

WAYNE STATE UNIVERSITY
Undergraduate Bulletin
2005-2007

CONTENTS

GENERAL INFORMATION	5	COLLEGE OF FINE, PERFORMING and COMMUNICATION ARTS	177
Academic Calendar	4	Bachelor's Degree Requirements	179
Administration of the University	6	Academic Regulations	182
Academic Programs	10	Art and Art History	184
Degree Requirements	16	Communication	198
Undergraduate Admission	32	Dance	204
Graduate School Admission	35	Music	209
Tuition and Fees	38	Theatre	218
Financial Aid	41	LAW SCHOOL	225
Academic Regulations	43	Study of Law at Wayne State University	226
Registration and Student Records	46	Juris Doctor (J.D.) Program	227
Student Success Services	50	Admission Policies and Procedures	228
Campus Life	56	COLLEGE OF LIBERAL ARTS AND SCIENCES	231
International Students and Scholars	59	Bachelor's Degree Requirements	234
Metropolitan Programs and Summer Sessions	60	Academic Regulations	237
Additional University Services	63	Undergraduate Curricula	239
SCHOOL OF BUSINESS ADMINISTRATION	69	Africana Studies	244
Bachelor's Degrees	71	American Studies	247
Academic Regulations	73	Anthropology	248
Financial Aids and Awards	76	Audiology and Speech-Language Pathology	252
Support Services and Organizations	78	Biological Sciences	254
Accounting	80	Canadian Studies	260
Business	82	Chemistry	261
COLLEGE OF EDUCATION	89	Classics, Greek, and Latin	267
Academic Regulations	91	Computer Science	272
Academic Services	92	Criminal Justice	278
Kinesiology, Health, and Sport Studies	96	Economics	282
Teacher Education	105	English	285
COLLEGE OF ENGINEERING	127	Environmental Science	293
Student Organizations	130	Geography	294
Scholarships and Financial Aid	131	Geology	296
Division of Engineering	132	German and Slavic Studies	298
Bachelor of Science	132	History	304
Academic Regulations	137	Honors Program	310
Chemical Engineering and Materials Science	140	Humanities	312
Civil and Environmental Engineering	145	International Studies	313
Electrical and Computer Engineering	149	Legal Studies	314
Industrial and Manufacturing Engineering	154	Linguistics	315
Mechanical Engineering	157	Mathematics	318
Division of Engineering Technology	162	Near Eastern and Asian Studies	326
Academic Regulations	168	Nutrition and Food Science	331

CONTENTS

COLLEGE OF LIBERAL ARTS & SCIENCES (cont'd.)	
Philosophy	335
Physics and Astronomy	338
Political Science	345
Psychology	351
Romance Languages and Literatures	356
Sociology	363
Women's Studies	367
LIBRARY and INFORMATION SCIENCE PROGRAM	369
The Information Profession, Goals, and Facilities	370
Undergraduate Program	371
Financial Aid, Awards and Activities	372
SCHOOL OF MEDICINE	375
History and Facilities	376
Radiation Therapy Technology Undergraduate Program	379
Doctor of Medicine	382
COLLEGE OF NURSING	385
Bachelor of Science in Nursing	387
Academic Regulations	392
EUGENE APPLEBAUM COLLEGE OF PHARMACY and HEALTH SCIENCES	397
Financial Aid, Scholarships, Loans and Awards	399
Faculty of Pharmacy	403
Pharmacy Practice	404
Pharmaceutical Sciences	405
Academic Regulations	408
Pharmacy Student and Alumni Activities	413
Faculty of Health Sciences	414
Academic Regulations	415
Clinical Laboratory Science	417
Mortuary Science	423
Occupational Therapy	429
Physical Therapy	434
SCHOOL OF SOCIAL WORK	439
Bachelor of Social Work	441
Academic Regulations and Financial Aid	445
School Activities	447
Field Education	447
COLLEGE OF URBAN, LABOR, and METROPOLITAN AFFAIRS	451
Bachelor's Degree Requirements	453
Academic Regulations	454
Chicano-Boricua Studies	456
Geography and Urban Planning	458
Interdisciplinary Studies	460
Labor Studies	467
Peace and Conflict Studies	469
Urban Studies	471
ADDITIONAL ACADEMIC PROGRAMS	473
CAMPUS MAPS, SIGNS and ABBREVIATIONS Used in this Bulletin, and INDEX	475

Academic Calendar 2005-2007

Spring/Summer Term, 2005

Priority Web Registration for Spring/Summer	Mon., Feb. 7 - Sat., Apr. 16, 2005
Priority Web Registration for Fall Term 2005	Mon., March 21 - Sat., Aug. 13
Open Registration for Spring/Summer Term	Mon., Apr. 11 - Sat., May 7
Term Begins	Wed., May 4
Spring and Spring/Summer Classes Begin	Mon., May 9
Late Registration for Spring Session	Mon., May 9 - Fri., May 13
Late Registration for Spring/Summer Session	Mon., May 9 - Fri., May 20
Last Day for Filing Degree Applications	Fri., June 3
Memorial Day Recess	Mon., May 30
Day Scheduled as Monday for Spring and Spring/Summer Sessions ¹	Fri., June 3
Classes End for Spring Session	Fri., June 24
Study Day for Spring Session	Sat., June 25
Final Examinations for Spring Session	Mon., June 27 - Tues., June 28
Summer Session Begins	Wed., June 29
Late Registration for Summer Session	Wed., June 29 - Wed., July 6
Independence Day Recess	Mon., July 4
Term Census Date	Wed., July 6
Day Scheduled as Monday for Summer and Spring/Summer Sessions ¹	Fri., July 8
Classes End for Spring/Summer Session	Fri., July 29
Study Day for Spring/Summer Session	Sat., July 30
Final Examinations for Spring/Summer Session	Mon., Aug. 1 - Thur., Aug. 4
Priority Web Registration for Fall Term 2005 Ends	Sat., Aug 13
Open Registration for Fall Term 2005	Mon., Aug. 15 - Fri., Sept. 2
Classes End for Summer Session	Tues., Aug. 16
Study Day for Summer Session	Wed., Aug. 17
Final Examinations for Summer Session	Thur., Aug. 18 - Fri., Aug. 19
Graduation Conferral	Thur., Aug. 25
Spring/Summer Term Ends	Sat., Aug. 27, 2005

