Schedule of Classes.  (Y)

5090  (CD) 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 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 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 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 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 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 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. Survey of cultures 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)

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, 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 movements 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 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 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 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 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. Required of all students in the Comparative Literature Program. (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 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 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. (CLA 5750)  (FRE 5750) (GER 5750) (ITA 5750) (LIN 5750) (N E 5750) (SPA 5750)  Cr. 3
Investigation of theories in second language acquisition. Review of research in development of second language competence: acquisi-
tion of phonology, lexicon, semantics, syntax, discourse, and pragmatics.

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 18-20 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 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 English proficiency exam, 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 variation; to be announced in 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 Schedule of Classes. (Y)
Environmental Science

Office: 247 Life Science
Director: R. Anton Hough, Professor, Biological Sciences
Academic Adviser: Kim Walkowiak Hunter

Participating Faculty
Mark Baskaran, Associate Professor, Geology
D. Carl Freeman, Professor, Biological Sciences
R. Anton Hough, Professor, Biological Sciences
Jeffrey Howard, Associate Professor, Geology
Daniel M. Kashian, Assistant Professor, Biological Sciences
Lawrence D. Lemke, Assistant Professor, Geology
William S. Moore, Professor, Biological Sciences
Edmond van Hees, Assistant Professor, Geology

Bachelor of Science in Environmental Science

Environmental Science is devoted to the study of the natural environment and the impact of mankind. 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 will prepare students for graduate study, or for careers in various applications of environmental science (such as environmental impact assessment, regulatory compliance, remediation, etc.) with environmental consulting companies, government agencies, and other organizations.

Admission Requirements for this program are satisfied by the requirements for general undergraduate admission to the University; see page 23.

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 39 credits including GEL 1000, 2130, 5150, 5510; BIO 1500, 1510, 2200, 4120, 5040, and three science or engineering electives including at least one field course (consult program adviser).

Cognate Requirements: B.S. candidates in Environmental Science must take a minimum of 47 credits including GEL 1000, 2130, 5150, 5510; BIO 1500, 1510, 2200, 4120, 5040; MAT 1800, 2010; PHY 2130/2131; PHI 1050; COM 1010; ENG 1020, 3010; CHM 1220, 1230, 1240, 1250; and three science or engineering electives including at least one field course (consult program adviser).

Sample Program (Specific sequences may vary):

FIRST YEAR
Fall Semester
- GEL 1000 -- Geology & the Environment (with lab): Cr. 4
- CHM 1220 -- (PS) General Chemistry I: Cr. 4
- CHM 1230 -- General Chemistry I Laboratory: Cr. 1
- MAT 1800 -- Elementary Functions: Cr. 4

Winter Semester
- BIO 1500 -- Basic Life Diversity: Cr. 4 (L)
- CHM 1240 -- Organic Chemistry I: Cr. 4
- CHM 1250 -- Organic Chemistry I Laboratory: Cr. 1
- MAT 2010 -- Calculus I: Cr. 4
- ENG 1020 -- (BC) Introductory College Writing: Cr. 4

SECOND YEAR
Fall Semester
- BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4 (L)
- GEL 2130 -- Mineralogy: Cr. 4
- COM 1010 (OC): Cr. 3
- ENG 3010 -- (IC) Intermediate Writing: Cr. 3

Winter Semester
- BIO 2200 -- (LS) Introductory Microbiology: Cr. 4 (L)
- GEL 5150 -- Soils & Soil Pollution: Cr. 4
- PHI 1050 -- (CT) Critical Thinking: Cr. 3
- HS course: Cr. 3

THIRD YEAR
Fall Semester
- Science or Engineering elective: Cr. 3-4
- PHY 2130/2131 -- (PS) General Physics/General Physics Lab: Cr. 4
- Language I: Cr. 4
- (VP) course: Cr. 3-4

Winter Semester
- GEL 5510 -- Environmental Fate & Transport of Pollutants: Cr. 4
- PHY 2140/2141 -- General Physics/General Physics Lab: Cr. 4
- Science or Engineering elective: Cr. 3-4
- Language II: Cr. 4
- Total: Cr. 15-16

FOURTH YEAR
Fall Semester
- BIO 4120 -- (WI) Principles of Physiology: Cr. 4
- Field Course: Cr. 3-4
- (PL) course: Cr. 3
- (SS) course: Cr. 3
- Language III: Cr. 4
- Total: Cr. 17-18

Winter Semester
- BIO 5040 -- (WI) Biometry: Cr. 4
- Science or Engineering Elective: Cr. 4
- (AI) course: Cr. 3-4
- (SS) course: Cr. 3
- Total: Cr. 14-15
The profession of urban planning is responsible for the development of 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 Geography

Admission requirements for this program are satisfied by the general requirements for undergraduate admission to the University; see page 23.

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 250) and the University General Education Requirements (see page 17), 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 16, 35, and 250.

Major Requirements: A major in geography requires completion of thirty-two credits in the Department. Unless an exception is granted by the Department, courses taken should include: GPH 1100, 2000 or 3130, 3020, 6420, and four other courses selected in consultation with a Departmental adviser.

Recommended Cognate Courses: The varied opportunities for specialization within geography warrant careful selection of cognate courses. Geography majors are encouraged to emphasize cognate courses in one or two disciplines. Choice of cognate courses should be discussed with Geography faculty.

Honors Program

Students with a grade point average of 3.3 or higher may be admitted to the Honors Program in Geography. The honors major must elect one semester of a 4000-level Honors Program 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 other honors-designated coursework available each semester, including the required 4000-level Honors Program seminar, see the Liberal Arts and Sciences section of the University Schedule of Classes, under ‘Honors Program.’

Minor in Geography

The discipline of geography complements expertise and understanding in many other disciplines selected as majors. It specifically addresses the spatial processes and variations over space as they impact economic, social, political, historical, criminal, commercial and other phenomena. It is strongly recommended that the student majoring in geography consult with faculty concerning the most appropriate selection of courses to complement his or her interests. Requirements for a minor in geography are: twenty credits in geography including Geography 1100 and 3020.

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 483.
GEOGRAPHY COURSES (GPH)

1100 (SS) (CD) 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)

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 development patterns and problems of the State of Michigan. (I)

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
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 (CD) 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 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 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)
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>5620</td>
<td>Marketing Geography</td>
<td>Cr. 4</td>
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<tr>
<td>5650</td>
<td>Principles of Cartography and Remote Sensing</td>
<td>Cr. 4</td>
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<tr>
<td>5670</td>
<td>Geographic Information Systems</td>
<td>Cr. 4</td>
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<tr>
<td>5680</td>
<td>Advanced GIS Applications</td>
<td>Cr. 4</td>
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<td>5690</td>
<td>GIS Internship</td>
<td>Cr. 4</td>
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<tr>
<td>5750</td>
<td>Urban and Regional Planning</td>
<td>Cr. 3</td>
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<td>5810</td>
<td>Resources and Communication in Planning</td>
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<td>Urban Planning Process</td>
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<td>5910</td>
<td>Urban Design Elements</td>
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<td>5930</td>
<td>Real Estate Development</td>
<td>Cr. 3</td>
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<td>5970</td>
<td>Quantitative Techniques I.</td>
<td>Cr. 4</td>
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<td>5990</td>
<td>Quantitative Techniques II.</td>
<td>Cr. 4</td>
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<td>6010</td>
<td>Housing Policy and Programs</td>
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<td>6050</td>
<td>Planning Issues</td>
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<td>6070</td>
<td>Current Planning Practice</td>
<td>Cr. 3</td>
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<td>6090</td>
<td>Internal Structure of the City</td>
<td>Cr. 4</td>
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<td>6100</td>
<td>Industrial Geography</td>
<td>Cr. 4</td>
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<td>6120</td>
<td>Planning Studies and Methods</td>
<td>Cr. 4</td>
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<tr>
<td>6140</td>
<td>Urban and Regional Economics</td>
<td>Cr. 4</td>
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<td>6160</td>
<td>Urban Design Elements</td>
<td>Cr. 3</td>
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<td>6180</td>
<td>Real Estate Development</td>
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<td>6200</td>
<td>Quantitative Techniques II.</td>
<td>Cr. 4</td>
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<td>6220</td>
<td>Housing Policy and Programs</td>
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<td>6240</td>
<td>Planning Issues</td>
<td>Cr. 2-4</td>
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**URBAN PLANNING COURSES (U P)**

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<tr>
<th>Course Code</th>
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<tr>
<td>5350</td>
<td>Urban and Regional Planning</td>
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<td>Urban Planning Process</td>
<td>Cr. 3</td>
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<tr>
<td>5550</td>
<td>Urban and Metropolitan Living</td>
<td>Cr. 3</td>
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**Prerequisites and Descriptions:**

- **5620** Marketing Geography: 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.

- **5650** Principles of Cartography and Remote Sensing: Theories of map design and interpretation; acquisition and interpretation of remotely sensed data including air photos and satellite imagery.

- **5670** Geographic Information Systems: Principles and applications of GIS, including spatial statistics, computer graphics, computer cartography.

- **5680** Advanced GIS Applications: Use of GIS for spatial analysis and computer cartography.

- **5690** GIS Internship: Related work experience with public or private sector agency in Southeast Michigan.

**Geography and Urban Planning 315**
6455 Discrimination and Fair Housing. (AFS 6455) (ECO 6455) (PS 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 Urban and Regional Systems. (GEG 6510) (GPH 6510) 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 Transportation Policy and Planning. (CE 6525) Cr. 3
Introduction to the role of transportation in the planning process involving both regional and urban considerations. (Y)

6550 Planning and Development Law. Cr. 3
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
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)

6850 Cost-Revenue Workshop. Cr. 3
Offered for S and U grades only. No credit after U P 6050. 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 nonresidential growth. (B)

6750 (ECO 5520) State and Local Public Finance. (ECO 6520) Cr. 4
Prereq: ECO 2010 or 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)

Geology

Office: 0224 Old Main; 313-577-2506
Interim Chairperson: James Tucker; e-mail: jtucker@biology.biosci.wayne.edu
Academic Services Officer: David Lowrie
Web: http://www.clas.wayne.edu/Geology/

Associate Professors
Mark Baskaran, Jeffrey L. Howard

Assistant Professors
Edmond Van Hees, Lawrence Lemke

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 consists of studies of the materials of the earth and the processes to which they have been subjected, landscape features and their origins, and the history of the earth as recorded by rocks and fossils.

The courses in geology are planned 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. In addition, a variety of courses in various phases of geology is available to the general student. Intermediate and advanced courses are designed to develop the principles of geology beyond the elementary level and to give a firm technical foundation for advanced study.

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 23.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits in course work including satisfaction of the College Group Requirements (see page 250) and the University General Education Requirements (see page 17), 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 16, 35, and 250.
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 other 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 particular 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 geography 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 23.

DEGREE REQUIREMENTS: Candidates for the bachelor’s degree must complete 120 credits in course work including satisfaction of the College Group Requirements (see page 250) and the University General Education Requirements (see page 17), 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 16, 35, and 250.

Major Requirements: Students must complete twenty-six credits in geology beyond Geology 1020. These must include Geology 2130, 3160, 3300, 3400, and 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 geography 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 four 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 consists of a bronze plaque, a Brunton compass, and 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 483.

1000  Geology and the Environment. Cr. 3-4
Fee indicated in Schedule of Classes if elected for 4 credits. Primarily for environmental science majors (with lab), and non-science majors (without lab). 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 (T)

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 inter-
interpreting the history of the earth. Paleocology of the geologic past and the structure of the earth are emphasized. (T)

**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. (Y)

**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. (I)

**2130 Mineralogy. Cr. 4**
Prereq: one course in high school or college chemistry recommended. External morphology and internal arrangement of minerals. Identification of minerals by sight and simple physical and chemical properties. Properties and occurrences of major mineral groups. Material Fee as indicated in the Schedule of Classes (F)

**3160 Petrology. Cr. 4**
Prereq: GEL 1020, 2130, consent of instructor. Origin, occurrence, alterations, classification, methods for determination of important rocks based on macroscopic and microscopic characteristics. Material Fee as indicated in the Schedule of Classes (F)

**3300 Structural Geology. Cr. 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 (F)

**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 (W)

**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. (W,S)

**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 (F)

**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; GEL 1000 recommended. Classification of landforms and analysis of surficial geologic processes. Geophysical methods for subsurface analysis of soil and groundwater pollution. Application of remote sensing techniques in resource management. (Y)

**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. (Y)

5080 Environmental Isotope Geochemistry. Cr. 3
Prereq: CHM 1070 and CHM 1080 or equiv.; PHY 2130 and PHY 2140, or PHY 2170 and PHY 2180, or equivs. Introduction to fundamentals of radiochemistry measurement techniques; survey of various applications of radionuclides in environmental science; brief discussion of the use of stable isotopes (O, C and H). (W)

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 (Y)

5150 Soils and Soil Pollution. Cr. 4
Prereq: GEL 1010, GEL 1220 and 1230, GEL 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. (Y)

5450 Hydrogeology. Cr. 4
Prereq: GEL 1010; or consent of instructor. Characteristics and behavior of groundwater in earth materials. Groundwater geology of southeastern Michigan. Water well technology and methods for exploration. (Y)

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. (Y)

5993 (WI) Writing Intensive Course in Geology. Cr. 0
Prereq: junior standing; satisfactory completion of English proficiency exam; 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. (T)

6400 Geochronology. Cr. 4
Prereq: introductory courses in physics, chemistry, and geology. Introduction to various physical and chemical age dating methods used in geology. (Y)

6500 Economic Geology. Cr. 4
Prereq: GEL 2130, 3160, 3300, 3400. Geology of metallic and nonmetallic mineral deposits, including important hydrocarbon deposits and their different tectonic settings. (Y)
German and Slavic Studies

Office: 443 Manoogian Hall; 313-577-3024; Fax 313-577-3266
Chairperson: Donald Haase
Web site: http://wwwclas.wayne.edu/GermanSlavic/

Professors
Penrith Goff (Emeritus), Donald Haase, Guy Stern (Emeritus)

Associate Professors
Achim Bonawitz (Emeritus), Kenneth Brostrom, Alfred L. Cobbs

Assistant Professors
Frank J. Corliss, Jr. (Emeritus), Suzanne K. Hilgendorf, Lisabeth Hock, Anne Rothe

Senior Lecturers
Mark Ferguson, Alina Klin

Lecturers
Laura Kline

Adjunct Faculty
Hans-Peter Seeder, Dickran Toumajan

Degree Programs

Bachelor of Arts Degrees

BACHELOR OF ARTS with a major in German
BACHELOR OF ARTS with a major in Slavic Studies
MASTER OF ARTS with a major in German
MASTER OF ARTS with a major in Language Learning
DOCTOR OF PHILOSOPHY with a major in Modern Languages

Admission Requirements: for these programs are satisfied by the general requirements for undergraduate admission to the University; see page 23. Students who wish to major in one of the programs offered by the Department should consult with the adviser for that program as soon as possible.

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 250) and the University General Education Requirements (see page 17), 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 16, 35, and 250.

— Major Requirements

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.

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 (8 credits), POL 3030, 2710; SLA 2310, either SLA 3750 or RUS 3710, and one of the following courses: 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, 3750, and one of the following courses: RUS 2700, 3050, 5600, 5650, or SLA 3310. The Writing Intensive requirement is satisfied by completing RUS 5993.

For the interdisciplinary focus, students must complete two courses from the following options: HIS 3010, 5490, 5500, 5440; PS 2710, 3715; ECO 1000, 2010, 2020; GPH 3200; MKT 5750, or 5860.

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.

All majors are strongly urged to elect courses in cognate fields, such as geography, history, political science, or art history.

Minors and Cognate Study

Minor in German: Students wishing to obtain a minor in German shall complete German 2020, 2710, 2720, 3100, 3200, and 2310 or 2991.

Minor in Polish: Students wishing to obtain a minor in Polish shall complete POL 2060 (8 credits), 3030, 2710, and one course from the following options: SLA 2310, 3310, or 3750.

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; RUS 2700, 3050, 3600, 3650.

‘AGRADE’ Program: Qualified seniors majoring in German may begin graduate study towards the M.A. in German through the Accelerated Graduate Enrollment (‘AGRADE’) Program. Students accepted in the program may expect to complete the bachelor’s and master’s degrees in five years of full-time study; they may elect from three to fifteen ‘AGRADE’ credits, which are used to complete the baccalaureate degree and also serve as graduate credit. Interested students should contact the graduate or undergraduate adviser in German for more information.

Foreign Language Group Requirement

The student may satisfy the requirement by passing the first three courses in one language or by a placement examination; see page 250.

Courses: The courses numbered 1010, 1020, and 2010 are essentially a continuum designed to give students command of the basic elements of the language and insights into culture.

Placement: Students who wish to continue the study of a language begun in high school or in another college should take a placement test or consult with the Coordinator for Placement Examinations before registering. Contact the Department for placement information.

Honors in German and Slavic Studies

The Honors Program in German and Slavic Studies is open to students of superior academic ability who are majoring in this department. 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, including at least one 4000-level seminar offered through the Honors Program of the College of Liberal Arts and Sciences (see the Schedule of Classes under ‘Honors Program’ for seminar topics), and the Departmental credits associated with completion of a Senior Thesis. For more information about the specific requirements of the department’s honors curriculum, contact the Chairperson of the Department, or the Director of the Honors Program (313-577-3030).

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.

Study Abroad

Junior Year in Germany 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; 313-577-4805; (jym@wayne.edu). For a more detailed description of the program see ‘Study Abroad,’ page 258.

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 15. 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 15. 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 and Slavic General Scholarships: Awards made to students of German and Slavic languages, literature, and culture. Number and amount of awards vary. Awards made by faculty nomination.

Also see page 254, above, and the section on the Office of Student Financial Aid, page 33. For further information, contact the Department Office.

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 483.

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) (CD) 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, its effects on the cultures (language, literature, religion, politics, music, art and theatre) of these ethnic groups and its influence upon American culture. (F)

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)

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 European experience, including violence and cruelty, freedom and imprisonment, utopian visions, and urban life. (F)

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) (CD) Survey of Germanic Culture I. Cr. 3

Development of Germanic people from 1835 to the present; the Nazi period; and World War II. (F)

2720 (FC) (CD) 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. 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)
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)

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)

Polish Cultural Studies in English (POL)

2710 (FC) (CD) 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) (CD) 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)

3750 Polish and Yugoslavian Auteur Cinema. (SLA 3750) Cr. 3
Two national cinemas presented through films of auteurs: Andrzej Wajda, Krzysztof Kieslowski, Dusan Makavejev and Emir Kusturica; films include: Kanal, Double Life of Veronique, WR: or the Mystery of the Organism, and Underground. (W)

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) (CD) 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. (Y)

3410 (SLA 3410) (FC) (CD) 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 its influence upon American culture. (F)

3600 (PL) Literature Before Communism. Cr. 3
Russian society, culture, and politics studied through lives and works of Pushkin, Dostoevsky, Tolstoy, 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) Twentieth Century Russian Literature. 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. (Y)

5600 Major Russian Writers. Cr. 3-4
For advanced undergraduate and graduate students interested in literature. Major nineteenth-century authors: Pushkin, Dostoevsky, Chekhov, Tolstoy, others. Close readings of works introduce traditions and character types within historical and socio-cultural contexts; relevant intellectual, religious, political concerns. Taught in English; readings in English or Russian. (Y)

5650 Twentieth Century Russian Literature. Cr. 3-4
Prereq: consent of instructor. 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, Socialist 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 European experience, including violence and cruelty, freedom and imprisonment, utopian visions, and urban life. (F)

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. (W)

3410 (FC) (CD) 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 its influence upon American culture. (F)

3710 (VP) Russian and East European Film. Cr. 3
Major Russian, Polish, Czech, Ukrainian and Armenian films viewed and discussed from political, 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 Kieslowski, Dusan Makavejev and Emir Kusturica; films include: Kanal, Double Life of Veronique, WR: or the Mystery of the Organism, and Underground. (W)

5400 Cultural Studies and Criticism. (SLA 7400) Cr. 3-4
Important concepts and major figures in Slavic contributions to literary and cultural studies. Readings and class in English. Open to students from diverse disciplines. (I)
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)

FOREIGN LANGUAGE INSTRUCTION

For courses on culture and literature taught in English, see the preceding section.

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)

GERMAN COURSES  (GER)

1010  (CD) 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 German 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) (CD) 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)

3000  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)

5750  (ENG 5750) Theories of Second Language Acquisition.  (CLA 5750)  (FRE 5750)  (ITA 5750)  (LIN 5750)  (N E 5750)  (SPA 5750)  Cr. 3
Investigation of theories in second language acquisition. Review of research in development of second language competence: acquisition of phonology, lexicon, semantics, syntax, discourse, and pragmatics.  (B)

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)

Ukrainian Cultural Studies in English (UKR)

3410  (SLA 3410) (FC) (CD) New Soil, Old Roots: The Immigrant Experience.  (ARM 3410)  (GER 3410)  (POL 3410)  (RUS 3410)  Cr. 3
A survey of immigrants from a diversity of cultural backgrounds, including Armenians, Germans, Jews, Poles, Russians, and Ukrainians. Material Fee as indicated in the Schedule of Classes (I)

5740  (ENG 5740) Theories of Second Language Acquisition.  (CLA 5740)  (FRE 5740)  (ITA 5740)  (LIN 5740)  (N E 5740)  (SPA 5740)  Cr. 3
Investigation of theories in second language acquisition. Review of research in development of second language competence: acquisition of phonology, lexicon, semantics, syntax, discourse, and pragmatics.  (B)

5760  Modernism.  (GER 7760)  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)
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)

5810  (FRE 5810) Teaching Foreign Languages: Receptive Skills. (CLA 5810) (CLA 7810) (FRE 7810) (GER 7810) (ITA 5810) (ITA 7810) (LED 5810) (LED 7810) (N E 5810) (N E 7810) (SPA 5810) (SPA 7810) Cr. 3
Prereq: GER 5850 or consent of instructor. 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 receptive skills. (B)

5820  (FRE 5820) Teaching Foreign Languages: Productive Skills. (CLA 5820) (CLA 7820) (FRE 7820) (GER 7820) (ITA 5820) (ITA 7820) (LED 5820) (LED 7820) (N E 5820) (N E 7820) (SPA 5820) (SPA 7820) Cr. 3
Prereq: GER 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  Technology in the Foreign Language Classroom. (CLA 5830) (CLA 7830) (FRE 5830) (FRE 7830) (GER 5830) (ITA 5830) (ITA 7830) (LED 5830) (LED 7830) (N E 5830) (N E 7830) (SPA 5830) (SPA 7830) Cr. 3
Prereq: GER 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  Foreign Language Instruction. (CLA 5850) (CLA 7850) (FRE 5850) (FRE 7850) (GER 5850) (ITA 5850) (ITA 7850) (LED 5850) (LED 7850) (N E 5850) (N E 7850) (SPA 5850) (SPA 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  Foreign Language Testing. (CLA 5860) (CLA 7860) (FRE 5860) (FRE 7860) (GER 5860) (ITA 5860) (ITA 7860) (LED 5860) (LED 7860) (N E 5860) (N E 7860) (SPA 5860) (SPA 7860) Cr. 3
Means of assessing students' knowledge of a foreign language. Topics include: ACTFL Oral Proficiency Interview; testing of reading, writing, speaking and writing skills; means of testing grammar and culture; testing as it relates to program goals. (Y)

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 English proficiency exam, consent of instructor; coreq: any 3000-, 4000-, or 5000-level German literature course. Offered for S and U grades only. No degree credit. Required for all majors. 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. (F,W)

6100  Critical Approaches to German Studies. Cr. 3-4
Prereq: consent of major adviser required for undergraduates. Critical approaches to German literature and cultural texts, and the questions and problems that drive contemporary German studies. (B)

POLISH COURSES (POL)

1010  (CD) Elementary Polish I. Cr. 4
Sounds, spelling, vocabulary, forms, syntax as basis for reading and conversation. Material Fee as indicated in the Schedule of Classes (T)

1020  Elementary Polish II. Cr. 4
Prereq: POL 1010 or equiv. Continuation of POL 1010. Material Fee as indicated in the Schedule of Classes (T)

2010  (FC) (CD) Intermediate Polish. Cr. 4
Prereq: POL 1020 or equiv. Development and practice of basic language skills to increase proficiency in Polish; contemporary Polish culture and current issues. Material Fee as indicated in the Schedule of Classes (T)

2060  Composition and Conversation. Cr. 1-4 (Max. 8)
Prereq: POL 2010 or placement examination. For students with rudimentary knowledge of Polish. Four skills modules: listening and comprehension (offered Monday); conversation (Tuesday); reading and comprehension (Thursday); and writing (Friday). Student may choose which language skill (or skills) they want to master, up to four credits per semester. (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 culture and develop language skills. Students may focus on listening and speaking, and/or reading and writing. (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 English proficiency exam, consent of instructor; coreq: any 3000-, 4000-, or 5000-level Polish 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)

RUSSIAN COURSES (RUS)

1010  (CD) 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 (T)

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 (T)

2010  (FC) (CD) 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 (T)
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)

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, with both combined and individualized activities. (Y)

3020 Intermediate-Advanced Russian II. Cr. 4 (Max. 8)
Prereq: RUS 3010. Taught in two tracks at sixth- and eighth-semester levels; both combined and individualized instruction. (F)

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)

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 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 English proficiency exam, consent of instructor; coreq: any 3000-, 4000-, or 5000-level Russian 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)

UKRAINIAN COURSES (UKR)

1010 (CD) 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) (CD) 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 work not included in regularly scheduled courses, either in language or in literature. (T)

History

Office: 3094 Faculty/Administration Building; 313-577-2525; Fax: 313-577-6887; e-mail: ab3697@wayne.edu
Chairperson: Marc W. Krumn
Website: http://www.clas.wayne.edu/history

Professors
John J. Bukowczyk, Elizabeth V. Faue, Charles K. Hyde, Marc W. Krumn, Melvin Small, David Weinberg

Associate Professors
Eric H. Ash, Jorge Chinea, José Cuello, Liette Gidlow, Hans Hummer, Osu-maka Likaka, Sandra F. VanBurkleo

Assistant Professors
Catherine Bogosian Ash, Denver Brunsman, Janine Lanza, Elizabeth Dorn Lublin, Andrew Port, Aaron Retish, Kidada Williams.

Emeritus / Emerita Professors

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
DOCTOR OF PHILOSOPHY with concentrations in America and Europe
GRADUATE CERTIFICATE in Archival Administration

Bachelor of Arts
with a Major in History

Admission requirements

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 250) and the University General Education Requirements (see page 17), 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 16,
35, and 250. 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, geography, political science, and sociology. The history of philosophy, the history of art, and the history of music are also appropriate electives.

**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 255).

**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 twelve credits in honors-designated course work, complete at least one 4000-level seminar offered through the Honors Program, and complete 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 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 additional information on honors-designated course work available each semester, see the University Schedule of Classes under ‘Honors Program,’ or consult the Director of the Honors Program (313-577-3030).

**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 Johannessen 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 483.

- **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 Columbus to the age of Hitler: 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 Euro-
pean 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).

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.

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.

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.

1710  (HIS 1710) History of Modern East Asia.  (NE 2110)  Cr. 3
From beginning of nineteenth century to the present; emphasis on political, social, economic developments in China, Japan and Korea.

1800  (NE 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.

1810  (NE 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.

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.

1995  (HS) (ST) 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.

Urban phenomena, past and present, quality and nature of urban life, major concerns of urban areas; perspectives and techniques of various urban-related disciplines.

2040  United States to 1877.  Cr. 3-4
American experience with colonialism, revolution and nation building.

2050  United States Since 1877.  Cr. 3-4
Industrialization, urbanization, and emergence of the United States as a world power.

2240  History of Michigan.  Cr. 3-4
Social, economic development of the state, from French explorations to the present.

2430  (CBS 2430) (CD) 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.

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.

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.

2510  (PHY 2020) (ST) 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.

2520  (PCS 2010) Topics in Peace and Conflict Studies.  (P S 2830)  Cr. 1-4
Special topics relating to peace and conflict studies.

2530  (PCS 2050) (CD) 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.

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.

3010  (NE 3010) Survey of Jewish Civilization and History.  (HIS 6005)  (NE 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.

3050  United States and the Vietnam Experience.  Cr. 4
The United States' involvement in Vietnam; military, domestic and diplomatic impact.

3140  The Black Experience in America I: 1619-1865.  (AFS 3140)  Cr. 3-4
African origins of the American black; transition from freedom to slavery; status of the black under slavery.

3150  The Black Experience in America II: 1865 to the Present.  (AFS 3150)  Cr. 3-4
The black in national life since emancipation.
3160  (AFS 3160) (CD) 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  (CD) 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  (CD) Black Social Movements.  (AFS 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)

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)

3240  (P S 3250) (CD) 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. Compar-ative 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  (ST) Technology in America.  Cr. 3-4
Technological change in the United States from European settle-
ments 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) (CD) 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  (ST) 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)

3825  History of Modern China.  (HIS 5825) (N E 3825)
(N E 5825) Cr. 4
From early 1600s to the present; political, economic, and social changes.  (B)

3855  History of Pre-Modern Japan.  (HIS 5855) (N E 3855)
(N E 5855) Cr. 4
Japanese history from its mythical origins to early nineteenth century; political, economic, social, cultural developments.  (B)

3865  History of Modern Japan.  (HIS 5865) (N E 3865)
(N E 5865) Cr. 4
Japanese history from the early nineteenth century to the present; emphasis on political, economic, and social developments.  (Y)

3875  Women in Japanese History.  (HIS 5875) (N E 3875)
(N E 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  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  Colonial North America.  (HIS 7010) Cr. 4
Prereq: HIS 2040. 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  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  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  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  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  Modern America: 1917-1945.  (HIS 7060) Cr. 4
Analysis of economic and social problems, politics, and government policies.  (B)

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  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) (CD) Class, Race, and Politics in America. (AFS 8100) (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. (B)

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  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  Constitutional History of the United States to 1940. (HIS 7160) 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  Constitutional History of the United States from 1860 to 1940. (HIS 7170) 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  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  (CD) 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  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  (CD) 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)

5251  (CD) 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  American Legal History. (HIS 7280) 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. (B)

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) (CD) 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  History of Ancient Greece. (HIS 7330) Cr. 3
Ancient Greek culture, emphasizing political events, social and economic institutions, cultural achievements. (B)

5340  History of Ancient Rome. (HIS 7340) Cr. 3
Institutional and cultural development. (B)

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  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  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)

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  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  Early Modern Europe. (HIS 7400) Cr. 4
Development of modern centralized state; social and cultural changes, including the Enlightenment. (B)

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  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  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 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 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 Modern Germany. (HIS 7470) Cr. 3-4
The history of modern Germany against the background of its tradi -
tion 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 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 Russian History through the Revolution. (HIS 7490) Cr. 4
Development and transformation of state power, with particular atten-
tion to those economic and social elements peculiar to Russia.  (Y)

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 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 Britain 1485-1714. (HIS 7550) Cr. 4
Impact of religious, political and social change on British people dur-
ing sixteenth, seventeenth, and early eighteenth centuries.  (I)

(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 France Since 1815. (HIS 7660) Cr. 4
Struggle between old and new political forces, impact of industrializa-
 tion, search for freedom with order, effect of total war, problems of 
decolonialization and European integration, cultural transforma-
tions.  (Y)

5730 The History of West Africa. (HIS 7730) Cr. 4
West African states; Islam and socio-political change; the termina-
tion of the Atlantic slave trade; European conquest; West African resis-
tance and the Colonial experience; nationalism and independence.  (B)

5740 History of South Africa. (HIS 7740) Cr. 4
Historical origins of Apartheid with emphasis on nineteenth and twen-
tieth century, including Dutch and British settlement, African state 
building, the mineral revolution, European racism, African resistance 
and nationalism.  (B)

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 Uni-
versity of Salford, England.  (F,W)
Honors Program

Office: 2100 Undergraduate Library; 313-577-3030
Director: Jerry Herron: 313-577-3030
Administrator: Stuart May: 313-993-4026
Curriculum Coordinator: Kevin Rashid: 313-577-2445
Honors Academic Adviser: Liza Lagman Sperl: 313-577-9075
Marketing Coordinator: Carol Baldwin: 313-577-4621
Initiatives/MedStart Coordinator: Nancy Galster: 313-577-8523
Service Clerk: Antonio Austin: 313-577-2440
Lead Peer Adviser: Craig Phelps: 313-577-9872
Web: http://www.honors.wayne.edu

Honors curricula have been designed by the University in recognition of the needs of highly motivated students with superior abilities. Such courses are of four kinds: regular courses with honors designated sections (classes), honors courses offered under various departmental subject areas (for a list of these see below), Honors Program 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 17) 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 and 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 Program requirements.

Admission: Membership in the Honors Program is obtained by 1) an invitation as a freshman to participate in the Freshman Honors Seminar, or 2) submission of an application to the Honors Program. To be considered for freshman admission to the Honors Program, incoming high school freshmen must have a minimum g.p.a. of 3.5 on a 4.0 scale and have been admitted to the University by January 15. Potential Honors Program freshmen are then invited to Scholars Day to be considered for scholarships and acceptance to the Honors Program. All other freshmen, transfer students, and current WSU students may submit an application to the Honors program. Applicants must have a minimum g.p.a. of 3.3 (3.5 from high school). Applications are available online at http://www.honors.wayne.edu.

Non-Honors students with a 3.3 g.p.a.or better may request permission to register for individual Honors courses. Such requests should be directed to Honors@wayne.edu

Honors Degrees

Depending on a student’s major/program, he or she may declare and graduate with Departmental Honors, University Honors co-major, or both. Most Departments in the College of Fine, Performing and Communication Arts and the College of Liberal Arts and Sciences offer Departmental Honors. Professional programs such as Medicine, Social Work and Engineering have also developed Honors curricula. Please visit the Honors website or office for a current list of available programs. Departmental Honors facilitates students working closely with faculty from their major department. The University Honors co-major allows students the flexibility to create their own Honors curricula and receive recognition for their efforts, within or outside of their major department or program.

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 Program is necessary for graduation with Departmental or University Honors.

University Honors Requirements: Students pursuing a degree with the University Honors co-major must complete 1) at least twenty-four credits in Honors-designated course work, including a senior thesis or essay or project and 2) one 4200-level seminar offered by the Honors Program (HON 4200-4290); and 3) accrue a g.p.a. of 3.3 or higher and a minimum 3.3 g.p.a. in Honors course work. Any Honors designated course work may be included in the twenty-four Honors credits.

Departmental Honors Requirements: Students seeking a degree with Departmental Honors must contact their major department or the Honors Program Office 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 2) a senior essay or thesis or project done in the student’s major department, and 3) at least one 4200-level seminar offered through the Honors Program (HON 4200-4290). A g.p.a. of 3.3 (higher in some Departments) is required for graduation, together with a minimum 3.3 g.p.a. in Honors course work.

Departmental Honors Programs

The following Bachelor’s degrees may be declared as Departmental Honors:

SCHOOL OF BUSINESS
Accounting: B.S., B.A.
Business Logistics: B.S., B.A.
Finance: B.S., B.A.
Management Information Systems: B.S., B.A.
Management: B.S., B.A.
Marketing: B.S., B.A.

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.
Dance: B.A., B.S., B.F.A.
Music: B.A., B.M.
Theatre: B.A., B.F.A.

COLLEGE OF LIBERAL ARTS AND SCIENCES
Anthropology: B.A.
Biological Sciences: B.A., B.S.
Chemistry: B.A., B.S.
Classics: B.A.
Computer Science: B.A., B.S.
Criminal Justice: B.S.C.J.
Economics: B.A.
English: B.A.
Geography: B.A.
German: B.A.
History: B.A.
Mathematics: B.A., B.S.
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.
Sociology: B.A., B.A.S.

COLLEGE OF NURSING
Nursing: B.S.N.
Honors Sections and Departmental Courses

The following courses either have Honors sections or are open only to Honors students. These courses (when scheduled) will be listed under the "Honors Class Schedule" tab on the website. All departmental Honors thesis or essay courses are listed only under the respective Departmental headings in this bulletin and the Schedule of Classes. For descriptions of the courses in the following partial list, see the appropriate Departmental sections of this bulletin.