Fall Term, 2005

University Year Appointments Begin ²	Thur., Aug. 18, 2005
Term Begins	Sun., Aug. 28
Open Registration for Fall Term 2005 Ends	Fri., Sept. 2
Labor Day Recess	Mon., Sept. 5
Classes Begin	Tues., Sept. 6
Last Day for Filing Degree Applications	Fri., Sep. 30
Late Registration	Tues., Sept. 6 - Mon., Sept. 19
Term Census Date	Mon., Sept. 19
Priority Web Registration for Winter Term 2006	Mon., Nov. 7 - Sat., Dec. 17
Day Scheduled as a Thursday ¹	Tues., Nov. 22
Day Scheduled as a Friday ¹	Wed., Nov. 23
Thanksgiving Recess	Thur., Nov. 24 - Sat., Nov. 26
Open Registration for Winter Term	Mon., Dec. 19, 2005 - Sat., Jan. 7, 2006
Classes End	Wed., Dec. 14
Study Day	Thur., Dec. 15
Commencement	Thur., Dec. 15
Final Examinations	Fri., Dec. 16 - Thu., Dec. 22
Holiday Recess	Mon., Dec. 26, 2005 - Mon., Jan. 2, 2006
Term Ends	Sat., Dec. 31, 2005

Winter Term, 2006

Term Begins	Sun., Jan. 1, 2006
Open Registration for Winter Term 2006 Ends	Sat., Jan. 7
Classes Begin	Mon., Jan. 9
Last Day for Filing Degree Applications	Fri., Feb. 3
Late Registration	Mon., Jan. 9 - Mon., Jan. 23
Martin Luther King Holiday Recess	Mon., Jan. 16
Term Census Date	Mon., Jan. 23
Priority Web Registration for Spring/Summer Term	Mon., Feb. 6 - Fri., Apr. 14
Spring Recess	Mon., Mar. 13 - Sat., Mar. 18
Priority Web Registration for Fall Term 2006	Mon., March 20 - Sat., Aug 12
Open Registration for Spring/Summer Term	Mon., April 17 - Sat. May 6
Classes End	Mon., Apr. 24
Study Day	Tues., Apr. 25
Final Examinations	Wed., April 26 - Tues., May 2
Term Ends	Tues., May 2
Commencement	Thur., May 4
University Year Appointments End ²	Tues., May 16, 2006

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

4 General Information

Spring/Summer Term, 2006

Term Begins	Wed., May 3, 2006
Open Registration for Spring/Summer Registration 2006 Ends	Sat., May 6
Spring and Spring/Summer Classes Begin	Mon., May 8
Late Registration for Spring Session	Mon., May 8 - Fri., May 12
Late Registration for Spring/Summer Session	Mon., May 8 - Fri., May 19
Last Day for Filing Degree Applications	Fri., June 2
Memorial Day Recess	Mon., May 29
Day Scheduled as Monday for Spring and Spring/Summer Sessions ¹	Fri., June 2
Classes End for Spring Session	Fri., June 23
Study Day for Spring Session	Sat., June 24
Final Examinations for Spring Session	Mon., June 26 - Tues., June 27
Summer Session Begins	Wed., June 28
Late Registration for Summer Session	Wed., June 28 - Wed., July 5
Independence Day Recess	Tues., July 4
Term Census Date	Wed., July 5
Day Scheduled as Tuesday for Summer and Spring/Summer Sessions ¹	Fri., July 7
Classes End for Spring/Summer Session	Fri., July 28
Study Day for Spring/Summer Session	Sat., July 29
Final Examinations for Spring/Summer Session	Mon., July 31 - Thur., Aug. 3
Priority Web Registration for Fall Term 2006 Ends	Sat., Aug. 12
Open Registration for Fall Term 2006	Mon., Aug. 14 - Fri., Sept. 1
Classes End for Summer Session	Tues., Aug. 15
Study Day for Summer Session	Wed., Aug. 16
Final Examinations for Summer Session	Thur., Aug. 17 - Fri., Aug. 18
Spring/Summer Term Ends	Sat., Aug. 26, 2006

Fall Term, 2006*

University Year Appointments Begin ²	Thur., Aug. 17, 2006
Term Begins	Sun., Aug. 27
Open Registration for Fall Term 2006 Ends	Fri., Sept. 1
Labor Day Recess	Mon., Sept. 4
Classes Begin	Tues., Sept. 5
Late Registration	Tues., Sept. 5 - Mon., Sept. 18
Term Census Date	Mon., Sept. 18
Last Day for Filing Degree Applications	Fri., Sept. 29
Priority Web Registration for Winter Term 2007	Mon., Nov. 6 - Fri., Dec. 15
Day Scheduled as a Thursday ¹	Tues., Nov. 21
Day Scheduled as a Friday ¹	Wed., Nov. 22
Thanksgiving Recess	Thur., Nov. 23 - Sat., Nov. 25
Classes End	Wed., Dec. 13
Study Day	Thur., Dec. 14
Commencement	Thur., Dec. 14
Final Examinations	Fri., Dec. 15 - Thur., Dec. 21
Open Registration for Winter Term	Mon., Dec. 18, 2006 - Fri., Jan. 5, 2007
Holiday Recess	Mon., Dec. 25, 2006 - Mon., Jan. 1, 2007
Term Ends	Sun., Dec. 31, 2006