ANT 2100 -- (SS) Introduction to Anthropology: Cr. 3-4
ANT 3110 -- (CD) Detroit Minorities: Arabs, Hispanics, African Americans: Cr. 3-4
ANT 4999 -- Honors Research and Thesis: Cr. 3-6
A H 1120 -- (VP) Art History Survey: Renaissance through Modern: Cr. 3-4
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 6990 -- Honors Directed Study in Biology: Cr. 1-4
BIO 6997 -- Senior Seminar: Honors Program: Cr. 2
BIO 6999 -- Terminal Essay: Honors Program: Cr. 2
CHM 1410 -- (PS) Principles I: General and Organic: Cr. 6
CHM 1420 -- Principles II: Organic: Cr. 6
CHM 5998 -- Honors Research in Chemistry: Cr. 2-4
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
COM 1010 -- (OC) Oral Communication: Basic Speech: Cr. 3
COM 4996 -- Honors Seminar in Speech Communication: Cr. 3
CRJ 4998 -- Honors Thesis in Criminal Justice: Cr. 3-6
CSC 4999 -- Honors Thesis: Cr. 3-6
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
ENG 1050 -- (BC) Freshman Honors: English I: Cr. 4
ENG 2050 -- (IC) Freshman Honors: English II: Cr. 4
ENG 4990 -- Directed Study: Honors Program: Cr. 3-6
ENG 4991 -- Honors Seminar: Cr. 3-6
ENG 4992 -- Honors Project: Cr. 3
FRE 2700 -- (PL) Anguish and Commitment: European Existentialist Literature: Cr. 3-4
GER 2700 -- (PL) Anguish and Commitment: European Existentialist Literature: Cr. 3-4
GPH 4990 -- Directed Study: Honors Program: Cr. 2-12 (max. 16)
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
HUM 2200 -- (PL) Sophomore Honors Colloquium in Humanities: Cr. 4
ITA 2700 -- (PL) Honors and Commitment: European Existentialist Literature: Cr. 3-4
MAT 2010 -- Calculus I: Cr. 4
MAT 2020 -- Calculus II: Cr. 4
MAT 2030 -- Calculus III: Cr. 4
NFS 2210 -- Human Nutrition: Cr. 3-4
NFS 5990 -- Honors Directed Study: Cr. 1-4
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) EI 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 Seminar: Cr. 4
PHY 1040 -- (PS) ST) Einstein, Relativity and Quanta: Cr. 3-4
P S 1010 -- (AI) American Government: Cr. 4
P S 4995 -- Senior Honors Paper: Cr. 4
PSY 1010 -- (LS) Introductory Psychology: Cr. 4
PSY 2600 -- (CD) Psychology of Social Behavior: Cr. 4
PSY 4991 -- Honors Directed Study: Cr. 2-4
PSY 4998 -- Senior Thesis Seminar: Cr. 3-6
RUS 2700 -- (PL) Anguish and Commitment: European Existentialist Literature: Cr. 3-4
SOC 2000 -- (SS) Understanding Human Society: Cr. 3
SOC 5870 -- Violence in the Family: Cr. 3-4
SPA 2700 -- (PL) Anguish and Commitment: European Existentialist Literature: 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 work, provided the instructor agrees to furnish commensurate extra instruction. If a grade of 'B' or above is earned in the course and in the additional work, the student will receive honors credit for the course on the transcript. Application forms for the Honors Option are available in the Honors Program Office and on the website under the "Forms" tab. The application form must be signed by the instructor and departmental honors adviser and should be returned to the Honors Program Office by the end of the third week of classes. The completed application must then be submitted to the Honors Program Office at the end of the semester.

HONORS COURSES (HON)

The following courses, numbered 0900-6999, are offered for undergraduate credit. For interpretation of numbering system, signs and abbreviations, see page 483.

1000 (SS) City I: Cr. 3
Prereq: freshman honors standing. Urban phenomena, past and present; quality and nature of urban areas; critical approaches to urban issues.
Prereq: junior or senior standing; minimum 3.3 cumulative 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)

2100 (CLA 2100) (PL) (CD) Classical Origins of Western Thought. Cr. 3
Prereq: for HON students: minimum 3.3 cumulative 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)

4250 (HS) Seminar in Historical Studies. 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 (VP) Seminar in Visual and Performing Arts. 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)

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 departmentalcollege Honors program. (T)

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HUMANITIES COURSES (HUM)

The following courses, numbered 0900-6999, are offered for undergraduate credit. For interpretation of numbering system, signs and abbreviations, see page 483.

1010 (VP) Introduction to Art and Music in Western Civilization. Cr. 4
Carefully selected examples from the visual arts and music placed in appropriate contexts from antiquity to the present. Museum and listening assignments supplement the lectures. (T)

1020 (VP) Experiencing the Arts. Cr. 3-4
Developing the skills to experience (look, listen, read) such artistic media as art, music, and poetry. Considering how such skills relate to the manner in which meaning is communicated. Specific media to be announced in Schedule of Classes. (T)

1030 (VP) Exploring the Arts in Detroit. Cr. 4
Examination of the role played by urban institutions in creating, preserving, and transmitting humanistic concepts and the imaginative products of the human mind. Systematic survey of those institutions in metropolitan Detroit which have assumed or been assigned responsibility for communicating these ideas to succeeding generations and for providing continued access to such artifacts. A lecture-field work format assures maximum opportunity for direct access and experience. (T)

1130 Practicum in Humanities. Cr. 1 (Max. 3) (FLD: 1)
Prereq. or coreq: HUM 1010, 1020, 1030, or 2100. Attending and reviewing assigned performances and exhibitions related to HUM 1010, HUM 1020, HUM 1030, HUM 2100, or HUM 2110. (T)
2000  (IC) Reading and Writing About the Arts.  Cr. 3
Prereq: ENG 1020. Examination of ways in which various modes of
expression (e.g., painting, music, drama) and related examples of
expository (critical) prose communicate meaning for the purpose of
improving analytical skills and writing ability.  (T)

2100  (PL) Ancient - Medieval: Literature and the Arts.  Cr. 4
Examining relationships among the arts and connections between art
and ideas from antiquity to the Renaissance.  (F)

2200  (PL) Sophomore Honors Colloquium in Humanities.
Cr. 4 (Max. 8)
Prereq: sophomore standing. Open only to students in Honors pro-
gram. Topics to be announced in Schedule of Classes.  (F)

2500  Images of Labor in the Arts and Literature. (LBS 2500)
Cr. 4
Diverse history of labor as reflected in the popular arts (films, songs,
stories, and graphics).  (T)

3990  Directed Study.  Cr. 1-3 (Max. 3)
Prereq: written consent of humanities director. Open primarily to jun-
iors and seniors. Advanced study in a particular area of the humani-
ties.  (T)

Interdisciplinary Studies

Office: Second Floor, Academic/Administration Building,
5700 Cass Avenue, Detroit, MI 48202
Chairperson: Roslyn Abt Schindler
Director for Student Services: Howard Finley
Project Coordinator: Linda L. Hulbert
E-mail: tmp@wayne.edu
Web: http://www.clas.wayne.edu/is/

Professors
A. Ronald Aronson, Jerry G. Bails (Emeritus), Stuart D. Henry (Emeritus),
Julie T. Klein, Clifford L. Maier (Emeritus), Richard Raspa, Francis Shor,
Rolland Wright (Emeritus)

Associate Professors
Sandor Agocs (Emeritus), Michael Belzer, David Bowen, Mary Lee Field
(Emerita), Gloria House (Emerita), William Lynch, Lisa Maruca, Moti Nis-
sani, Daphne W. Ntiri, Marsha Richmond, Roslyn Abt Schindler, Roland
Wacker

Assistant Professors
Peter Friedlander, Andre Furtado, Theodore Kotila (Emeritus), Caroline
Maun, James Michels

Lecturer
Thomas Moeller

Adjunct Professor
Guerin C. Montilus

Academic Advisers
Darrell Brockway, Pynthia Caffee, Roberta DeMeyer, Ruthie Flowers,
Frank Koscieslki, Derrick White

Degree Programs

BACHELOR OF INTERDISCIPLINARY STUDIES
BACHELOR OF TECHNICAL AND INTERDISCIPLINARY
STUDIES
POST-BACCALAUREATE CERTIFICATE in Nonprofit Sector
Studies
MASTER OF INTERDISCIPLINARY STUDIES

The curricula leading to the bachelor’s degrees offered by the
Department of Interdisciplinary Studies (DIS), 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.

Instruction is presented through interdisciplinary courses that seek to
demonstrate how knowledge can be integrated across disciplines to
arrive at a more comprehensive understanding of issues than are
afforded by single disciplinary approaches. Courses are presented
using the following four teaching formats:

Evening courses provide after-work classroom opportunities for stu-
dents to attend lectures and exchange ideas. They meet one evening
a week from 6:00 until 10:00 p.m. at a variety of on campus and off
campus locations.
Online courses also provide students with opportunities to complete many of the requirements for a course at home from their computer via the Blackboard online learning platform and through e-mail. Students taking these courses are provided with concentrated coaching for their writing skills and engage in interactive learning through the instructor-guided discussion feature of Blackboard.

Conference courses are held on the main campus of the University and provide special opportunities to hear a variety of speakers, including authorities on issues of vital contemporary interest. Together, students discuss and debate issues of immediate and long-term significance. Most conferences meet throughout the day on Saturday and Sunday three times each semester.

Directed Studies courses enable the students to engage in focused research on a particular topic related to a course they are taking or as individualized studies courses designed in consultation with a supervising faculty member on a topic of mutual interest to the instructor and the student.

Most Interdisciplinary Studies students are able to complete two or three courses per semester from any of the above instructional formats, and to fulfill the requirements for a Bachelor of Interdisciplinary Studies degree in three to five years or less, or for a Bachelor of Technical and Interdisciplinary Studies degree in two or three years.

**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.

**Admission Requirements:** Students must have earned a high school diploma or completed a General Equivalency Diploma (GED), and must be at least 21 years of age or have graduated from high school at least four years previous to enrollment. Students who have completed an Associate of Applied Science degree are not subject to these requirements. Admissions exceptions may be granted by the Department Chairperson.

**DEGREE REQUIREMENTS:** Candidates for the Bachelor of Interdisciplinary Studies (B.I.S.) degree must complete 120 credits including satisfying the University General Education Requirements (see below and page 17) and the credit distribution requirements as stated below. Many requirements may be fulfilled by transfer credit earned at other accredited colleges and universities for courses in the fields of social science, humanities, and science/technology. Students should consult an adviser regarding the applicability of transfer credit to these general subject areas. Students may apply a maximum of sixty-four credits transferred from the associate degree in order to graduate.

**Credit Distribution Requirements**

**LOWER DIVISION:** In this phase students typically earn eight to nine credits per semester (students may enroll for more or fewer credits per semester). Students need not pursue lower division course work in any specified order, but it is advisable to complete the required credits in one sequence before beginning another. Some courses have specified prerequisites, so it is important to consult with an adviser before confirming course selections. Course sequences are defined as groups of three courses numbered 2010-2030, 2310-2330, or 2710-2730 within any Interdisciplinary Studies course.

**UPPER DIVISION:** In this phase students typically earn ten to eleven credits per semester. These are Interdisciplinary Studies courses and are part of the residency requirement for which NO transfer credit is applicable.

**Electives** (Thirty-one Credits): Students may choose electives for career advancement, preparation for graduate school, or for personal growth. Electives may be chosen from within the Interdisciplinary Studies course offerings, departmental course offerings, including Liberal Arts and Sciences courses, courses from other colleges of Wayne State University, or from other accredited institutions. Students must have a minimum of thirty-seven credits at the 3000-level or above in order to graduate.

No more than twenty-nine credits in course work taken through the School of Business Administration may be applied toward the B.I.S. degree.

— **Capstone Program**

This program is designed to enable holders of two-year associate of applied science degrees to earn four-year degrees by providing two years of general education to supplement two years of specialized technology course work. The capstone program itself consists of sixty-four credits of interdisciplinary general education, training in fundamental skills (writing, oral communication, critical analysis, computation, and research), and opportunities for more advanced study in areas of special interest.

**Admission Requirements:** Applicants must have an associate of applied science degree from an accredited college.

**DEGREE REQUIREMENTS:** Candidates in this program leading to the Bachelor of Interdisciplinary Studies degree must complete 128 credits (forty of which must be earned as resident credit), with a maximum of sixty-four credits transferable from the associate degree level. Transfer credit may be allowed for requirements in social science, humanities, and science/technology, as well as for the Advanced Interdisciplinary Studies Courses, with the exception of ISP 3080, ISP 3991, and ISP 4992. The 128 credits must include satisfaction of the University General Education Requirements (see below and page 17) and the following distribution requirements.

**Capstone Program Credit Distribution Requirements**

**ASSOCIATE DEGREE TRANSFER CREDIT** (Sixty-Credits)

**INTERDISCIPLINARY STUDIES** (Forty Credits):

- ISP 1510 -- (BC) Written Communication Skills: Cr. 4
- ISP 3080 -- Topics in Interdisciplinary Studies: Cr. 4
- Social Science Electives (ISS): Cr. 7
- Humanities Electives (IH): Cr. 7
- Science and Technology Electives (IST): Cr. 7
- ISP 4992 -- (WI) Senior Capstone Essay/Project: Cr. 4

**ELECTIVES** (Twenty-four Credits): Students must have a minimum of thirty-seven credits at the 3000-level or above in order to graduate. Courses may be chosen in a technical area, general studies, or a combination of these, depending upon the student’s particular interests.
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.

Admission Requirements: Applicants to this program must have earned an associate of applied science degree or its equivalent from an accredited college.

DEGREE REQUIREMENTS: Candidates for this degree must complete 128 credits (of which forty must be Interdisciplinary Studies resident credit), with a minimum of sixty-four credits transferred from an associate degree program. The 128 credits must include satisfaction of the University General Education Requirements (see below and page 17) and the credit distribution requirements cited above under the Bachelor of Interdisciplinary Studies Capstone Program, with the following exception for the twenty-four elective credits: for the technical studies degree, this elective credit must be used to develop a coherent sequence of broad, cognate, or specialized courses reflective of the student’s technical, vocational, or professional field, or in an applied area which enhances prior training. Students must have a minimum of thirty-seven credits at the 3000-level or above in order to graduate.

Interdisciplinary Studies Courses Satisfying General Education Requirements

The following courses have been approved to fulfill the University General Education Requirements:

COMPETENCY REQUIREMENTS
Basic Composition: ISP 1510
Intermediate Composition: ISP 3510, ISP 4991, IH 2010
Writing-Intensive Course: ISP 4860, ISP 4992, ISP 4996
Oral Communication: ISP 1560
Critical and Analytic Thinking: ISP 3260

GROUP REQUIREMENTS
Life Science: IST 2310
Physical Science: IST 2420
Historical Studies: ISP 3160, IH 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: IH 2730, IH 3730
Philosophy and Letters: IH 2710, IH 3710

(Note: Beginning Fall 2005, General Education Requirements also include satisfaction of three Exposure Areas courses.)

NONPROFIT SECTOR STUDIES PROGRAM

Office: 2142 Academic/Administrative Building
Coordinator: Daphne Ntiri

Academic 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. Additional possibilities exist for students with a qualifying bachelor’s degree to obtain a Master’s in Interdisciplinary Studies with a focus on nonprofit sector studies. The objectives of the Program are: 1) to provide a quality learning experience for nonprofit organization professionals in a scholarly environment, and 2) to support professionalization opportunities for nonprofit organization leaders. For details consult with the MIS graduate program chair.

Minor in Nonprofit Sector Studies: The minor is designed to complement a student’s matriculation in a major field of study. Requirements for admission are a successful completion of the English Proficiency Examination and junior standing. 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. A bachelor’s degree from an accredited four-year institution is required for admission. 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.

Academic Regulations

Fees: Students in the Department of Interdisciplinary Studies pay tuition according to the regular University fee schedule (see page 29).

Registration: Interdisciplinary Studies academic advisers are available on campus during normal office hours and have established dates and times when they are at WSU extension centers to see current and new students, either for advising or registration. Refer to the Interdisciplinary Studies Course Schedule and Catalog for the current semester for more information. Students can participate in Web registration, telephone registration, register at WSU extension centers, or at the Interdisciplinary Studies office on the Wayne State campus.

Orientation: During their first two semesters, new students are required to participate in student orientation conferences and/or seminars where the baccalaureate degree program is fully explained through lecture presentations, group discussions, films, and slides.

Residency Requirement: An applicant for the degree of Bachelor of Interdisciplinary Studies or Bachelor of Technical and Interdisciplinary Studies must complete at least forty credits in Interdisciplinary Studies Program courses, distributed according to specific degree requirements.

Interdisciplinary Studies 335
Transfer of Credit: Credit for courses taken at community colleges and other accredited institutions may be transferred as applicable to the bachelor’s degree programs, provided that 1) the student has been admitted to the program, and 2) the grades earned for courses have been satisfactory (‘C’ or better). A maximum of sixty-four semester credits or ninety-six quarter credits may be transferred from a community college. A maximum of eighty credits may be transferred from a four-year college or a combination of two-year and four-year colleges. Elective credit will be granted for successful completion of CLEP tests.

Probation: A student whose work falls below a 2.0 grade point average will be placed on probation and an academic hold will be placed on his or her academic record. The student will then be required to obtain permission from an ISP academic adviser before registering again. Such permission will be granted only after an interview.

Counseling: The academic advisors in the Division of Student Services are available to provide a broad range of information and assistance concerning University programs and various academic regulations. Students in Interdisciplinary Studies arrange programs of study and register for their courses with a counselor each semester.

Financial Aid and Honors

Financial assistance is available on a limited basis to help students meet educational expenses. Interested students should contact the ISP office, or the University Office of Student Financial Aid, Welcome Center, 42 West Warren.

Honors: The Dean’s List publishes the names of students who obtain high academic achievement (those registered for four to eight credits who obtain a 4.00 g.p.a., and those registered for nine credits or more who obtain a 3.7 g.p.a.). Students with ‘I’ or ‘X’ grades are not eligible.

Honors: The Dean’s List publishes the names of students who obtain high academic achievement (those registered for four to eight credits who obtain a 4.00 g.p.a., and those registered for nine credits or more who obtain a 3.7 g.p.a.). Students with ‘I’ or ‘X’ grades are not eligible.

Honors Society: Interdisciplinary Studies students who have achieved a 3.2 g.p.a. are eligible to join the National Honor Society for adult students, Alpha Sigma Lambda.

COURSES OF INSTRUCTION

The following courses, numbered 0500-6999, are offered for undergraduate credit. For interpretation of numbering system, signs and abbreviations, see page 483.

INTERDISCIPLINARY STUDIES PROGRAM COURSES (ISP)

0510 Developmental Reading and Writing. Cr. 3
No degree credit. Offered for S and U grades only. Preliminary course designed to improve reading and writing skills of underprepared students. Emphasis on reading comprehension, grammar, spelling, vocabulary, and paragraph development and organization. (Y)

1510 (BC) Written Communication Skills. Cr. 4 (Max. 8)
Must be taken in first 36 credits in Interdisciplinary Studies Program. General language awareness and written communication skills emphasized; students learn to write essays for academic success. (T)

1560 (OC) Dimensions of Oral Communication. Cr. 4 (Max. 8)
Students explore and give order to elements of their world, learn to establish a relationship with an audience, and develop skills in communicating ideas to have an effect on others. (T)

1600 Web.edu: How Internet Courses Work. Cr. 1
Introduction to academic work over the Internet. Look and feel of Internet courses from perspective of participant. New freedoms, techniques, responsibilities, learning styles. (W)

2030 Interdisciplinary Studies Seminar. Cr. 4
Required of all entering B.I.S. students. Interdisciplinary problem solving, critical thinking, writing to converse in a discipline and across disciplines, critical thinking in quantitative problem solving, multiple readings of academic discourse. For working adult returning students: nature, philosophy and history of interdisciplinary and general studies; writing to learn (writing as a mode of learning and thinking) as part of writing across the curriculum; assessment of educational objectives by developing a student portfolio. (Y)

3030 Foundations of Knowledge Conference I. Cr. 3
Prereq: upper division standing. Semester-long course with periodic weekend sessions. Selected topics, in weekend conference format, similar or related to material handled in Foundations of Knowledge Seminar courses. Topics announced for each Fall semester. (F)

3040 Studies in Foundations of Knowledge. Cr. 4 (Max. 12)
Prereq: upper division standing or consent of instructor. Appropriate only when other Foundations of Knowledge courses are unavailable. Materials for the course are drawn from topics developed for the Foundations of Knowledge seminars and conferences. (T)

3060 (CD) Foundations of Knowledge Seminar: Cross-Cultural Perspectives. Cr. 4
Prereq: upper division standing. Cross-cultural, pluralistic approach to knowledge as a work of civilizations across space and time; critical analysis of philosophical, social, and scientific theories as the result of dynamic interaction of the human mind and nature. (F/W)

3080 Topics in Interdisciplinary Studies. Cr. 4
Required of all entering B.I.S. Capstone and B.T.I.S. students. Conference; examples of interdisciplinary research demonstrating the advantages, complexities, and constraints of this approach, compared with traditional single disciplinary methods. (Y)

3130 Foundations of Knowledge Conference II. Cr. 3
Prereq: upper division standing. Semester-long course with periodic weekend sessions. Selected topics, in weekend conference format, on issues similar or related to material handled in Foundations of Knowledge Seminar courses. Dates and specific topics announced for each Winter semester. (W)

3160 (HS) (ST) World War I as a Turning Point: Historical Perspectives. Cr. 4
Prereq: upper division standing. Examination of a critical period in twentieth century history; comparative analysis of human experience as shaped by historical forces: political, social, economic, intellectual, and technological. Workshop course. (T)

3260 (CT) Methods of Search and Critical Thinking. Cr. 4
Prereq: upper division standing. Analysis of various techniques for generating and validating knowledge in diverse disciplines; assessment of structure and strengths of inductive and deductive forms of argument. (Y)

3340 (ST) Advanced Topics in Science and Technology. Cr. 2-4 (Max. 12)
Prereq: upper division standing and consent of instructor. Directed study supervised by a faculty member. Appropriate if no courses of instruction are available covering desired science and technology topic area. Elective. (T)

3360 (ST) Science and Technology Advanced Studies Seminar. Cr. 4 (Max. 12)
Prereq: upper division standing. Current and historical studies of issues and topics from interdisciplinary science and technology. Topics announced each semester. Elective. (T)
3420  (AI) The American Constitution and the Judicial System.  
Cr. 4
Prereq: ISP 1510 or equiv. Interdisciplinary approach to phases of 
United States constitutional development and the relationship of the 
courts to American government in historical and contemporary con-
texts.  (Y)

3440  Advanced Topics in Social Science.  Cr. 2-4 (Max. 12)
Prereq: upper division standing and consent of instructor. Advanced 
directed study supervised by a faculty member. Appropriate if no 
courses are available covering desired social science topic area. 
Elective.  (T)

3460  Social Science Advanced Studies Seminar.  
Cr. 4 (Max. 12)
Prereq: upper division standing. Area and period studies, problems 
and themes in interdisciplin ary social science. Topics announced 
each semester. Elective.  (T)

3480  (SS) Theoretical and Practical Analysis of Work 
Organizations.  Cr. 4
Prereq: ISP 1510 or equiv.; upper division standing. Current social 
science theoretical perspectives and their practical application to 
study of the work place.  (Y)

3510  (IC) Intermediate Reading and Writing.  Cr. 4
Prereq: ISP 1510 or equiv. Continuation of GIS 1510. Analytical read-
ing, writing, and writing revision in the humanities, sciences and 
social sciences. Emphasis on research.  (T)

3540  Advanced Topics in Humanities.  Cr. 2-4 (Max. 12)
Prereq: upper division standing and consent of instructor. Directed 
study supervised by a faculty member. Appropriate if no courses of 
instruction are available covering desired humanities topic area. 
Elective.  (T)

3600  (FC) (CD) Interdisciplinary Perspectives on Foreign 
Culture: The Arabs.  Cr. 3
Prereq: upper division standing or consent of instructor. Humanistic 
aspects, history, socio-cultural institutions of Arab cultures; theory 
and methods, comparatist perspectives.  (F)

3610  (FC) (CD) Interdisciplinary Perspectives on Foreign 
Culture: The Africans. (AFS 3610)  Cr. 4
Prereq: upper division standing. Humanistic aspects, history, socio-
cultural institutions of African cultures; theory, methods, comparatist 
perspectives.  (Y)

3620  (FC) (CD) Interdisciplinary Perspectives on Foreign 
Culture: The Chinese.  Cr. 3
Prereq: upper division standing. Humanistic aspects, history, and 
socio-cultural institutions of Chinese culture; theory, methods, com-
paratist perspectives.  (W)

3840  Advanced Topics in Interdisciplinary Studies.  
Cr. 2-4 (Max. 12)
Prereq: upper division standing and prior consent of instructor. Elective. 
Directed study supervised by a faculty member. Appropriate if no 
courses of instruction are available covering desired interdiscipli-
ary topic area.  (I)

3860  Interdisciplinary/Integrated Advanced Studies 
Seminar.  Cr. 4-12
Prereq: upper division standing. Elective. Explorations of the theo-
retical implications of the basic course sequences in social science, 
science and technology, and urban humanities. Topics and dates 
announced each semester.  (I)

3991  Interdisciplinary Core Seminar.  Cr. 4
Prereq: ISP 2030 or ISP 3080. Required of all IS students admitted in 
Fall 1998 or thereafter; must be elected prior to ISP 4760/ISP 4860, 
ISP 4991/ISP 4996, or ISP 4992. Application of theories and meth-
ods of interdisciplinary problem solving. Case study of problem 
involving two or more disciplinary areas; research under direction of 
instructor.  (T)

4450  Field Studies/PRACTICUM.  Cr. 2-4 (Max. 12)
Prereq: upper division standing and consent of instructor. Study 
opportunities in a non-traditional setting. Students learn by experi-
ence under the supervision of a professional. Practice is integrated 
with appropriate research and methods, and evaluation is based on 
evidence of growth and mastery of specific skills. The ratio of clock 
hours to credits is 15 to 1.  (I)

4760  Senior Seminar I.  Cr. 4
Prereq: upper division standing: ISP 3991. A seminar on topics 
determined by the upper division faculty is designed to draw together 
and reassess fundamental values and themes underlying the DIS 
curriculum. Core readings and a substantial paper are assigned.  (T)

4770  Travel Study: Upper Division.  
Cr. 4-8 (Grad. Cr. 4; Undergrad. Cr. 8)
Prereq: written consent of adviser. American Southwest approved for 
6 credits; West Africa approved for 8 credits. Interdisciplinary exami-
nation of cultural, political, social and/or scientific/technological 
aspects of the destination country by accompanying instructors or 
guest lecturers. Assignments, papers, and projects appropriate to 
upper division students.  (S)

4860  (WI) Senior Seminar II.  Cr. 4
Prereq: upper division standing: ISP 3991. Lecture and consultation 
course; students complete a major research paper. Semester-long 
process of synthesis and analysis, writing, oral presentation and con-
sultation with the instructor.  (T)

4991  (IC) Senior Essay Seminar I.  Cr. 4
Prereq: upper division standing; grade of B-plus or better in ISP 
3991. Research for and development of a senior essay on a topic 
approved by the directing faculty adviser; culminates in an oral pre-
sentation for approval by faculty panel.  (T)

4992  (WI) Senior Capstone Essay/Project.  Cr. 4
Prereq: senior level standing: ISP 3991. One-semester senior cap-
stone essay/project for Bachelor of Interdisciplinary Studies-Cap-
stone and Bachelor of Technical Studies students. Intensive 
research for development of essay or project on topic by directing 
faculty adviser. Satisfies University General Education Writing Inten-
sive Course in the Major requirement.  (T)

4996  (WI) Senior Essay Seminar II.  Cr. 4
Prereq: ISP 4991. Continuation of first seminar; culmination in oral 
presentation before faculty panel and submission of completed major 
research essay or project for approval.  (T)

5130  (AFS 5130) (CD) 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)

5200  (NPS 4200) Grant Writing and Survey of Resources for 
Nonprofits. (ISP 6200)  Cr. 4
Prereq: NPS 3000. Broad understanding of potential financial sup-
port for nonprofit managers; art and science of proposal writing. Stu-
dents complete actual grant proposal.  (T)

5260  (ANT 5260) (CD) 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)
5500 Selected Topics in Interdisciplinary Studies. (ISP 7500) Cr. 2-4 (Max. 8)
Prereq: written consent of adviser and instructor. Topics to be announced in Schedule of Classes. (Y)

5510 (CD) End-of-Life Issues. (ANT 5430) (ANT 7430) (ISP 7510) (LIS 7635) (NUR 7515) (SOC 5020) (SOC 7024)
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)

5550 (NPS 3500) Management of Volunteer Programs. Cr. 3-4
Prereq: passing score on English proficiency exam; junior standing. Volunteerism: planning and evaluation of volunteer programs, motivation, recruitment, selection and training of volunteers. (W)

5660 (FPC 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. (W)

5990 Directed Study. Cr. 1-4 (Max. 8)
Prereq: written consent of adviser and instructor. Directed study and individual research under faculty member on a topic mutually agreed upon. (T)

INTERDISCIPLINARY SCIENCE and TECHNOLOGY COURSES (IST)

0510 Practical Mathematics: Concepts and Applications. Cr. 3
No degree credit. Offered for S and U grades only. Review of concepts involving arithmetic, and algebra and algebraic equations, such as number systems, units conversions, ratio and proportion, exponents and radicals, and linear equations; word problems emphasized. Elementary geometry, interpretations of graphs, and probability. Prepares students for Part 1 of Math Competency Exam and/or MAT 0993. (F,W)

0993 Developmental Mathematics. Cr. 0-4
Offered for Remedial Math grades only. For students who need to develop their skills in mathematics. (T)

1510 (ST) Quantitative Methods and Their Applications: A Critical Thinking Approach. Cr. 3
Prereq: passing grade in math diagnostic test or consent of instructor. Conceptual framework for, and practical applications across disciplines, including consumer applications. Quantitative methods involving arithmetic, algebra, geometry, elementary trigonometry, probability, and elementary statistics, useful to a student's academic career. (F,W)

1990 Interdisciplinary Approaches to Science and Technology. Cr. 2-4 (Max. 12)
Prereq: consent of instructor. Directed study supervised by a faculty member; appropriate if no course of instruction available in desired subject area. (T)

2010 (ST) Health Concepts and Strategies. Cr. 3
Coreq: IST 2020 recommended. Conceptual treatment of individual and social components of well-being. Topics include: stress, addictive behavior, infectious and chronic diseases, sexuality, aging and death. (F)

2020 Changing Life on Earth. Cr. 3-4
Prereq: successful completion of English Proficiency Test or equiv.; coreq: IST 2010 recommended. Key biological concepts, including the nature of the scientific method, what processes and attributes define a living organism, how life evolved on Earth, cellular structure and function, and heredity and the genetic code. (F)

2030 (EI) Conference on Biomedical Issues. Cr. 3
Semester-long course with periodic weekend sessions. Topics may include: aging and death; the delivery of health care; health and disease, and bioethics. Topics announced each semester. (F)

2310 (LS) (ST) Living in the Environment. Cr. 4
Basic ecological concepts: interconnection between living things and their environment; fragility and resilience of biosphere; human populations; renewable and non-renewable resources; pollution and environmental health; environmental economics, politics and ethics. (W)

2420 (PS) (ST) 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. Lectures, discussion, videotape, laboratory experiments. (W)

2710 (CL) Computers and Society. Cr. 4
Concepts, structures and operations of digital computer; common applications such as word processing, spreadsheets, elementary programming; impact of computers on society. Micro computer used in workshop activities; no previous computer experience required. (T)

3715 (ST) Computers, the Internet, and Society. Cr. 4
Prereq: IST 2710 or consent of instructor. Major categories of computer application software; structure and operation of the Internet; personal, academic and business uses of the Internet; designing and implementing web pages; social issues. (F)

3720 (ST) eCommerce: Using the Web to Find and Service Customers. Cr. 4
Prereq: IST 2710 or 3715 or consent of instructor. Using the World Wide Web for electronic commerce and other interactive applications. Organization, planning and implementation of an interactive website; processing and responding to online orders; and other form-based input. Online security, privacy, and other user concerns. Several approaches to responding to user concerns. (F)

INTERDISCIPLINARY SOCIAL SCIENCES COURSES (ISS)

1510 (AI) American Political Development. Cr. 4
Survey of major developments in American political institutions and ideas; analysis of the current operation of the national government. Workshop course. (Y)

1530 The Politics of Contemporary America. Cr. 3
Semester-long conference course with periodic weekend sessions. Analysis of specific political, economic, and diplomatic issues confronting contemporary America. Specific theme each semester. (Y)

1990 Interdisciplinary Approaches to Social Science. Cr. 2-4 (Max. 12)
Prereq: consent of instructor. Directed study supervised by a faculty member; appropriate if no courses of instruction available in desired subject area. (T)

2010 Problems in Work and Labor. Cr. 4
Workshop course emphasizing problems related to the nature of work and jobs. (W)
2710  (SS) (CD) Selected Perspectives on Ethnicity.  Cr. 4
Interdisciplinary social science approach to ethnicity and immigration, historical and contemporary.  Development of analytical skills.  (F)

2720  Culture, Community, and Identity: Faces of Culture.  Cr. 3
Cultures from all continents examined as illustration of human adaptation to environment from species beginning to present.  Topics include: language and communication; culture and personality; marriage and the family; kinship and descent; religion and magic; culture change.  (F)

2730  (CD) Conference on Contemporary Issues in Ethnic Studies.  Cr. 3
Semester-long course with periodic weekend sessions.  Focus on institutions, neighborhoods, and ethnic groups; analysis of selected social problems, emphasizing the ethnic component.  Dates and themes are announced each semester.  (F)

3710  (PL) The World of Ideas.  Cr. 3-4
Prereq: upper division standing or consent of instructor.  Conference course.  Interdisciplinary study of cultural meaning focusing on music and related art forms.  (Y)

3810  (HS) Discovering the American Past.  Cr. 3-4
Prereq: upper division standing or consent of instructor.  Methodological and philosophical considerations integral to history; the act of historical inquiry.  (Y)

NONPROFIT SECTOR STUDIES COURSES (NPS)

3000  Introduction to Non-Profit Sector Studies. (ISP 5000)  Cr. 4
Prereq: passing score on English proficiency exam; junior standing.  Management in nonprofit organizations, including human service, arts, and cultural and civic organizations; overview of theory, practice and history in nonprofits.  (F,W)

3100  Nonprofit Leadership.  Cr. 4
Prereq: junior standing; passing score on English proficiency exam.  Expert knowledge of Michigan and national philanthropy; builds on overview provided in NPS 3000.  (T)

3500  Management of Volunteer Programs. (ISP 5550)  Cr. 3-4
Prereq: passing score on English proficiency exam; junior standing.  Volunteerism: planning and evaluation of volunteer programs, motivation, recruitment, selection and training of volunteers.  (W)

4000  Marketing and Development for Nonprofits. (ISP 6000)  Cr. 4
Prereq: NPS 3000.  Methods and techniques of fundraising and development for nonprofits, from perspectives of theory and practice.  (F)

4100  Information Technology in Nonprofit Operations.  Cr. 4
Prereq: NPS 3000 or successful satisfaction of intermediate writing course.  Hands-on course: laboratory use of fundraising, wordprocessing, spreadsheet, desktop publishing software.  Comparison of major nonprofit software; how information technology is used in nonprofit organizations.  (F,W)

4200  Grantwriting and Survey of Resources for Nonprofits. (ISP 5200) (ISP 6200)  Cr. 4
Prereq: NPS 3000.  Broad understanding of potential financial support for nonprofit managers; art and science of proposal writing.  Students complete actual grant proposal.  (T)

4300  Topics in Non-Profit Sector Studies.  Cr. 4 (Max. 12)
Prereq: NPS 3000.  New and developing topics in nonprofit sector studies; timely and historical perspectives.  (Y)

4450  Program Planning and Evaluation.  Cr. 3
Coreq: courses numbered above NPS 4000, or electives.  Program planning and evaluation as ongoing tools for effectiveness and efficiency of nonprofit organizations.  Processes necessary for evaluation and continuous planning.  (Y)

4500  Internship and Leadership in Non-Profit Sector Studies.  Cr. 4-8
Prereq: NPS 3000; 3500 or 4000; consent of instructor.  Training (120 clock hours for four credits) under professionals in a nonprofit setting; demonstration of nonprofit leadership and trainer skills at professional level.  (T)
International Studies

Office: 355 Manoogian Hall; 313-577-8072; Fax: 313-577-2738
Program Director: Bruce S. Morgan
Advisory Committee
Economics: Allen C. Goodman
English: Renata M. Wasserman
German and Slavic Studies: Donald Haase
Linguistics: Martha Ratliff
Political Science: Charles D. Elder
Romance Languages and Literatures: Louis Kibler

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) 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: Hal Stack; e-mail: aa4185@wayne.edu
Web: http://www.laborstudies.wayne.edu

Degree Program

BACHELOR OF ARTS with a major in Labor Studies

The Labor Studies Program provides students with the opportunity to develop the critical skills necessary to analyze employment and workplace issues, with a special focus on the needs and interests of workers and their unions. An interdepartmental program, the labor studies major examines the social, political, and economic dimensions of these issues in the context of a broad liberal arts education. For labor studies, the issues to be considered are not only processes in the workplace, but outcomes; not only peace and harmony, but justice and power. Students completing the program will receive a bachelor of arts degree from the College of Liberal Arts and Sciences.

Labor Studies (B.A. Program)

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 23.

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 250) and the University General Education Requirements (see page 17), 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 16, 35, and 250.