Winter Term, 2007*

Term Begins	Mon., Jan. 1, 2007
Open Registration for Winter Term 2007 Ends	Fri., Jan. 5
Classes Begin	Mon., Jan. 8
Late Registration	Mon., Jan. 8 - Mon., Jan. 22
Martin Luther King Holiday Recess	Mon., Jan. 15
Term Census Date	Mon., Jan. 22
Last Day for Filing Degree Applications	Fri., Feb. 2
Priority Web Registration for Spring/Summer Term	Mon., Feb. 5 - Fri., Apr. 13
Spring Recess	Mon., Mar. 12 - Sat., Mar. 17
Priority Web Registration Begins for Fall Term 2007	Mon., Mar. 19
Open Registration Begins for Spring/Summer Term 2007	Mon., Apr. 16
Classes End	Mon., Apr. 23
Study Day	Tues., Apr. 24
Final Examinations	Wed., Apr. 25 - Tues., May 1
Term Ends	Tues., May 1
Commencement	Thur., May 3
University Year Appointments End ²	Tues., May 15, 2007

*Tentative.

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.

University Administration

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University Mission

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

As a national research university, Wayne State is committed to high standards in research and scholarship. In the arts, it fosters creativity and strives for excellence in performance and exhibition. 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. To maintain its standards, the University seeks to strengthen those programs that have achieved national recognition while, at the same time, fostering those 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 remain 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 and nation as well as foreign countries. 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 and 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. Seventy-five percent of WSU alumni remain in Michigan to live and work.

Wayne State has more than 204,119 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.

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

1959 — Monteith College was established.

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

1964 — The Division of Urban Extension was established.

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

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

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.

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 476.)

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. Effective with the Fall 2004 academic year the Colleges of Science and Liberal Arts will be merged into one unit: the College of Liberal Arts and Sciences.

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
 College of Urban, Labor, and Metropolitan Affairs

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 are established by the Board of Governors on recommendation of the President for the purpose of conducting college- or University-wide interdisciplinary teaching, research and service activities. The principal centers and institutes are:

- Bioengineering Center
- Center for Arts and Public Policy
- Center for Automotive Research
- Center for Chicano-Boricua Studies
- Center for Health Care Effectiveness Research
- Center for Health Research
- Center for Legal Studies
- Center for Molecular Medicine and Genetics
- Center for Peace and Conflict Studies
- Center for the Study of Citizenship
- Center for Urban Studies
- Cohn-Haddow Center for Judaic Studies
- Developmental Disabilities Institute
- Douglas A. Fraser Center for Workplace Issues
- Morris J. Hood Jr. Comprehensive Diabetes Center
- 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 for Scientific Computing
- Institute of Environmental Health Sciences
- Institute of Gerontology
- Barbara Ann Karmanos Cancer Institute
- Labor Studies Center
- Ligon Research Center for Vision
- Manufacturing Information Systems Center
- Merrill-Palmer Institute for Child and Family Development
- C. S. Mott Center for Human Growth and Development
- 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.

Non-credit courses, seminars and programs are offered primarily through the Division of Metropolitan Programs and Summer Sessions (see page 60), 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

Association to Advance Collegiate Schools of Business International

EDUCATION

Art Therapy Program: *American Art Therapy Association*

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

Rehabilitation Counseling and Community Inclusion (graduate only): *Council on Rehabilitation Education, Inc.*

ENGINEERING

Division of Engineering (undergraduate): *Accreditation Board for Engineering and Technology, Inc. — Engineering Accreditation Commission*

Division of Engineering Technology: *Accreditation Board for Engineering and Technology, Inc. — Applied Science Accreditation Commission*

FINE, PERFORMING and COMMUNICATION ARTS

Dance: *National Association of Schools of Dance*

Music: *National Association of Schools of Music*

Theatre: *National Association of Schools of Theatre*

LAW

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

LIBERAL ARTS

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

LIBRARY and INFORMATION SCIENCE

American Library Association

MEDICINE

Continuing Medical Education: *Accreditation Council for Continuing Medical Education*

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

Radiation Therapy Technology: *Joint Review Committee on Education in Radiation Technology and Committee on Allied Health and Accreditation of the American Medical Association*

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

Residency Programs: *Liaison Committee on Graduate Medical Education of the American Medical Association and various Residency Review Committees*

NURSING

Commission on Collegiate Nursing Education

EUGENE APPLEBAUM COLLEGE of PHARMACY and HEALTH SCIENCES

Clinical Laboratory Science: *National Accrediting Agency for Clinical Laboratory Sciences*

Cytotechnology: *National Accrediting Agency for Clinical Laboratory Sciences*

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

Pathologist's Assistant Program: *National Accrediting Agency for Clinical Laboratory Sciences*

Pharmacy: *American Council on Pharmaceutical Education*

Physical Therapy: *American Physical Therapy Association*

Physician Assistant Program: *Accreditation Review Committee on Education for the Physician Assistant*

SCIENCE

Audiology and Speech-Language Pathology: *Council on Academic Accreditation of the American Speech-Language Hearing Association*

Chemistry: *American Chemical Society*

Nutrition and Food Science (dietetics): *American Dietetics Association*

Psychology (Clinical): *American Psychological Association*

SOCIAL WORK

Council on Social Work Education

URBAN, LABOR and METROPOLITAN AFFAIRS

Urban Planning: *Planning Accreditation Board*

Equality of Opportunity

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

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

This policy also forbids retaliation and/or any form of harassment against an individual as a result of filing or being a party to a complaint 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 Rehabilitation Act of 1973, the Age Discrimination Act of 1975, the Vietnam Era Veterans Readjustment Assistance Act of 1974 and Michigan Public Act 453.

Inquiries regarding equal opportunity and affirmative action policies or complaints may be made to Equal Opportunity, Policy Development 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 matter directly or indirectly related to such employment, or in the admission, education and treatment of students. (See page 53 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 more 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

Minor Areas of Study

Minor concentrations are groups of courses, usually totalling eighteen to twenty-four credits, focused in a particular subject area. Minors are not noted on diplomas but they do appear on the student transcript. The University does not require students to select a minor, nor are they required for an undergraduate degree. The following list cites all of the Minors currently offered by the University with page references to where specific requirements may be found in this bulletin.

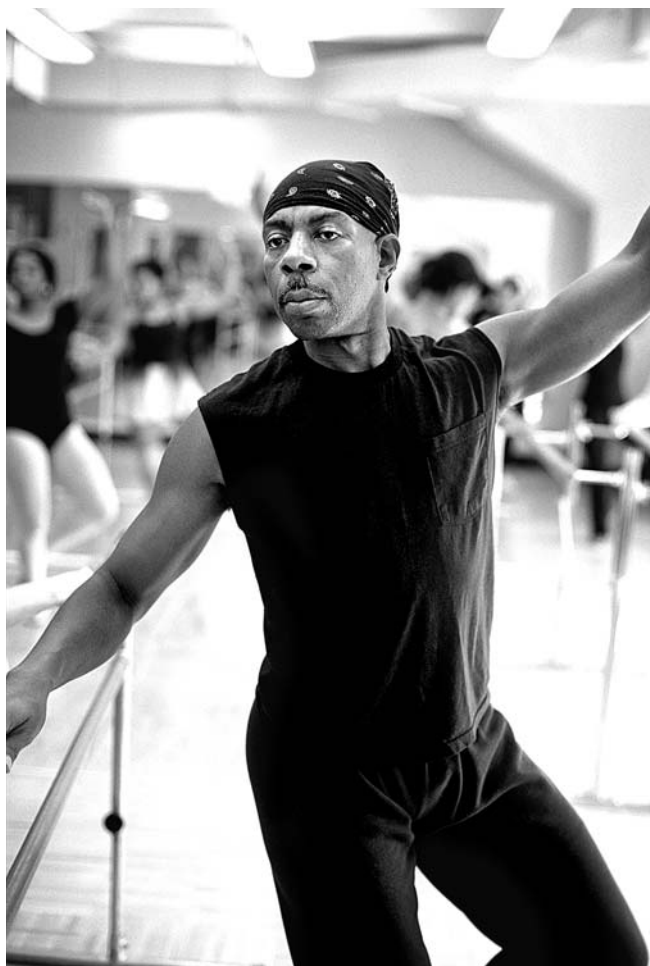
Africana Studies	244
American Studies	248
Anthropology	249
Art	187
Art History	187
Biological Sciences	256
Business Administration	73
Chemistry	265
Classics	268
Communication	200
Computer Science	274
Criminal Justice	279
Economics	283
English	287
Film	200
Film Studies	287
Geography	294
Geology	297
German and Slavic Studies	299
Health Education	100
History	305
International Studies	313
Journalism	200
Legal Studies	314
Linguistics	317
Mathematics	321
Media Arts and Studies Major	200
Music	212
Near Eastern and Asian Studies	326
Nonprofit Sector Studies	462
Nutrition and Food Science	332
Peace and Conflict Studies	470
Philosophy	335
Physics	341
Political Science	347
Psychology	353
Public Policy	347
Public Relations	200
Romance Languages	357
Sociology	364
Speech Communication	200
Theatre	219
Women's Studies	368

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

AuD.	Doctor of Audiology
BA.	Bachelor of Arts
BAS.	Bachelor of Applied Studies
BFA.	Bachelor of Fine Arts
BIS.	Bachelor of Interdisciplinary Studies
BM	Bachelor of Music
BPA.	Bachelor of Public Affairs
BS.	Bachelor of Science
BSCJ.	Bachelor of Science in Criminal Justice
BSCT.	Bachelor of Science in Computer Technology
BSET.	Bachelor of Science in Engineering Technology
BHS.	Bachelor of Health Science
BSMFT.	Bachelor of Science in Manufacturing Engineering Technology
BSMS.	Bachelor of Science in Mortuary Science
BSN.	Bachelor of Science in Nursing
BSW	Bachelor of Social Work
BTIS	Bachelor of Technical & Interdisciplinary Studies
DPT.	Doctor of Physical Therapy
EdD.	Doctor of Education
ESC.	Education Specialist Certificate
GC.	Graduate Certificate
JD.	Juris Doctor
LLM.	Master of Laws
MA	Master of Arts
MADR	Master of Arts in Dispute Resolution
MAIR	Master of Arts in Industrial Relations
MAT	Master of Arts in Teaching
MBA	Master of Business Administration
MD	Doctor of Medicine
MEd.	Master of Education
MFA	Master of Fine Arts
MIS	Master of Interdisciplinary Studies
MLIS	Master of Library and Information Science
MM	Master of Music
MOT	Master of Occupational Therapy
MPA	Master of Public Administration
MPH	Master of Public Health
MS	Master of Science
MSET.	Master of Science in Engineering Technology
MSN	Master of Science in Nursing
MST	Master of Science in Taxation
MSW	Master of Social Work
MUP	Master of Urban Planning
PBC.	Post-Baccalaureate Certificate
PharmD.	Doctor of Pharmacy
PhD.	Doctor of Philosophy
PMC	Post-Master Certificate
SCP.	Specialist Certificate Program
SPL.	Specialist in Library and Information Science
TC.	Teaching Certificate