Required Core Courses (Twenty Credits)

ECO 6480 -- Advanced Labor Markets: Cr. 3
HIS 5290 -- American Labor History: Cr. 4
LBS 2500 -- (HUM 2500) Images of Labor in the Arts and Literature: Cr. 4
LBS 4700 -- (WI) Senior Seminar: Cr. 3
PSY 3500 -- 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) (CD) Anthropology of Business: Cr. 3
ECO 5410 -- Labor Economics: Cr. 4
ECO 5410 -- (CD) Economics of Race and Gender: Cr. 4
HIS 3360 -- (CD) Black Workers in American History: Cr. 4
HIS 5320 -- (CD) Black Labor History: Cr. 3
HIS 5620 -- Rise of European Working Class: Cr. 3

College of Liberal Arts and Sciences
LBS 4500 -- Applied Labor Studies: (twelve credits may be elected as:)
-- Labor Relations: Cr. 3
-- Collective Bargaining: Cr. 3
-- Labor Law: Cr. 3
-- 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
PS 3020 -- Political Parties and Elections: Cr. 4
PS 3030 -- Political Interest Groups: Cr. 4
PS 3040 -- The Legislative Process: Cr. 4
SOC 3300 -- (SS) Social Inequality: Cr. 3
SOC 4100 -- (SS) Social Psychology: Cr. 3
SOC 5700 -- Race, Class and Gender: 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 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 Studies 341
Linguistics

Office: Room 10303, 5057 Woodward; 313-577-8642
e-mail: linguistics@wayne.edu
Director: Patricia Siple
http://www.clas.wayne.edu/linguistics

Participating Faculty

Jean Andruski, Associate Professor,
Communication Sciences and Disorders
Catherine Barrette, Associate Professor,
Romance Languages and Literatures
Ellen Barton, Professor; English
Eugenia Casielles-Suarez, Associate Professor,
Romance Languages and Literatures
Walter Edwards, Professor; English
Susan K. Hilgendorf, Assistant Professor; German and Slavic Studies
Hayong Liu, Assistant Professor; Near Eastern and Asian Studies
T. Michael McKinsey, Professor; Philosophy
Bruce Morgan, Assistant Professor; English
Geoffrey S. Nathan, Associate Professor; English
Kate Paesani, Assistant Professor; Romance Languages and Literatures
Ljiljana Progovac, Associate Professor; English
Martha Ratliff, Associate Professor; English
Aleya Rouchdy, Professor; Near Eastern and Asian Studies
Patricia Siple, Associate Professor; Psychology
Margaret E. Winters, Professor; Romance Languages and Literatures
Lee Wurm, Associate Professor; Psychology

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. Three core courses are offered on a regular basis: Introduction to Linguistic Theory (LIN 5290), Phonology (LIN 5320), and Syntax (LIN 5300). The program offers concentrations in the following areas: (a) linguistics and a language, (b) syntax and semantics, (c) language variation and change, (d) language acquisition and processing, (e) sociolinguistics and discourse/pragmatics, and (f) individualized program.

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 23.

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 17), the College Group Requirements (see page 250), 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 16, 35, and 250. Programs are to be planned in consultation with the linguistics program adviser. A student must complete a minimum of twenty-eight credits in core and concentration courses to satisfy the major requirements.

CORE COURSES

The Bachelor of Arts program consists of a basic core of general linguistics courses which all majors must complete:

- LIN 5290 -- Phonology; Cr. 3
- LIN 5300 -- Syntax; Cr. 3
- LIN 5700 -- Introduction to Linguistic Theory; Cr. 3

CONCENTRATIONS

In addition to the core courses, the student must pursue one of the following concentrations:

a) Linguistics and a Language

The student must complete at least nine credits in advanced language skills or in the linguistics of the chosen language. The nine credits in advanced language skills should be planned in consultation with the adviser.

b) Syntax and Semantics

Students must elect at least nine credits from the following, in consultation with the adviser:

- LIN 1850 or LIN 1860
- LIN 5200 -- Modal Logic; Cr. 4
- LIN 5240 -- Chinese Grammar; Cr. 3
- LIN 5290 -- Phonology; Cr. 3
- LIN 5300 -- Syntax; Cr. 3
- LIN 5320 -- Phonology: Cr. 3
- LIN 5570 -- Philosophy of Language; Cr. 4
- LIN 5730 -- English Grammar; Cr. 3
- LIN 5760 -- American Dialects; Cr. 3
- LIN 5770 -- Sociolinguistics: Cr. 3
- LIN 6710 -- Psycholinguistics: Cr. 3
- LIN 6720 -- Topics in Language: Typology: Cr. 3
- LIN 6720 -- Topics in Language: Morphology: Cr. 3
- LIN 6720 -- Topics in Language: Semantics: Cr. 3
- LIN 6720 -- Topics in Language: Historical Linguistics: Cr. 3
- LIN 6720 -- Topics in Language: Structure of Arabic: Cr. 3
- LIN 6720 -- Topics in Language: Language Variation: Cr. 3
- LIN 6720 -- Topics in Language: Historical Linguistics: Cr. 3
- LIN 6720 -- Topics in Language: Comparative Semantics: Cr. 3
- LIN 6720 -- Topics in Language: Typology: Cr. 3
- LIN 6720 -- Topics in Language: Language Variation: Cr. 3

Students may select from the following electives:

- LIN 2730 -- Languages of the World: Cr. 3
- LIN 2750 -- African American English: Cr. 3
- LIN 3080 -- Cognitive Psychology: Cr. 3
- LIN 5050 -- Advanced Symbolic Logic: Cr. 4
- LIN 5200 -- Modal Logic: Cr. 4
- LIN 5240 -- Chinese Grammar: Cr. 3
- LIN 5250 -- Advanced Symbolic Logic: Cr. 4
- LIN 5570 -- Philosophy of Language: Cr. 4

Students may select from the following electives:

- LIN 2730 -- Languages of the World: Cr. 3
- LIN 2750 -- African American English: 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

Students may select from the following electives:
For more details about the ‘AGRADE’ Program, contact the Linguistics Program office: 313-577-8642; or by e-mail at: linguistics@wayne.edu

Minor in Linguistics
A minor consists of the three core courses (LIN 5700, 5290, 5300) plus nine additional credits in the Linguistics program. Programs should be planned in consultation with an adviser.

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 483.

1850 (PHI 1850) Introductory Symbolic Logic. Cr. 3
The logic of propositions; the general logic of predicates and relations.  

1860 (PHI 1860) Honors Symbolic Logic. Cr. 3
Open only to Honors students. See LIN 1850.  

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.  

2730 (ENG 2730) 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.  

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.  

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.  

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.  

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.  

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.
5100  (CHI 5220) Languages of Asia. (JPN 5220) Cr. 3
Introduction to major language families in Asia; grammar, sounds, language contacts. (W)

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. (F)

5220  (CHI 5210) Introduction to Chinese Linguistics.  Cr. 3
Basic elements of Chinese linguistics: sounds, grammar, dialects, language changes. (F)

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
Basic elements of Chinese grammar; includes question formation, negation, time references, and the like (F)

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)

5310  (ANT 5310) (CD) Language and Culture.  Cr. 3
Prereq: ANT 2100 or ANT 5200 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 cycles of ordinary contexts of daily life. Students explore their own language and cultural backgrounds and those to which they are drawn. (F)

5320  (ANT 5320) (CD) 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, semantics, sociolinguistics, and pragmatics. Introduction to selected disciplinary and interdisciplinary topics: typology and universals, communication systems, psycholinguistics, sociolinguistics, historical linguistics, anthropological linguistics. (T)

5720  (ENG 5720) Linguistics and Education.  Cr. 3
Introduction to linguistics with emphasis on applications to education. (T)

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. (F,W)

5750  (ENG 5750) Theories of Second Language Acquisition.  (CLA 5750) (FRE 5750) (GER 5750) (ITA 5750) (N E 5750) (SPA 5750) Cr. 3
Investigation of theories in second language acquisition. Review of research in development of second language competence: acquisition of phonology, lexicon, semantics, syntax, discourse, and pragmatics. (B)

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 English proficiency exam, consent of instructor; coreq: LIN 5210, 5290, 5300, 5720, 5750, 5760, or 5770. 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. 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 variation; to be announced in Schedule of Classes. (F,W)
Mathematics

Office: 1150 Faculty/Administration Building; 313-577-2479
Chairperson: Lowell J. Hansen
Associate Chairperson: Daniel Frohardt
Academic Services Officer: Mary Klamo
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Professors

Associate Professors
John C. Breckenridge, Po Hu, Stephen A. Williams

Assistant Professors
Fatih Celiker, Daniel Isaksen, Catherine Lebiedzik, Pei-Yong Wang, Sheng Zhang

Lecturers
Leonard Boehm, Patricia Bonesteel, Catherine Celice, Rebecca Morgan, Christopher Nazelli, Sandra Robinson, Donald Sherry

Adjunct Associate Professor
Lance K. Heilbrun

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, 1000, and 1050: Students qualify by having achieved one of the following within the previous two semesters: a) satisfactory score on the Mathematics Placement Exam, or b) successful completion of MAT 0993 taken at WSU. 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 two semesters: a) satisfactory score on the Mathematics Placement Exam, or b) a grade of at least ’C-minus’ in MAT 1050 taken at WSU, or c) successful completion of MAT 0995 taken at WSU. 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 two semesters: a) a satisfactory score on the Mathematics Placement Examination, or b) a grade of at least ‘C-minus’ in MAT 1110 taken at W.S.U.

Mathematics 1800: Students qualify by having achieved one of the following within the previous two semesters: a) a satisfactory score on the Mathematics Placement Examination, or b) a grade of at least ’C-minus’ in MAT 1050 taken at W.S.U. 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 two semesters: a) a satisfactory score on the Mathematics Placement Exam; or b) a grade of at least ’C-minus’ in MAT 1800. 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 two semesters: the semester immediately following the testing period and the subsequent semester. 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 23. 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 250) and the University General Education Requirements (see page 17), 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 16, 35, and 250.

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 2210, 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 256), 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 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

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. Advanced Calculus (MAT 5070).
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, 6170, 6180, and 6200; or b) CSC 6500, 6620, or 6991 (depending on the topic).

Option B

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, 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.

2. MAT 2210 and 2860.
3. MAT 5000.
4. MAT 5070.
5. MAT 6140.
6. MAT 5610/5993 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.

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, 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.

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, 6170, 6180, and 6200; or one computer science 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 Program seminar (see Honors Program, page 330).
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 483.

**MATH**

NOTE: A minimum grade of ‘C-minus’ is required in every prerequisite course.

**MATH**

**Courses Open Only to Undergraduates**

**0993 (MC) Beginning Algebra. Cr. 3**

No degree credit. 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 - 10:00p; Fri 8:30a - 4:00p; Sat 10:00a - 2:00p; Sun 12:00p - 4:00p). 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)

**0995 Intermediate Algebra. Cr. 3**

No degree credit. Prerequisites: within previous two semesters successful completion of MAT 0993, taken at WSU; or satisfactory score on mathematics placement exam. 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 - 10:00p; Fri 8:30a - 4:00p; Sat 10:00a - 2:00p; Sun 12:00p - 4:00p). Exponents and radicals, solving polynomial and other types of equations and inequalities, graphs and systems of linear equations, introduction to functions, elementary geometry. Material Fee as indicated in the Schedule of Classes (T)

**1000 (MC) Mathematics in Today's World. Cr. 3**

Prerequisites: within previous two semesters successful completion of MAT 0993 or equival. 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. (Y)

**1050 Algebra With Trigonometry. Cr. 5 or 7**

Prerequisites: one of the following within previous two semesters: satisfactory score on mathematics placement exam or successful completion of MAT 0993, taken at WSU; 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. (T)

**1800 Elementary Functions. Cr. 4**

Prerequisites: within previous two semesters a grade of C-minus or better in MAT 1050, taken at WSU; or satisfactory score on mathematics placement exam. 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**

Corequisite: 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**

Prerequisites: within previous two semesters a grade of C-minus or better in MAT 1800, taken at WSU; or satisfactory score on mathematics placement exam. 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**

Prerequisites: 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**

Prerequisites: 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, 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  

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 Graduates

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  Advanced Calculus.  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  Numerical Methods I. (SCP 7200)  Cr. 3  
Prereq: MAT 2030, 2250 and CSC 1100 or familiarity with a programming language. Topics include: numerical errors, solutions of nonlinear equations, interpolation, approximation, numerical integration and differentiation, and matrices and systems of linear equations.  (Y)

5220  Partial Differential Equations and Boundary Value Problems.  Cr. 4  
Prereq: MAT 5070. Boundary value problems of mathematical physics; Sturm-Liouville problems; eigenvalue problems, and numerical solutions of differential equations.  (W)

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.  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. Metareasons 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.  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, Euclid's Theorem; linear Diophantine equations; quadratic congruences and the Law of Quadratic Reciprocity. Optional topics include: applications to cryptography, perfect numbers, Fibonacci numbers, sums of squares, Waring's problem, continued fractions. (Y)

5410 Applied Linear Algebra. Cr. 4
Prereq: MAT 2030 and 2250, or consent of instructor. Gaussian elimination, vector spaces, orthogonality, least squares approximation, Householder orthonormalization, definite and semidefinite matrices, Rayleigh's quotient. Applications such as differential equations, Markov processes, linear programming, networks, game theory. (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) and vector spaces: basis, dimension, linear constructions. (T)

5430 Algebra II. Cr. 4

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 Mobius 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, together with selected applications, such as computational geometry, mathematical elements of computer graphics, as chosen by instructor. (I)

5600 Introduction to Analysis I. Cr. 4
Prereq: MAT 5070 or consent of instructor. Completeness, convergence, compactness and continuity in the context of Euclidean 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; discrete and continuous random variables; expectations; normal, Poisson and binomial distribution; 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 and stationary processes with both discrete and continuous parameters. (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 2210 or 5700 or consent of instructor. Deterministic and probabilistic mathematical modeling of real-world problems. Topics include linear and nonlinear programming; queues; inventories; 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: college courses in probability and statistics equivalent to MAT 5700 and MAT 5800, or consent of instructor. Time series models, moving average, autoregression, 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. Introduction to basic mathematical theory and computational methods of optimization; optimality conditions in various optimization problems and 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 English proficiency exam, 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 Discrete Mathematics. (MAT 2860) Cr. 3

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 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 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 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, constructions; transversal problems; transversal theory; Ramsey's theorem; coding theory, partial orders; lattices. (B)

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; Taylor's theorem; 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 replica; 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 two semesters: satisfactory score on WSU mathematics placement exam; or at least C-minus in MAT 1050 taken at WSU or grade of S in MAT 0995, taken at WSU; 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 two semesters: at least C-minus in MAT 1110 taken at WSU or a satisfactory score on WSU mathematics placement exam. 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. Statistics, probability, geometry, and measurement. (T)

1500 College Algebra for the Social and 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. 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 -10:00p; Fri 8:30a -4:00p; Sat 10:00a - 2:00p; 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  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  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  Number Theory and Abstract Algebra for Middle School Teachers. (MAE 5120)  Cr. 3
Prereq: MAT 1120 or MAE 5060, and MAT 1800. No credit towards major in mathematics or secondary mathematics education major; MAE 5120 may be taken for graduate or undergraduate credit; MAT 5120 may be taken for undergraduate credit only. Topics from elementary theory of numbers and abstract algebra underpinning middle school mathematics curriculum.  (F,W)

5130  Problem Solving for Middle School Teachers. (MAE 5130)  Cr. 3
Prereq: MAT 1120 or 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.  (S)

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 tessellations.  (Y)

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 1800, MAE 5060, or MAT 1120. Elementary functions and their applications; analytical geometry; intuitive concepts of differential and integral calculus; computer applications in middle and junior high school mathematics.  (Y)

STATISTICS COURSE  (STA)

1020  Elementary Statistics. (SOC 5280)  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)

Near Eastern and Asian Studies

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Chairperson: May Seikaly
Website: http://www.langlab.wayne.edu/NearEast/NearEast.html
Associate Professor
May Seikaly
Assistant Professors
Vanessa DeGifis, Annie Higgins, Haiyong Liu
Senior Lecturer
Aida Bania (Visiting Professor), Isamu Fukuchi
Lecturers
Rhimou Bernikhoo-Canin, Seth Carney, Edith Covensky, Rie Masuda, Yue Ming, Maha Saker
Emeritus Professors
Aleya A. Rouchdy, Ivan Starr

Degree Programs

BACHELOR OF ARTS with a Major in Asian studies
BACHELOR OF ARTS with a Major in Near Eastern studies
BACHELOR OF ARTS with a Major in Near Eastern languages
MASTER OF ARTS with a major in Near Eastern languages

This department offers programs and courses of instruction which acquaint students with the languages and civilizations of the modern Middle East, China and Japan as well as the classical traditions of those locales. In addition to reading texts in the original languages, the student may elect courses from a wide range of offerings for which no language other than English is required. A student who wishes to major in the Department should plan a program with the Departmental adviser as soon as possible after entering the University. Each program is arranged individually to combine the most varied advantages consistent with the student's interests and purposes.

Bachelor of Arts Degrees

Admission Requirements for this program are satisfied by the general requirements for undergraduate admission to the University; see page 23.

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 250) and the University General Education Requirements (see page 17), as well as the major requirements of one of the following major degree 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 16, 35, and 250.
Major Requirements

Near Eastern Languages: A major concentration in Near Eastern languages consists of: a) a concentration in either Arabic or Hebrew; or b) joint study of both languages.

The major with a concentration in Arabic or Hebrew requires twenty-four credits in language or language-related courses (i.e., linguistics or literature) beyond first year proficiency. In addition, the student must take twelve credits in elective courses in ancient Near Eastern, Israeli, or Arab/Islamic culture/civilization, or Islamic and modern Middle East history.

The major with a joint study in both Arabic and Hebrew requires first-year proficiency in both Arabic and Hebrew. Beyond that, the student must take twelve credits in elective courses in either Arabic or Hebrew language or language-related courses and eight credits in such courses in the other language. In addition, the student must take nine credits in elective courses in ancient Near Eastern, Israeli, or Arab/Islamic culture/civilization, or Islamic and modern Middle East history.

Near Eastern Studies: A major concentration in Near Eastern studies consists of eleven credits beyond first year proficiency in Arabic or Hebrew. In addition, the student must take twenty-seven credits in elective courses with no less than six credits in three of the following four subject areas: ancient Near Eastern civilization; Israeli culture/civilization; Arab/Islamic culture/civilization; Islamic and modern Middle East history.

Asian Studies: A major concentration in Asian studies consists of: a) 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 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 in language and/or linguistics courses in one of the two languages and eight credits in 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

Arabic: A minor in Arabic consists of a minimum of twenty-two credits. These include eleven credits in Arabic language, literature, or language-related courses (for example, linguistics) beyond Arabic 1010 and 1020. They also include at least three units in cognate courses in related areas such as N E 2000, 2030, 2040, or 3550.

Hebrew: A minor in Hebrew consists of a minimum of twenty-two credits. These include eleven credits in Hebrew language or literature courses beyond Hebrew 1010 and 1020. They also include at least three units in cognate courses in related areas such as N E 2060, 3225, or 5240.

Near Eastern Studies: A minor in Near Eastern Studies consists of a minimum of twenty-five credits. These include at least sixteen credits in either Arabic or Hebrew, taking the 1010-1020, 2010-2020 sequence in either language. In addition, the student must take at least nine credits in cognate courses offered by the Department in the fields of ancient Near Eastern, Israeli, or Arab/Islamic and Middle Eastern history, anthropology, or civilization.

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.

Honors Program

The Honors Program in Near Eastern and Asian Studies is open to students of superior academic ability who are majoring in near eastern and asian studies. 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).

Financial Aid

ARABIC SCHOLARSHIPS:

Salim Khalidieh Memorial Scholarship: Dr. Salim Khalidieh, who passed away on April 10, 2001, taught Arabic for 4 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. Khalidieh the Department has established the Salim Khalidieh 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 merit for 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.

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.
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 483.

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 1010. 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 Arab Culture through Travel Literature: In the Footsteps of Ibn Batuta. (ARB 6220) (NE 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. (F)

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 as basic reading materials. (W)

5100 Teaching of Arabic as a Foreign/Second Language (TAFL). (NE 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)

5120 Arabic Sociolinguistics. (LIN 5210) (NE 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) (NE 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)

ASIAN STUDIES COURSE (ASN)

3010 Contemporary Chinese Pop Culture. (CHI 3010) Cr. 3  
Contemporary Chinese culture: historical, political, economical, and global perspectives. (W)

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)

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. (Y)

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)
**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)

3050  Survey of Modern Hebrew Literature in English.  (N E 3050)  Cr. 3  
From Bialik to Amichai; traditions and Enlightenment, pioneerism, local color literature, urban malice, holocaust.  
(Y)

3990  Directed Study.  Cr. 1-6  
Directed study tailored to student and faculty interests and specializations.  
()  

5240  Survey of Modern Hebrew Literature in English.  (N E 5240)  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)

5990  Directed Study.  Cr. 3-6 (Max. 9)  
Directed study tailored to student and faculty interests and specializations.  
(T)

**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)

3010  Advanced Japanese I.  Cr. 4  
Prereq: JPN 2020 or equiv. 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. 4  
Prereq: JPN 3010 or equiv. Introduction to language pertinent to media communication, using written, visual, and/or audio materials.  
(Y)

3030  Japanese Reading and Writing.  Cr. 4  
(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. 4  
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, 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)
# NEAR EASTERN STUDIES COURSES (N E)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Notes</th>
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<tbody>
<tr>
<td>1900</td>
<td>Comparative Religion</td>
<td>Cr. 3</td>
<td></td>
<td>Origins of religion: its social importance, its structure (fetish, totemism, myth, ritual). Pre-historic religion and the major religious traditions.</td>
</tr>
<tr>
<td>2000</td>
<td>(FC) Introduction to Islamic Civilization of the Near East</td>
<td>Cr. 3</td>
<td></td>
<td>The origin of Islam: growth of Islamic institutions.</td>
</tr>
<tr>
<td>2010</td>
<td>The Bible and Ancient Mythology</td>
<td>Cr. 3</td>
<td></td>
<td>The Bible and Biblical religion in the context of its antecedents in the ancient world.</td>
</tr>
<tr>
<td>2030</td>
<td>(HS) The Age of Islamic Empires: 600-1600</td>
<td>(HIS 1800) Cr. 3</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>2040</td>
<td>(HS) The Modern Middle East</td>
<td>(HIS 1810) Cr. 3</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>2050</td>
<td>(CD) East Meets West: Intercultural Skills for Engineers</td>
<td>Cr. 3</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>2060</td>
<td>Hebrew/Israeli Film: Trends and Themes in Israeli Cinema</td>
<td>Cr. 3</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>2110</td>
<td>(HIS 1710) History of Modern East Asia</td>
<td>Cr. 3</td>
<td></td>
<td>From beginning of nineteenth century to the present; emphasis on political, social, economic developments in China, Japan and Korea.</td>
</tr>
<tr>
<td>2700</td>
<td>Topics in Middle Eastern Studies</td>
<td>Cr. 1-8 (Max. 8)</td>
<td></td>
<td>Specialized topics related to the Middle East: language, literature, etc.</td>
</tr>
<tr>
<td>3010</td>
<td>Survey of Jewish Civilization and History</td>
<td>(HIS 3010) (HIS 6005) (N E 6005) Cr. 4</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>3040</td>
<td>Twentieth Century Middle East</td>
<td>(HIS 3320) Cr. 3</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>3050</td>
<td>(HEB 3050) Survey of Modern Hebrew Literature</td>
<td>Cr. 3</td>
<td></td>
<td>From Bialik to Amichai; traditions and Enlightenment, pioneerism, local color literature, urban malice, holocaust.</td>
</tr>
<tr>
<td>3060</td>
<td>Ancient Near East Literature</td>
<td>Cr. 3</td>
<td></td>
<td>Concentration on wisdom literature and the wisdom teacher.</td>
</tr>
<tr>
<td>3061</td>
<td>Oral History in Middle Eastern Tradition</td>
<td>(ANT 3061) Cr. 3</td>
<td></td>
<td>Methodologies and practices of oral history. Study of the culture, history and shared experiences of Diaspora communities originating from the Middle East.</td>
</tr>
<tr>
<td>3120</td>
<td>Biblical Narratives in English Translation</td>
<td>Cr. 3</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>3220</td>
<td>Arab Culture through Travel Literature: In the Footsteps of Ibn Batuta</td>
<td>(ARB 3220) (ARB 6220) (N E 6220) Cr. 3</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>3225</td>
<td>Modern Israeli Culture: A Pluralistic Perspective</td>
<td>Cr. 3</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>3320</td>
<td>Muhammad: Life of the Prophet</td>
<td>Cr. 3</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>3520</td>
<td>Women and Gender in Middle East History</td>
<td>(W S 3520) Cr. 3</td>
<td></td>
<td>Women's role in Middle East history; impact of religion, culture, social and economic change on construction of gender in the Middle East.</td>
</tr>
<tr>
<td>3550</td>
<td>(ANT 3550) (FC) (CD) Arab Society in Transition</td>
<td>Cr. 3</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>3825</td>
<td>(HIS 3825) History of Modern China</td>
<td>(HIS 5825) (N E 5825) Cr. 4</td>
<td></td>
<td>From early 1600s to the present; political, economic, and social changes.</td>
</tr>
<tr>
<td>3855</td>
<td>(HIS 3855) History of Pre-Modern Japan</td>
<td>(HIS 5855) (N E 5855) Cr. 4</td>
<td></td>
<td>Japanese history from its mythical origins to early nineteenth century; political, economic, cultural developments.</td>
</tr>
<tr>
<td>3865</td>
<td>(HIS 3865) History of Modern Japan</td>
<td>(HIS 5865) (N E 5865) Cr. 4</td>
<td></td>
<td>Japanese history from the early nineteenth century to the present; emphasis on political, economic, and social developments.</td>
</tr>
<tr>
<td>3875</td>
<td>(HIS 3875) Women in Japanese History</td>
<td>(HIS 5875) (N E 5875) Cr. 4</td>
<td></td>
<td>From ancient times to the present. Reading-intensive course.</td>
</tr>
<tr>
<td>3990</td>
<td>Directed Study</td>
<td>Cr. 3-6 (Max. 9)</td>
<td></td>
<td>Prereq: consent of chairperson. Readings; consultations and reports.</td>
</tr>
<tr>
<td>4750</td>
<td>Colonization and Decolonization in North Africa: The Example of Algeria</td>
<td>AFS 4750 Cr. 3</td>
<td></td>
<td>European (French) colonization in North Africa with emphasis on Algeria. Theoretical principles of nineteenth century colonization;</td>
</tr>
</tbody>
</table>
emergence of national liberation movements. Socio-economic impact of colonization on Algeria through the 1990s. (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)

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)

5750  (ENG 5750) Theories of Second Language Acquisition. (CLA 5750) (FRE 5750) (GER 5750) (ITA 5750) (LIN 5750) (SPA 5750) Cr. 3
Investigation of theories in second language acquisition. Review of research in development of second language competence: phonology, lexis, semantics, syntax, discourse, and pragmatics. (B)

5810  (FRE 5810) Teaching Foreign Languages: Receptive Skills. (CLA 5810) (CLA 7810) (FRE 7810) (GER 5810) (GER 7810) (ITA 5810) (ITA 7810) (LED 5810) (LED 7810) (N E 7810) (SPA 5810) (SPA 7810) Cr. 3
Prereq: N E 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  (FRE 5820) Teaching Foreign Languages: Productive Skills. (CLA 5820) (CLA 7820) (FRE 7820) (GER 5820) (GER 7820) (ITA 5820) (ITA 7820) (LED 5820) (LED 7820) (N E 7820) (SPA 5820) (SPA 7820) Cr. 3
Prereq: N E 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)

5825  (HIS 3825) History of Modern China. (HIS 5825) (N E 3825) Cr. 4
From the rise of the last dynasty in the early seventeenth century to the present. (B)

5830  (GER 5830) Technology in the Foreign Language Classroom. (CLA 5830) (CLA 7830) (FRE 5830) (FRE 7830) (GER 5830) (GER 7830) (ITA 5830) (ITA 7830) (LED 5830) (LED 7830) (N E 7830) (SPA 5830) (SPA 7830) Cr. 3
Prereq: N E 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  (GER 5850) Foreign Language Instruction. (CLA 5850) (CLA 7850) (FRE 5850) (FRE 7850) (GER 5850) (GER 7850) (ITA 5850) (ITA 7850) (LED 5850) (LED 7850) (N E 7850) (SPA 5850) (SPA 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  (GER 5860) Foreign Language Testing. (CLA 5860) (CLA 7860) (FRE 5860) (FRE 7860) (GER 5860) (GER 7860) (ITA 5860) (ITA 7860) (LED 5860) (LED 7860) (N E 7860) (SPA 5860) (SPA 7860) Cr. 3
Prereq: N E 5750 or 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. (B)

5865  (HIS 3865) History of Modern Japan. (HIS 5865) (N E 3865) 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. (HIS 5875) (N E 3875) Cr. 4
From ancient times to the present. Reading-intensive course. (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 English proficiency exam, 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 consultation 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: NE 2040 or NE 3040 or consent of instructor. Arabic litera-
ture 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 contemporary world.  Religion and science; religion
and violence; religious pluralism; religion, patriarchy, and feminism.  (I)

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), K.-L. Catherine Jen, Leora A. Shelef

Associate Professors
Ahmad R. Heydari

Assistant Professors
Peter Bodary, Pramod Khosla, Smiti Gupta

Adjunct Assistant Professor
Karen Rossman

Lecturers
Tonia Reinhard, Mary E. Width

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 or the food science
profession; 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 under-
graduate admission to the University, page 23. Students contemplat-
ing 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 stu-
dents 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 250) and the University
General Education Requirements (see page 17), as well as the major
requirements of one of the following programs. 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 16, 35, and 250.
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 2130, 2140, 2210, 2220, 5130, 5140, 5220, 5230, 6160, 6850 and an additional six 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 advisor 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 2130, 2140, 2210, 2220, 5130, 5140, 5230, 5250, 6160, 6850 and an additional three credits of upper division NFS courses
- Biological Sciences 1500, 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 in which entry is desired. 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: 2130*, 2140*, 2210*, 2220*, 2230, 2250, 2280, 2290*
- Anthropology 2100* or Sociology 2000*
- Biological Sciences 1510*, 2200*, 2870*
- Chemistry 1220*, 1230*, 1240*, 1250*, 2220*
- Economics 2010*
- Psychology 1020*
- Statistics 1020*
- Management 2530*

**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 pages 250 and 17).

**DIETETICS SEQUENCE**

- Nutrition and Food Science 4100, 4120, 4210, 4220, 5220, 5230, 5250, 5350, 6850

**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 2210 Honors section.

**Honors Requirements:**

1. Enroll in the Honors section of Nutrition and Food Science 2210.
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 2130, 2140, 2210, 2220, and an additional ten 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 thirty 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 February 15 for program entry for 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-’ or below must be repeated. Dietetics courses include Food service Management, Medical Nutrition Therapy (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, 6850

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 483.

2030 (LS) (ST) Nutrition and Health. Cr. 3
Meet 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
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)

2210 Human Nutrition. Cr. 3-4
Prereq: CHM 1030, BIO 2870. Students in honors section elect for four credits. Principles of the science of nutrition. Emphasis on physiological requirements of nutrients for human growth, development and maintenance within the life cycle. Honors students participate in additional reading, discussion and presentations. (F,W)

2220 Nutrition Laboratory. Cr. 1
Coreq: NFS 2030 or 2210. Laboratory course for introductory nutrition. Material Fee as indicated in the Schedule of Classes (F,W)

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. 1
Prereq: NFS 2210; coreq: NFS 5220, 5350. Interpretation of lab values in assessing patients, review of medical records, medical terminology. (F)

4120 Nutrition Care Process II. Cr. 2
Prereq: NFS 4100, 5220, 5350; coreq: NFS 5250. Nutritional assessment, documentation in the medical record, planning therapeutic diets. (W)

4210 Dietetic Practice I. Cr. 10
Prereq: NFS 5230, 5250; coreq: 5200, 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)

4220 Dietetic Practice II. 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)
5350 Organization and Management of Food Service Systems. Cr. 4
Prereq: NFS 2130, 2140, 2210. 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 2130 and BIO 2210 or equiv. 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, NFS 2130, 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)

6160 Food Laws and Regulations. Cr. 3
Prereq: NFS 2210. 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)

6210 Nutrition through the Life Cycle. Cr. 3
Prereq: NFS 2030 or 2210. Biological growth and nutritional requirements from fetal stages of development through aging. Nutritional standards in light of current epidemiological data and scientific research. (I)

6230 Nutrition and Physical Performance. (NFS 7230) Cr. 3
Prereq: NFS 2030 or 2210. 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 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: consent of instructor; senior standing. Topics to be announced in Schedule of Classes. (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

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Guy Stern, German and Slavic Studies
Kevin Deegan Krause, Political Science
Marvin Zalman, Criminal Justice

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 with their own majors training, study, and experience in peace studies and the emerging field of dispute 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, 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 17), 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. These may be chosen generally from the list below, or may be focussed in one of seven specialty areas: race, gender and religion; peace and conflict theory; human rights; international issues of peace and conflict studies; peace and conflict studies in the United States; peace studies in human development; and dispute resolution. Some electives may also count toward satisfaction of major requirements or of college group requirements.

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 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 & 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
PCS 2020 -- (ST) Science, Technology and War (HIS 2510) (P S 2440): Cr. 4
PCS 2050 -- (CD) The Study of Non-Violence: Cr. 3
PCS 5550 -- (CD) Ethnicity: Politics of Conflict & Cooperation (AFS 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 -- (CD) 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

(Elective courses can count as 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 -- (CD) Race and Racism in America (SOC 2600): Cr. 3
AFS 3420 -- (CD) Pan-Africanism: Politics of the Black Diaspora (P S 3820): Cr. 4
AFS 3860 -- (CD) Race, Class & the Criminal Justice System (SOC 3860): Cr. 3
AFS 5570 -- (CD) Race Relations in Urban Society: Cr. 3
ANT 3110 -- (CD) Detroit Area Minorities: Arabs, Hispanics, and African Americans: Cr. 3-4

(Additional courses can count as electives)

ANT 3530 -- (CD) Native Americans: Cr. 3

362 College of Liberal Arts and Sciences
To receive a Minor in Peace and Conflict Studies, a student must complete four core courses (PCS 2000, 6000, and one from each of the other core groups above), in addition to six credits in conflict-related elective courses, all of which must be upper-divisional. Electives may be selected from the courses listed above, or from other curricula, with approval of the Peace and Conflict Studies Director.
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 483.

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. (T)

2020 (ST) 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 (CD) 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) (CD) 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. 3
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)
Major Requirements: 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 the 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 College Honors Program, and

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 major. Students interested in becoming candidates for the Honors Degree in philosophy should consult the Director of Undergraduate Studies in the Philosophy Department.

Minor in Philosophy

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 2000 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.

Students who are planning to minor in philosophy should consult the Director of Undergraduate Studies in the Philosophy Department.

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 483.

Introductory Courses

1010 (PL) Introduction to Philosophical Systems. Cr. 3-4 (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. 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. 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) (EI) Contemporary Moral Issues. Cr. 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 (EI) Ethical Issues in Health Care. Cr. 3
No credit after PHI 1120. 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) (EI) Professional Ethics. Cr. 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. (T)

1850 Introductory Symbolic Logic. (LIN 1850) Cr. 3
The logic of propositions; the general logic of predicates and relations. (Y)

1860 Honors Introductory Symbolic Logic. (LIN 1860) Cr. 3
Open only to Honors students. See PHI 1850. (Y)

History of Philosophy

2100 (PL) Ancient and Medieval Philosophy. Cr. 3
Introduction to the Western philosophical tradition from its origins in Ancient Greece through the medieval period. Unifying themes and important contrasts between the two eras will be stressed. Readings from the pre-Socratics, Plato, Aristotle, Augustine, and Aquinas. (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)

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) (El) Introduction to Ethics. Cr. 3-4
Only Honors students may register for four credits. 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 (El) 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: upper division undergraduate status. No credit after PHI 5270. 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. Topics to be announced in Schedule of Classes. (I)

5270 Philosophy of Law. Cr. 4
Prereq: one philosophy course at the 2000 level or above or pre-law or law student standing or consent of instructor. Intensive investigation and discussion of special topics or particular authors in the philosophy of law. (B)

5280 (El) 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 (El) Twentieth Century Analytic Ethics. Cr. 4
Prereq: any philosophy course at the 2000 level or above or consent of instructor. Important twentieth century moral philosophers in the analytic tradition, such as G.E. Moore, W.D. Ross, Hare, Stevenson, Baier and Rawls. (B)

Philosophical Problems

2400 Introduction to the Philosophy of Religion. Cr. 3
Religious beliefs provide subject matter for philosophical study: 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? Discussion of these questions will assist in evaluating a pervasive element within 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  (ST) 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  (ST) 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. Topics and authors to be announced in Schedule of Classes.  (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. Topics and authors to be announced in Schedule of Classes.  (Y)

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 in the theory of knowledge. Topics and authors to be announced in Schedule of Classes.  (I)

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. Frege, Russell, Moore, the early Wittgenstein, Carnap.  (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. Quine, Austin, Ryle, the later Wittgenstein, Sellars, Grice, Davidson, Kripke, Putnam.  (I)

Logic
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  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  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. Metaregents 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.  (I)

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.  (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. Topics to be announced in Schedule of Classes.  (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 English proficiency exam; 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 imperfecting skills in philosophical writing.  (T)
Physics and Astronomy

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Chairperson: Ratna Naik (maik@wayne.edu)
Associate Chairperson: Jogindra M. Wadehra
Academic Services Officer: J. Scott Payson
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Professors

Associate Professors
Giovanni Bonvicini, Sean Gavin, Robert F. Harr, Peter M. Hoffmann, Boris Nadgorny, Karur R. Padmanabhan, Alexey Petrov

Assistant Professors
Zhi-Feng Huang, Gavin Lawes, Ashis Mukhopadhyay, Steven Rehse

Adjunct Professors
Gregory W. Auner, Ivan Avrutsky, Elizabeth Buc, Xiaoyan Han, Vaman Naik, Prem Vaishnava

Degree Programs
BACHELOR OF ARTS with a major in 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 various programs is contingent upon admission to the College, requirements for which are satisfied by the general undergraduate admission requirements for the University; see page 23.

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 250) and the University General Education Requirements (see page 17), 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, 35, and 250.

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).
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 one of the following three PHY courses: 5500 or 6400 or 6600.
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.


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 17).

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 bachelor’s and masters degrees in physics. Contact departmental adviser for further information.

Honors Program

Undergraduate majors 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.
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, 2020, and 3100. The laboratories connected with AST 2010, PHY 1020, 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 483.

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)

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. 3-4
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) (ST) 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; fusion and fission; 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)

2020 (ST) Science, Technology, and War. (HIS 2510) (PS 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. 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. 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. 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. 4
Prereq: MAT 210; coreq: MAT 220. 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.

2180 General Physics. Cr. 4
Prereq: PHY 2170, MAT 2020; coreq: PHY 2181 and MAT 2030. 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.

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

2185 General Physics. Cr. 4
Prereq: PHY 2175, MAT 2020; coreq: MAT 2030. 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.

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 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.

3100 (PS) The Sounds of Music. Cr. 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

3300 Introductory Modern Physics. Cr. 3
Prereq: PHY 2180 or consent of instructor; coreq: MAT 2150 and, 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.

3310 Modern Physics Laboratory. Cr. 1
Prereq: PHY 2140 or 2180; coreq: PHY 3300. 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

3990 Directed Study. Cr. 1-3
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.

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.

5015 Nonclassical Physics for Educators. (PHY 7010) Cr. 3

5030 Plasma Physics. Cr. 3
Prereq: PHY 6600, or 2180 and consent of instructor. Introduction to plasma physics for students in science and engineering. Motion of charged particles in electromagnetic fields; magnetotronic 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.

5100 Methods of Theoretical Physics I. Cr. 3
Prereq: PHY 2180, MAT 2030. Introduction to mathematical tools used in advanced courses in physics.

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.

5210 Classical Mechanics II. Cr. 3

5340 Optics. Cr. 3
Prereq: PHY 2140 or PHY 2180, MAT 2030; coreq. for PHY majors: PHY 5341. Electromagnetic radiation; geometrical, physical, and modern optics.

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

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.

5620 Electronics and Electrical Measurements. Cr. 5
Prereq: PHY 2180 or 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

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.
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)

6450 Introduction to Material and Device Characterizations. Cr. 4
Coreq: PHY 7050 or ECE 5550 or ECE 5550 or equiv. Lecture/laboratory; introduction to analytic and measurement techniques for characterizing and evaluating materials, especially for potential applicability in sensor and integrated devices. Techniques include diffraction and microscopy methods, electron spectroscopies, and electrical, optical and magnetic measurements. (W)

6570 (ECE 6570) Smart Sensor Technology I: Design. (BME 6470) 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)

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. (F)

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)

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)

6991 Special Topics. Cr. 1-4 (Max. 4)
Prereq: consent of instructor. Offered for S and U grades only. Topics and prerequisites for each section to be announced in Schedule of Classes. More than one section may be elected in a semester. (Y)

Political Science

Office: 2040 Faculty/Administration Building; 313-577-2630
Chairperson: Daniel S. Geller (Email: av0844@wayne.edu)
Website: http://www.cia.wayne.edu/polisci/

Professors

Associate Professors
Ronald E. Brown, James T. Chalmers, Kevin Deegan-Krause, Ewa Golebiowska, Mary Herring, Brad Roth, Marjorie E. Sarbaugh-Thompson, John M. Strate

Assistant Professors
Jered Carr, Timothy A. Carter, 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. It also provides opportunities for study and training directed toward specific career objectives.

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.
Bachelor of Arts with a Major in Political Science

Political science majors are afforded the 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 23. 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 251).

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 250) and the University General Education Requirements (see page 17), 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 16, 35, and 250.

Major Requirements: A political science major must satisfactorily complete at least thirty-two credits of course work in the Department. This course work must include:

1. One introductory course in American government (PS 1010 or 1030).
2. At least one course from the following: PS 2510, 2710, 2810, 2820.
3. At least four courses at the 3000 level or higher. (PS 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 course in political science with co-registration in PS 5993, in order to satisfy the Writing Intensive Course in the Major requirement. Any political science course at the 3000-level or higher, except PS 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 PS 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.

Recommended Course: It is recommended that majors include PS 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.

American Government and Politics: Public opinion, electoral politics, and participation in the political process; the role of political parties and interest groups; the workings of Congress, the Presidency, and other governmental institutions. Courses relevant to this area of concentration include (but are not limited to): PS 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; law enforcement and the operations of the judicial system; international dimensions of law. Relevant courses include: PS 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: PS 2000, 2240, 3250, 6020, 6440, and 6455.

Public Administration: The nature and functions of public agencies; techniques of public management; public bureaucracy in its social setting. Relevant courses include: PS 2310, 2992, 3430, 6120, 6340 and 6700.

Public Policy: How policy is formulated, decided, implemented, and evaluated; moral and political standards for making policy. Relevant courses include: PS 2410, 2420, 2460, 2992, 3430, 3450, 3840, 4460, 5850, 6430, 6440, 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: PS 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: PS 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: PS 2710, 3710, 3715, 3735, 4710, and 4799.

World Politics: Conflict and cooperation among nations; causes of war and the pursuit of peace; international organizations and multinational 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: PS 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 PS 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.) degree program 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 the 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 23. 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 251).

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 250), excepting that the College’s foreign language requirement need not be satisfied.
3) Satisfy the University General Education Requirements (see page 17).
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 16, 35, and 250.

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 work in a concentration area.

A Writing Intensive course in political science with a co-registration in P S 5993 is also required, in order to satisfy the Writing Intensive Course in the Major requirement. 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. 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.

B.P.A. Core Curriculum: Candidates for the B.P.A. degree must satisfy the following core course requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 2010</td>
<td>(SS) Principles of Microeconomics</td>
<td>3-4</td>
</tr>
<tr>
<td>ECO 2020</td>
<td>(SS) Principles of Macroeconomics</td>
<td>3-4</td>
</tr>
<tr>
<td>P S 1010 or P S 1030</td>
<td>American Government: Cr. 4</td>
<td></td>
</tr>
<tr>
<td>P S 2410</td>
<td>(AI) American Governmental System: Cr. 3</td>
<td></td>
</tr>
<tr>
<td>P S 2420 or P S 2460</td>
<td>Introduction to Public Policy: Cr. 4</td>
<td></td>
</tr>
<tr>
<td>P S 3600 or P S 5630</td>
<td>Ethics and Politics of Public Policy: Cr. 4</td>
<td></td>
</tr>
<tr>
<td>P S 4460</td>
<td>Techniques of Policy Analysis: Cr. 1</td>
<td>0</td>
</tr>
<tr>
<td>P S 5993</td>
<td>Writing Intensive Course in P S: Cr. 0</td>
<td>(taken in conjunction with a 3000-level or higher concentration course)</td>
</tr>
</tbody>
</table>

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.

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 Liberal Arts Honors Program (consult the Liberal Arts section of the University Schedule of Classes under ‘Honors Program’).

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 on additional honors-designated course work, consult the undergraduate adviser or the Director of the Honors Program (313-577-3030) or at website: www.honors.wayne.edu.

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 253); 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 254, above, and the section on the Office of Student Financial Aid, page 33. 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 Honoray 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 483.

1000  (SS) Introduction to Political Science. Cr. 3
Introduction to the scope and method of political science. Overview of politics, political systems, and role of political institutions. Empirical political theory; practice in conducting political research.  (Y)

1010  (AI) American Government. Cr. 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)

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 and problems in specific 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. Various models of political decision making. (T)

2420 (EI) 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) (ST) Science, Technology, and War. (HIS 2510) (PCS 2020) Cr. 4
Prereq: P S 1010 or 1030. 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)

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) (CD) 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 (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 or international 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 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. Collateral reading, written work and arranged conferences with faculty supervisor. (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 public 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 an era of candidate-centered American 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 (CD) 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 (CD) 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
Introductory 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 major theories of law, authority, freedom, and political obligation; justifications of disobedience, resistance and revolution. (B)

3515 Political Culture in Modern North America. Cr. 4
American political culture and thought through modern history from 1930 to the present. Variety of 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 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. Aspects of 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 democrati-
ization or economic inequality. Questions explored include: What is economic globalization? Is it really new? What caused its recent resurgence? 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 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 (CD) 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)

5740 (CD) 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; 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 (CD) 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)

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 English proficiency exam, 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.

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. (Y)

6050 (CD) 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 Labor and American Politics. (IR 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)

630 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)
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 liberal 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 visit the Department’s website or 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 23.

Declaring a Major: Before declaring a major in psychology, students must complete PSY 1010, Introductory Psychology, or PSY 1020, Elements of Psychology, and have at least a 2.0 overall grade point average. PSY 1010 is recommended over PSY 1020 for students who intend on declaring a major in psychology. Although students normally declare their major during the semester in which they will have earned sixty credits, they may declare a major in psychology prior to that time.

A student is not considered a psychology major until he/she completes the process to declare a major, the first step of which is an appointment with an adviser at the University Advising Center. The second step in the process is an appointment with the Psychology Undergraduate Adviser. The final step is delivery of the signed Declaration of Major form to the Dean’s Office of the College of Liberal Arts and Sciences.

DEGREE REQUIREMENTS: Candidates for the bachelor’s degree must complete 120 credits in course work including satisfaction of College Group Requirements (see page 250) and the University General Education Requirements (see page 17), 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 16, 35, and 250.

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 Introductory Psychology. Degree requirements include:

- PSY 1010 – (LS) Introductory Psychology: Cr. 4
- 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 PSY 1010. Transfer students are advised to take PSY 3010 in their first semester at Wayne State, or within one year of completion of PSY 1010. PSY 3010 is important in preparation for other courses, especially PSY 3050, 3070, and 3090.

One lecture/laboratory combination chosen from the list below:

- PSY 3040 – Psychology of Perception: Fundamental Processes: Cr. 3 and PSY 3050 – Laboratory in Psychology of Perception: Cr. 2
- OR PSY 3060 – Learning and Memory: Fundamental Processes: Cr. 3 and PSY 3070 – Laboratory in Learning and Memory: Cr. 2
- OR PSY 3080 – Cognitive Psychology: Fundamental Processes: Cr. 3 and PSY 3090 – Laboratory in Cognitive Processes: 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 2400 – Developmental Psychology: Cr. 4
- PSY 2600 – (CL) Psychology of Social Behavior: Cr. 4
- PSY 3120 – Brain and Behavior: Cr. 3
- PSY 3350 – Psychology of Personality: Cr. 3
- PSY 3500 – Psychology and the Workplace: 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 requires a minimum of sixty credits in the natural sciences. Of these sixty credits a minimum of twenty-seven credits must be earned in natural science outside the field of psychology. See the Psychology Undergraduate Adviser for a list of applicable science classes.

The Bachelor of Arts degree incorporates all of the College Group Requirements; see page 250.

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). In addition, there is a senior Honors course (4998) in which students complete a senior thesis.

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 2410, 3310, 3120 or 5050; plus one of the following electives: PSY 2080, 2400, 2600, 3380, 5070, 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 major) are eligible in their senior year to participate in accelerated graduate enrollment (‘AGRADE’) programs leading to either a Masters of Arts in Human Development or a Masters of Arts in Industrial/Organizational Psychology. 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 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 Human Development and 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 33.

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 483.

1010  (LS) Introductory Psychology.  Cr. 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)

1500  (SS) Freshman Seminar.  Cr. 3
Open only to freshman students.  (I)

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)

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

2410  Health Psychology.  Cr. 4
Prereq: PSY 1010 or 1020. Clinical, social, developmental, and biopsychosocial 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  (CD) Psychology of Racism.  Cr. 3
Dynamics and attendant problems of racism directed toward African Americans. Lectures, class discussions, film presentations.  (I)

2600  (CD) 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. 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 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)

3270 Eating Disorders. (NFS 3270) 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)

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)

3500 Psychology and the Workplace. Cr. 3
Prereq: PSY 1010 or 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)

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. (Y)

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. (Y)

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. (Y)

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. (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. 2-3 (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 Developmental Psychology. Cr. 3
Prereq: admission to master's program in human development. Basic principles of research 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. (Y)

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) (CD) 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. (T)

5993 (WI) Writing Intensive Course in Psychology. Cr. 0
Prereq: junior standing; satisfactory completion of English proficiency exam, 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 Psychology of Infant Behavior and Development. Cr. 3
Prereq: graduate standing or PSY 2400 and 2430. 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)

6470 Human Development Practicum: Infancy. Cr. 3
Prereq: satisfactory health record. Orientation to infant research, assessment, and programming. Experience in infant observation and testing within the Psychology Child Development Laboratory. (W)

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)

6510 Organizational Theory. Cr. 3
Prereq: PSY 3500 or equiv., or consent of instructor. Not open to Ph.D. 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 3500, or consent of instructor. Not open to I/O majors. Employee motivation, job attitudes, leadership and management development; related aspects of organizational behavior, design and development. (Y)

6540 Organizational Staffing. Cr. 3
Prereq: PSY 3500 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
Prereq: PSY 3500 or equivalent industrial/organizational psychology course with consent of instructor. 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 graduate students. Field and lab research methods for workplace settings. (I)

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. 1-3 (Max. 6)
Prereq: senior standing; psychology major with 3.0 g.p.a. or honors program seniors. Topics to be announced in Schedule of Classes. (I)

Romance Languages and Literatures

Office: 487 Manoogian Hall; 313-577-3002
Chairperson: Margaret E. Winters
Academic Services Officer: Terrie Pickering
Website: http://www.langlab.wayne.edu/Romance/Romance.html

Professors
Fernande Bassan (Emerita), Jorgelina Corbatta, Andrea di Tommaso (Emeritus), Jesus Gutierrez (Emeritus), Francisco J. Higuero, Donald E. Schurknight, Donald C. Spinelli, Charles J. Stivale, Richard Vernier (Emeritus), Margaret E. Winters

Associate Professors
Catherine Barrette, Eugenia Casielles, Anne E. Duggan, Michael J. Giordano, Louise M. Jefferson (Emerita), Louis Kibler (Emeritus), Sol Rossman (Emeritus), A. Monica Wagner (Emerita), Helene Weldt-Basson

Assistant Professors
Sergio Rivera-Ayala, Raffaele DeBenedictis, Jose Rico-Ferrer, Victor Figueroa, Sandra Hobbs, Kate Paesani, Elena Past

Lecturers
John Brender, Connie Green, Leslie Marsh, Marilynn Rashid, Laura Schneider, Carole Verhelle

Adjunct Professor
Robert Holley

Director of Foreign Language Laboratories
Sangeetha Gopalakrishnan

Degree Programs

BACHELOR OF ARTS with a major in Romance Languages
MASTER OF ARTS with a major in Romance Languages
DOCTOR OF PHILOSOPHY with a major in Modern Languages

Bachelor of Arts Degree

Admission Requirements for the Bachelor of Arts programs of this department are satisfied by the general requirements for undergraduate admission to the University; see page 23. Students who wish to major in Romance Languages should consult with the undergraduate director as soon as possible.

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 250) and the University General Education Requirements (see page 17), as well as the requirements of one of the following concentrations. All course work must be completed in accordance with the academic procedures of the University and the School governing undergraduate scholarship and degrees; see sections beginning on page 16, 35, and 250.
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’s Divine Comedy, one course in Renaissance Studies (ITA 6680), and one course in Italian literature and culture of the nineteenth century or later.

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 256.

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.

Honors in Romance Languages

The Honors Program in Romance languages is open to students of superior academic ability who are majoring in Romance languages. 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 from any of the departments of the College, including at least one 4000-level seminar given by the Honors Program. (For seminar topics, see the Schedule of Classes, under ‘Honors Program.’) For information about the specific curricular requirements of the department’s honors program, contact the Chairperson of the Department, or the Director of the Honors Program (313-577-3030).

Minors and Cognate Study

Minor Requirements in French: A French minor requires the completion of eighteen to twenty credits in French 2010 or 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.

— Foreign Language Group Requirement

This requirement may be satisfied by passing the first three courses in one language or by proficiency examination; see page 250.

Courses: The student should elect a language as early as possible and continue it without interruption. The courses numbered 1010, 1020, and 2010 are essentially a continuum designed to give the student command of the basic elements of the language. The ‘target’ language is the preferred language of the classroom. There are several hour examinations in each course; group finals are given. The learning of a foreign language requires: a) regular class attendance; b) class participation; c) two hours of concentrated study for each hour in class; d) laboratory attendance. Frequent short visits to the language laboratory are preferable to occasional long cramming sessions.

Placement: The main guide to placement for students who wish to continue the study of a language begun in high school is the number of years of high school language study. Students with one year of high school study are advised to enroll in 1010 for Italian, and 1020 or 1060 for French and Spanish; those with two years, in 1020, those with three years, in 2010. Those with four years of study may elect 2010 in order to satisfy the foreign language requirement or may choose to write the Proficiency Examination administered by the Department. Students with a sufficiently high proficiency score will be deemed to have satisfied the Foreign Language Group Requirement. For information on the Proficiency Examination, contact the Department at 313-577-3002. Examinations are scheduled by appointment at the Department Office, 487 Manoogian Hall. (A fee is charged.)
‘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 (French, Italian, or Spanish): 313-577-3002. Students should consult with the director in their junior year regarding this opportunity.

Financial Aid and Awards

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.

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 483.

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. They will not count toward a major in the foreign language from which the translations are derived.

FRENCH IN ENGLISH TRANSLATION COURSES (FRE)

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.

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.

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.

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.

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.

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.

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.

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.

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.

2500 (CBS 2110) Puerto Rican Literature and Culture. Cr. 3

Examination of Puerto Rican literature. Themes and figures in a social and historical context.

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.
by European existentialist writers: Dostoevsky, Hesse, Kafka, Pirandello, Sartre, Camus, and Unamuno.

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)

**FOREIGN LANGUAGE INSTRUCTION**

**FRENCH COURSES (FRE)**

1010 Elementary French. Cr. 4
Training in pronunciation, aural comprehension, oral and written expression. Laboratory work is part of class preparation. Material Fee as indicated in the Schedule of Classes (T)

1020 Elementary French. Cr. 4
Prereq: FRE 1010 or placement. Continuation of FRE 1010. 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. Training in pronunciation, aural comprehension, oral and written expression, with a review of material normally covered in FRE 1010, followed by in-depth presentation of material covered in FRE 1020. (T)

2010 (FC) Intermediate French. Cr. 4
Prereq: FRE 1020 or placement. Continuation of FRE 1020. Material Fee as indicated in the Schedule of Classes (T)

2100 Intermediate Grammar, Conversation and Composition I. Cr. 3
Prereq: FRE 2100. 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. (Y)

3300 Readings in French and Francophone Literature and Culture. Cr. 3
Prereq: FRE 2100. 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. (T)

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. (Y)

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. (F)

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. (W)

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. (W)

5750 (ENG 5750) Theories of Second Language Acquisition. (CLA 5750) (GER 5750) (ITA 5750) (LIN 5750) (N E 5750) (SPA 5750) Cr. 3
Investigation of theories in second language acquisition. Review of research in development of second language competence: acquisition of phonology, lexicon, semantics, syntax, discourse, and pragmatics. (B)

5810 Teaching Foreign Languages: Receptive Skills. (CLA 5810) (CLA 7810) (FRE 7810) (GER 5810) (GER 7810) (ITA 5801) (ITA 7810) (LED 5810) (LED 7810) (N E 5810) (N E 7810) (SPA 5810) (SPA 7810) Cr. 3
Prereq: FRE 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 Teaching Foreign Languages: Productive Skills. (CLA 5820) (CLA 7820) (FRE 7820) (GER 5820) (GER 7820) (ITA 5820) (ITA 7820) (LED 5820) (LED 7820) (N E 5820) (N E 7820) (SPA 5820) (SPA 7820) Cr. 3
Prereq: FRE 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 (GER 5830) Technology in the Foreign Language Classroom. (CLA 5830) (CLA 7830) (FRE 7830) (GER 5830) (GER 7830) (ITA 5830) (LED 5830) (LED 7830) (N E 5830) (N E 7830) (SPA 5830) (SPA 7830) Cr. 3
Prereq: FRE 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 (GER 5850) Foreign Language Instruction. (CLA 5850) (CLA 7850) (FRE 5850) (FRE 7850) (GER 5850) (ITA 5850) (ITA 7850) (LED 5850) (LED 7850) (N E 5850) (N E 7850) (SPA 5850) (SPA 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 (GER 5860) Foreign Language Testing. (CLA 5860) (CLA 7860) (FRE 5860) (GER 7860) (ITA 5860) (ITA 7860) (LED 5860) (LED 7860) (N E 5860) (N E 7860) (SPA 5860) (SPA 7860) Cr. 3
Prereq: FRE 5750 or consent of instructor. Means of assessing students’ knowledge of a foreign language. Topics include: ACTFL Oral Proficiency Interview; testing of reading, writing speaking and listen-
ing skills; means of testing grammar and culture; testing as it relates to program goals.  (Y)

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.  (F)

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. Study of the principal 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'Aubigné, Montaigne and others. 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)

6655 French Nineteenth Century Literature.  Cr. 3
Prereq: FRE 4610 or 4620 or consent of instructor. The four major movements: 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, literary movement, school or period. Topics will be announced in the Schedule of Classes.  (B)

6670 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 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 will be announced in the Schedule of Classes.  (B)

6840 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)

Special Course (FRE)

5990 Directed Study.  Cr. 1-4 (Max. 8)
Prereq: consent of adviser.  (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.  (T)

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)
5750 (ENG 5750) Theories of Second Language Acquisition. (CLA 5750) (FRE 5750) (GER 5750) (LIN 5750) (N E 5750) (SPA 5750) Cr. 3
Investigation of theories in second language acquisition. Review of research in development of second language competence: acquisition of phonology, lexicon, semantics, syntax, discourse, and pragmatics. (B)

5810 (FRE 5810) Teaching Foreign Languages: Receptive Skills. (CLA 5810) (CLA 7810) (FRE 7810) (GER 5810) (GER 7810) (ITA 7810) (LED 5810) (LED 7810) (N E 5810) (N E 7810) (SPA 5810) (SPA 7810) Cr. 3
Prereq: ITA 5850 or consent of instructor. Current research on acquisition of speaking and writing 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 (FRE 5820) Teaching Foreign Languages: Productive Skills. (CLA 5820) (CLA 7820) (FRE 7820) (GER 5820) (GER 7820) (ITA 7820) (LED 5820) (LED 7820) (N E 5820) (N E 7820) (SPA 5820) (SPA 7820) Cr. 3
Prereq: ITA 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 (GER 5830) Technology in the Foreign Language Classroom. (CLA 5830) (CLA 7830) (FRE 5830) (FRE 7830) (GER 5830) (ITA 7830) (LED 5830) (LED 7830) (N E 5830) (N E 7830) (SPA 5830) (SPA 7830) Cr. 3
Prereq: ITA 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 (GER 5850) Foreign Language Instruction. (CLA 5850) (CLA 7850) (FRE 5850) (FRE 7850) (GER 5850) (ITA 7850) (LED 5850) (LED 7850) (N E 5850) (N E 7850) (SPA 5850) (SPA 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 (GER 5860) Foreign Language Testing. (CLA 5860) (CLA 7860) (FRE 5860) (FRE 7860) (GER 5860) (ITA 7860) (LED 5860) (LED 7860) (N E 5860) (N E 7860) (SPA 5860) (SPA 7860) Cr. 3
Prereq: ITA 5750 or 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)

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. (Y)

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 Galilei, 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)

Special Course (ITA)

5990 Directed Study. Cr. 1-4 (Max. 8)
Prereq: consent of adviser. (T)

SPANISH COURSES (SPA)

1010 Elementary Spanish I. Cr. 4
Ear training, grammar, reading, writing, speaking. Material Fee as indicated in the Schedule of Classes (T)

1020 Elementary Spanish II. Cr. 4
Prereq: SPA 1010 or placement. Continuation of SPA 1010. Material Fee as indicated in the Schedule of Classes (T)

1060 Elementary Spanish I and II. Cr. 6
Only four credits awarded after completion of SPA 1010. Prereq: one year of high school Spanish or one semester of college Spanish. Placement recommended. Training in pronunciation, aural comprehension, oral and written expression; review of material normally covered in SPA 1010 followed by in-depth presentation of material covered in SPA 1020. (T)

2010 (FC) Intermediate Spanish I. Cr. 4
Prereq: SPA 1020 or placement. Grammar review; emphasis on compositions, reading, conversation. Material Fee as indicated in the Schedule of Classes (T)

Romance Languages and Literatures 389
2025 Intermediate Spanish II. Cr. 3

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. (Y)

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 2025 or placement. Discussion of literary and cultural readings from Spain and Spanish America; vocabulary building; speaking and reading emphasized. (Y)

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 consent of instructor. A systematic study of Spanish sounds; conducted in Spanish. (Y)

5200 Spanish Phonetics. Cr. 3
Prereq: SPA 3100 or consent of instructor. A systematic study of Spanish phonetics. 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. (Y)

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)

5750 (ENG 5750) Theories of Second Language Acquisition. (CLA 5750) (FRE 5750) (GER 5750) (ITA 5750) (LIN 5750) (N E 5750) Cr. 3
Investigation of theories in second language acquisition. Review of research in development of second language competence: acquisition of phonology, lexicon, semantics, syntax, discourse, and pragmatics. (B)

5810 (FRE 5810) Teaching Foreign Languages: Receptive Skills. (CLA 5810) (CLA 7810) (FRE 7810) (GER 5810) (GER 7810) (ITA 5810) (ITA 7810) (LED 5810) (LED 7810) (N E 5810) (N E 7810) (SPA 7810) Cr. 3
Prereq: SPA 5850 or consent of instructor. Research on acquisition of reading/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 (FRE 5820) Teaching Foreign Languages: Productive Skills. (CLA 5820) (CLA 7820) (FRE 7820) (GER 5820) (GER 7820) (ITA 5820) (ITA 7820) (LED 5820) (LED 7820) (N E 5820) (N E 7820) (SPA 7820) Cr. 3
Prereq: SPA 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 (GER 5830) Technology in the Foreign Language Classroom. (CLA 5830) (CLA 7830) (FRE 5830) (FRE 7830) (GER 5830) (GER 7830) (ITA 5830) (ITA 7830) (LED 5830) (LED 7830) (N E 5830) (N E 7830) (SPA 7830) Cr. 3
Prereq: SPA 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 (GER 5850) Foreign Language Instruction. (CLA 5850) (CLA 7850) (FRE 5850) (FRE 7850) (GER 5850) (GER 7850) (ITA 5850) (ITA 7850) (LED 5850) (LED 7800) (N E 5850) (N E 7850) (SPA 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 (GER 5860) Foreign Language Testing. (CLA 5860) (CLA 7860) (FRE 5860) (FRE 7860) (GER 5860) (GER 7860) (ITA 5860) (ITA 7860) (LED 5860) (LED 7860) (N E 5860) (N E 7860) (SPA 7860) Cr. 3
Prereq: SPA 5750 or 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)

6400 Introduction to Hispanic Linguistics. Cr. 3
Prereq: SPA 5200 or consent of instructor. Principles of linguistics and their application to Spanish. (B)

390 College of Liberal Arts and Sciences
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. Literary selections 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 and movements 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 Generation of 1898, and representative authors before and after the Civil War; includes such trends as 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-Romantics, Symbolists, the Generations of 1898 and 1927, and the more contemporary poets. (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 modern Spanish theatre, Generation of 1898, 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 poets and their texts from the period of Independence through the early stages of Modernism and Vanguard, 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 first three decades of 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)

Special Course (SPA)

5990 Directed Study. Cr. 1-4 (Max. 8)
Prereq: consent of adviser. (T)
Sociology

Office: 2228 Faculty/Administration Building; 313-577-2930
Chairperson: Leon C. Wilson; e-mail: lcwilson@wayne.edu
Website: http://www.clas.wayne.edu/sociology/index.html

Professors
Joseph Albini (Emeritus), Ross Eshleman (Emeritus), Janet R. Hankin, Mel J. Ravitz (Emeritus), Raye A. Rosen (Emeritus), Mary C. Sengstock, Leon H. Warshay

Associate Professors
Thomas Duggan (Emeritus), David Fasenfest, Heidi Gottfried, Mary J. Van Meter (Emerita), Leon C. Wilson

Assistant Professors
Amy L. Adamczyk, Peter R. Bahr, R. Khari Brown, Heather E. Dillaway, Monica M. White

Affiliated Faculty
Nicole Trujillo-Pagan, Chicano-Boriqua Studies; Rosalie Young, Community Medicine

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 23.

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 250) and the University General Education Requirements (see page 17), 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 16, 35, and 250. 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: Students majoring in sociology are required to elect a minimum of thirty credits in the field, including Sociology 2000, 3300, 4050, 4200, and 4996. Students may not elect more than forty-five credits in course work within the Department. All core courses must be completed with a grade of ‘C’ or better.

Model Plan for Majors

Junior Year: Sociology 3300, 4200, 4050, and elective courses. Students are urged to take Sociology 4200 and 4050, in particular, in the junior year.

Senior Year: Sociology 4996 and elective courses; remaining requirements not taken in junior year.

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. overall g.p.a. of 3.3;
3. sociology g.p.a. of 3.3;
4. an approved honors thesis;
5. at least one 4000-level seminar offered through the Honors Program of the College of Liberal Arts and Sciences; and
6. an accumulation of at least fifteen credits in honors-designated course work. For additional information on honors-designated courses available each semester, consult the University Schedule of Classes, or the Director of the Honors Program (313-577-3030).

‘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.

For more details about the ‘AGRADE’ Program, contact the Director of the College’s Honors Program (313-577-3030), the Chairperson of the Sociology Department, or the Graduate Office of the College of Liberal Arts and Sciences (313-577-2690).

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 as well.

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 (Race, Class, and Gender), and 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), 5570 (Race Relations in Urban Society), 5700 (Race, Class, and Gender).

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), 3820 (Criminology), 3840 (Corrections), 3860 (Race, Class, and the Criminal Justice System), 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 or 5360 (Introduction to Medical Sociology) or 5760 (Society and Aging).

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 criminology. A committee of three faculty members reviews the entries and selects the awardee. A plaque and check for $100 are awarded, and the winner’s name is included on the plaque in the Department Office.

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.

SOCIIOLOGY 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 483.

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.

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.

2050 (PCS 2050) (CD) 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.

2100 Topics in Sociology. Cr. 3 (Max. 9)
Specialized and topical studies of sociological themes. Topics to be announced in Schedule of Classes.

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.

2600 (AFS 2600) (CD) 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.

3030 AIDS and Society. Cr. 3
Survey of social, epidemiological, physiological, legal and preventive issues surrounding AIDS.

3300 (SS) Social Inequality. Cr. 4
Prereq: upper division standing. Structure and process in society, institutions, communities, and organizations. Scientific analysis of organization, conflict, and change in the economy, government, religion, education, and family.

3350 Cults, Myths, and Religions in Society. Cr. 3
Objective analysis of the interrelations between religious phenomena and social institutions, social structure and behavior.

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.

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.

Sociology 393
3820  Criminology. Cr. 3
Review and critique of explanations of criminal behavior. Criminal behavior patterns, sources of crime statistics, social structure of crim-
nality, crime typologies, and other theoretical issues regarding crime
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) (CD) 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)

3870  Hate Crimes. Cr. 3
Analysis of historical and contemporary hate crimes. (Y)

3880  Serial Killers. Cr. 3
Types of men and women who commit multiple murders and what
compels them to do so. Interdisciplinary and sociological factors in
serial killings; response to these killings. (Y)

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 Uni-
versity 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)

4000  Music and Society. Cr. 3
Sociological theories of impact of music in society; social problems
expressed in music. Critical analysis of how music is used individu-
ally; influence of music in everyday living. (F,S)

4050  Basic Sociological Theory. Cr. 4
Introduction to sociological theory from a general conceptual frame-
work. Major concepts, theoretical positions and recent trends in the-
oretical 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 defini-
tions 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 interpre-
tation of data. (Y)

4220  Computing Applications for the Social Sciences. Cr. 4
Open only to sociology majors. Prereq: SOC 4200. Fundamentals
underlying application of computers in conducting social research;
computer-aided statistical analysis; introduction to work processing;
report writing; text editing; software packages for the management of
data sets and the calculation of statistics. (Y)

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 men-
disorder, alcoholism, drug abuse, gender roles and the profes-
sions 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 relation-
ships with men). (Y)

4800  Outsiders and Deviants. (CRJ 4800) Cr. 3
Definition and characteristics of behaviors which have, at times, been
considered deviant, such as: criminality, mental illness, alcoholism,
drug addiction, abortion, prostitution, and pornography. Interdiscipli-
mary theories introduced to facilitate understanding of those behav-
iors, their diagnosis, management, control, and prevention. (T)

4996  (WI) Sociology: Capstone Course. Cr. 4
Prereq: upper division standing. 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)

4999  Honors Thesis in Sociology. Cr. 3 (Max. 6)
Prereq: sociology major; cumulative h.p.a. 3.0, 3.3 in sociology; writ-
ten consent of thesis and honors advisers. Open to juniors and seniors.
For honors students interested in pursuing an independent
program of original research. (Y)

5010  Selected Sociological Topics. Cr. 1-3
Topics to be announced in Schedule of Classes. (I)

5020  (ISP 5510) (CD) End-of-Life Issues. (ANT 5430)
(ANT 7430) (ISP 7510) (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, fami-
lies, and communities. (Y)

5280  (STA 1020) Elementary Statistics. Cr. 3
Prereq: one and one-half years high school algebra. Not to be
counted as a mathematics course by mathematics majors. Descrip-
tive statistics, correlation and regression, notions in probability, bino-
rial and normal distributions, testing hypothesis. (T)

5360  Introduction to Medical Sociology. Cr. 3
Sociological and social psychological examination of health and ill-
ness behavior, health care providers, patient-provider-hospital rela-
tions, 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 soci-
ology and psychology students. (Y)

5400  (CD) The Family. Cr. 3
An introduction to the sociology of the family; forms of organization,
interaction patterns throughout the life cycle, ethnic and cultural dif-
fences, conflict and change. Especially useful for students in social
work, counseling, family and consumer resources, nursing and edu-
cation, 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 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 (CD) 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. (I)

5580 (AFS 5580) (CD) 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 Race, Class and Gender. (SOC 8700) Cr. 3
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 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)

5880 Family Violence: Intervention. Cr. 2
Prereq, or coreq: SOC 5870. Application of theory and intervention techniques in the family experience of maltreatment. (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) (ST) 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)

6290 Advanced Social Statistics. Cr. 4
Prereq: SOC 6280. Multiple and partial correlation and multiple regression, dummy variable analysis, analysis of covariance, causal models for multi-dimensional contingency tables, path analysis techniques, introductory factor analysis, Markov chains, selected additional topics. (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. (B)

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)

6550 Sociological Theory since 1920. Cr. 3
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 I: Research and Theory in Applied and Clinical Settings. Cr. 4
Prereq: graduate standing, undergraduates by consent of instructor. Application to careers in the helping professions. Attention to theory and research in social work, counseling, psychology, and related fields. (B)

6750 Sociology of Urban Health. Cr. 3
Prereq: graduate standing; graduate students or advanced social science undergraduates. Review of theories and research on health status and health care delivery in urban communities. (Y)

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

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Urban Studies Co-Major Program

The Urban Studies Co-Major Program is an undergraduate interdisciplinary course of study leading to a bachelor’s degree with a co-major designation. The co-major format enables students to graduate with two fields of major emphasis. The co-major program is flexible enough to serve a wide variety of student needs and interests.

The ‘Urban’ in Urban Studies includes ‘suburban’; that is, students of urban studies explore the development of metropolitan regions as well as the inner life of specific places within those regions. This project involves students in the exploration of historical, international, economic, and cultural developments and trends, broadly understood, as they also consider more specific and contemporary urban issues.

Admission Requirements to this program are satisfied by the general undergraduate admission requirements of the University (see page 23). When the Declaration of Major form has been completed and the student has been authorized for an approved major by the respective Department, the student may then apply for acceptance in the co-major program through the Department of Geography and Urban Planning. Students may declare their co-major by using the same Declaration of Major form which they use to declare their major, or they may declare their co-major later, using an additional form.

CO-MAJOR REQUIREMENTS: Four core courses (fourteen credits) and eighteen credits of urban-related elective courses, of which at least six must be upper division, are required. All course work must be completed in accordance with the academic procedures of the University and of this college — see sections beginning on page 16, 35, and 250 — and of the College sponsoring the major program taken as a cognate to the urban studies curriculum.