Table of Academic Programs

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

School/College and Major	I	II	III	IV	V	VI
School of Business Administration						
Accounting	BA, BS	PBC				MS
Business Administration	BA, BS					MBA
Business Logistics	BA, BS					
Finance	BA, BS					
Management	BA, BS					
Management Information Systems	BA, BS					
Marketing	BA, BS					
Taxation						MST
Joint JD/MBA	JD					MBA
College of Education						
Art Education	BA, BS		TC			MEd
Bilingual/Bicultural Education			TC			MEd
Career and Technical Education	BA, BS		TC			MEd
College and University Teaching		GC				
Counseling					MA, MEd	ESC EdD,PhD
Curriculum and Instruction					ESC	EdD,PhD
Early Childhood Education						MEd
Elementary Education	BA, BS		TC			MAT, MEd
English Education (Secondary)	BA, BS		TC			MEd
Evaluation and Research, Educational						MEd EdD,PhD
Foreign Language Education			TC			MEd
General Administration and Supervision						ESC
General Education						ESC
Health Education	BA, BS		TC			MEd
Instructional Technology						MEd ESC EdD,PhD
Kinesiology	BA, BS		TC			MAT, MEd
Leadership and Policy Studies, Educational						EdD,PhD
Leadership, Educational						MEd
Mathematics Education	BA, BS		TC			MEd ESC
Psychology, Educational						MEd PhD
Psychology, School and Community						MA
Reading						MEd ESC
Reading, Language and Literature						EdD
Rehabilitation Counseling and Community Inclusion						MA
Science Education	BA, BS		TC			MEd
Secondary Education						MAT
Social Studies Education (Secondary)	BA, BS		TC			MEd
Special Education	BA, BS		TC			MEd ESC EdD,PhD
Speech Education (Secondary)	BA, BS		TC			
Sports Administration						MA
College of Engineering						
Alternative Energy Technologies		GC				
Biomedical Engineering						MS PhD
Chemical Engineering	BS					MS PhD
Civil Engineering	BS					MS PhD
Computer Engineering						MS PhD
Computer Technology	BSCT					
Electrical Engineering	BS					MS PhD
Electrical/Electronic Engineering Technology	BSET					
Electromechanical Engineering Technology	BSET					
Electronics and Computer Control Systems (Interdisc.)						MS
Engineering Management						MS
Engineering Technology						MSET
Environmental Auditing		GC				

[continued on next page]

School/College and Major

I II III IV V VI

College of Engineering (continued)

Hazardous Materials Management on Public Lands.....	GC					
Hazardous Waste Control	GC					
Hazardous Waste Management.....				MS		
Industrial Engineering	BS			MS		PhD
Manufacturing Engineering				MS		
Manufacturing/Industrial Engineering Technology.....	BSET					
Materials Science and Engineering				MS		PhD
Mechanical Engineering.....	BS			MS		PhD
Mechanical/Industrial Engineering Technology	BSET					
Polymer Engineering.....					GC	
Product Design.....	BSET					

College of Fine, Performing and Communication Arts

Art	BA, BFA				MA, MFA	
Art History	BA				MA	
Communication*	BA				MA	PhD
Dance.....	BS, BFA		TC			
Design and Merchandising.....	BA, BS				MA	
Film	BA					
Journalism*	BA					
Media Arts and Studies*	BA					
Music	BA, BM		TC		MA, MM	
Orchestral Studies.....						GC
Public Relations	BA					
Theatre.....	BA, BFA				MA, MFA	PhD

Graduate School

Alcohol and Drug Abuse Studies	GC					
Archival Administration.....	GC					
Computing, Scientific	GC					
Gerontology.....	GC					
Infant Mental Health	GC					
Interdisciplinary						PhD
Library and Information Science				MLIS	SPL	
Molecular and Cellular Toxicology.....				MS		PhD
Molecular Biology and Genetics.....				MS		PhD,MD/PhD

Law School

Corporate and Finance Law.....					LLM	
Joint JD/MADR in Dispute Resolution.....	JD				MADR	
Joint JD/MA in Economics	JD				MA	
Joint JD/MA in History.....	JD				MA	
Joint JD/MA in Political Science.....	JD				MA	
Joint JD/MBA	JD				MBA	
Labor and Employment Law.....					LLM	
Law.....	JD				LLM	
Taxation.....					LLM	

College of Liberal Arts and Sciences

Africana Studies	BA					
American Studies.....	BA		GC			
Anthropology and Sociology	BA					
Anthropology*.....	BA				MA	PhD
Audiology.....					MS	AuD
Biological Sciences*.....	BA, BS				MA, MS	PhD
Chemistry*	BA, BS				MA, MS	PhD
Classics*	BA				MA	
Comparative Literature.....					MA	
Computer Science*	BA, BS		PBC		MA, MS	PhD

[continued on next page]

College of Liberal Arts and Sciences (continued)

Computing, Scientific		GC				
Criminal Justice*	BSCJ			MS		
Dietetics	BS	PBC				
Economics*	BA			MA		PhD
Economics/Law (joint JD/MA)	JD			MA		
English*	BA			MA		PhD
English, Teaching College				MA		
Environmental Science (Interdisciplinary)	BS					
Film Studies	BA					
Geography*	BA					
Geology	BA, BS			MS		
German*	BA			MA		
History*	BA			MA		PhD
History/Law (joint JD/MA)	JD			MA		
Honors, College (Co-Major)	BA					
Honors, College (Co-Major)	BA					
Human Development (Psychology)	BA			MA		
Information Systems Technology	BA					
International Studies (Co-Major Program)	BA					
Language Learning				MA		
Languages, Modern						PhD
Languages, Romance (French, Italian, or Spanish)	BA			MA		
Linguistics	BA			MA		
Linguistics	BA			MA		
Mathematical Statistics				MA		
Mathematics*	BA, BS			MA		PhD
Mathematics, Applied				MA		
Molecular Biotechnology				MS		
Multidisciplinary Science				MA		
Near Eastern Languages	BA			MA		
Near Eastern Studies*	BA					
Nutrition and Food Science*	BA, BS			MA, MS		PhD
Philosophy*	BA			MA		PhD
Physics	BA, BS			MA, MS		PhD
Political Science	BA			MA		PhD
Political Science/Law (joint JD/MA)	JD			MA		
Psychology*	BA, BS			MA		PhD
Public Administration				MPA		
Public Affairs	BPA					
Romance Languages*	BA					
Speech-Language Pathology	BA			MA		PhD
Slavic Studies*	BA					
Sociology and Anthropology	BA					
Sociology	BA, BAS			MA		PhD
Speech-Language Pathology*	BA			MA		PhD
Women's Studies (Co-Major Program)	BA					