Core Requirements (Fourteen credits)

- U S 2000 (SS) Introduction to Urban Studies
- U S 4510 Cities and Regions (GPH 4510): Cr. 4
- U S 6050 Independent Field Study (GPH 6520): Cr. 2-4

Plus one of the following:

- U S 2992 Political Science Internship: Cr. 4
- U S 6000 Urban Studies Internship: Cr. 1-8

ELECTIVES

Students must complete eighteen credits in urban-related electives. Note that many electives may be used to satisfy major and co-major requirements simultaneously. The following list is not considered exhaustive and additional courses may be approved as electives by the student’s Urban Studies Adviser:

AFS 3160 Black Urban History (HIS 3160): Cr. 4
ANT 3110 Detroit Minorities: Arabs, Hispanics, African Americans: Cr. 3-4
ANT 3200 Lost Cities and Ancient Civilizations: Cr. 3
ECO 5610 Urban and Regional Economics: Cr. 4
ECO 6610 Political Economy of the Urban Ghetto (SOC 6850) (UP 6670): Cr. 3
ECO 6810 Political Economy of the Urban Ghetto. (SOC 6850) (UP 6670): Cr. 3
GPH 3600 Intro. to Geographic Information Systems: Cr. 4
GPH 5650 (GEG 5650) Metropolitan Detroit: Cr. 4
GPH 5750 Social and Economic Geography of the U.S. and Canada: Cr. 4

GPH 6150 Internal Structure of the City (GEG 6150): Cr. 4
HIS 1050 American Civilization Since World War II: Cr. 3-4
HIS 2050 United States Since 1877: Cr. 3-4
HIS 3170 Ethnicity and Race in American Life (AFS 6170) (HIS 6170): Cr. 3-4
HUM 1030 Exploring the Arts in Detroit: Cr. 4
ISS 2730 (VPI Exploring Contemporary Issues in Ethnic Studies: Cr. 3
P S 3250 Detroit Politics: Continuity & Change in City & Suburbs (HIS 3240): Cr. 4

SOC 3510 The Nature and Impact of Population on Society: Cr. 3
SOC 6750 Sociology of Urban Health: Cr. 3
U P 6680 Neighborhood Decline and Revitalization: Cr. 3
U P 3530 Urban and Regional Planning (GPH 3530) (U S 3530): Cr. 3
U P 5110 Urban Planning Process: Cr. 4
U P 5999 Special Topics: Women & Cities in World Perspective: Cr. 3
U P 6210 Urban Design Elements: Cr. 3
U P 6510 Urban and Regional Systems (GEG 6510) (GPH 6510): Cr. 4
U S 2992 Political Science Internship: Cr. 4
U S 6050 Independent Field Study (GPH 6520): Cr. 2-4

Upon the approval of a student’s Urban Studies Co-Major Program Adviser, a student may elect other courses relevant to urban studies depending on the student’s overall plan of study.

URBAN STUDIES COURSES (U 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 483.

2992 (P S 2992) Political Science Internship. Cr. 1-4 Max. 6
3530 (U P 3530) Urban and Regional Planning. (GPH 3530) (HIS 3530) (P S 3530): Cr. 3

Introduction to urban and regional planning concepts, including zoning, growth management and economic development. Emphasis on metropolitan Detroit.

4510 Cities and Regions. (GPH 4510): Cr. 4

Processes of urbanization and metropolitanization in both the western and non-western worlds.

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.

396 College of Liberal Arts and Sciences
Women’s Studies

Office: 5057 Woodward, Suite 12100.3; 313-577-6331
Web: http://www.cla.wayne.edu/womensstudies

Director: Frances Ranney

Participating Faculty
Melba Boyd (Africana Studies), Jorgelina Corbatta (Romance Languages), John Corvino (Philosophy), Heather Dillaway (Sociology), Elizabeth Faue (History), Jacalyn Harding (Anthropology), Carla Harryman (English)
Mary Herrin (Political Science), Lisabeth Hock (German and Slavic), Marlyne Kilbey (Psychology), Laura Kline (German and Slavic), Gisela Labouvie-Vief (Psychology), Donna Landry (English), Kathryne Lindberg (English), Jennifer Sheridan Moss (Classics, Greek and Latin), Ruth Ray (English), Michael Scrivener (English), Mary Seikaly (Near Eastern and Asian Studies), Dana Seitler (English), Mary Sengstock (Sociology), Chris Tysh (English), Emiko Usui (Economics), Anca Vlasopolos (English), Lisa Vollendorf (Romance Languages)

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 are 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 a program director 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.

WS 2700 -- Interdisciplinary Topics in Women’s Studies (Cr. 3): Cr. 6
WS 3010 -- (SS) Interdisciplinary Introduction to Women’s Studies: Cr. 3-4
WS 5010 -- Women’s Studies Theories: Cr. 3
WS 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: 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: Cr. 3
HIS 5250 -- The Family in History: Cr. 3-4
HIS 5200 -- Women in American Life and Thought: Cr. 3
PSY 3250 -- Psychology of Women: Cr. 4
SOC 4360 -- Women and Health: Cr. 4
SOC 4400 -- 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 -- Television and 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
ISP 6110 -- Seminar in Historical and Cultural Studies: Cr. 4
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.cla.wayne.edu/womensstudies

**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
Selectives 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 483.

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

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 (NE 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) (CD) 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)

4030 (COM 4030) (CD) Gender and Communication. Cr. 3

Analysis of gender communication issues within interpersonal, group, organizational, intercultural, public, and mass mediated contexts. (Y)

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) (CD) 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) (CD) 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)

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)
LIBRARY and INFORMATION SCIENCE PROGRAM

DEAN: Sandra G. Yee
Foreword

The Information Profession

With the advent of computerization, digitization of records, and enhanced information management and retrieval, the library and information science field has experienced dramatic growth and change, emerging as a professional field with challenging prospects. At the undergraduate level students may prepare themselves to take part in this "information age" by enrolling in library and information science courses which help gain library and research skills applicable to all academic majors. These courses also provide preparation for graduate work in, and admission to, the Master of Library and Information Science (M.L.I.S.) degree. The 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.

Currently, qualified information professionals are working in varied settings all over the globe. "Librarians held about 167,000 jobs in 2002. Most worked in school and academic libraries, but nearly a third worked in public libraries. The remainder worked in special libraries or as information professionals for companies and other organizations." (Occupational Outlook Handbook, http://stats.bls.gov/oco/ocos068.htm). With more than fifty percent of today's gross national product related to the management of information, career opportunities for individuals trained in library and information science are abundant and diverse. Furthermore, since a large percentage of the library and information science workforce is expected to retire in the next twenty years, the shortage of professional librarians, especially of those in leadership positions, will likely increase. Information professionals will have a wider than ever choice of where and how to apply their knowledge and abilities. Exciting career opportunities will exist in both 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.

Accreditation

The Library and Information Science (LIS) Program first received accreditation for its master's degree by the American Library Association in 1967; the Program's most recent accreditation was granted by the ALA Committee on Accreditation in 2002. The next regularly scheduled review will take place in 2009.

Mission Statement

The mission of the Library and Information Science Program is to prepare students to assume professional roles in varied and evolving library and information environments.

Goals and Objectives

The goals of the Library and Information Science Program are to:

1. Assume a leadership role in traditional and interdisciplinary research and scholarship that address information and library issues. Faculty will conduct research and disseminate the results regionally, nationally, and internationally; will encourage students to conduct research; and seek opportunities to share with and engage students in research. Students will utilize relevant research studies in their course work; will gain an awareness of current research in the field, research methods, and the use of research findings.

2. Educate within and for a rapidly-changing technological world. Students will understand how technology is reshaping and affecting libraries and the profession; identify, evaluate, and apply current and emerging technologies of relevance to information organizations and services; and understand the responsible use of technology. The Program will provide support for incorporating instructional and information technology throughout the curriculum.

3. Prepare students to understand the interactions between social factors and information environments. Students will understand the historical, social, cultural, educational, political, and economic dimensions of information and information agencies; articulate the importance of intellectual freedom in providing information access; recognize intellectual property, security, and privacy issues; and recognize the role of information technologies and organizations in globalization.

4. Teach and foster professional attitudes and a service philosophy. Students will articulate a personal and professional code of ethics; recognize the necessity for involvement in professional organizations; demonstrate a committed professional attitude, including a concern for ethical issues, individual professional development, and continuing education; and recognize the value of teaching and service in the advancement of the profession. Faculty will encourage involvement in the community and community organizations.

5. Engage the diverse community of which we are a part. The Program will seek diversity among the faculty; seek diversity among the student body; facilitate student experience in multicultural and multi-ethnic information environments; and support underrepresented groups. The faculty will integrate urban issues across the program.

Facilities

University Library System: Wayne State University has six libraries with a total of over 3.4 million books and 21,000 current subscriptions to periodicals, plus a wide selection of electronic resources that includes some 118,000 ebooks, 16,000 electronic journals, and 168 reference sources and databases. The Purdy/Kresge Library complex houses all materials in the fields of business, education, humanities, and social sciences, as well as all general periodicals. This complex also contains Library Computing and Media Services; and the offices and classrooms of the Library and Information Science Program.

The David Adamany Undergraduate Library: Careers, computers, and student survival skills are the special focus of the David Adamany Undergraduate Library, that maintains and supports over 500 computer workstations, a print collection that supports the undergraduate curriculum, and a twenty-four hour computer lab and study center.

Computer science, engineering, life sciences, nursing, and physical science materials are housed in the Science and Engineering Library. Legal documents and related materials are located in the Arthur Neef Law Library. Health science materials are located in the Vera Sharifman Medical Library.

The Walter P. Reuther Library of Labor and Urban Affairs is a rich source of archival materials. It includes the personal papers of many urban leaders and is an important source of original data regarding Detroit, the auto industry, and unionization.

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 are the main branch of the Detroit Public Library, the professional research library of the Detroit Institute of Arts, the Detroit Historical Museum, the Charles H. Wright Museum of African American History, and the Detroit Science Center.

Computer Laboratories: The Library and Information Science (LIS) Program's computer laboratory is intended for LIS Program students, faculty and staff. Students can access the University Library System's network, a variety of library databases, full-text e-journals, and Internet-accessible resources. Located in the Kresge Library, the laboratory provides hands-on experience in accessing a variety of information retrieval systems, as well as other computer applications in library and information services.
Undergraduate Program
Undergraduates interested in enrolling in library and information science courses should consult with the Academic Services Officer or Director of the Library and Information Science Program 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
SPECIALIST CERTIFICATE in Library and Information Science
GRADUATE CERTIFICATE in Archival Administration

Program Directory
Dean of University Libraries and Library and Information Science: Sandra G. Yee; 3100 Adamany Library; 313-577-4020
Fax: 313-577-5525; e-mail: aj0533@wayne.edu
Director of the Library and Information Science Program: Joseph J. Mika; 106 Kresge Library; 313-577-6196
Fax: 313-577-7563; Email: aa2500@wayne.edu
Academic Services Officer: Jennifer Bondy; 106 Kresge Library; 313-577-2523
Fax: 313-577-7563; Email: aa1676@wayne.edu
General Information: 314.4 Kresge Library 313-577-1825;
Toll-free: (877) 263-2665; Fax: 313-577-7563
E-mail: asklis@wayne.edu
Admissions and Student Services: 314.4 Kresge Library 313-577-1825
Off-campus Programs: Electronic Courses and Lansing Location: Joseph J. Mika; 106 Kresge Library; 313-577-6196
Macomb Location: 313-577-1825
Web: http://www.lisp.wayne.edu

Faculty
Professors
Genevieve M. Casey (Emerita), Robert P. Holley, Michael Keresztesi (Emeritus), Joseph J. Mika, Edith Phillips (Emerita), Vern Pings (Emeritus), Ronald R. Powell, Peter Spyers-Duran (Emeritus), Dian Walster
Associate Professors
Lynda M. Baker, Gordon B. Neavill, Hermina Anghelescu
Assistant Professors
Yunfei Du, John Heinrichs, Bin Li, Marcia Mardis
Senior Lecturer
Judith J. Field
Lecturers
Anaclare Evans, Janice Utz

Interdisciplinary Faculty and Staff
Monique Andrews, Public Services, University Library System; Veronica Bielat, Public Services, University Library System; Mary Brady, Teacher Education, College of Education; Duryea Callaway, Public Services, University Library System; Deborah Charbonneau, Shiffman Medical Library, University Library System; Lauren Collins, Neef Law Library, University Library System; Gina Deblase, Teacher Education, College of Education; Donald Gelfand, Sociology, College of Liberal Arts; Cynthia H. Krokowski, Collections and Scholarly Communications, University Library System; William LeFevre, Walter P. Reuther Library of Labor and Urban Affairs; Ellen Marks, Shiffman Medical Library, University Library System; Sandra Martin, Shiffman Medical Library, University Library System; Shawn McCann, Library Computing and Media Services, University Library System; Cindy McGee, Library Computing and Media Services, University Library System; Rhonda McGinnis, Public Services, University Library System; Vanessa Middleton, Public Services, University Library System; Gary Morrison, Instructional Technology, College of Education; Deborah Rice, Walter P. Reuther Library of Labor and Urban Affairs; Rita Richey, Instructional Technology, College of Education; R. Craig Roney, Teacher Education, College of Education; Michael Sensiba, Public Services, University Library System; Stephanie Schim, Family Community and Mental Health, College of Nursing; Kathleen Schmeling, Walter P. Reuther Library of Labor and Urban Affairs; Michael Smith, Walter P. Reuther Library of Labor and Urban Affairs; Lothar Spang, Public Services, University Library System; Jacqueline Tilles, Teacher Education, College of Education; Deborah Tucker, Public Services, University Library System; Yusra Visser, Administrative & Organizational Studies, College of Education; Mary Waker, Dean's Office, College of Education; Phyllis Whitin, Teacher Education, College of Education; Anne Williamson, Teacher Education, College of Education

Adjunct Faculty and Part-Time Faculty
Leslie Behm, Michigan State University Libraries; George Bishop, Ovid-Elsie Area Schools; Janet Bobak, Harper Woods Secondary School; Loraine Campbell, Troy Museum and Historic Village; Patricia Case, University of Toledo; Julia Daniel, University of Michigan Transportation Research Institute; Carol Diroff, Adjunct Faculty, College of Education; Deborah Gearhart, State of Michigan Records Management Services; Todd Gilman, Yale University Sterling Memorial Library; Paulette Groen, Visteon; Pamela Grudzien, Park Library, Central Michigan University; Annette Haley, Wyandotte Public Schools; Hildur Hanna, Michigan State University DCL College of Law; Clark Heath, Southfield Lathrup High School; William Hill, Grand Rapids Public Library; John Kondelik, Albion College; Douglas Koschik, Baldwin Public Library; Daniel Klyn, QLTD; Daniel Kramer, Adjunct Faculty; WSU College of Education; Holly Lamb, Howell Public Library; Nancy Larsen, Clarkston Community Schools; David Maier, Adjunct Faculty; WSU College of Education; Deborah Mackey, Salem-South Lyon District Library; Laura Mancini, Oakland County Library; Sylvia Marabate, East Lansing Public Library; James Matarazzo, Simmons College; Kathleen McBroom, Dearborn Public Schools; Patricia McClary, Oak Park Public Library; Patrice Merritt, Friends of the Detroit Public Library; Romie Minor, Detroit Public Library; Janet Nichols, Consultant; James Oliver, Capital Area District Library; Connie Parker, Dearborn Public Schools; Susan Pritts, LIS Consultant; Margaret Roytek, University of Detroit Mercy; Kimberly Schroeder, Archive Media Partners; Laurie St. Laurent, Marshall Public Library; Sue Todd, Eastpointe Memorial Library; Conrad Welsing, Detroit Public Library

Foreword
Financial Aid, Awards and Activities

Financial Aid

Financial assistance may be available to new and continuing students in the Library and Information Science Program. Students are invited to inquire about special assistantships and scholarships, as well as general financial aid. Contact the Library and Information Science Program, and/or the University Office of Student Financial Aid. Details of LIS Program scholarship opportunities are posted on the Library and Information Science Program web page at http://www.lisp.wayne.edu.

Assistantships and Library Employment Opportunities

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 preprofessional 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.

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.

In addition to these WSU placements, several area libraries offer paid and valuable preprofessional experiences. Part-time employment is also available in other institutions in the metropolitan Detroit and surrounding areas. For information on current opportunities, contact the Library and Information Science Program office.

Placement Services

Library and information science students may visit the Wayne State University Career Planning and Placement Services for assistance in defining career and employment goals and in the search for employment opportunities. In addition, the LIS Program maintains an extensive listing of positions in libraries and information centers in the Detroit metropolitan area and throughout the United States and Canada. The job listings are available for viewing in the LIS student lounge on the 3rd floor of Kresge Library and are posted to the LIS Program electronic discussion list. The LIS Program also sponsors an annual job fair providing on-campus interviews with prospective employers.

Student Activities

Student Organizations of Library and Information Science (SOLIS): recognized by the university as the organization of students in the Library and Information Science Program. Students enrolled in the Program 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 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 LISAA. 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 Library and Information Science Program to sponsor alumni gatherings at professional conferences.
LIBRARY and INFORMATION SCIENCE COURSES (LIS)

The following courses, numbered 6000-6999, are offered for undergraduate credit and are available to undergraduates with junior- or senior-level standing. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 6000-6999 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 483.

6010 Introduction to the Information Profession. Cr. 3
The development and place of libraries in society; objectives, functions of and trends in major types of libraries. Core course. (T)

6080 Information Technology. Cr. 3
Storage and retrieval problems as approached by conventional and nonconventional methods. Computer applications in libraries. Core course. (T)

6120 Access to Information. Cr. 3
Reference function of the library including print and electronic reference sources; development of interpersonal communication skills to increase effectiveness in response to patrons' information needs; effective search strategies for all types of reference. Core course. (T)

6210 Organization of Knowledge. Cr. 3
Characteristics of recorded knowledge; identification and description of recorded information; principles of physical description, authority control, and subject access; creation of catalogs and databases. Core course. Material Fee as indicated in the Schedule of Classes (T)

6350 (IT 6110) Foundations of Instructional Systems Design. Cr. 4
Alternative systems models of instructional design; basic design principles, methods and techniques of pre-design analysis; instructional strategy selection and sequencing. (T)

6360 (IT 5110) Technology Applications in Education and Training. Cr. 3
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)

6370 (IT 5120) Producing Technology-Based Instructional Materials. Cr. 2-3
Design and development of instructional media and materials for use in educational, industrial, and/or human service programs; development of computer-generated instructional materials. (F,S)

6510 (RLL 7720) Survey and Analysis of Current Literature for Children: PS-Grade 3. Cr. 3
Intensive examination of books appropriate for preprimary and primary school children. Analysis of the literary and extraliterary factors that affect the young child's experiences with fiction, nonfiction, and poetry. (Y)

6520 (RLL 7740) Survey and Analysis of Literature for Older Children: Grades 4-8. Cr. 3
Intensive examination of books appropriate for children in grades four through eight. Analysis of literary and extraliterary factors affecting the older child's experiences with fiction, nonfiction, and poetry. (Y)

6530 (EED 6310) Young Adult Literature Cr. 3
Standards for evaluating adolescent literature. Selection of literature for individual pupils in relation to interest and reading ability. Use of classroom collections. Techniques for helping pupils read poetry, drama, and fiction. (W)

6550 (RLL 7780) Storytelling. Cr. 3
Prereq: LIS 6510. Selection of appropriate literature and materials for story performance; guided practice in selection and presentation of literature for oral communication by reading aloud, mediated storytelling, and storytelling. (Y)

6780 Records Management. (HIS 6780) 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)
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 colloquia 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 110 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 predominately 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 Institute. 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. Shiftman 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 for W.S.U. cancer research in partnership with the Barbara Ann Karmanos Cancer Institute.

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 subspecialties;
Shiffman Medical Library — Medical Learning Resource Centers

Director: Ellen B. Marks
Assistant 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 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: Keritia 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
Director: Donna Duphinais

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.

Forword 407
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 Biology and Genetics
- Pathology
- Pharmacology
- Physiology

MASTER OF PUBLIC HEALTH

MASTER OF SCIENCE with major in:
- Anatomy and Cell Biology
- Biochemistry and Molecular Biology
- Cancer 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 Public Health Research and Evaluation

GRADUATE CERTIFICATE in Rehabilitation Sciences Administration

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/forms.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 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 Liaison 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
- Psychiatric Mental Health Nurse Practitioner
- Community Health Nursing
- Advanced Nursing Practice with Women, Neonates and Children
  — Nurse Midwifery
  — School Nurse Practitioner

GRADUATE CERTIFICATE PROGRAM in

- Nursing Education
- Psychiatric Mental Health Nurse Practitioner
- Transcultural Nursing

DOCTOR OF PHILOSOPHY in Nursing

Administration and Faculty

Dean: Barbara Redman
Associate Dean, Academic and Clinical Affairs: Stephen Cavanagh
Associate Dean, Research: Judith Floyd
Assistant Dean, Adult Health: Jean Davis
Assistant Dean, Family, Community, and Mental Health: Linda Lewandowski
Assistant Dean, Office of Student Affairs: Larry Zimmerman

Academic Staff: Moira Fracassa, Felicia Grace, Jane Helinski

Professors

Karen Aroian, Nancy Artinian, Stephen Cavanagh, Judith Floyd, Helene Krouse, Marilyn Oermann, Barbara Pieper, Barbara Redman, Virginia Rice, Hossein Yarandi

Associate Professors

Jean Davis, Linda Lewandowski, Stephanie Schim, Thomas Templin (research), April Vallerand, Deborah Walker (clinical), Olivia Washington, Feleta Wilson

Assistant Professors

Ann Bellar (clinical), Ramona Benkert, Joan Bickes (clinical), Ann Collins (clinical), Kary Kathryn Cresci, Cynthia Danford, Margaret Falahsee (clinical), Judith Fouladbakhsh, Nancy George (clinical), Janet Harden (clinical), Patricia Jarosz, Kay Klymko (clinical), Judith McComish, Mary McCoy (clinical), Leanne Nantas-Smith (clinical), Rosalind Peters, D. Martin Raymond, Janna Roop (clinical), Patricia Thornburg (clinical), Linda Weglicki, Rachel Zachariah

Clinical Instructors

Joanne Ashare, Hedi Bednarz, Suzanne Billingsley, Darlene Blair, Ruth Chaplen, Doris Denison, Diane Featherston, Kathryn Keves-Foster, Kathleen Kowalewski, Amanda Kuula, Margie Miller, Barbara Moore, Vivian Murphy, Karen Olsen, Kimberly Shmina, Linda Sikora, Susan Szczesny, Sue Webb, Mary White, Kathleen Zimnicki, Mary Zugcic

Senior Lecturer

Barbara Williams

412 College of Nursing
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 ADMISSIONS

B.S.N. Professional Traditional Applicants

Preprofessional 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 23) and complete a preprofessional nursing program offered by 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 semester credits and all pre-nursing prerequisites to the professional program (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 is also required for science courses. If any professional nursing courses (i.e. pathophysiology, pharmacology or nursing courses not cited in the preprofessional program) have been taken, grades earned in those courses will become part of the admission grade point average. Admission to the program is highly competitive; completion of prerequisites with minimum requirements does not guarantee admission.

Preprofessional Program: The following courses/exams are prerequisite requirements for admission to the Traditional Professional Program at the College of Nursing. (All science courses marked with an asterisk (*) must have 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) General Chemistry I: Cr:4
- CHM 1030*  -- General Chemistry II: 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: Students must demonstrate competency through the Math Proficiency Exam, or completion of MAT 1800 or higher, or through transfer credit.

English Proficiency: Students must have passed the English Proficiency Exam.

Professional Program Admission

Traditional B.S.N. Applicants are eligible if they are entering professional nursing for the first time and have completed a minimum of thirty semester credits and all pre-nursing prerequisites (see above).

B.S.N. Second Career/Second Degree Applicants

Applicants in this category are eligible to apply for entry into Second Career/Second Degree Bachelor of Science in Nursing Program if they have a previous bachelor’s degree in an area other than nursing

Bachelor of Science in Nursing  413
and have completed a minimum of thirty semester credits and all pre-
nursing prerequisites (see below). Applicants must have completed all
prerequisite courses with a grade of ‘C’ or better must have a min-
imum 2.5 grade point average in prerequisite science courses to be
eligible for consideration. If any professional nursing courses (i.e.
pathophysiology, pharmacology or nursing courses not cited in the
preprofessional program) have been taken, grades earned in those
courses will become part of the admission grade point average.
Admission to the program is highly competitive; completion of prereq-
usites with minimum requirements does not guarantee admission.

Preprofessional Program: The following courses/exams are pre-
requisite requirements for admission to the Second Career/Second
Degree Program at 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 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) General Chemistry I: Cr:4
- CHM 1030* -- General Chemistry II: Cr:4
- NPS 2030 or 2210 – Human Nutrition
- PSY 2400 – Developmental Psychology: Cr: 4
- SOCIOLGY: any Sociology Course
- ANTHROPOLOGY: any course or any (FC) Foreign Culture course
- HUMANITIES: any (PL) Philosophy & Letters course or any (VP) Visual and Performing Arts course

RN COMPLETION PROGRAM: Applicants are eligible to apply to
the RN Completion Program if they are Michigan-licensed registered
nurses (RNs) who have completed diploma or associate degree pro-
grams and wish to continue their professional education. Progression
into senior year professional nursing courses is granted after comple-
tion of all prerequisite courses.

RN-B.S.N. PROGRAM: Applicants are eligible to apply to the RN-
B.S.N. Program if they are 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.

RN-M.S.N. PROGRAM: Applicants are eligible to apply to the RN-
M.S.N. Program if they are Michigan-licensed registered nurses and
are interested in preparing for advanced nursing practice at the mas-
ter’s level. The RN-M.S.N. Program combines courses in the baccala-
ureate and master’s degree programs for RNs. The program allows
students to apply a maximum of fifteen graduate credits toward both
an undergraduate degree and a graduate degree in nursing. Upon
completion of all RN-B.S.N. requirements, students, if admissible to
graduate study, complete M.S.N. 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 pro-
gram director of their major interest prior to taking any graduate level
course.

Admission to the M.S.N. portion of the program is a separate applica-
tion 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. Comple-
tion of the Bachelor of Science in Nursing does not automatically
guarantee admission to graduate study in the College of Nursing.

Presidential Scholars: Wayne State University Presidential Schol-
ars are guaranteed admission to the College of Nursing. Presidential
Scholars must satisfactorily complete all Traditional Program prereq-
usite courses prior to applying to the professional nursing curriculum
and must maintain Presidential Scholarship standards, including a
grade point average of 3.0 or above. Presidential Scholars must
apply directly to the College of Nursing to begin the professional cur-
riculum and meet all program requirements.

Application

Admission to the Bachelor of Science in Nursing programs is a two-
step process.

Step I — Application to Wayne State University: Applicants must sub-
mitt the following items to the Office of University Admissions: the
Application for Undergraduate Admission, 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 23). International applicants must fulfill all
University admission requirements and submit all other required doc-
umentation (see ‘International Students,’ page 25).

Step II — Application to the College of Nursing: Applicants must sub-
mit to the College of Nursing Office of Student Affairs the on-line
Application for Admission to the Bachelor of Science in Nursing Pro-
gram; and official copies of all transcripts from all post-secondary
institutions attended. For a copy of the application contact:
http://www.nursing.wayne.edu/prospectivestud/applyonline.htm

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 Nurs-
ing-Application Fee.

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
- Spring/Summer Admission: March 1

SECOND CAREER/SECOND DEGREE PROGRAM:
- Fall Admission: March 31

Evidence of completion of all course prerequisites must be docu-
mented with official transcripts and received by the College of Nurs-
ing, Office of Student Affairs, no later than June 1.

RN-B.S.N. and RN-M.S.N. PROGRAMS:
- Fall Admission: July 1
- Winter Admission: November 1
- Spring/Summer Admission: March 1

All application materials must be received by the deadline date to be
considered for admission.

International applicants must submit Internet-Based Test of English
as a Foreign Language (TOEFL) scores to the College of Nursing; a
minimum score of 101 is required, with minimum scores of 25 in lis-
tening, 25 in reading, 25 in writing and 26 in speaking.

Admission Criteria

All applications for admission to the College of Nursing Program are
holistically reviewed with consideration given to students who have
completed all of their course work at Wayne State University. Science
grade point average, overall prerequisite grade point average and
cumulative grade point average are major considerations for admis-
sion. Transcripts are reviewed to determine the capability of appli-
cants to complete a Bachelor of Science in Nursing. Transcripts are
also reviewed for patterns of success in a full-time science based
curriculum and the number of repeated and withdrawn courses.

Goal statements are reviewed and scored by the entire College of
Nursing Faculty for knowledge of the nursing field, motivation and
appropriate career objectives.
The undergraduate admissions committee consists of faculty, academic staff, and assistant and associate deans. The committee operates under the direction of the College of Nursing Scholastic Policy and Admissions Committee.

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. Readmission decisions are based on the student’s academic record and space availability. 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.

Transfer Students

Students may transfer credit for the prerequisite courses from a community college or university. Applicants may apply for transfer to upper division levels from B.S.N. accredited programs. Transfers to the upper division level will be determined by the equivalency of curriculum as determined by the Associate Dean for Academic and Clinical Affairs and upon available space in the program in upper division courses. The College determines which transfer credit is applicable for the B.S.N. degree.

Please see the University General Education Requirements, page 17 for information on completion of the University Mathematics Competency (MC) and English Proficiency requirements.

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 Status Report: 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 education 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/$3,000,000 to cover each year of the student’s nursing studies. Students must present a copy of their insurance policy 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 10 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 15 years prior to application, or a conviction of a misdemeanor involving abuse, neglect, assault, battery, or criminal sexual conduct in the 10 years prior to application. Conviction of either the felony or misdemeanor as outlined prohibits the student from participation in clinical courses.

Faculty are directed to deny students access to clinical experiences if the student cannot present proof of current health clearance, BLS certification, and malpractice insurance.

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 to 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 and space availability. 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 12-16 credits per term.

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 17) and in accordance with the academic procedures of the University and the College; see sections beginning on pages 35 and 418.

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 and corequisite 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 total 128 credits required for the Bachelor of Science in Nursing, including sixty-one credits in nursing major courses. The last thirty credits of the degree must be taken at Wayne State University.

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
  
  Total Credits: 16

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
- Critical Thinking (CT): Cr. 0-3
  
  Total Credits: 20

SOPHOMORE YEAR
First Semester (Fall)
- NUR 2010 -- Health Assessment: History Taking & Physical Examination: Cr. 3
- NUR 2030 -- (CD) 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
- Oral Communication (OC): Cr. 0-2
- Philosophy and Letters (PL): Cr. 3
  
  Total Credits: 12-15

Second Semester (Winter)
- NUR 2050 -- Supportive Measures for Basic Care Needs: Cr. 5
- NFS 2030 or NFS 2210
  -- (LS) ST Nutrition and Health: Cr. 3
  -- Human Nutrition: Cr. 3
- Computer Literacy (CL) proficiency (NUR 1110 recommended): Cr. 0-2
- Critical Thinking (CT): Cr. 0-3
  
  Total Credits: 11-15

JUNIOR YEAR
First Semester (Fall)
- NUR 3010 -- Restorative Care of Adults & Elders with Acute Illness: Cr. 5
- NUR 3015 -- (CD) Restorative Care: Psychiatric Mental Health Nursing: Life Span: Cr. 5
- ENG 3010 -- (IC) Intermediate Writing: Cr. 3
  
  Total Credits: 13

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 & 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 -- Legal, Ethical & Health Policy Issues: Cr. 2
- NUR 4120 -- (WI) (CD) Community Focused Nursing Practice: Cr. 6
- Historical Studies (HS): Cr. 3
  
  Total Credits: 16

EXPOSURE AREAS:
- Cultural Diversity (CD)
- Ethical Issues in Society (EI)
- Science, Technology and Society (ST)
- Additional General Education Requirements (See page 17 to determine General Education applicability of specific courses.)
  
  Total B.S.N. Credits: 126

Professional Education Requirements for the Second Career/Second Degree Program

In addition to the pre-nursing requirements for the Second Career/Second Degree Program (see page 414) 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 -- (CD) 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
- Critical Thinking (CT): Cr. 0-3
  
  Total Credits: 17

Second Semester (Winter)
- NUR 3010 -- Restorative Care of Adults and Elders With Acute Illness: Cr. 5
- NUR 3015 -- (CD) 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) (CD) Community-Focused Nursing Practice: Cr. 6
  
  Total Credits: 17

Total Nursing Credits: 61
Total Non-Nursing Credits: 65
B.S.N. Total 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.

PROGRESSION TO SENIOR YEAR: All RN students must file an Application for Progression to the Senior Year by the appropriate deadline. Upon completion of the senior year application, 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 progression to Senior Year
- BIO 1510 -- (LS) Basic Life Mechanisms (Laboratory): Cr. 4
- BIO 2200 -- (LS) Introductory Microbiology: Cr. 4
The student must also demonstrate satisfactory completion of the University General Education Requirements (see page 17), including English Proficiency (EP), 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 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 work. The last thirty credits in course work must be taken at Wayne State University.

**PROFESSIONAL AND GENERAL EDUCATION REQUIREMENTS**

The student must also demonstrate satisfactory completion of the University General Education Requirements (see page 17) including English Proficiency (EP), Mathematics Competency (MC), Critical Thinking (CT), Computer Literacy (CL), Oral Communication (OC).

**RN to M.S.N. Declaration of Graduate Major:** Students in the RN to M.S.N. Program must declare their intended graduate major and meet with the graduate director of their chosen program, prior to taking any graduate level courses, to ensure optimal sequencing of 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 PROFESSIONAL REQUIREMENTS** (graduate courses may differ depending on graduate major)

Four of the following:

- NUR 6520 -- Health Systems, Policy and Ethics: APN1: Cr.2
- NUR 7015 -- Research: Evidence Based Advanced Practice I: Cr.3
- NUR 7016 -- Research: Evidence Based Advanced Practice II: Cr.3
- NUR 7105 -- Theoretical Foundations: Advanced Practice: Cr. 3
- NUR 7555 -- Pharmacotherapeutics: 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.

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. General Education Requirements and Liberal Arts electives (as needed to bring total number of degree credits to 126) may be taken prior to the senior level professional nursing course work. The last thirty credits in course work must be taken at Wayne State University.

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.

The following definitions of terms apply to the Academic Regulations:

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.

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.

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 sat-
isfactory 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 an 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.

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 22.

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 39.)

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 37.

Academic Regulations 419
Financial Assistance

The University Office of Student Financial Aid, located in the Welcome Center (see page 33), 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 1.

College of Nursing Alumni Community Service Award: Award open to any nursing student who shows evidence of community involvement, has a minimum g.p.a. of 3.0, and demonstrates qualities of leadership and financial need.

College of Nursing Alumni Endowed Scholarship: Award open to any full-time nursing student with a minimum g.p.a. of 3.0, qualities of leadership, and financial need.

College of Nursing Alumni Undergraduate Scholarship: Award open to any full-time undergraduate nursing student with a minimum g.p.a. of 3.0, qualities of leadership, and financial need.

Mildred E. Halvorsen Endowed Scholarship: Award open to any full-time student accepted into the College of Nursing.

John Helfman Nursing Scholarship: Award open to any undergraduate nursing student with senior class standing, outstanding scholastic achievements and leadership abilities, and demonstrated financial need.

Helen Newberry Joy Scholarship: Award open to any undergraduate student admitted to the College, based on financial need and with consideration given to academic standing and service.

Richard and Ruth Morrissey Endowed Scholarship: Award open to any full-time undergraduate student enrolled in a degree program in the College of Nursing.

Beatrice L. Murray Endowed Scholarship: Award open to any full-time student accepted into the College of Nursing.

Carolyn L. Rivers Annual Scholarship in Nursing: Award open to any full-time student enrolled in a College of Nursing degree program whose family has a demonstrated financial need.

Carol Peterson Rosso Award: Award open to senior students with outstanding scholastic achievement and financial need.

Sigma Theta Tau Scholarship: Award open to any student enrolled in a College of Nursing degree program.

Steiger Memorial Scholarship: Award open to any nursing student with demonstrable financial need.

Joseph Taranto Undergraduate Scholarships: Awards open to any undergraduate student enrolled in a College of Nursing degree program.

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.
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 483.

1110 (CL) Introduction to Computers and Technology for Health Care Professionals. Cr. 2
Introduction to computer terminology, hardware, software, telecommunication, word processing, database, spreadsheet; impact of computer technology on health care practitioners. Computer laboratory activities. Material Fee as indicated in the Schedule of Classes (F,W)

2000 (EI) Conceptual Basis of Professional Nursing Practice. Cr. 2
Introduction to the discipline and profession of nursing through the examination of historical development, legal and professional regulations, conceptual models and theories, research-theory-practice relationships, clinical reasoning, and ethical principles. (F,W)

2010 Health Assessment: History Taking and Physical Examination. Cr. 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. Material Fee as indicated in the Schedule of Classes (F)

2020 (CD) Foundations of Health and Health Promotion Practice. Cr. 3-4
Prereq: admission to College of Nursing; Coreq: NUR 2000 and 2010. CPR-PR certification, liability insurance, health clearance required. Introduction to the phenomenon of health experienced by individuals across the lifespan within the context of family, group, and community. Review of theoretical perspectives on health and health promotion, multiple factors that influence health, sources of diversity in the health experience and a wide repertoire of health promotion strategies. Material Fee as indicated in the Schedule of Classes (F)

2030 (CD) 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)

2040 Environments of Care in the Community. Cr. 2
Prereq: NUR 2000 and 2020. Community environments as contexts of health and nursing care. Introduction to community as client; ethical, legal, environmental, and epidemiological concepts related to care of individuals, families and groups. (Y)

2050 (CD) Supportive Measures for Basic Care Needs. Cr. 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. Material Fee as indicated in the Schedule of Classes (F,W)

2060 Nursing Implications of Drug Administration. Cr. 3

2070 (CD) Professional Nursing in the Future: Strategies for Health Promotion. Cr. 3
Prereq: admission to College of Nursing, RN, BCLS certification, 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. 5
Prereq: NUR 2050, NFS 2210; or 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 system of health care. Emphasis on practice within a theoretical framework using research-based interventions. Material Fee as indicated in the Schedule of Classes (F,W)

3015 (CD) Restorative Care: Psychiatric Mental Health Nursing Across the Lifespan. Cr. 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. Material Fee as indicated in the Schedule of Classes (F,W)

3020 Restorative Care of Adults and Elders with Chronic Illness. Cr. 5
Prereq: 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. Material Fee as indicated in the Schedule of Classes (F)

3025 Restorative Care of Adults and Elders with Complex Health Needs. Cr. 10
Prereq: NUR 2050, 2040, 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. Material Fee as indicated in the Schedule of Classes (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 nurs-
ing 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. 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. Material Fee as indicated in the Schedule of Classes (F,S)

4020 Integrative Care of the Perinatal Family. Cr. 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 conception 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. Material Fee as indicated in the Schedule of Classes (F,S)

4030 Community Health Nursing Practice: Care of At-Risk Urban Populations. Cr. 4
Prereq: senior standing; CPR-PR certification; liability insurance; health clearance. Comprehensive learning experiences in community health nursing. Direct integrative care (health promotion, restorative and support care), and indirect services to urban at-risk individuals, families, populations, and communities. Concepts include: community populations, community as client, population-focused partnerships, collaborative practices and interdisciplinary teams. (Y)

4040 Leadership and Management in Nursing Practice. Cr. 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. Material Fee as indicated in the Schedule of Classes (F)

4050 Transition to Professional Nursing Practice. Cr. 5
Prereq: senior standing; CPR-PR certification; liability insurance; health clearance. Theory and practice in care of groups of patients with complex and 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. Material Fee as indicated in the Schedule of Classes (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. Material Fee as indicated in the Schedule of Classes (F,W)

4120 (WI) (CD) Community Focused Nursing Practice. Cr. 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. Material Fee as indicated in the Schedule of Classes (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)

6520 Health Systems, Health Policy and Ethics for Advanced Practice. APN I. Cr. 2
Prereq: admission to an M.S.N. program. Introduction to advanced practice of clinical nurse specialists, nurse-midwives and nurse practitioners; emphasis on practice in multicultural, urban environments. (F,W)

6530 Shaping Health Policy and Health Delivery in Advanced Practice. APN II. Cr. 2
Prereq: NUR 6520. Continuation of NUR 6520; emphasis on integration of content into advanced practice and preparation for leadership roles. (W,S)
EUGENE APPLEBAUM COLLEGE
of PHARMACY
and HEALTH SCIENCES

DEAN: Beverly J. Schmoll
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 occupational and environmental health sciences are in Fundamental and Applied Sciences. The programs of: nurse anesthesia, occupational therapy, physician assistant studies, physical therapy, radiation therapy technology and radiologic technology 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.
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:

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, Occupational Therapy, Pharmaceutical Sciences, and Physical 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 PUBLIC HEALTH
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 SCIENCE in Occupational Therapy
MASTER OF SCIENCE in Physician Assistant Studies
MASTER IN OCCUPATIONAL THERAPY
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
GRADUATE CERTIFICATE in Pediatric Anesthesia
POST-MASTER’S CERTIFICATE in Industrial Toxicology

College Directory

APHS: Eugene Applebaum College of Pharmacy and Health Sciences

Dean:
Beverly J. Schmoll: 2625 APHS; 313-577-1574

Assistant to the Dean:
Susan Christie: 2621 APHS; 313-577-1709

Associate Dean:
Howard Normile: 2627 APHS; 313-577-7597

Associate Dean, Research
Michael J. Rybak; 4148 APHS; 313-577-4376

Assistant Dean, Assessment and Accreditation:
Richard Slaughter; 2190 APHS; 313-577-3230

Academic Services Officers:
Amanda Snyder: 1631 APHS; 313-577-1384
Michael G. Koltuniak: 1613 APHS; 313-577-1551
Carol Meier: 1619 APHS; 313-577-1716
Jennifer Moore: 1621 APHS; 313-577-1716

Assistant Dean, Office of Student and Alumni Affairs and Graduate Officer:
Mary K. Clark: 1637 APHS; 313-577-1716

Departments

Applied and Fundamental Sciences:
Christine Ford: 102 Mortuary Science; 313-577-1384
or 5190 APHS; 313-577-1551

Health Care Sciences
Thomas Birk: (2290 APHS; 313-577-1432)

Pharmaceutical Sciences:
George B. Corcoran: 3610 APHS; 313-577-1047

Pharmacy Practice:
David Edwards: 2190 APHS; 313-577-0824

Programs

Anesthesia:
Prudentia A. Worth: 2V-4, Detroit Receiving Hospital; 745-3610

Clinical Laboratory Science:
Janet Brown (Interim): 4690 APHS; 313-577-1384

Mortuary Science:
Peter D. Frade: 102 Mortuary Science; 313-577-2050

Occupational and Environmental Health Sciences:
Peter D. Frade: 5190 APHS; 313-577-1551

Occupational Therapy:
Joseph Pellerito Jr.: 2290 APHS; 313-577-1435

Pathologists’ Assistant
Peter D. Frade: 102 Mortuary Science; 313-577-2050

Physical Therapy:
Susan Talley: 2290 APHS; 313-577-1432

Physician Assistant Studies:
Stephanie Gilkey: 2590 APHS; 313-577-1368

Radiation Therapy Technology:
Adam F. Kempa: Office: 2211 APHS: 313-577-1435

Radiologic Technology
Kathy Kath: Office: 2212 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 16. The following additions and amendments pertain to health sciences students.

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 23. 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 contact the department for advising and application deadline dates a year before they plan to enter. 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 course 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 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 Bachelor of Science program leading to a professional degree in one of the following disciplines: Clinical Laboratory Science, Mortuary Science, Occupational Therapy, Pharmacy, Physician Assistant Studies, Physical Therapy, Radiation Therapy Technology and Radiologic Technology.

Acceptance into HealthPro Start guarantees admission to the professional program of choice within the College as long as continuation acceptance into HealthPro Start guarantees admission to the professional program of choice 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.

Instructor's reports 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: 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 chair 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 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 the Office of Student 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 be operative in the proposed program.

Program Probation: A student whose semester g.p.a. 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 g.p.a. as determined by the program.

Please see individual programs for more detailed information on program probation and dismissal policies from a program.

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.

University General Education Requirements

For complete description, see page 16.

University Proficiency Requirements 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 competency 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 17.

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.

Attendance

Regularity in attendance is necessary for success in college work. Each instructor, at the beginning of the course, will announce attendance requirements.

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 recruitment, retention and advising support to prospective and current students for the degree and certificate programs offered by the College. Prospective students can obtain advice about admission requirements and program prerequisites and have their transcripts evaluated for transfer equivalencies. 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 the College's academic activities with the main campus, including graduation, new student convocations, establishment of learning communities, and the HealthPro Start program. Affiliate Alumni Affairs activities and programs, including the Annual Alumni Reunion, are managed by this office. For information, call (313) 577-1716 or consult the website: http://www.cphs.wayne.edu/staff/.
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 Advisory Council (DSAC)
The Dean's Student Advisory Council (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 our programs.

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 33).

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. 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.

INTERDISCIPLINARY HEALTH SCIENCES COURSES (IHS)

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)

3100  Basic Mechanisms of Human Disease I.  Cr. 5
Prereq: BIO 1510 or equiv. First part of two-semester sequence: anatomy, physiology, and pathology of human organ systems. Material Fee as indicated in the Schedule of Classes  (F)

3200  Basic Mechanisms of Human Disease II.  Cr. 5
Prereq: IHS 3100. Continuation of IHS 3100. Second part of two-semester sequence. 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 3300, 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

Clinical Laboratory Science
Janet Brown
Office: 4617 APHS; 313-577-1384

Mortuary Science
Peter D. Frade
Office: Suite 333, 5439 Woodward; 313-577-2050

Occupational and Environmental Health Sciences
Office: 5135 APHS; 313-577-1551

Fundamental and Applied Sciences Programs

The Department of Fundamental and Applied Sciences represents the following programs: Clinical Laboratory Science, Mortuary Science, and Occupational and Environmental Health Sciences.

Clinical Laboratory Science, and Occupational and Environmental Health Sciences, are among the health sciences which contribute in vital ways to the practice of medicine and provision of health care. Mortuary science offers students a professional degree program in funeral service education. The Pathologists’ Assistant and the Forensic Investigation Certificate Program provide important components to medical and criminological research. All of these fields of study lead to interesting and rewarding careers.

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.

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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.

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: 4600 APHS; 313-577-1384
Interim Program Director: Janet M. Brown
Website: http://cphs.wayne.edu/clls

Associate Professor
Dorothy M. Skinner Brown (Emerita), Carol Watkins

Assistant Professors
Muhammad Amjad, Janet Brown, Jean Garza, M. Ann Wallace (Emerita)

Adjunct Associate Professors
Barbara Anderson, Gilbert Herman

Adjunct Assistant Professors
Linda Cardine, Sue Kozlowski, Joyce Salancy, Lynn Williams

Adjunct Instructors
Tina Anchor, Karen Apolloni, Frank Bahorski, Deborah Chapman, Deborah Cyzeska, Steven Duskey, Eric Emme, Carol Hillman-Wiseman, Charlene Kretch, William LeBar, Sheri Nabozny, Kalyani Naik, Elizabeth Peters, Joyce Salancy, Kathy Sobanski, Beverly Smith, Margaret Wilde, Bernarda Wroblewski

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
POST-BACHELOR’S CERTIFICATE in Clinical 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 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 Sci-
ences, 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 Program In Clinical Laboratory Science is accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS), 8410 W. Bryn Mawr Avenue, Suite 670, Chicago, Illinois 60631 (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 curriculum 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 23. 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 345). 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**

In addition to completion of the following, the English proficiency examination must be passed prior to admission to the Professional Program. The English Proficiency Exam must be taken by March of the year you are applying for admission. Students do not need to be an enrolled Wayne State University to take the exam.

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.

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**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** -- (OG) Oral Communication: Basic Speech: Cr. 3
- **CSC 1000** -- (CL) Intro. to Computer Science: Cr. 0-3
  (or Competency Examination)
- **ENG 1020** -- (BC) Introductory College Writing: Cr. 4
- **MAT 1800** -- Elementary Functions: Cr. 4
- **HS, VP, FC, SS, Al, or PL General Education Requirement:** Cr. 3-4
- **HS, VP, FC, SS, Al, or PL General Education Requirement:** Cr. 3-4

Total credits: 32-37

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**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 College Writing: Cr. 3
  - (IC) Technical Communication I: Cr. 3
  - or any Intermediate Composition (IC) course
- **PHI 1050** -- (CT) Critical Thinking: Cr. 0-3
  (or Competency Examination)
- **STA 1020** -- Statistics: Cr. 3
- **HS, VP, FC, SS, Al, or PL General Education Requirement:** Cr. 3-4
- **HS, VP, FC, SS, Al, or PL General Education Requirement:** Cr. 3-4

Total credits: 29-35

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**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 15 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 second semester prior to admission to the professional program.
5. Passed the English Proficiency Examination prior to the beginning of the Fall Semester; see the University Schedule of Classes for date and time.

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6. 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 17) 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:

Professional Curriculum

Basic science courses in this program are taken under the direction of the faculty of Clinical Laboratory Science. The curriculum is 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.

THIRD AND FOURTH YEARS

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>CLS 3020</td>
<td>Hematology Lecture/Lab: Cr. 3</td>
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<tr>
<td>CLS 3040</td>
<td>Immunohematology Lecture/Lab: Cr. 4</td>
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<td>CLS 3080</td>
<td>Instrumentation Lecture/Lab: Cr. 4</td>
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<td>CLS 3090</td>
<td>Professional Practice I: Cr. 1</td>
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<td>CLS 3100</td>
<td>Basic Techniques: Microscopy: Cr. 3</td>
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<td>CLS 3280</td>
<td>Clinical Chemistry Lecture/Lab: Cr. 4</td>
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<td>Medical Terminology: Cr. 1</td>
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<td>CLS 4040</td>
<td>Professional Practice II: Cr. 2</td>
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<td>CLS 4230</td>
<td>Hemostasis/Special Hematology: Cr. 3</td>
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<td>CLS 4890</td>
<td>Professional Practice III: Cr. 2</td>
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<td>CLS 4990</td>
<td>Directed Study: Cr. 1 (if needed)</td>
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<td>CLS 5070</td>
<td>Clinical Pathology Correlation: Cr. 2</td>
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<td>CLS 5510</td>
<td>Immunology and Serology: Cr. 3</td>
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<td>CLS 5550</td>
<td>Immunology and Serology: Cr. 3</td>
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<tr>
<td>CLS 5593</td>
<td>(WI) Writing Intensive Course in CLS: Cr. 0</td>
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<tr>
<td>M S 4920</td>
<td>Biochemical Basis of Pathophysiology: Cr. 3</td>
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</tbody>
</table>

SIX-MONTH CLINICAL EXPERIENCE

(Second Semester/Senior Year):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CLS 4000</td>
<td>Clinical Hematology: Cr. 5</td>
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<tr>
<td>CLS 4010</td>
<td>Clinical Chemistry: Cr. 3</td>
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<tr>
<td>CLS 4020</td>
<td>Clinical Blood Bank: Cr. 2</td>
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<tr>
<td>CLS 4030</td>
<td>Clinical Microbiology: Cr. 5</td>
<td></td>
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<tr>
<td>CLS 4050</td>
<td>Clinical Immunology: Cr. 1</td>
<td></td>
</tr>
<tr>
<td>CLS 5070</td>
<td>Clinical Pathology Correlation: Cr. 2</td>
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</tr>
</tbody>
</table>

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. Students must achieve a ‘C-minus’ (70%) 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 cyto technology 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 program (see page 430) and the professional program as follows:

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 Program, Eugene Applebaum College of Pharmacy and Health Sciences, Wayne State University, Detroit, Michigan 48202.

Professional Program:

CLL 3020 -- Hematology Lecture and Laboratory: Cr. 4
CLL 3090 -- Professional Practice I: Cr. 1
CLL 3100 -- Basic Techniques: Microscopy: Cr. 3
CLL 3380 -- Basic Cytotechnology Technique and Research: Cr. 3
CLL 4040 -- Professional Practice II: Cr. 2
CLL 4090 -- Cytotechnology Technique: Female Genital Tract: Cr. 4
CLL 5500 -- Immunology & Serology: Cr. 3
CLL 5560 -- Human Histology: Cr. 4
CLL 5993 -- (WI) Writing Intensive Course in CLLS: Cr. 0
M S 4150 - Histochemistry: Cr. 3
HS, VP, FC, SS, AI, or PL General Education Requirement: Cr. 3-4 (If needed)

THIRD YEAR

BIO 2600 -- Introduction to Cell Biology: Cr. 3
BIO 3070 -- Genetics: Cr. 4
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 5500 -- Immunology & Serology: Cr. 3
CLS 5560 -- Human Histology: Cr. 4
CLS 5993 -- (WI) Writing Intensive: Cr. 0
M S 5020 -- Biochemical Basis of Pathophysiology: Cr. 3
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M S 5020 -- Biochemical Basis of Pathophysiology: Cr. 3

FOURTH YEAR

BIO 2600 -- Introduction to Cell Biology: Cr. 3
BIO 3070 -- Genetics: Cr. 4
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 5500 -- Immunology & Serology: Cr. 3
CLS 5560 -- Human Histology: Cr. 4
CLS 5993 -- (WI) Writing Intensive: Cr. 0
M S 5020 -- Biochemical Basis of Pathophysiology: Cr. 3
M S 5020 -- Biochemical Basis of Pathophysiology: Cr. 3
M S 5020 -- Biochemical Basis of Pathophysiology: Cr. 3

Bachelor of Health Science — Laboratory Science Concentration

This degree is only for students interested in laboratory science but who either choose not to do a clinical experiential sequence in an affiliated clinical laboratory or are not eligible for the clinical experience. Admission to the CLS Program is required.

REQUIRED COURSES

BIO 2600 -- Introduction to Cell Biology: Cr. 3
BIO 3070 -- Genetics: Cr. 4
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 4490 -- Cytotechnology Technique: Female Genital Tract: Cr. 4
CLS 5500 -- Immunology & Serology: Cr. 3

Degree Requirements

Candiates 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 17) 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 430) 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 September.
Post-Bachelor’s Certificate in Clinical Laboratory Science

The post-baccalaureate certificate program is only for students who have a baccalaureate degree in CLS/MT but have not competed all requirements (including a clinical experiential sequence) to take a CLS or MT certification examination. The program consists of a minimum of twenty-four credits and is designed to provide students with clinical training and necessary course work in the field of clinical laboratory science. Students completing the program will be eligible to sit for the national examination for professional certification.

Accreditation: This program is NAACLS accredited.

Admission: This program is open ONLY to graduates of baccalaureate programs in clinical laboratory science/medical technology who have 1) a cumulative g.p.a. of 2.75 or better overall; 2) a 2.75 or better combined science g.p.a. (biology, chemistry, professional courses); 3) earned grades of ‘C’ or better in ALL professional courses; and 4) submitted, in addition to the application for admission (see page 23), the following: (a) two references, one from an employer and one from a science faculty member (or two science faculty members, if there is no employer); and (b) official transcripts from all former undergraduate schools. Students must successfully demonstrate sufficient skills and knowledge for placement in a clinical experiential sequence.

For additional information, deadline dates, and application forms, contact the Clinical Laboratory Science Program. Admission to the Certificate Program may be limited by space available in our clinical affiliates.

CERTIFICATE REQUIREMENTS: A minimum of twenty-four credits (eighteen credits at Wayne State University) are required to complete the Post-Bachelor’s Certificate in Clinical Laboratory Science. The student must complete program requirements with a grade point average of 2.5 or above and a grade of ‘C’ or better must be achieved in all courses. Failure to meet these requirements will result in dismissal from the Program.

Upon admission to the Certificate Program, an individualized plan of course work will be determined. The number of pre-clinical courses as well as which courses will be based on the student’s previous course work and professional course deficiencies. The pre-clinical courses must be satisfactorily completed prior to starting the clinical experiential sequence.

PRE-CLINICAL ELECTIVE COURSES (minimum of 6 credits)

See professional courses listed under Bachelor of Science in Clinical Laboratory Science, above. Also, CLS 4040, Professional Practice II, must be taken, unless a prior course covering laboratory management and education has been completed.

SIX-MONTH CLINICAL EXPERIENCE (18 Credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CLS 4000</td>
<td>Clinical Hematology</td>
<td>3</td>
</tr>
<tr>
<td>CLS 4010</td>
<td>Clinical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CLS 4020</td>
<td>Clinical Blood Bank</td>
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</tr>
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<td>CLS 4050</td>
<td>Clinical Immunology</td>
<td>2</td>
</tr>
<tr>
<td>CLS 5070</td>
<td>Clinical Pathology Correlation</td>
<td>2</td>
</tr>
</tbody>
</table>

Total credits: 24

The clinical training portion of the program is full-time and is based on the schedules of the individual hospitals involved. The student is required to complete the clinical training within a six-month period. Other course work may be accomplished on a part-time basis.

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.
metric, fluorometric, 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)

3150 Hematology Laboratory. Cr. 2
Laboratory exercises relative to in-depth study of blood and blood forming organs; normal and pathological blood forms. Material Fee as indicated in the Schedule of Classes (W)

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 carcino-ma 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. (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. Cytologic 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)

5150 Medical Informatics. Cr. 2
Prereq: junior standing or above. Information system models in an interdisciplinary healthcare environment. Survey of hardware and software platforms; patient information data repositories; medical imaging; applications to clinical pathways; utilization review, financial analysis, managed care. Material Fee as indicated in the Schedule of Classes (W)

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. Lectures and studies; applications of immunology and serology in a lab setting, including relevance to human medicine. (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. (F)

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 English proficiency exam, 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)

6020 Laboratory Quality. Cr. 1-2
Laboratory standards, regulatory agencies and requirements, OSHA, MIOSHA, quality assurance standards and applications, continuous improvement. (Y)

6660 Leadership Skills. Cr. 2
Case studies and tutorial format for developing leadership skills in a science laboratory. (Y)

Mortuary Science

Office: 5439 Woodward Ave.; 313-577-2050
Program Director: Peter D. Frade

Associate Professor
Peter D. Frade

Assistant Professors
Muhammad Amjad, E. David Ladd, Bonita Taffe

Part-Time Instructors and Instructional Assistants
Karen Apolloni, Gail Bentley, Michelle Bocek, Shirley Brogan, Jamye Cameron, John Canine, Karen Emanuel, Sharon Gee, Roger Husband, Michael Kusluski, Diane Moric, Erika Nelson, Theresa Painter, Benjamin True, 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 Pathologists’ Assistant
POST-BACHELOR’S CERTIFICATE in Forensic Investigation

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 requirements for mortuary science licensure in the State of Michigan, and meets or exceeds the licensure requirements of most other states. The program is accredited by the American Board of Funeral Service Education (ABFSE), 3432 Ashland Avenue, Suite U, 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), 8410 W. Bryn Mawr Ave., Suite 670, Chicago IL 60631-3415; 773-714-8880, FAX 773-714-8886, www.naacscl.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 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 23 and page 426. 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.

Outside Employment

The professional curricula have been arranged with the presumption that students will devote full-time and energy to their educational responsibilities. Students are thus encouraged to limit outside employment and in the case of the Anatomic Pathologists' Assistant it is presumed that student attend on a full-time basis only.

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 17.

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 23.
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. 3
Anatomy (BIO 2870 or equivalent): Cr. 3
Microbiology (BIO 2200 or equivalent) (LS): Cr. 3
Chemistry (CHM 1020 or equivalent) (PS): Cr. 3
Chemistry (CHM 1030 or equivalent): Cr. 3
English (IC) (ENG 1020 or equivalent): Cr. 3
English (ENG 3010 or equivalent): Cr. 3
Psychology (LS) (PSY 1010 or equivalent): Cr. 3
Psychology (PSY 2410 or equivalent): Cr. 3
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
English Competency (EP) -- Exam
Math Competency (MC) -- Exam or coursework
One course in each of three Exposure Areas (CD) (EI) (ST)

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 coursework. 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 coursework 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 March 15 of the year one wishes to enter the program (http://www.cphs.wayne.edu/staff/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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS 3100</td>
<td>Chemistry</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>MS 3300</td>
<td>(EI) Religions, Values, and Death</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>MS 3500</td>
<td>Embalming I</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>MS 3800</td>
<td>Mortuary Management I: Funeral Directing</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>MS 3830</td>
<td>Psychology of Death and Dying</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>MS 4050</td>
<td>Human Anatomy and Physiology</td>
<td>Cr. 3</td>
</tr>
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<td>Total credits</td>
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<td>18</td>
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Winter Semester

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MS 3400</td>
<td>Mortuary and Business Law I</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>MS 3510</td>
<td>Embalming II</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>MS 3600</td>
<td>Restorative Art and Modeling I</td>
<td>Cr. 2</td>
</tr>
<tr>
<td>MS 3810</td>
<td>Mortuary Management II: Administration</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>MS 3840</td>
<td>Psychosocial Aspects of Grief</td>
<td>Cr. 2</td>
</tr>
<tr>
<td>MS 4250</td>
<td>Medical Microbiology</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>MS 5996</td>
<td>Senior Seminar</td>
<td>Cr. 2</td>
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Spring/Summer Semester

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</thead>
<tbody>
<tr>
<td>MS 0999</td>
<td>Practicum</td>
<td>Cr. 0</td>
</tr>
<tr>
<td>MS 3410</td>
<td>Mortuary and Business Law II</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>MS 3610</td>
<td>Restorative Art and Modeling II</td>
<td>Cr. 2</td>
</tr>
<tr>
<td>MS 3760</td>
<td>Past and Future Trends in Funeral Service</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>MS 4300</td>
<td>Introduction to the Study of Disease</td>
<td>Cr. 2</td>
</tr>
<tr>
<td>MS 4450</td>
<td>Small Business Financial Management</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>MS 5350</td>
<td>(WI) Applied Grief Counseling: Aftercare</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>Total credits</td>
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<td>16</td>
</tr>
</tbody>
</table>

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-two credits in the basic mortuary science professional program curriculum.

Mortuary Science
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 17).

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.


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 a 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), 8410 W. Bryn Mawr Ave., Suite 670, Chicago IL 60631-3415; 773-714-8880, FAX 773-714-8886, www.naacls.org.

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 23. 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 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. Preprofessional 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 17). 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.

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 I: 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
PHL 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
(HIS 1100 or HIS 1200 preferred): Cr. 4
Visual and Performing Arts (VP) elective: Cr. 4
PHI 2320 -- (PL) Ethic Introduction to Ethics: Cr. 4
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, Anatomic 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 5060 -- Human Anatomy and Physiology: Pathologists’ Assistant: Cr. 4
M S 4100 -- Medical Photography: Cr. 3
M S 5020 -- Biochemical Basis of Pathophysiology: Cr. 3

438 Eugene Applebaum College of Pharmacy and Health Sciences
Winter Semester
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 5200 -- Medical Microbiology for Technical Professionals: Cr. 3
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 6050 -- 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 Mortuary Science Department, Anatomic 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 Police Evidence Technology program at Oakland Community College, 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 Affairs (http://www.cphs.wayne.edu/stuaff/index.php); those from other institutions must submit the Application for Undergraduate Admission (see page 23). 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, Mortuary Science Department, Forensic Investigation Program, 5439 Woodward Ave., Detroit MI 48202; 313-577-2050; Fax: 313-577-4456; website: http://www.cphs.wayne.edu/stuaff/index.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-bachelor certificate program is expected to 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:
CRJ 3260 or CRJ 5150 -- Investigation: 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

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 483.

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. (Y)

3100 Chemistry. Cr. 3
Review of general inorganic chemistry; survey of organic and biochemistry; applications to postmortem changes, biologic preserva-
tion, and embalming chemistry. Material Fee as indicated in the Schedule of Classes (F)

3300  (El) 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. (F)

3400 Mortuary and Business Law I. Cr. 3 Business law and legal environment affecting practice of mortuary science. 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 laws. (Y)

3500 Embalming I. Cr. 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. 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 (W)

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 (S)

3760 Past and Future Trends in Funeral Service. Cr. 3 Basic human need to memorialize the dead, examined throughout history. Funer alization 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. 2 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. Attitudes toward death. (W)
4600 Clinical Forensic Pathology. Cr. 2-5
Prereq: senior standing in anatomic pathologists' assistant program or consent of department chairperson. Students in PBFI Certificate program internship should elect for 3 credits only. Assisting pathologist in determining cause of death; basic methods for identifying remains with regard to age, sex, and race; techniques of photographic record keeping. Students in PBFI certificate program electing for three credits participate in internship at forensic sites. (T)

4650 Clinical Surgical Pathology. Cr. 5
Prereq: senior standing in pathologists' assistant program. Principles and theories related to gross surgical dissections. (T)

4700 Clinical Pathology. Cr. 3
Prereq: senior standing in pathologists' assistant program. Benign and malignant hematology and lymphoid tissue; clinical chemistry, tumor markers, laboratory values, case studies. (T)

4800 Clinical Photography. Cr. 2
Prereq: senior standing in pathologists' assistant program. Techniques required to photographically record gross and microscopic specimens. (T)

4850 Clinical Academic Pathology. Cr. 6
Prereq: senior standing in pathologists' 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 (T)

5020 Biochemical Basis of Pathophysiology. Cr. 3
Prereq: BIO 1510, CHM 1030; coreq: BIO 2870 or M S 4050. Pathophysiology of certain important biochemical disorders; correlation with relevant basic sciences; discussions of case studies. (F)

5050 Clinical Terminology and Methodology. Cr. 3
Clinical terminology and surgical methods for analysis and treatment of human disease. (W)

5060 Human Anatomy and Physiology: Pathologists' Assistant. Cr. 4
Prereq: admission to anatomic pathologists' assistant program. 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. 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 anatomic 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 (W)

5250 (WI) Applied General Pathology. Cr. 4
Prereq: M S 4050, BIO 5630. Special emphasis on clinical correlation, including pediatric pathology. (Y)

5350 (WI) Applied Grief Counseling: Aftercare. Cr. 3
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 skills-building and self-care practices for the death-field professional. (S)

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, licensure and accreditation issues; medical ethics. 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 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 Senior Seminar. Cr. 2
Open only to Program enrollees. Contemporary topics impacting modern funeral homes and funeral service professionals. (T)

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 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)

Mortuary Science 441
Health Care Sciences

Department Office: 2246 APHS; 313-577-1432
Chairperson: Thomas Birk

Program Directors

Nurse Anesthesia
Prudentia A. Worth
Office: 2342 APHS; 313-993-4337

Occupational Therapy
Joseph Pellentto, Jr.
Office: 2226 APHS; 313-577-1435

Physical Therapy
Susan A. Talley
Office: 2250 APHS; 313-577-1432

Physician Assistant Studies
James Frick, Stephanie Gilkey
Office: 2590 APHS; 313-577-1368

Radiation Therapy Technology
Adam F. Kempa
Office: 2211 APHS: 313-577-1435

Radiologic Technology
Kathy Kath
Office: 2212 APHS: 313-577-1435

Health Care Sciences Programs

The Department of Health Care Sciences represents the departments of Nurse Anesthesia, Occupational Therapy, Physical Therapy, and Physician Assistant Studies.

Nurse anesthesia, occupational therapy, physical therapy, and physician assistant studies are among the 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 consultation 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.

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 and incudes: examination, evaluation, diagnosis, prognosis, intervention, and analysis of outcomes. Physical Therapists provide services to patients/clients who have impairments, functional limitations, disabilities 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, 2001).

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.

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 year 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 technician 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.
Department Secretary: 

Office: Room 2248 APHS
Program Director: Joseph M. Pellerito, Jr.
Graduate Coordinator: Doreen Head
Director of Fieldwork Education: Nancy Vandewiele-Milligan
Department Secretary: Tamra Samuels
Website: http://www.cphs.wayne.edu/ot/

Professors Emerita
Miriam C. Freeling, Susetta McCree, Martha E. Schnebly

Adjunct Professors
Franklin Stein, Elizabeth J. Yerxa

Associate Professor
Catherine L. Lysack, Joseph M. Pellerito, Jr.

Adjunct Associate Professors
Robert Erlandson, Linda M. Roth

Assistant Professors
Gerry Conti, Doreen Head, Nancy Vandewiele-Milligan, Rosanne DiZazzo-Miller

Senior Lecturer
Regina Parnell

Part-Time Faculty
Diane Adamo, Donna Case, Susan Koziatek, Tina Savich

Adjunct Faculty
Robert Erlandson, Franklin Stein, Cathy Fuerstnau, Darren Gustitus, Kirk Krugger, Preethy Samuels

Part-Time Instructional Assistant
Michael Barrett

Cooperating Faculty
Merle Ekstrom, Mary Tracy-Bee

Degree Programs

BACHELOR OF HEALTH SCIENCE

with a concentration in occupational therapy

MASTER OF OCCUPATIONAL THERAPY

MASTER OF SCIENCE in Occupational Therapy

Occupational therapy helps people enhance wellness at any stage of life and furthers their engagement in everyday activities important to them. With the assistance of a qualified therapist, patients learn how to prevent, overcome, or manage, physical and/or psychological impairments, disabilities, handicaps or other health-related conditions. Using a variety of productive or creative activities, 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 meaningful occupations in 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 for full-time or part-time enrollment.

Accreditation: Wayne State University offers courses of study which are accredited by the Accreditation Council for Occupational Therapy Education (ACOTE), the accrediting body of the American Occupational Therapy Association (AOTA), and which prepare the student to take the national certification examination. (The degree Bachelor of Health Science does not qualify the holder for certification.)

Preprofessional Program Admission

Preprofessional Program: Upon completion of the undergraduate requirements (please see the University requirements), applicants must complete two years of preprofessional study. This includes the General Education Requirements of the university (see page 17), and prerequisite courses for the occupational therapy 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
- 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
- NUR 1110 – (CL) Computers & Technology for Health Care Professionals: Cr. 2
- 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
- English Proficiency (EP) requirement
- Foreign Culture (FC) course: Cr. 3-4
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 from the Department of Occupational Therapy throughout the year. Students are admitted once per year prior to the spring/summer semester the student wishes to be considered for 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 professional 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 the Department.


4. Submit a letter of recommendation from a current or former supervisor. Students who have no work experience may seek a recommendation from an instructor of one of the occupational therapy core courses.

Students transferring from another institution should meet with a representative at the Office of Student Affairs and/or the Department of Occupational Therapy to ensure their credits are equivalent to Wayne State University courses. Equivalency guides are available through the Office of Student 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, 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, 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 for Certification in Occupational Therapy (NBCOT), and licensure where applicable.

PROFESSIONAL PROGRAM

UNDERGRADUATE LEVEL COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT 3000</td>
<td>Intro. to Occupation, Health, and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>OT 3070</td>
<td>Occupational Therapy Research I</td>
<td>3</td>
</tr>
<tr>
<td>OT 3200</td>
<td>Therapeutic Media</td>
<td>3</td>
</tr>
<tr>
<td>OT 3200</td>
<td>Movement Assessment (with lab)</td>
<td>3</td>
</tr>
<tr>
<td>OT 3400</td>
<td>Health Conditions I: Physical Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>OT 4050</td>
<td>Life Occupations I</td>
<td>3</td>
</tr>
<tr>
<td>OT 4280</td>
<td>OT Assessments: Cr. 5</td>
<td></td>
</tr>
<tr>
<td>OT 4400</td>
<td>Health Conditions II: Mental Health</td>
<td>4</td>
</tr>
<tr>
<td>OT 4600</td>
<td>Group Dynamics</td>
<td>5</td>
</tr>
<tr>
<td>OT 5000</td>
<td>Interventions and Outcomes I</td>
<td>5</td>
</tr>
<tr>
<td>OT 5050</td>
<td>Life Occupations II</td>
<td>3</td>
</tr>
<tr>
<td>OT 5200</td>
<td>Human Anatomy for Health Sciences</td>
<td>4</td>
</tr>
<tr>
<td>OT 5210</td>
<td>Human Anatomy for Health Sciences: Laboratory</td>
<td>1-2</td>
</tr>
<tr>
<td>OT 5400</td>
<td>Neuroanatomy and Neurophysiology for Health Sciences</td>
<td>3.0</td>
</tr>
<tr>
<td>OT 5650</td>
<td>Pathophysiology for Health Sciences</td>
<td>3.5</td>
</tr>
<tr>
<td>OT 5993</td>
<td>(WI) Writing Intensive Seminar in OT</td>
<td>0</td>
</tr>
<tr>
<td>OT 6070</td>
<td>Occupational Therapy Research II</td>
<td>1-2</td>
</tr>
</tbody>
</table>

GRADUATE LEVEL COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT 5040</td>
<td>Environmental Influence on Disability and Health</td>
<td>3.0</td>
</tr>
<tr>
<td>OT 6600</td>
<td>Interventions and Outcomes II</td>
<td>5.0</td>
</tr>
<tr>
<td>OT 6230</td>
<td>Motor Control</td>
<td>3.0</td>
</tr>
<tr>
<td>OT 7120</td>
<td>Topics in Assistive Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>OT 7200</td>
<td>Program Administration and Entrepreneurship</td>
<td>3.0</td>
</tr>
<tr>
<td>OT 7898</td>
<td>Level II Fieldwork B: Cr. 8</td>
<td></td>
</tr>
<tr>
<td>OT 7999</td>
<td>Master’s Essay Direction</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Fieldwork: During the course work outlined above, students participate in Level I fieldwork experiences that are designated to meet course objectives in OT 4600, 5000, and 6000. In the final portion of the curriculum, students must participate in two full-time three-month field experiences (OT 7898, 7899), which serve 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 fifth 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 (‘E’) 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 may also result in dismissal from 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.
In addition, a limited amount of financial assistance is available to qualified students in the professional level occupational therapy program. Information may be obtained from the Chairperson of the Department.

Honors and Awards

SENIOR AWARDS

The H. Barbara Jewett Honor Graduate of the Year Award recognizes the senior who, upon completion of the academic program, has attained the highest scholarship of the senior class. The student’s name is engraved on the award plaque, on permanent display in the Department.

The H. Barbara Jewett Faculty Award is presented to the senior student who, while in the professional program, has demonstrated outstanding accomplishments in occupational therapy scholarship; leadership or professional interest and displayed outstanding departmental involvement.

AWARDS

Kay Schlomer Scholarship Awards: Five awards of $1,000 are awarded each year to students enrolled in the undergraduate program. Honorees are selected based on their writing of a short essay in which they articulate 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 Occupational Therapy Club 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 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 483.

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: OT 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

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.

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

3300 Movement Assessment. Cr. 3
Prereq: PHY 2130, OT 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

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

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.

4280 Occupational Therapy Assessments. Cr. 5
Tools and techniques for conducting assessments: documenting, observing, and interviewing. Course format: didactic, case presentation, and experiential.

4400 Health Conditions II: Mental Health. Cr. 4
Prereq: OT 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.

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.