School of Medicine

Anatomy and Cell Biology				MS		PhD,MD/
PhD Basic Medical Sciences				MS		
Biochemistry and Molecular Biology				MS		PhD,MD/
PhD Cancer Biology				MS		PhD
Cellular and Clinical Neurobiology						PhD
Genetic Counseling				MS		
Immunology and Microbiology				MS		PhD,MD/
PhD Medical Physics						PhD
Medical Research				MS		
Medicine						MD
Molecular Biology and Genetics				MS		PhD
Pathology						PhD
Pharmacology				MS		PhD,MD/
PhD Physiology				MS		PhD,MD/

[continued on next page]

School/College and Major

I

II

III

IV

V

VI

School of Medicine (Continued)

PhD Psychiatry and Behavioral Neurosciences						MS
Public Health						MPH
Public Health Practice	GC					
Radiation Therapy Technology	BS					
Radiological Physics						MS
Rehabilitation Sciences						MS
Rehabilitation Sciences Administration		GC				

College of Nursing

Adult Acute Care Nursing						MSN
Adult Primary Care Nursing						MSN
Community Health Nursing						MSN
Nursing	BSN					PhD
Nursing Education	GC					
Nursing, Advanced Practice (Women/Neonates/Children)						MSN
Psychiatric-Mental Health Nurse Practitioner	GC					MSN
Transcultural Nursing	GC					

Eugene Applebaum College of Pharmacy and Health Sciences

Analytical Toxicology	GC					
Anesthesia, Nurse						MS
Clinical Laboratory Science	BS	PBC				
Environmental Science	BS					
Forensic Investigation		PBC				
Health Science	BHS					
Health Systems Pharmacy Management						MS
Industrial Toxicology		PMC				
Mortuary Science	BSMS					
Occupational and Environmental Health Sciences						MS
Occupational Safety	GC					
Occupational Therapy	BS					MS, MOT
Pathologist Assistant	BS					
Pediatric Anesthesia		GC				
Pharmaceutical Sciences						MS
Pharmacy	PharmD					PhD
Physical Therapy	DPT					
Physician Assistant Studies						MS
Public Health		GC				MPH

School of Social Work

Social Work	BSW					MSW
Social Work Practice with Families and Couples		GC				

College of Urban, Labor, and Metropolitan Affairs

Chicano-Boricua Studies (Co-Major Program)	BA					
Disabilities		GC				
Dispute Resolution		GC				MADR, JD/MADR
Economic Development		GC				
Geography						MA
Industrial Relations						MAIR
Interdisciplinary Studies	BIS, BTIS					MIS
Labor Studies	BA					
Non-Profit Sector Studies		PBC				
Peace and Conflict Studies (Co-Major Program)	BA					
Urban Planning						MUP
Urban Studies (Co-Major Program)	BA					

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 REQUIREMENTS IN GENERAL EDUCATION

Major, minor, cognate and elective credit requirements for University degrees are specified by the individual Schools and Colleges of Wayne State University. Students should consult the respective School and College sections of this bulletin for these requirements. ALL undergraduate degree programs include satisfaction of the University General Education Requirements, which are outlined below.

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 impose additional College or School requirements and/or specify particular courses which their students must elect in fulfilling the University-wide Requirements, it is essential that all students seek advice from the Wayne State University Undergraduate Bulletin, the University Advising Center and their respective College/School Advising Office before electing courses to satisfy these General Education Requirements. It is the responsibility of the student to satisfy all University, College and program requirements.

Outlined below are University-wide general education programs applicable to students defined by their year of entry and status at time of entry to Wayne State University. These programs are: 1) General Education Requirements for students who entered in Fall 2005 and thereafter; 2) General Education Requirements for students who entered between Fall 1987 and Spring/Summer term of 2005; and 3) University Requirements prior to Fall Term 1987.

In the following program description only those courses are cited as satisfying General Education Requirements which are in effect as of the date of publication of this bulletin. Courses newly approved for satisfaction of these requirements may be found on the University Bulletin website at <http://www.bulletins.wayne.edu>.

General Education Requirements — Fall 2005 and Thereafter

The University-wide Program in General Education seeks to enhance facility in those basic skills which are fundamental to success in college while simultaneously providing the intellectual breadth necessary to place specialized and professional curricula in proper perspective. The primacy of basic skills is established by requiring all undergraduate students to satisfy Competency Requirements in written communication, mathematics, oral communication, computer literacy, and critical/analytical thinking. The significance of intellectual breadth is underscored by requiring all students to satisfy Group Requirements by electing and successfully completing two courses (minimum of six credits) in the natural sciences, one course (minimum of three credits) in historical studies, two courses (minimum of six credits) in the social sciences, one course (minimum of three credits) in foreign culture, and two courses (minimum of six credits) in the humanities. Additionally, students must elect three courses, one each from the following Exposure Areas: cultural diversity, ethical issues in society, and science, technology and society. (Courses elected to satisfy these requirements must be made from approved lists: see below.) By means of this Program, undergraduate students will improve their basic skills and be introduced to methods of inquiry, modes of thought, bodies of knowledge, and representative ideas drawn from a wide range of academic disciplines.

Implementation Schedule: The General Education Requirements shall become effective for students entering Fall 2005 and thereafter according to the following schedule:

Fall 2005: For entering freshmen and students who transfer fewer than 12 credits.

Fall 2006: For transfer students who began college work Fall 2005 or thereafter.

Fall 2007: For all transfer students who began college work prior to Fall 2005.

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 Competency
- (CD) — Cultural Diversity Exposure
- (CL) — Computer Literacy Competency - Level 1
- (CP) — Computer Proficiency Competency - Level 2
- (CT) — Critical and Analytic Thinking Competency
- (EI) — Ethical Issues in Society Exposure
- (EP) — English Proficiency Requirement
- (FC) — Foreign Culture
- (HS) — Historical Studies
- (IC) — Intermediate Composition Competency
- (LS) — Life Sciences
- (MC) — Mathematics Competency
- (OC) — Oral Communication Competency
- (PL) — Philosophy and Letters
- (PS) — Physical Sciences
- (SS) — Social Sciences
- (ST) — Science, Technology and Society Exposure
- (VP) — Visual and Performing Arts
- (WI) — Writing Intensive Competency

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, what is needed is demonstration of the competency, not a specific course requirement. Therefore, in the competency areas, multiple methods of demonstrating competency shall be available, including satisfactory completion of designated courses, earning an appropriate score on designated examinations.

Competency Requirements, with the exception of the Writing-Intensive Course in the Major (WI) and the Level II Computer Proficiency (CP), 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 will 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 Wayne State University placement, qualifying, screening, competency or proficiency examination shall be excused from equivalent course work but shall receive NO course credit.

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

3. Courses used to satisfy competency requirements shall not be used to satisfy group 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 avocational activities.

But 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. Consequently, the concept of 'writing across the curriculum' as a way of making the skill a habit is strongly recommended, and 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. 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) Earning an appropriate score on the University's English Qualifying Examination; OR
- b) Earning credit for basic composition through Advanced Placement CLEP, or International Baccalaureate; OR
- c) Completing successfully an approved course in basic composition: ENG 1020, 1050; ISP 1510; OR
- d) 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 2010; ISP 3510, 4991.

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.

MATHEMATICS (MC): All educated individuals should master mathematical concepts and skills in order to cope with academic subjects in which mathematical formulations comprise 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.

Proficiency in mathematics must be demonstrated by all students prior to completion of the first thirty credits taken at Wayne State University. Mathematics proficiency shall be determined by 1) satisfactory completion of MAT 1000; or 2) any MAT course at a higher level; or 3) other designated courses that will be posted on the University Bulletin website at <http://www.bulletins.wayne.edu>; or 4) by achieving appropriate scores on national standardized tests; or 5) by achieving a satisfactory score on the Mathematics Competency/Placement Examination.

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 inability to write cogently, difficulty in communicating orally is mentioned most frequently by employers and others who evaluate the preparedness of college students to compete in contemporary adult 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.

a) Completing successfully an approved course in oral communication: COM 1010; ENG 3060; ISP 1560; 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 REQUIREMENT (CL,CP): Since the application of computer technology to virtually all academic disciplines and their corresponding array of occupations is clearly a central fact of contemporary life, the need for students to become computer-literate is essential. In the modern world, it is vital that students possess both elementary and advanced knowledge of computer functions. Two levels of proficiency are required. Level I proficiency is basic computer literacy by which students should be able to initiate a file and operate word-processing software, understand how to gain access to the University's main computer system, and command the basic skills needed to perform simple on-line data retrieval and manipulative operations.

Level I — Basic Computer Competency (CL): Prior to the completion of thirty credits at Wayne State University, the Level I 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; 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.

Level II — Computer Proficiency (CP): Prior to graduation, all students must demonstrate discipline/major/program-specific computer literacy. Proficiency includes critical evaluation of electronic resources in the major subject as well as training in the use of discipline/major/program-specific hardware, software, and scholarly electronic resources. Proficiency shall be determined by the following:

a) Successfully completing a computer proficiency course (CP) within the discipline/major/program, which incorporates computer assignments that facilitate transition to a professional role, including consideration of ethical issues. Approved courses may be found on the University Bulletin website at <http://www.bulletins.wayne.edu>.

b) Passing a designated non-credit component of a course within the student's major. Approved courses may be found on the University Bulletin website at <http://www.bulletins.wayne.edu>.

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

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

As knowledge proliferates and the interrelatedness of separate disciplines becomes increasingly evident, the traditional goal of mastering discrete or representative bodies of common, canonic 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 appreciation of how scholars and scientists in various disciplines acquire knowledge — particularly, how recently-developed epistemological and methodological approaches are applied. Thus, 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.

Fundamental to any set of general education requirements at the university level are courses designed to ensure that all students have some exposure to certain branches of knowledge. The Group Requirements mandate students to take a number of courses 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, the social sciences, historical studies, foreign culture, and the humanities. 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 IH, 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.

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*.

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.

LIFE SCIENCE OPTIONS:

ANT 2110; BIO 1030, 1050*, 1510*, 2200*; HON 4220; IST 2310; NFS 2030*; PSY 1010*, 1020.

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 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.

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.

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:

* May also satisfy Natural Science Laboratory Requirement when elected for appropriate credits and/or with appropriate laboratory.

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.

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

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

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

VISUAL AND PERFORMING ARTS OPTIONS:

A H 1000, 1110, 1120; 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>.

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

PHILOSOPHY AND LETTERS OPTIONS:

CLA 1010, 2100, 2200; COM 2160; ENG 2200, 2500, 2720, 3110, 3120, 3140; FRE 2700; 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.

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>.