4990 Directed Study. Cr. 1-2 (Max. 5)
Prereq: consent of adviser.
Interventions and Outcomes 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)

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)

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 sciences professional programs; foundation for further study in clinical sciences. (F)

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 prossections, dissection of human cadavers; didactic study. Material Fee as indicated in the Schedule of Classes (F)

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)

Pathophysiology for Health Sciences. (R T 5650) Cr. 3-5
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)

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)

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)

Occupational Therapy Research II. Cr. 3
Prereq: O T 3070. Application of research principles and methods to solving occupational therapy problems. (F)

Physical Therapy

Office: 2248 APHHS; 313-577-1432
Chairperson: Thomas Birk
Director: Susan Ann Talley, Physical Therapy Program
Website: http://www.pt.wayne.edu

Professor
Louis Amundsen

Associate Professor
Thomas Birk

Assistant Professors
Christine Carlson, Kim Dunleavy, Nancy McNevin, Fredrick Pociask, Susan Ann Talley

Instructors
Vicky Pardo, Kristina Reid

Part-Time Faculty
Sara Arena, Tracey Fleck, Isabelle Hauswirth, Mary Alice Hewelt, Kathleen Jakubia Kovacek, Peter Kovacek, Amy Miller, Polly Swingle, William Thornton

Cooperating Faculty
Randy Commissaris, Merlin Ekstrom, Hermann Engels, Randall Greteback, E. David Ladd

Center Coordinators of Clinical Education

Degree Programs

BACHELOR OF HEALTH SCIENCE
—Physical Therapy Concentration

DOCTOR OF PHYSICAL THERAPY

The Physical Therapy Profession

Physical Therapists provide services to patients/clients who have impairments, functional limitations, disabilities, or changes in physical function and health status resulting from injury, disease, or other causes. Physical therapists collaborate with a variety of profession-
als, 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 signs and symptoms. 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).

Bachelor of Health Science
— Physical Therapy Concentration

The program leading to the Bachelor of Health Science (physical therapy concentration) is offered by the Eugene Applebaum College of Pharmacy and Health Sciences of Wayne State University in cooperation with the College of Liberal Arts and Sciences, and the School of Medicine. This degree, awarded upon completion of between 120 and 134 semester credits (approximately ninety preprofessional semester credits and forty-three professional program semester credits), is a prerequisite for entry into the graduate component of the professional program, leading to the professional entry-level Doctor of Physical Therapy degree.

Students who are admitted to the physical therapy program, successfully complete the requirements of the Bachelor of Health Science (physical therapy concentration), and meet requirements for admission to the Graduate School at Wayne State University are guaranteed admission to the graduate component of the program. Students who already hold an undergraduate degree are eligible to receive a second bachelor’s degree.

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, American Physical Therapy Association (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. The Bachelor of Health Science (physical therapy concentration) does not qualify the holder for licensure as a physical therapist.

Admission

Preprofessional Program: The applicant must satisfy the undergraduate admission requirements to the University (see page 23). Applicants to the professional program must also fulfill all prerequisite courses for the physical therapy program, as well as the Wayne State University General Education Requirements (see page 17) and have completed a minimum of seventy-seven undergraduate semester credits. Applicants who already hold an undergraduate degree are exempt from the General Education Requirements and minimum semester credit requirement. Applicants who already hold an undergraduate degree are exempt from the General Education Requirements. Decisions regarding the fulfillment of program prerequisites are made by the Physical Therapy Program. Application forms for admission to the University may be obtained from the University Office of Admissions.

Prior to admission to the professional program, the following prerequisites, or their equivalent, must be completed:

PREPROFESSIONAL PROGRAM

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 1510</td>
<td>(LS) Basic Life Mechanisms</td>
<td>4</td>
</tr>
<tr>
<td>BIO 2870</td>
<td>Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>BMB 5010</td>
<td>General Biochemistry Lecture</td>
<td>2</td>
</tr>
<tr>
<td>CHM 1220</td>
<td>(PS) General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHM 1230</td>
<td>General Chemistry I Lab</td>
<td>1</td>
</tr>
<tr>
<td>CHM 1240</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHM 1250</td>
<td>Organic Chemistry I Lab</td>
<td>1</td>
</tr>
<tr>
<td>ENG 1020</td>
<td>(BC) Introductory College Writing</td>
<td>4</td>
</tr>
<tr>
<td>ENG 3010</td>
<td>(IC) Intermediate Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENG 3050</td>
<td>ENG 3010 (ENG 3050 is the preferred election)</td>
<td></td>
</tr>
<tr>
<td>ENG 3010</td>
<td>(IC) Intermediate Writing</td>
<td>3</td>
</tr>
<tr>
<td>HEA 2330</td>
<td>First Aid and CPR</td>
<td>3</td>
</tr>
<tr>
<td>KIN 5570</td>
<td>Physiology of Exercise</td>
<td>1</td>
</tr>
<tr>
<td>MAT 1800</td>
<td>Elementary Functions</td>
<td>4</td>
</tr>
<tr>
<td>PHY 2130</td>
<td>(PS) General Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 2131</td>
<td>General Physics Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHY 2140</td>
<td>General Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 2141</td>
<td>General Physics Lab</td>
<td>1</td>
</tr>
<tr>
<td>PSL 3220</td>
<td>Fundamentals of Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>PSY 1010</td>
<td>(LS) Introductory Psychology</td>
<td>4</td>
</tr>
<tr>
<td>PSY 2400</td>
<td>Developmental Psychology</td>
<td>4</td>
</tr>
<tr>
<td>PSY 3010</td>
<td>Statistical Methods in Psychology</td>
<td>4</td>
</tr>
</tbody>
</table>

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 (4000 and above) concentrated in one of the following areas: Biology, Chemistry, Physics, Psychology

In addition to the above, the following General Education Requirements (see page 17) must also be satisfied:

<table>
<thead>
<tr>
<th>Area</th>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>(AL)</td>
<td>American Society and Institutions</td>
<td></td>
</tr>
<tr>
<td>(CL)</td>
<td>Computer Literacy Competency</td>
<td></td>
</tr>
<tr>
<td>(IC)</td>
<td>Intermediate Writing</td>
<td>3</td>
</tr>
<tr>
<td>(EP)</td>
<td>English Proficiency Requirement</td>
<td></td>
</tr>
<tr>
<td>(FC)</td>
<td>Foreign Culture Group Requirement</td>
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<tr>
<td>(HS)</td>
<td>Historical Studies Group Requirement</td>
<td></td>
</tr>
<tr>
<td>(OC)</td>
<td>Oral Communication Competency</td>
<td></td>
</tr>
<tr>
<td>(PL)</td>
<td>Philosophy and Letters Group Requirement</td>
<td></td>
</tr>
<tr>
<td>(VP)</td>
<td>Visual and Performing Arts Group Requirement</td>
<td></td>
</tr>
<tr>
<td>(SS)</td>
<td>Social Studies Group Requirement</td>
<td></td>
</tr>
<tr>
<td>(CD)</td>
<td>One course in each of three Exposure Areas</td>
<td></td>
</tr>
</tbody>
</table>

Professional Program Admission: The professional program in physical therapy takes three and one-half years and consists of an undergraduate and a graduate component. Progression to the graduate level is achieved only through successful completion of the undergraduate component. Courses in the professional program are taken on a full-time basis in the Eugene Applebaum College of Pharmacy and Health Sciences. A limited number of part-time positions may be available. The professional program begins in the fall semester of each year.

For admission to the professional program in physical therapy, applicants must submit an Application for Admission to Professional Program, Eugene Applebaum College of Pharmacy and Health Sciences. Applications are available November 15 online via the College Website. Application deadline is January 15 for admission to the program the following September. Admission is competitive. Completion of prerequisites with minimum requirements does not guarantee admission.

Applicants to the professional program must satisfy the following requirements:

1. Be admitted to Wayne State University (see page 23 for admission requirements).
2. Submit proof of completion of all science prerequisite classes by January 15 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 English Proficiency and Mathematics Competency examinations 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.

Differential Tuition

With commencement of the Professional Year One (first year of the Doctor of Physical Therapy degree program and last year of the Bachelor of Health Science program) students will be charged the following rates of tuition plus 15% and the following fees:

- 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

Candidates for the Bachelor of Health Science (Physical Therapy Concentration) must complete a minimum of 120 credits including:

- University General Education Requirements (see page 17), professional program prerequisites, and the undergraduate professional program.

These credits are distributed between the preprofessional program (see above) and the undergraduate phase of the professional program listed below as Professional Year One, three semesters (forty-three credits). (Course work listed is subject to change without notice.)

PROFESSIONAL YEAR ONE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>P T 4020</td>
<td>Introduction to Physical Therapy</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>P T 4120</td>
<td>Human Growth and Development</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>P T 4320</td>
<td>Basic Evaluation Procedures</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>P T 4400</td>
<td>Clinical Medicine I</td>
<td>Cr. 2</td>
</tr>
<tr>
<td>P T 4430</td>
<td>Clinical Medicine II</td>
<td>Cr. 2</td>
</tr>
<tr>
<td>P T 4500</td>
<td>Kinesiology and Biomechanics</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>P T 4650</td>
<td>Pathokinesiology</td>
<td>Cr. 2</td>
</tr>
<tr>
<td>P T 5100</td>
<td>Therapeutic Exercise</td>
<td>Cr. 2</td>
</tr>
<tr>
<td>P T 5800</td>
<td>Clinical Education I</td>
<td>Cr. 2</td>
</tr>
</tbody>
</table>

Upon completion of the above, students are granted a Bachelor of Health Science degree with a concentration in Physical Therapy. Admission to the graduate component of the entire physical therapy curriculum offered by the University is contingent upon completion of this degree with a minimum g.p.a. of 3.00, and admission to Wayne State University Graduate School.

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.wayne.edu

Health and Liability Insurance: Clinical Education is provided throughout the professional program along with didactic courses. The final sixteen 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 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 clinical education. 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 483.

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 4020, 4120, 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 4320. 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 (CD) 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 4430, P T 4500; 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 4020, 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 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 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, dissection 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: P T 4500, P T 4400; 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
Prereq: ANA 3030. 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 4400. Continuation of P T 4400. 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 4300. Normal movement and biomechanics applied to the human body. Material Fee as indicated in the Schedule of Classes (F)

5650 Pathophysiology for Health Sciences. (O T 5650) (R T 5650) Cr. 3-5
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)

5660 Pathokinesiology. Cr. 2
Prereq: P T 4500. Continuation of P T 4500. Additional depth and breadth. Material Fee as indicated in the Schedule of Classes (W)

5800 Clinical Education I. Cr. 2
Prereq: P T 7120 or P T 7220 or consent of instructor. Offered for S and U grades only. Orientation to clinical education and practice, observational skills; correlation of basic principles and skills of patient care and treatment. Part-time, supervised experience in clinical environment. Activity reports required. (S)

5820 Clinical Education II. Cr. 2
Offered for S and U grades only. Prereq: P T 5800. Full-time four week supervised clinical experience. Second in three-course sequence. (S)

5840 Clinical Education III. Cr. 2 (Max. 6)
Prereq. or coreq: P T 5820; or consent of instructor. Offered for S and U grades only. Full-time supervised clinical experience for physical therapy students. Third in a three-course clinical education series. (F, 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 (CD) Diversity in Health Care. Cr. 2
Prereq: P T 4120 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 Physical Therapy program, or consent of instructor. 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. (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. People from various cultures (religious,
Radiation Therapy Technology

Office: 2212 APHA; 313-577-1137

Interim Program Director: Adam F. Kempa

Chairperson, Health Care Sciences: Tom Birk

Academic Director
Adam F. Kempa

Adjunct Assistant Professor
Rosann Keller

Cooperating Faculty
Merlin E. Ekstrom

Medical Adviser
Kenneth J. Levin

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 education requirements of the American Society of Radiologic Technologists (ASRT), the American Association of Physicists in Medicine (AAPM), and the American Society of Medical Arts (ASMA).
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 23. Application forms are available from the Office of Admissions, University Welcome Center. Students should consult with the University Advising Center, 1600 Adadmany 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
- ENG 3010 – (OC) Oral Communication: Basic Speech: 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
- UGE 1000 – (GE) Information Power: Cr. 1
  - American Society & Institutions (AI) Elective: Cr. 3
  - Critical Thinking (CT) by Competency Exam or course: Cr. 3
  - Foreign Culture (FC) Elective by Competency Exam or course: Cr. 3
  - History Studies (HS) Elective: Cr. 3
  - Humanities (VP,PL) Electives: Cr. 6
  - One course in each of three Exposure Areas (CD) (EI) (ST)
- 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.
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 Requirements in English and Mathematics proficiency (documentation is required).

The application requested in requirements 3, 4, 7, and 8, above, should be submitted to the Program Director, Radiation Therapy Technology, Department of Radiation Oncology, First Level, University Health Center, Detroit Medical Center, Wayne State University, Detroit MI 48201.

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 courses.
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 5650 – Pathophysiology for the Health Sciences: Cr. 3
- 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 3180 – Design & Construction of Treatment Accessories: Cr. 1
- 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

Total credits: 32

**FOURTH YEAR**

- R T 4110 – Clinical Radiation Oncology: Cr. 4
- R T 4120 – Basic Clinical Dosimetry: Cr. 3
- 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
- Elective: Cr. 3

Total credits: 34

**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 483.

**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

**3010 Introductory Radiation Physics. Cr. 3**

Basic introduction of radiation physics including the x-ray machine, physical principles and circuitry; principles of mathematics.

**3020 Clinical Radiation Physics. Cr. 3**

Prerequisites: R T 3010. Principles of radiation exposure; radiation producing and measuring devices; clinical application of radiation physics.

**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.

**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

**3180 Design and Construction of Treatment Accessories. Cr. 1**

Theory and practical experience with design and construction of radiation shielding devices and various treatment accessories; related geometry, magnification devices, use of hot-wire cutter, casting techniques, bolus construction and immobilization devices. Material Fee as indicated in the Schedule of Classes

**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
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. 3
Prereq: R T 4110. 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 biologic 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 (P T 5650) Pathophysiology for Health Sciences. (O T 5650) Cr. 3-5
Prereq: admission to Physical Therapy or Occupational Therapy or Radiation 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)
Radiologic Technology

Office: 2212 APHS; 313-577-1435
Program Director: Kathy Kath
Chairperson, Health Care Sciences: Tom 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 pre-professional 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.

Admission to Preprofessional Program

The first two years (pre-professional 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 pre-professional 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 2.50 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 W.S.U. Office of Testing, Evaluation & Research at 313-577-3400 for further information.

FIRST AND SECOND YEARS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 1510</td>
<td>Basic Life Mechanisms: Cr. 3-4</td>
<td></td>
</tr>
<tr>
<td>COM 1010</td>
<td>Oral Communication: Basic Speech: Cr. 3</td>
<td></td>
</tr>
<tr>
<td>ENG 1020</td>
<td>(BC) Introductory College Writing: Cr. 4</td>
<td></td>
</tr>
<tr>
<td>ENG 3050</td>
<td>(IC) Technical Communication I: Cr. 3</td>
<td></td>
</tr>
<tr>
<td>IHS 3100</td>
<td>Basic Mechanisms of Human Disease I: Cr. 5</td>
<td></td>
</tr>
<tr>
<td>IHS 3200</td>
<td>Basic Mechanisms of Human Disease II: Cr. 5</td>
<td></td>
</tr>
<tr>
<td>MAT 1800</td>
<td>Elementary Functions: Cr. 4</td>
<td></td>
</tr>
<tr>
<td>PHI 1050</td>
<td>(CT) Critical Thinking: Cr. 3*</td>
<td></td>
</tr>
<tr>
<td>PHI 2320</td>
<td>(PL) (EI) Introduction to Ethics: Cr. 3-4</td>
<td></td>
</tr>
<tr>
<td>PHY 1020</td>
<td>(PS) Conceptual Physics: Cr. 3-4</td>
<td></td>
</tr>
<tr>
<td>PSY 1010</td>
<td>(LS) Introductory Psychology: Cr. 4</td>
<td></td>
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<tr>
<td>PSY 2400</td>
<td>Developmental Psychology: Cr. 4</td>
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<tr>
<td>STA 1020</td>
<td>Elementary Statistics: Cr. 4</td>
<td></td>
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<tr>
<td>Computer Literacy Requirement</td>
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<td></td>
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<tr>
<td>English Proficiency Exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plus courses to satisfy General Education Requirements in the following areas:</td>
<td></td>
<td></td>
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<tr>
<td>Historical Studies (HS)</td>
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<tr>
<td>American Society &amp; Institutions (AI)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visual &amp; Performing Arts (VP) Elective</td>
<td></td>
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</tr>
</tbody>
</table>

APPLICATION DEADLINE: The deadline for applications is January 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 March.

Professional Curriculum

Spring/Summer Semester, Year II

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CLS 3330</td>
<td>Medical Terminology: Cr. 1</td>
</tr>
<tr>
<td>IHS 3300</td>
<td>Pharmacology for the Health Sciences: Cr. 1</td>
</tr>
<tr>
<td>RDT 3100</td>
<td>Introduction to Radiologic Technology: Cr. 2</td>
</tr>
<tr>
<td>RDT 3400</td>
<td>-- Clinical Education I: Cr. 6</td>
</tr>
</tbody>
</table>

Fall Semester, Year II

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDT 3200</td>
<td>Radiation Biology: Cr. 3</td>
</tr>
<tr>
<td>RDT 3300</td>
<td>(ST) Radiographic Procedures I: Cr. 3</td>
</tr>
<tr>
<td>RDT 3600</td>
<td>-- Clinical Education II: Cr. 6</td>
</tr>
</tbody>
</table>

Admission to Professional Program

Admission to the professional program requires completion of the above pre-professional course requirements and satisfaction of specific admission requirements listed below. The application deadline is January 30 for matriculation into the professional program for the subsequent Spring/Summer term.

Students should contact Academic Advising at www.cphs.wayne.edu and program faculty for career advisement. Prospective students are urged to contact the program as early as possible in their University studies (313-577-9404).

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 pre-professional courses (or their equivalents) by the Spring/Summer term in which admittance is desired. See Pre-Professional Program above.
2. Hold a grade point average of 2.50 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 Affairs
   259 Mack Avenue, Suite 1600
   Detroit, MI 48201

4. Application DEADLINE: The deadline for applications is January 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 March.
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 (313-577-1435) for information concerning this program.

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, 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, see page 483.

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. (F)

3200 Radiation Biology and Advanced Protection. Cr. 3
Prereq: RDT 3100; coreq: RDT 3300 and RDT 3400. Radiation protection procedures; radiation interaction with matter and dosage problem solving. (F)

3300 Radiographic Procedures I. Cr. 3
Prereq: RDT 3100; coreq 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; coreq RDT 3200 and RDT 3300. Clinical course. Student participates in supervised practice of radiographic procedures, studied in conjunction with didactic coursework. (F)

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 indicated in 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 indicated in Schedule of Classes. (W)

3700 Radiographic Procedures II. Cr. 3
Prereq: admission to RDLT Program; RDT 3800, RDT 3900. Continuation of RDT 3300. Additional advanced procedures, including skull, mammography, and gastrointestinal studies. Material fee announced in Schedule of Classes. (S)

3800 Cross-Sectional Anatomy. Cr. 2
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. 7
Prereq: admission to RDLT Program; RDT 3700, RDT 3800. Minimally supervised clinical experience. Skills practice to proficiency level; additional complex skills. Material fee announced in Schedule of Classes. (S)

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 equipment manipulation of images. Material fee announced in 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 announced in Schedule of Classes. (F)

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. 6
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 announced in Schedule of Classes. (W)

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. (S)

4700 Clinical Education VI. Cr. 6
Prereq: admission to RDLT Program; RDT 4600, RDT 4800. Continuation of RDT 4500. Material fee announced in Schedule of Classes. (S)

4800 Independent Study. Cr. 1
Open only to students in RDLT program. Prereq: RDT 4600, RDT 4700. Independent research in radiology. (S)
Pharmacy Practice

Office: 2190 APHS; 313-577-0824
Chairperson: David J. Edwards
Director, Pharmacy Student Recruitment: Carol Bugdalski-Stutrud
Website: http://pharmacy.wayne.edu/

Professors

David J. Edwards, Richard L. Lucarotti, Douglas A. Miller, Michael J. Rybak, Richard L. Slaughter, Maureen Smythe, Jesse C. Vivian

Associate Professors

David S. Bach, Linda A. Jaber, Pramodini B. Kale-Pradhan, Paul J. Munzenberger, Mary Beth O’Connell, Denise Rhoney, Victoria Tutag-Lehr

Assistant Professors

Raymond Cha, Susan Davis, Candace Garwood, JamesKalus, Kenyetta Nesbitt, Lynnette Moser, Dennis Parker, Francine Salinitri, Geralynn B. Smith, Sheila Wilhelm, David Wilpula

Senior Lecturer

Carol Bugdalski-Stutrud

Doctor of Pharmacy Program

The W.S.U. 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.html

Professors

Hanley N. Abramson, Martin Barr (Emeritus), George B. Corcoran, Raymond J. Dauphinais (Emeritus), Melvin F. W. Dunker (Emeritus), Alok K. Dutta, George C. Fuller, Fusao Hirata, Anjaneulu Kowluru, Robert T. Louis-Ferdinand, Janardan B. Nagwekar (Emeritus), Paul M. Stemmer, Henry C. Wormser, Patrick M. Woster

Adjunct Professors

Jacob V. Aranda, David J.P. Bassett, Deepak K. Bhal, Michael R. Bleavins, Robert A. Levine

Associate Professors

Randall L. Commissaris, David K. Pitts

Adjunct Associate Professors

Merlin E. Ekstrom, Peter D. Frade, Howard J. Normile, Michael A. Walters

Assistant Professors

Amit Banerjee, Steven Firestine, Jayanth Panyam, David Oupicky

Adjunct Assistant Professors

Bradford R. Hepler, Daniel S. Isenschmid, Timothy Stemmler, Bonita Taffe, G. Han 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 23. 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 three 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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Prefix</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 1510</td>
<td>(LS)</td>
<td>Basic Life Mechanisms</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>BIO 2200</td>
<td>(LS)</td>
<td>Introductory Microbiology</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CHM 1220</td>
<td>(PS)</td>
<td>General Chemistry I</td>
<td>Cr. 4</td>
</tr>
<tr>
<td>CHM 1230</td>
<td>General Chemistry I Lab</td>
<td>Cr. 1</td>
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<tr>
<td>CHM 1240</td>
<td>Organic Chemistry I</td>
<td>Cr. 4</td>
<td></td>
</tr>
<tr>
<td>CHM 1250</td>
<td>Organic Chemistry I Lab</td>
<td>Cr. 1</td>
<td></td>
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<tr>
<td>CHM 2220</td>
<td>Organic Chemistry II</td>
<td>Cr. 3</td>
<td></td>
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<tr>
<td>CHM 2230</td>
<td>Preparative Organic Chemistry Lab</td>
<td>Cr. 2</td>
<td></td>
</tr>
<tr>
<td>CSC 1000</td>
<td>(CL)</td>
<td>Intro. to Computer Science</td>
<td>Cr. 3</td>
</tr>
<tr>
<td>ECO 1000</td>
<td>(SS)</td>
<td>Survey of Economics</td>
<td>Cr. 4</td>
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<tr>
<td>ENG 1020</td>
<td>(BC)</td>
<td>Freshman Honors: English I</td>
<td>Cr. 4</td>
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<tr>
<td>ENG 3010</td>
<td>(IC)</td>
<td>Intermediate Writing</td>
<td>Cr. 3</td>
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<td>ENG 3050</td>
<td>(IC)</td>
<td>Technical Communication I: Report Writing</td>
<td>Cr. 3</td>
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<tr>
<td>ENS 1080</td>
<td>(SS)</td>
<td>Principles of Macroeconomics</td>
<td>Cr. 4</td>
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<tr>
<td>ENG 1050</td>
<td>(BC)</td>
<td>Introductory College Writing</td>
<td>Cr. 4</td>
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<td>PHI 1050</td>
<td>(CT)</td>
<td>Critical Thinking</td>
<td>Cr. 3</td>
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<td>PHY 1370</td>
<td>(PS)</td>
<td>General Physics</td>
<td>Cr. 3</td>
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<td>General Physics Lab</td>
<td>Cr. 1</td>
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<tr>
<td>P S 1010</td>
<td>(AI)</td>
<td>American Government</td>
<td>Cr. 4</td>
</tr>
</tbody>
</table>

**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

**Mathematics Competency Requirement:**

- Mathematics Competency Requirement: 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, indicated by parenthetical prefixes to course titles in the material above, fulfill University General Education Requirements. 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

**Beginning Fall 2005, General Education Requirements also include three Exposure Areas (CD) (EI) (ST) courses.**

**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 February 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 2.5 (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 2.5 (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. All applicants must complete the Wayne State University English Proficiency Requirement during the Winter semester prior to fall admission. Out-of-State applicants may arrange for testing to satisfy this requirement at their present educational institution; for information, call the Testing and Evaluation Office: 313-577-3400.

8. Applicants whose first language is not English must pass the Test of English as a Foreign Language (TOEFL) with a minimum score of 550.

9. A personal or written interview with a member of the Pharmacy Admissions Committee may be offered and may be 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 483.

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 3310, PSC 3210, IHS 3200. General principles of pharmacology and medicinal chemistry. (Y)

#### 5600 Recreational Drug Use and Drug Abuse. Cr. 3-4
Prereq: PSC 4100, PSC 4200; fifth year standing. 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. 1-3 (Max. 3)
Prereq: consent of instructor. Open only to undergraduates in good academic standing. (Formerly M C 5990) (T)

#### 5991 Directed Study in Pharmaceutics. Cr. 1-3 (Max. 3)
Prereq: consent of instructor. Open only to undergraduates in good academic standing. (Formerly PHA 5990) (T)

#### 5992 Directed Study in Pharmacology. Cr. 1-3 (Max. 3)
Prereq: consent of instructor. Open only to undergraduates in good academic standing. (Formerly PCL 5990) Material Fee as indicated in the Schedule of Classes (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)

#### 6600 (PPR 6600) Biostatistics. Cr. 3
Prereq: last professional year, graduate, or graduate professional standing. Use and interpretation of statistical tools in the pharmaceutical and clinical literature. (F)

#### 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. Material Fee as indicated in the Schedule of Classes (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)

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)

4120  Pharmacotherapeutics II: Fluid and Electrolytes/Renal.  Cr. 1
Prereq: PSC 3310, PSC 4320. Pharmacology, medicinal chemistry, therapeutic application, pharmacokinetics of drugs influencing fluid and electrolyte balance and drugs used in the management of renal diseases. (F)

4130  Pharmacotherapeutics III: Immunology and Inflammatory Disorders; Hematology.  Cr. 2
Prereq: PSC 3310, PSC 4320. Pharmacology, medicinal chemistry, therapeutic application, and applied pharmacokinetics of drugs that are immunomodulators and drugs that are used to treat inflammatory and hematologic and thromboembolic disorders. (F)

4140  Principles of Pharmacotherapy III. (PHA 5165)  Cr. 4
Prereq: PSC 3310, PSC 4320, second professional year status. Pharmacotherapeutic principles in endocrine, respiratory and gastrointestinal diseases. (F)

4160  Pharmacotherapeutics VI: Gastroenterology/Nutrition.  Cr. 2
Prereq: PHA 4110, 4120, 4130. Pharmacology, medicinal chemistry, therapeutic application, and applied pharmacokinetics of drugs that are used in the management of diseases of the gastrointestinal system. Factors involved in nutritional support in normal and abnormal physiology. (F)

4170  Pharmacotherapeutics VII: Oncology.  Cr. 2
Prereq: PHA 4120, 4130. Pharmacology, medicinal chemistry, therapeutic application, and applied pharmacokinetics of drugs that are used in the management of neoplastic diseases. (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)

4230  Pharmacotherapeutics X: Psychiatry/Drug Abuse.  Cr. 2
Prereq: PHA 5155. Pharmacology, medicinal chemistry, therapeutic application, and applied pharmacokinetics of drugs that are used in the management of psychiatric diseases and those drugs and chemical entities that are commonly associated with abuse. (W)

4240  Principles of Pharmacotherapy VI. (PHA 5270)  Cr. 4
Prereq: PSC 3310, 4320, second professional year status. Pharmacotherapeutic principles in oncology, clinical toxicology, and special patient populations. (W)

4250  Pharmacotherapeutics XII: Special Patient Populations.  Cr.
Prereq: PHA 4240. Pharmacology, medicinal chemistry, pharmacokinetics and therapeutic applications of drugs to special patient populations. (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. (W)

6010  Complementary/Alternative Medicines.  Cr. 2
Prereq: third professional year standing. Description, uses, adverse reactions, drug interactions, and efficacy of complementary and alternative drug products, particularly those derived from natural sources. (W)

PHARMACY PRACTICE COURSES (PPR)

3020  (CD) 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 3040. 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)
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 Early Practice Patient Care I. 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. (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)

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)

5000 (WI) Drug Literature Evaluation. Cr. 2
Prereq: third professional year standing. Principles and methods of evaluating the medical literature with an emphasis on that relating to the practice of pharmacy. Writing Intensive course in third professional year; in-class and out-of-class writing assignments required. (F,W)

5100 Clinical Pharmacy Clerkship Orientation. Cr. 1-2
Prereq: third professional year standing. Offered for S and U grades only. Orientation to and basic information necessary for effective participation in externship/keerchipship experiences. (F,W)

5120 (WI) Hospital Pharmacy Externship. Cr. 4-7
Prereq: third professional year standing. Practicum experience in institutional pharmacy practice including aspects of drug information services, intravenous additive services, ambulatory pharmacy services, clinical pharmacy services and hospital pharmacy administration. Material Fee as indicated in the Schedule of Classes (F,W)

5130 Community Pharmacy Externship. Cr. 4-7
Prereq: third professional year standing. Practicum experience includes community pharmacy management, medication dispensing, and patient-oriented services such as consultation on the use of prescription and non-prescription medications, monitoring patient profiles and obtaining medication histories. (F,W)

5135 Hospital Practice Introductory Experience. Cr. 1
Offered for S and U grades only. Prereq: third professional year standing in Doctor of Pharmacy program. Continuation of PPR 4230. (Y)

5190 Pre-Pharm.D. Externship/Clerkship. Cr. 1-15
Prereq: admission to Pharm.D. program. Special pharmacy externship/clerkship experience conducted at selected approved sites and offered solely to students who have been admitted to the Doctor of Pharmacy Program. Credit assigned is based on departmental review of program objectives and time commitment. (I)

5220 Special Clinical Pharmacy Clerkship/Externship. Cr. 1-15
Prereq: last professional year standing; consent of clerkship/externship coordinator. Clinical pharmacy clerkship/externship experiences at selected approved sites with established experiential programs. Credit assigned is subsequent to departmental review of program and time commitment. (T)

5230 Health Care Topics. Cr. 4
Modern health care delivery systems and services. (F,W)

5235 Community Practice Introductory Experience. Cr. 1
Offered for S and U grades only. Prereq: third professional year standing in Doctor of Pharmacy program. Continuation of PPR 5135. (Y)

5240 Advanced Self-Care. Cr. 2
Instruction in assisting patients to provide self-care. (F,W)

5280 Ethics and Professional Responsibility. Cr. 2
Prereq: PPR 3120, 4210, 3210, 3220, and third professional year status. General ethical principles and how these principles relate to legal duties and rights to guide professional pharmacy practice and conduct. (Y)

5290 Pharmacy Practice and the Health Care System. Cr. 3
Prereq: PPR 4210. Offered for S and U grades only. Review of the history, development and present status of the health care system in the United States. Discussion of trends and projected future development of the system; discussion of the roles and strategies for effective pharmacy practice within the system. (W)

5300 Critical Analysis of Drug Related Problems. Cr. 2
Prereq: fifth year standing. Development of ability to analyze and solve pharmacotherapeutic problems using a student-centered, problem-based learning model. (Y)

5700 Special Topics in Community Pharmacy Practice. Cr. 2-3
Prereq: last professional year standing. Discussion of current professional problems in community pharmacy practice. (F)

5800 History of Pharmacy. Cr. 2
Prereq: last professional year standing. History of pharmacy from antiquity to modern times; emphasis on development since eighteenth century, especially in Western Europe and the United States. (W)

5990 Directed Study in Pharmacy Practice. Cr. 1-3 (Max. 3)
Prereq: consent of instructor. Open only to undergraduates in good academic standing. (T)

5992 Professional Seminar. Cr. 1-3
Instruction in presentation skills. (F,W)

6050 Critical Care Therapeutics. Cr. 2
Prereq: admission to Pharm. D. program. Pharmacotherapy and pathophysiology related to problem solving in critical illness. (W)

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)

460 Eugene Applebaum College of Pharmacy and Health Sciences
6120 Home Health Care. Cr. 3
Prereq: PHA 4250, PPR 4110, PPR 4210; or graduate or graduate professional standing. Review of the availability and applications of surgical appliances and other health-care devices used in patient care. Material Fee as indicated in the Schedule of Classes (F)

6130 Advanced Health Care Topics. Cr. 4
Prereq: third professional year standing or admission to Pharm.D. program. Advanced concepts in modern health care delivery systems and services. (F)

6160 Advanced Therapeutic Problem Solving I. Cr. 5
Prereq: third professional year standing or admission to Pharm.D. program. Problem-based, student-centered approach to patient management. (F)

6180 (EI) Advanced Ethics and Professional Responsibility. Cr. 2
Prereq: third professional year standing or admission to Pharm.D. program. Advanced concepts in health care provision. (F)

6210 Intravenous Therapeutics. Cr. 2
Prereq: PHA 4250 or graduate or graduate professional standing. The physiology of fluid balance, fluid balance abnormalities, acid-base balance, treatment of fluid abnormalities, maintenance requirements, electrolyte replacement, and diseases commonly associated with fluid imbalance. Material Fee as indicated in the Schedule of Classes (F)

6220 Health Care Outcomes. Cr. 2
Prereq: third professional year standing or admission to Pharm.D. program. Tracking and analyzing population health care outcomes in various settings. (W)

6260 Advanced Therapeutic Problem Solving II. Cr. 5
Prereq: third professional year standing, PHA 6160 or admission to Pharm.D. program. Continuation of PPR 6160. (W)

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 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)

6600 (PPR 6600) Biostatistics. (PSC 6600) Cr. 3
Prereq: last professional year, graduate, or graduate professional standing. Use and interpretation of statistical tools in the pharmaceutical and clinical literature. (F)

6610 Disease Processes and Therapeutics I: Cardiology. Cr. 2
Prereq: admission to Pharm.D. program. Pathophysiology of disease states, clinical pharmacology and therapeutic application of drugs: cardiology. Material Fee as indicated in the Schedule of Classes (Y)

6620 Disease Processes and Therapeutics II: Infectious Diseases. Cr. 2
Prereq: admission to Pharm.D. program. Pathophysiology of disease states, clinical pharmacology and therapeutic application of drugs: infectious diseases. Material Fee as indicated in the Schedule of Classes (Y)

6630 Diseases Processes and Therapeutics III: Hematology/Oncology. Cr. 2
Prereq: admission to Pharm.D. program. Pathophysiology of disease states, clinical pharmacology and therapeutic application of drugs: hematology and oncology. Material Fee as indicated in the Schedule of Classes (Y)

6640 Disease Processes and Therapeutics IV: Psychiatry/Neurology. Cr. 2
Prereq: admission to Pharm.D. program. Pathophysiology of disease states, clinical pharmacology and therapeutic application of drugs: psychiatry and neurology. Material Fee as indicated in the Schedule of Classes (Y)

6650 Disease Processes and Therapeutics V: Gastroenterology/Endocrinology. Cr. 2
Prereq: admission to Pharm.D. program. Pathophysiology of disease states, clinical pharmacology and therapeutic application of drugs: gastroenterology and endocrinology. (Y)

6660 Disease Processes and Therapeutics VI: Nephrology/Fluid and Electrolytes. Cr. 1-3
Prereq: admission to Pharm.D. program. Pathophysiology of disease states, clinical pharmacology and therapeutic application of drugs: nephrology and fluid electrolytes. Material Fee as indicated in the Schedule of Classes (Y)

6670 Disease Processes and Therapeutics VII: Rheumatology, Pediatrics and Patient Assessment. Cr. 2
Prereq: admission to Pharm.D. program. Pathophysiology of disease states, clinical pharmacology and therapeutic application of drugs: rheumatology, pediatrics, patient assessment. Material Fee as indicated in the Schedule of Classes (Y)

6680 Disease Processes and Therapeutics VIII: Immunology/ Pulmonary/ToxicoLOGY. Cr. 2
Prereq: admission to Pharm. D. program. Pathophysiology of disease states, clinical pharmacology and therapeutic application of drugs: immunology, pulmonary, and toxicology. Material Fee as indicated in the Schedule of Classes (F)

6710 Advanced Pharmacotherapeutics: Surgery. Cr. 2
Prereq: B.S. in Health Sciences with concentration in pharmaceutical science. Advanced course in management of conditions encountered in surgical patients. Emphasis on perioperative assessment and optimization, pharmacotherapeutic and nutritional considerations, and management of surgical patients with complications and disease states. (F)

6720 Pharmacotherapeutics of Diabetes Mellitus. Cr. 2
Prereq: PHA 5165. Multidisciplinary course. Knowledge and skills required to effectively manage patients with diabetes. (F)
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 Alumni Association

The W.S.U. Pharmacy Alumni Association was established to advance pharmacy programs of the College. The Association fosters a professional spirit and promotes mutual improvement among alumni, as well as supporting College endeavors through seminars, scholarships, and tutorial programs offered to students.
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 knowledge, values and skills — the professional foundation — for social work practice.

An individual course is also available at the freshman and sophomore levels and post-degree 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:

- Kimberly Adams
- N. Charles Anderson
- C. Patrick Babcock
- Richard J. Breher
- Michael Brennen
- Juanita Doss
- Michael Earl
- Annette S. Freedman
- George D. Gaines, Jr.
- Allan Gelfond
- Louise Guyton
- Nora Holt
- Paul L. Hubbard
- Angela G. Kennedy
- Virginia A. King
- Winston Lang
- Guadalupe G. Lara
- Mohamed Okdie
- Lonnie Peek, Jr.
- Susan H. Rogers
- Al Seoud
- Lenora Stanfield
- Lillie Tabor
- John H. Talick
- Alice G. Thompson
- Eloise C. Whitten
- Angela B. Wilson

Degree and Certificate Programs

BACHELOR OF SOCIAL WORK

MASTER OF SOCIAL WORK

DOCTOR OF PHILOSOPHY in Social Work

GRADUATE CERTIFICATE PROGRAMS in
Social Work Practice With Families and Couples
Disabilities

School of Social Work Directory

DEAN:
201 Thompson Home; 313-577-4400; Fax: 313-577-6555

ASSOCIATE DEAN:
335 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; 313-577-433

MASTER OF SOCIAL WORK PROGRAM COORDINATOR:
237 Thompson Home; 313-577-4408

SOCIAL WORK Ph.D. PROGRAM DIRECTOR
302 Thompson Home; Telephone: 577-8806

DIRECTOR OF FIELD EDUCATION:
144 Thompson Home; 313-577-4479

RECRUITMENT OF MINORITY STUDENTS:
105 Thompson Home; 313-577-4409
Faculty and Administration

Dean: Phyllis I. Vroom
Interim Associate Dean: Beverly M. Black
Interim Director of Research: Eileen Trzcinski
B.S.W. Program Coordinator: Cassandra Bowers
M.S.W. Program Coordinator: Margaret Brunhofer
Ph.D. Program Director: Anna M. Santiago
Assistants to the Dean: Loren Hoffman
Assistant to the Associate Dean: Marilyn Knall
Director of Admissions and Student Services: Janet M. Joiner
M.S.W. Academic Adviser: Julie Alter-Kay
Academic Services Officer: Takisha LaShore
Administrative Officer: Curtis Brahm
Assistant to Administrative Officer: Juanita D. Hill

Professors
Jerrold Brandell, Anna M. Santiago, Eileen Trzcinski

Associate Professors
Beverly Black, Anthony King (Clinical), Durrenda Onolemhenhen, Melvyn C. Raider, Phyllis I. Vroom, Arlene Weisz

Assistant Professors
Terrence T. Allen, Cassandra Bowers (Clinical), Margaret O. Brunhofer (Clinical), Antonio Gonzalez-Prendes, Loren J. Hoffman (Clinical), Faith Hopp, Royce Hutson, Debra Jozefowicz-Simbeni, Poco Kernsmith, Fayette Martin, Bart Miles, Joanne Sobeck, Shirley Thomas

Lecturer
Lois Garriott

Emeriti Professors
Creigs Beverly, Leon W. Chestang, Betty Rusnack, Betty Welsh

Emeriti Associate Professors
Ralph Abramowitz, Theodore Goldberg, Carl Hartman, Alice E. Lamont, 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 and consists of four semesters of study in the junior and senior years. Approximately two-thirds of the four semester curriculum is in professional courses in social work and about one-third is in corequisite courses and electives. Field work is concurrent with class work except in the first semester of the junior year. It is required that the student enroll in the entire professional component of the curriculum during any one semester.

Usually the four-semester program of class and field work is a program of full-time study extending over two successive academic years, beginning in the fall semester. There is also a part-time, extended study option that allows students to earn the Bachelor of Social Work degree in up to eight semesters. The School also offers admission to the Bachelor of Social Work degree program each fall term to students who wish to attend classes at Macomb University Center, located on the Macomb Community College Center Campus.

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 29);

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 and forward to the School of Social Work, Office of Admissions and Student Services, the form 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 Director of Admissions 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.

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 admission (application decision in 30 days or less) is February 28. 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 admission, but enrollment is limited. Applicants who begin their study at the Macomb University Center campus must complete their program at Macomb University Center campus. 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 9 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 Director of Admissions and Student Services in the School of Social Work. 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 17.

Two curricula are outlined below. Pattern A and Pattern B, both available through the College of Liberal Arts and Sciences but pattern B is primarily focused on course offerings of the Interdisciplinary Studies Department. Students may also select elective credits at the freshman and sophomore levels from such professional schools as the School of Business Administration, the College of Education, the College of Nursing, and the School of Social Work.

Pattern A

Some of the following subject areas are prefixed with two-letter par-enthetical 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 17.

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 require-ment. A course in developmental psychology is required. Introduction to Princi-ples of Psychology will NOT satisfy the LS (laboratory) requirement.
3. (PS) One course (3-4 credits) to be selected from the following: Physics, Chem-istry, Geology, Astronomy.

C. Humanities: The following distribution of courses is required.

1. (PL) Philosophy/Letters—3 credits
2. (VF) 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) Basic Speech: 2-3 credits

F. Electives: Recommended: Select electives from General Educa-tion Requirements in Foreign Culture (FC), Computer Literacy (CL), and Critical Thinking (CT). Electives should be selected in conjunc-tion with the School’s Academic Services Officer.
Note: Beginning Fall 2005, General Education Requirements also include three Exposure Areas courses.

**Pattern B**

Titles of some of the following courses are prefixed with two-letter parenthetical codes indicating that 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 17.

**A. Social Sciences:** The following distribution of courses is required.

1. ISS 2710 -- (SS) (CD) Select Perspectives on Ethnicity: Cr. 4
2. ISS 2720 -- Culture, Community, and Identity: Faces of Culture: Cr. 3
3. ISP 3480 -- (SS) Theoretical and Practical Analysis of Work Organizations: Cr. 4
4. ISS 1510 or ISP 3420
   -- (AI) American Political Development: Cr. 4
   -- (AI) The American Constitution and Judicial System: Cr. 4
5. ECO 1000 -- (SS) Survey of Economics: Cr. 4
6. HIS 1300 (HS) Europe and the World: 1500-1945: Cr. 3-4

**B. Natural Sciences:** The following distribution of courses is required.

1. IST 2010 -- (ST) Health Concepts and Strategies: Cr. 3
2. IST 2020 -- Changing Life on Earth: Cr. 3
3. IST 2310 -- (LS) Living in the Environment: Cr. 4
4. IST 2420 -- (PS) (ST) Atoms and Stars: Cr. 3
5. Three courses in Psychology (one course in developmental psychology is required): Cr. 9-12

**C. Humanities:** The following distribution of courses is required.

1. H 2710 -- (PL) Art and Aesthetics: Literature and Philosophy: Cr. 4
2. H 2730 -- (VP) Meaning in the Visual and Performing Arts: Cr. 3

**D. English:** The following distribution of courses is required.

1. ISP 1510 -- (BC) Written Communication Skills: Cr. 4
2. English (IC) elective, 2000 level or above: Cr. 3

**E. Basic Speech:**

1. ISP 1560 -- (OC) Dimensions of Oral Communication: Cr. 4

**F. Recommended Electives:** Select electives from General Education courses in Foreign Culture (FC), Computer Literacy (CL), and Critical Thinking (CT). Electives should be selected in conjunction with the School’s Academic Services Officer.

Note: Beginning Fall 2005, General Education Requirements also include three Exposure Areas courses.

**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 forty-eight credits in field work and related courses and a minimum of twelve credits in corequisite and 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). See the General Information section of this Bulletin, page 17; 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 returns in 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.

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**

- S W 3010 -- Social Work Practice Method I: Cr. 3
- S W 3110 -- (CD) Diversity, Oppression and Social Justice: Cr. 3
- S W 3510 -- Human Behavior in the Social Environment: Cr. 3

Bachelor of Social Work 467
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, see page 483.

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
Prereq: junior standing; admission to the B.S.W. program. First of four courses providing knowledge, skills and framework for entry level generalist practice: preparation for first field practicum experience. (F, W)

3020 Social Work Practice Method II. Cr. 3
Prereq: S W 3010; coreq: 4998. Continuation of four-course sequence. Introduction to a problem-solving guide for effecting situational change, emphasizes 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 groups. Analysis of student experience in practicum. (W, S)

3110 (CD) 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. (W)

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. (Y)

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. (Y)

3810 Research Methods, Data Analysis, and Practice Evaluation I. Cr. 3
Prereq: junior standing, admission to B.S.W. program; coreq: S W 3020. 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, S)

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)

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. (Y)

4020 Social Work Macro Theory and Practice. Cr. 3
Prereq: S W 4010; coreq: S W 4998. Continuation of four-course sequence. Emphasizes knowledge, theory, and practice related to service delivery and change within organizations, neighborhoods, and communities. (F)

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 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. (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 tenth official day 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.

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.financial-aid.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 33) 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 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.

**Edith N. Brehler Scholarship** is a manuscript competition. Students submit a seven to ten-page paper on social work values and practice to be judged by a panel of faculty and students. One award granted annually during the Winter term. The deadline is early February.

**Fred and Freda Gentsch Scholarship** of varying amounts is limited to full-time undergraduate and graduate social work students who demonstrate outstanding academic achievement and financial need.

**Shirley Davis Huport Memorial Scholarship** provides financial assistance to full- or part-time undergraduate or graduate students. Recipients must present a minimum 3.00 g.p.a.

**Alice Lamont Endowed Scholarship** provides awards of varying amounts, dependent on funds available, to full- or part-time undergraduate or graduate students. Recipients must have a least a 2.5 grade point average at time of selection.

**Ellen M. Maceroni Memorial Endowed Scholarship** is awarded to full- or part-time graduate or undergraduate students. This scholarship is awarded to nontraditional students with demonstrated financial need, reentering college after a period of interrupted studies.

**School of Social Work Scholarship** of varying amounts is awarded to undergraduate and graduate students on the basis of scholastic achievement, character, leadership, and financial need. The application deadlines are March 5 for graduate students with advanced standing; and April 30 for all others.

**School of Social Work Alumni Association Endowed Scholarship** of varying amounts is awarded to undergraduate and graduate students who participate in activities that promote social work principles, have financial need and demonstrate scholastic achievement.

**Maldo Talick Scholarship** of varying amounts ($500-$1,000) is awarded to full-time undergraduate or graduate social work students who are in good standing with the School and have demonstrated need of financial assistance in order to continue their studies.

**Beryl Zlatkin Winkelman Scholarship** of varying amounts is awarded to full-time undergraduate or graduate students on the basis of scholastic achievement, character, leadership, and financial need.
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: a student newspaper, 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, Gay/Lesbian/Bisexual 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. Its membership traditionally have collaborated to organize the annual WSU Take Back the Night event.

Alumni Association

The School of Social Work Alumni Association serves to enhance School and professional identification. To this end the Association organizes promotional and interpretative activities, sponsors forums, institutes and workshops that encourage professional development, conducts special activities in support of the work of the School, and promotes fellowship among alumni, faculty and students through its social programs. It also provides scholarships and financial support to the School through fund raising efforts. Through the School’s newsletter, graduates are informed about one another and the School of Social Work.
Field Education

The following agencies and persons have worked with members of the Faculty in field instruction during the academic year 2006-07:

ACTS 29 FELLOWSHIP R.E.A.C.H.: Rev. Sharon Buttry
ADULT WELL BEING SERVICES: Darlene K. Ratz
ADVOCACY FOR LEAVING HOMELESS MODEL: Lois Garriott
AFFIRMATIONS LESBIAN & GAY COMMUNITY CENTER: Leslie Thompson
ALL SAINTS NEIGHBORHOOD CENTER: Regina McIver, Dennis I. Nordmoe
ALLEN PARK SCHOOL DISTRICT: Noreen Brohl
ALTERNATIVES FOR GIRLS: Patricia Swift
AMERICAN RED CROSS: Dorthaer Norwood
ANGELA HOSPICE: Rebecca Hyman
ARC OF NORTHWEST WAYNE COUNTY, THE: Christine Larchen
ARCHDIOCESE OF DETROIT: Mary Lane
AREA AGENCY ON AGING: Grace Grabreck
BAY AREA INTERMEDIATE SCHOOLD DISTRICT: Eric Kunisch
BEACON DAY TREATMENT: Jeff Smith
BENJAMIN CARSON ACADEMY: Patricia Moore
BIG BROTHERS/BIG SISTERS - MACOMB COUNTY: Eric D. Franklin
BIG BROTHERS/BIG SISTERS: Jean Butler
BIO MED BEHAVIORAL HEALTHCARE: Kathleen Allin
BLACK FAMILY DEVELOPMENT: Kynetta Stephens
BLACK UNITED FUND OF MICHIGAN, INC.: Brenda Rayford
BLANCHE KELSO BRUCE ACADEMY: Dorothy Jenkins
BLOOMFIELD HILLS SCHOOL DISTRICT: Wendy Lane
BLOOMFIELD HILLS SCHOOLS: Gail Lepage
BLUE WATER CENTER FOR INDEPENDENT LIVING: Jennifer Abernathy
BON SECOURS COTTAGE HEALTH SERVICES: Roger Blair
BON SECOURS COTTAGE HOSPITAL: Marla Hull
BOYS AND GIRLS REPUBLIC: Noreen Haggerty
BOYS HOPE - GIRLS HOPE OF DETROIT: Mitchell Rosenzweig
BOYSVILLE OF MICHIGAN: Kevin Inman, Maurice Dozier
BRIGHTMOOR COMMUNITY CENTER: Peter Lisiecki
BULIMIA ANOREXIA NERVOA ASSOCIATION: Darlene Maxey
C.A.R.E.: Pat Mroch
CATHOLIC SOCIAL SERVICES OF OAKLAND CO. - ROYAL OAK: Francesca Pernice-Duca
CATHOLIC SOCIAL SERVICES OF ST. CLAIR COUNTY: Edward Cleslinski, Theressa Cleslinski
CATHOLIC SOCIAL SERVICES OF WAYNE COUNTY - DETROIT: Julie Arnold, Julie Heron, Uneil Smith
CATHOLIC SOCIAL SERVICES OF WAYNE COUNTY: Cam Gild, Josephine McCrory
CENTER FOR COMMUNITY ACCESS INC: Michael Paul
CHATHAM-KENT INTEGRATED CHILDREN'S SERVICES: Mike Stephens
CHELSEA COMMUNITY HOSPITAL: Douglas Dault
CHILD ABUSE & NEGLECT COUNCIL OF OAKLAND COUNTY: Chuck Ludwig
CHILDREN AND YOUTH INITIATIVE INC.: Belinda Evans-Ebio
CHILDREN'S HOME OF DETROIT: Jill Killenberg, Landon Hill
CHILDREN'S CENTER OF WAYNE COUNTY: Demereal Owens
CHILDREN'S HOSPITAL OF MICHIGAN: Karen Gail, Vicki Meyring
CHIPPEWA VALLEY SCHOOLS: Charlene McGunn
CHRIST CHILD HOUSE, THE: Julia Winston
CITIZENS FOR BETTER CARE: Faiza Najor
CITY CONNECT DETROIT INC.: Glenda Myhand
CLARKSTON COMMUNITY SCHOOLS: James Butzine
CLEAN HOUSE: Benita Pedrosi
CLINTONDALE SCHOOL DISTRICT: Linda Brook
COMMON GROUND SANCTUARY: Barbara Broesamle
COMMUNITIES IN SCHOOLS, INC. DETROIT: Cynthia Williams
COMMUNITY CARE SERVICES: Cheryl Green
COMMUNITY LIVING SERVICES: Pamila Sinnott
COMMUNITY PROGRAMS INC.: Liz Aitken
COMMUNITY SERVICES OF OAKLAND: Nancy Minckler
COMPREHENSIVE GERIATRIC SERVICES: Debra Riddle Meers
CONGRESSMAN SANDER LEVIN: Mandy Rossman
CONNER CREEK ACADEMY EAST HIGH SCHOOL: Christine Gripp
CORNELL CENTER: Jane Diehl
COUNCIL ON AGING: Mary Taylor
COUNSELING AND DEVELOPMENT CLINIC: Edward Kayden
COUNSELING AND PSYCHOLOGICAL SERVICES (WSU): Galen Duncan
COVENANT HOUSE MICHIGAN: Derrick Brown, Mack Walker
CROSS ROADS FOR YOUTH: Carol Teachworth
CROSSROADS OF MICHIGAN: Latoria Glenn
DEARBORN HEIGHTS SCHOOL DISTRICT: Barbara Klein
DEARBORN PUBLIC SCHOOLS: Angela Burley
DEPARTMENT OF HUMAN SERVICES - LAPEER: Gerald Redman
DEPARTMENT OF HUMAN SERVICES - TUSCOLA: Jay Guetschow
DEPARTMENT OF HUMAN SERVICES - LENAWEE COUNTY: Karen Urquhart
DEPARTMENT OF HUMAN SERVICES - MACOMB COUNTY: Cassandra Bowers
DEPARTMENT OF HUMAN SERVICES - WAYNE COUNTY:
Beverly Butler, Ellen Devine

DEPARTMENT OF VETERANS AFFAIRS: Corey Buckley

DETROIT ACADEMY OF ARTS & SCIENCES: Erin Rodes

DETROIT BOARD OF EDUCATION: Carolyn Phillips

DETROIT CENTRAL CITY COMMUNITY MENTAL HEALTH, INC.:
Henriette Warren, Gail Johnson

DETROIT CITY COUNCIL: Thea White

DETROIT EAST COMMUNITY MENTAL HEALTH:
Patricia Gibbs, Karen Sumpter

DETROIT HEALTH DEPARTMENT: Olivia Ramsey

DETROIT NEIGHBORHOOD & FAMILY INITIATIVE:
Maureen Taylor

DETROIT PARENT NETWORK: Norman McIntyre

DETROIT URBAN LEAGUE, INC.: Cassandra McIntyre

DETROIT YOUTH FOUNDATION: Anthony Thompson

DEVELOPMENT CENTERS, INC.: Christel Danna

DEVELOPMENTAL DISABILITIES INSTITUTE (WSU):
Elizabeth Janks

DMC - CHILDREN'S HOSPITAL OF MICHIGAN: Karen Gail, Vicki Meyring

DMC - DETROIT RECEIVING HOSPITAL: Edward Mischel

DMC - SINAIR GRACE HOSPITAL: Eugene Breman

DON BOSCO HALL: Lawrence Abner

DOWNRIVER COMMUNITY SERVICES, INC.: Mary Owen

EAST CHINA TOWNSHIP SCHOOL DISTRICT: Linda Bruckner

EASTER SEALS: Vicky Millmine

EASTWOOD COMMUNITY CLINIC: Don Healy

EDUCATIONAL OPPORTUNITY CENTER (WSU): Linda Fuggs

EL SHADDAI COUNSELING & CONSULTATION: Victoria Brown

ELMHURST HOMES INC.: Donald Berry

ENNIS CENTER FOR CHILDREN: Mary Johnson

EVANGELICAL HOME: Carrie Eriksen

EVERGREEN CHILDREN'S SERVICES: Tanya Fleming-Fuller

EXECU-TECH MANOR & L.E.A.P. PROGRAM: Joseph Cummings

FAMILY AND CHILDREN'S SERVICE OF MIDLAND:
Janine Ouderkirk

FAMILY SERVICE, INC.: Carl Herrell

FIRST CONGREGATIONAL CHURCH OF DETROIT:
Vanessa Cooper

FIRST STEP: Sally Coder-Martinez

FITZGERALD PUBLIC SCHOOLS: Polly Hardy

FOCUS HOPE: Bill Wenzell

FOREVER FAMILIES, INC.: Jean M. Stenzel

FORT STREET - OPEN DOOR: John Heiss

FOX RUN VILLAGE: Jan Bayer

FRASER VILLA: Mari Monarch

FRIEND OF FIRST CONGREGATIONAL CHURCH:
Lothe Jones-Hood

FRIEND OF THE COURT - THIRD JUDICIAL CIRCUIT:
David Manville

GARDEN CITY HOSPITAL: Margaret Sasena

GENESEE COUNTY COMMUNITY MENTAL HEALTH:
Nancy Rodda

GENESEE COUNTY COURT: Any Stinnett

GILDA'S CLUB, METRO DETROIT: Joe Perry

GIRL SCOUTS OF MICHIGAN WATERWAYS: Connie Mohr

GLENGARDA CHILD AND FAMILY SERVICES: Beth Kuhn, Maggie Fitter

GOLDEN HORIZONS PROGRAM: Stacy McIntyre

GROSSE ISLE TOWNSHIP SCHOOLS: Mary Gergel

GUIDANCE CENTER, THE: Ed D'Angelo, Brian Van Dorn

HANDS ACROSS THE WATER: Kathleen Nelson

HARBOR, THE: Sally Currie

HARBOR BEHAVIORAL HEALTHCARE: Janie Sulaica

HAVEN: Michelle Stacer

HAVENWYCK HOSPITAL: Sarah Hernandez

HAWTHORN CENTER: Angeline Houston

HEARTLAND HOSPICE: Mary Parmentier

HEGIRA PROGRAMS, INC.: Gale Duquette

HENRY FORD BEHAVIORAL SERVICES: Kathleen Ransome

HENRY FORD BI-COUNTY HOSPITAL: Tracey Chartier

HENRY FORD COTTAGE HOSPICE: Diana Tomezak

HENRY FORD HEALTH INITIATIVE: Janet Nicoletti

HENRY FORD HEALTH SYSTEM: Kathleen Ransome

HENRY FORD HEALTH SYSTEM - EAP: Lynda Mance

HENRY FORD HEALTH SYSTEMS - HOSPICE: Diana Tomezak

HENRY FORD HEALTH SYSTEMS - MAPLEGROVE:
Joan Zaremba, Kathy Ransome

HENRY FORD HEALTH SYSTEMS: Mara Fiegel

HENRY FORD HOME HEALTH CARE: Beth Newman

HENRY FORD HOSPITAL: Alison Holmes

HIGHLAND PARK COMMUNITY JR./SR. HIGH SCHOOLS:
David Simpson, LeVan Townsel

HIGHLAND PARK SCHOOL DISTRICT: Odevia Brown

HOLY CROSS CHILDREN'S CENTER: Michael Smith

HOSPICE OF HENRY FORD/BI-COUNTY BON SECOURS:
Diana Tomezak

HOTEL DIEU-GRACE HOSPITAL: Terry Kuhn, Heather Campbell

HURON INTERMEDIATE SCHOOL DISTRICT: Jill Champagne

HURON VALLEY SCHOOLS: Karen K. Olesko

IMPACT ADOLESCENT RESIDENTIAL SERVICES: Tracy Bishop

IMPACT CONSULTING SERVICES PC: John Neumann

IN HOUSE HOSPICE: Sheyna Wexelberg-Clouser

INSIGHT RECOVERY: Todd Bradley

JEWISH APARTMENTS & SERVICES: Andrea Rosner-Najer, Stacey Silverstein

JEWISH FAMILY SERVICE: Erica Saum, Perry Ohren

JEWISH FEDERATION APARTMENTS: Barbra Giles, Shirley Jarcaig

JUDSON CENTER: Tonya Fuller
JUSTICE FOR CHILDREN: Chip St. Clair
JVS SENIOR ADULT SERVICES: Peter Ostrow, James Willis
KADIMA: Vivian Moore, Nancy Stein
KARMANOS CANCER CENTER: Marie O’Leary
KARMANOS CANCER INSTITUTE: Christopher Scanlon
LACASA: Elizabeth Stahl
LAKEVIEW PUBLIC SCHOOLS: JoAnne Dennison
LAPEER REGIONAL MEDICAL CENTER: Gary Cotter
LATINO FAMILY SERVICES: Gary Cotter
LEGAL AID & DEFENDER ASSOCIATION: Robyn D. Tolbert
LIGHTHOUSE PATH: Linda McAllister
LINCOLN PARK HIGH SCHOOL: Sharon Sadowski
LIVINGSTON COUNTY COMMUNITY MENTAL HEALTH: Mary Phillips
LIVONIA PUBLIC SCHOOLS: Mary Weaver
LUTHERAN CHILD AND FAMILY SERVICES OF MICHIGAN: Mary Kosal
LUTHERAN SOCIAL SERVICES OF MICHIGAN: Renee Peters
MACOMB CO. PROSECUTER’S OFFICE - MAIN: Kime Greenfelder
MACOMB COUNTY COMMUNITY MENTAL HEALTH: Susan Griggs
MACOMB COUNTY CRISIS CENTER: Gary Burnett
MACOMB COUNTY PROSECUTOR’S OFFICE: Kathy Quigley
MACOMB FAMILY SERVICES: Laura Henderson
MACOMB INTERMEDIATE SCHOOL DISTRICT: Phyllis O’Brien
MACOMB INTERMEDIATE SCHOOLS: Nadine Lovell
MACOMB OAKLAND REGIONAL CENTER, INC.: Peter Lynch
MARINER’S INN: David Sampson
MATRIX HUMAN SERVICES: Corey James, Robin Brumlow
MERIDIAN PUBLIC SCHOOLS: John Wurdock
METRO EMERGENCY SERVICES: LeShone Hall
MICHIGAN LEAGUE FOR HUMAN SERVICES: Ann Marston
MICHIGAN PSYCHOANALYTIC INSTITUTE: Kathleen Kunkel
MICHIGAN WOMEN’S FOUNDATION: Barbara Hill
MONROE COUNTY INTERMEDIATE SCHOOL DISTRICT: Sue Honn
NATIONAL COUNCIL ON ALCOHOLISM: Linda Woodward
NATIONAL INSTITUTE FOR TRAUMA AND LOSS IN CHILDREN: Rebecca Konarz
NEIGHBORHOOD SERVICE ORGANIZATION: Sharon Dailey
NEW BEGINNINGS COUNSELING SERVICE: Tom Sucaet
NEW HAVEN SCHOOLS: Deborah Parsons
NEW PASSAGES: Lou Vader
NEW START: Roman Frankel
NORTH EAST DROP-IN CENTER: David E. Gallagher
NORTHEAST GUIDANCE CENTER: Sherry McRill, Pat Henderson
OAK PARK SCHOOL DISTRICT: Waldy Gammouth
OAKDALE RECOVERY CENTER: Patsy Schwartz
OAKLAND CO. CHILDREN’S VILLAGE: Theresa Krolczyk, Jody Overall
OAKLAND CO. FRIEND OF THE COURT: Lori Klein-Shapiro
OAKLAND COUNTY CHILDREN’S VILLAGE: Christina Nicholas-Waszelewska
OAKLAND COUNTY CMH AUTHORITY: Mary M. Touhey McLeod, Sonia Acousta
OAKLAND COUNTY PROBATE/CIRCUIT COURT: Patrick Breen
OAKLAND FAMILY SERVICES: Marianne Winter-Long
OAKWOOD HOSPITAL: Layla Abdu-Ghani
OAKWOOD SKILLED NURSING CENTER: Ann Sadler
OAKWOOD SOUTHSHORE HOSPITAL: Joan Southworth
OASIS DETROIT, INC.: James Ebaugh
OPEN DOOR, THE: John Heiss
ORDER OF THE FISHERMAN MINISTRY, THE: Marlene Harper
OXFORD AREA COMMUNITY SCHOOLS: Anthony Bronzo
P.O.W.E.R., INC.: Carol Burrell-Jackson, Jenni Bobicz
PATHWAY FAMILY CENTER: Victoria Winebarger
PAUL MARTIN HOME FOR BOYS: Carla Spight-Mackey
PIONEER COUNSELING: Renee Hawkins
PLYMOUTH EDUCATIONAL CENTER: Delphine Norris
PONTIAC SCHOOLS - WISNER CENTER: Dr. Clyde Alexander
PONTIAC SCHOOLS: Regina Kuper, Bernard Robinson
PORT HURON AREA SCHOOL DISTRICT: Dennis Bilina, Jack N. Peters
PORT HURON HOSPITAL: Bedonna Maiberger, James King
POSITIVE IMAGES: Maisha Kenyatta
PROFESSIONAL COUNSELING CENTER: Dick Bosscher
PROFESSIONAL, PREVENTIVE, RESTORATION: Odeather Allen Hill
PROMISE VILLAGE: HOME FOR CHILDREN: Denise Weaver
PROVIDENCE CANCER INSTITUTE: Jennifer Gillette
PROVIDENCE HOSPITAL: Carmelle Johnson, Pamela Oehmke
PROVIDENCE HOSPITAL AND MEDICAL CENTER: Deborah Wetzler
QUALITY BEHAVIORAL HEALTH, INC.: Naveed V. Syed
RAPE COUNSELING CENTER: Deborah Kaminskus, Belinda Edwards
REDFORD SCHOOLS: Bryant Goulet
RESTORATION TOWERS: Gladys Murphy
RICHMOND COMMUNITY SCHOOLS: Sandra Avery
ROCHESTER AREA NEIGHBORHOOD HOUSE: Susan Vidican
ROSEVILLE COMMUNITY SCHOOLS: Liz Andrzejewski, Nicole Stacey
SAGINAW CO. COMMUNITY MENTAL HEALTH: Lori Denter
SAGINAL COUNTY YOUTH PROTECTION COUNCIL: Ronald Spess
SAGINAW CO. COMMUNITY MENTAL HEALTH: Lori Denter
SAGINAL COUNTY YOUTH PROTECTION COUNCIL: Ronald Spess
SAGINAW PUBLIC SCHOOLS: Chris Dundas
SALVATION ARMY ADULT REHABILITATION CENTER: Joseph Cummings
SALVATION ARMY DENBY CENTER: Maureen Northrup
SALVATION ARMY HARBOR LIGHT: Tamara Hagar
SALVATION ARMY, THE: Joyce Stefanski
SENATOR STABENOW: Trina Ellis
SEXUAL ASSAULT CRISIS CENTRE OF ESSEX CO:  Gisele Harrison
SHELBY NURSING HOME:  Karen Jogan
SINAI GRACE HOSPITAL:  Ellen Portnoy
SKILLMAN CENTER FOR CHILDREN:  Rebeca Guzman
SOLID GROUND INC.:  Joanne Roth
SOUTH OAKLAND CITIZENS FOR THE HOMELESS:  Marie Fox
SOUTHFIELD DAY/TA DAYCARES:  Gina Sikon
SOUTHFIELD PUBLIC SCHOOLS:  Karen Jogan
SOUTHWEST COMMUNITY SCHOOL DISTRICT:  Beverly A. Baroni-Yeglic
SOUTHWEST COUNSELING AND DEVELOPMENT:  Graciela Villalobos
SOUTHWEST SOLUTIONS:  Roberta Walker
SPAULDING FOR CHILDREN:  Addie Williams, Janice King
SPECTRUM HUMAN SERVICES:  Shirley Edwards
ST. CLAIR COUNTY COMMUNITY MENTAL HEALTH:  Amy DeLange
ST. CLAIR CO. DAY TREATMENT/NIGHT WATCH:  Gary Rutowski
ST. FRANCIS FAMILY SERVICES:  Valicia Wiggins
ST. JOHN DETROIT RIVERVIEW HOSPITAL:  Phina Hamilton, Patricia Fisher
ST. JOHN HEALTH SYSTEM:  Ambra Redrick
ST. JOHN HEALTH SYSTEM-OPEN ARMS:  LaShawn Myers, Gwendolyn Pettway
ST. JOHN HOME CARE:  Katie Landa
ST. JOHN HOSPITAL:  Jodi Harrison, Marianne Szymanski
ST. JOHN MACOMB HOSPITAL CENTER:  John Dobat, Maryann Woodard
ST. JOHN MACOMB HOSPITAL:  Susan Schwartz, Maryann Woodard
ST. JOSEPH MACOMB:  Sharon Vanderwinkle
ST. JOSEPH MERCY HOSPITAL - OAKLAND:  Altona Rone
ST. JOSEPH MERCY HOSPITAL:  Cynthia Cifani, Sharon Vanderwinkle
ST. MARY MERCY HOSPITAL:  Susan Spolsky
ST. PETER THE APOSTLE ELEMENTARY SCHOOL:  Marion McCarthy
ST. PETER'S HOME FOR BOYS:  Marlene Knecht
STARFISH FAMILY SERVICES:  Sheree Askew, Leslie G. Wiemer
STARR COMMONWEALTH:  Lintel Matthews
TAYLOR SCHOOL DISTRICT:  Julia Hanson
THIRD JUDICIAL CIRCUIT COURT:  David Manville
TRAINING & TREATMENT INNOVATIONS INC.:  Jean Pfaendtner
TRENTON PUBLIC SCHOOLS:  Michel DeJulian
TROY SCHOOL DISTRICT:  Wendy Talan
TURNING POINT RECOVERY CENTERS:  William Scott Cole
TURNING POINT, INC.:  Debbie McPeek
TUSCOLA INTERMEDIATE SCHOOL DISTRICT:  Rebecca Ducham
UNIVERSITY PREPARATORY ACADEMY:  Kathy Sundberg
UNIVERSITY PSYCHIATRIC CENTER:  Elise Hairston
UTICA COMMUNITY SCHOOLS:  Diane Redmond
UTICA SCHOOLS DISTRICT:  Steve Whitmore
VA MEDICAL CENTER - ANN ARBOR:  Tom Ross, Deborah Amaya
VA MEDICAL CENTER - DETROIT:  Delores Reynolds, Ethel Kellie
VA MEDICAL- ANN ARBOR:  Thomas Ross
VAN DYKE PUBLIC SCHOOLS:  Glynnis Dale
VAN ELSLANDER CANCER CENTER:  Monique Willett
VISITING NURSE ASSOCIATION:  Carole Nichols
VISTA MARIA:  Wendy Kearney
WALLED LAKE PUBLIC SCHOOLS:  Glenn Whitelaw, Dennis Wisniski
WARREN WOODS SCHOOLS:  Dr. Susan J. Coleman, Alan Koskko
WARREN/CONNER DEVELOPMENT COALITION:  Maureen Posler
WATERFORD SCHOOL DISTRICT:  Nancy Lewis
WAYNE - WESTLAND COMMUNITY SCHOOLS:  Diana Yurk
WAYNE CO. JUVENILE DETENTION FACILITY:  Debra Love
WAYNE COMMUNITY LIVING SERVICES:  Joanne Nicholson
WAYNE COUNTY COMMUNITY COLLEGE DIST.:  Mary Jones
WAYNE COUNTY DEPARTMENT OF COMMUNITY JUSTICE:  Diane Ransom-McGhee, Jeriel Heard
WAYNE COUNTY HEALTH DEPARTMENT:  Brenda Ozog
WAYNE COUNTY JUVENILE DETENTION FACILITY:  Debra Love
WAYNE COUNTY PROSECUTOR'S OFFICE:  Julie Boggs
WAYNE MEMORIAL HIGH SCHOOL:  Kelly Hayes
WAYNE METROPOLITAN COMMUNITY SERVICES AGENCY:  Tom McCollister, Tara Stone
WEISBERG CANCER CENTER:  Kathleen Hardy
WHALEY CHILDREN'S CENTER:  Cory James
WHITMORE LAKE ELEMENTARY SCHOOL:  Terry Bond-Manville
WILLIAM BEAUMONT HOSPITAL:  Cassandra Ponder
WILLOW RUN COMMUNITY SCHOOLS:  Christine Loft
WINDSOR ESSEX CHILDREN'S AID SOCIETY:  Deborah Stapley
WINDSOR REGIONAL CANCER CENTER:  Sharron Mailloux
WINDSOR REGIONAL CHILDREN'S CENTRE:  Kathy Moreau
WINDSOR REGIONAL HOSPITAL COMMUNITY MENTAL HEALTH:  John Harrett
WINDSOR REGIONAL HOSPITAL:  Sharron Mailloux, Elaine Sinnnot
WOLVERINE HUMAN SERVICES:  Earl Carr
WOMEN ARISE:  Katrina McCree
WOMEN'S JUSTICE CENTER:  Faustinia Loper
WOMEN'S RESOURCE CENTER OF LIVINGSTON COUNTY:  Connie Dole
YPSILANTI PUBLIC SCHOOLS:  Cynthia Abraham
ADDITIONAL ACADEMIC PROGRAMS
Academic Success Center

1600 Adamany Undergraduate Library; 577-3165; Fax: 577-9372
Service hours: see our Website: http://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 42.

READING EFFICIENCY COURSES
(R E)

For interpretation of course numbering system and signs, see page 483.

0990 Learning Theory and Study Skills. Cr. 0
Offered for S and U grades only. No degree credit. Application of learning and memory theory for developing basic reading skills and effective study habits. Memory improvement, time scheduling, note-taking methods, textbook chapter reading and test-taking techniques. (T)

0991 Individualized Study Skills Laboratory. Cr. 0
Offered for S and U grades only. No degree credit. Individualized course in reading and study skills offered on an arranged basis. Preparation for professional school exams (e.g., GRE, MCAT); supplementary mathematics and writing skills programs also available. (T)

0994 Vocabulary Enrichment. Cr. 0
Offered for S and U grades only. No degree credit. Exploration of a variety of methods for improving and expanding both general and specialized vocabulary according to individual student's needs. (T)

0995 Analytical Reading for Textbook Study. Cr. 0
Offered for S and U grades only. No degree credit. An analytical, developmental reading method designed to increase reading comprehension; focuses on critical thinking skills required for textbook study-reading. (T)

0996 Speed Reading. Cr. 0
Offered for S and U grades only. No degree credit. Strategies practiced to overcome common reading problems that inhibit efficient reading speed. Skills developed to enable students to use flexibility in choosing a reading rate that corresponds to their purpose. (T)

0998 Pre-Medical Study Skills. Cr. 0
Prereq: consent of instructor. Offered for S and U grades only. No degree credit. Time management, comprehension skills, scientific terminology, medical note-taking, test-taking skills, analytical reading, critical thinking and problem-solving. (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 M I; 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.
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.

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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 and sophomore 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.
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**Notes:**
- **Orientation, New Student** to **Physical Therapy** are topic categories.
- **Painting Courses (APA)** to **Pharmacology and Health Sciences, Eugene Applebaum College of** are subtopics within the categories.
- Each subtopic is followed by a page number indicating where detailed information is located.

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