General Education Requirements

— Fall 1987 through Spring/Summer 2005

The University-wide Program in General Education seeks to enhance facility in those basic skills which are fundamental to success in college while simultaneously providing the intellectual breadth necessary to place specialized and professional curricula in proper perspective. The primacy of basic skills is established by requiring all undergraduate students to demonstrate competence in written communication, mathematics, oral communication, computer literacy, and critical thinking. The significance of intellectual breadth is underscored by requiring all students to elect and successfully complete two courses (minimum of six credits) in the natural sciences, one course (minimum of three credits) in historical studies, two courses (minimum of six credits) in the social sciences, one course (minimum of three credits) in foreign culture, two courses (minimum of six credits) in the humanities, and one course (one credit) which provides an introduction to the University and its libraries. (Courses elected to satisfy these requirements must be made from approved lists: see below.) By means of this Program, undergraduate students will improve their basic skills and be introduced to methods of inquiry, modes of thought, bodies of knowledge, and representative ideas drawn from a wide range of academic disciplines.

Provided below is a full description of the University-wide Program in General Education. All undergraduate students must meet the specified requirements in accordance with the following Implementation Schedule, and should consult an academic adviser to assist in planning an appropriate program.

Implementation Schedule: Effective Fall Term 1987, Wayne State University required undergraduate students to fulfill the University-wide General Education Requirements. The Requirements have been implemented in accordance with the following schedule:

Fall Term 1987: The General Education Requirements apply to all entering freshmen and to students who transfer twelve or fewer credits.

Fall Term 1990: The General Education Requirements apply to the group of students cited above and to transfer students who began college work in Fall 1988 or thereafter.

Fall Term 1991: The General Education Requirements apply to all undergraduate students.

Transfer students who are not covered by the above schedule and who entered Wayne State University between Fall Term 1987 and Spring/Summer Term 1991 must fulfill the University Proficiency Requirements in English and Mathematics and the University Requirement in American Government, outlines of which may be found beginning on page 24.

Students who have matriculated at Wayne State University prior to Fall Term 1987 must fulfill all University and School/College requirements in force at the time of entry. These include the University Requirement in American Government and the University Proficiency Requirements in English and Mathematics, outlines of which may be found beginning on page 24.

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.

General Education Course Prefixes (1987-2005)

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

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

Competency Requirements (1987-2005)

Competence in fundamental skills which underlie and make possible the acquisition of knowledge is required of all who would succeed in college and function as educated citizens. Without command of these skills (writing, mathematics, speaking, computing, and analysis), basic courses prove difficult and advanced work becomes an insurmountable obstacle. Since it is the skills which are preconditions for success in higher education, competence, not simply a record of successfully completed course work, is expected. Therefore, multiple methods are provided for demonstrating competence and satisfying these requirements: (1) satisfactory performance on placement, proficiency, screening, or competency examinations; OR (2) in some cases, satisfactory completion of specified high school courses; OR (3) satisfactory completion of designated University courses or their equivalents. Information regarding placement, proficiency, screening or competency examinations may be obtained from the Testing, Evaluation, and Student Life Research Services Office (698 Student Center Building).

Competency requirements should be met early in a baccalaureate degree program. WITH THE EXCEPTION OF THE 'WRITING-INTENSIVE MAJOR COURSE REQUIREMENT,' ALL COMPETENCY REQUIREMENTS SHOULD BE SATISFIED BY THE TIME SIXTY CREDITS OF COLLEGE

WORK HAVE BEEN COMPLETED. Students who fail to meet this deadline will be allowed two additional semesters (or equivalent) in which to satisfy their remaining competency requirements. During these two semesters, they must be actively involved in taking appropriate courses or otherwise preparing themselves to demonstrate competence in these fundamental skills. After completing ninety credits, students who have not satisfied these requirements will be barred from enrolling in courses other than those which satisfy competency requirements until all such requirements have been completed.

The following general principles apply to all competency requirements:

1. Students who satisfy any competency requirement by passing a 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, or Departmental Examination will satisfy the appropriate competency or group requirement; credit so earned will be applicable to a baccalaureate degree.
3. Remedial courses (i.e., those numbered below 1000) required because of failure to demonstrate competence will yield NO credit toward a degree.

WRITTEN COMMUNICATION (BC, IC, EP, WI): Writing ability is fundamental to success in almost all human activity. It 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 avocational activities.

But 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. Consequently, the concept of 'writing across the curriculum' as a way of making the skill a habit is strongly recommended, and 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. This requirement contains the following four components:

Basic Composition (BC): All students must demonstrate competence in basic composition by:

- a) Earning an appropriate score on the University's English Qualifying Examination; OR
- b) Earning credit for basic composition through Advanced Placement or CLEP tests; OR
- c) Completing successfully an approved course in basic composition: ENG 1020, 1050; ISP 1510; OR
- d) Transferring credit received for successful completion of a comparable course taken at another college or university.

Intermediate Composition (IC): All students must successfully complete an approved intermediate or advanced course in which the teaching of English composition and rhetoric is a major component, or transfer credit received for successful completion of a comparable course taken at another college or university.

The purpose of this requirement is threefold: a) to emphasize the relationship between analytical reading and the acquisition of writing skills—especially the ability to organize and sustain extensive writing assignments; b) to acquaint students with works of imaginative, expository, argumentative, and/or analytical writing in the English language; and c) to develop an understanding of the nature and function of language. Courses currently approved for intermediate composition are: AFS 2390; ENG 2050, 2100, 2110, 2120, 2210, 2310, 2390, 2570, 3010, 3050; HUM 2000; I H 2010; ISP 3510, 4991.

English Proficiency Requirement (EP): PRIOR TO COMPLETING SIXTY CREDITS, ALL STUDENTS MUST DEMONSTRATE COMPETENCE IN WRITTEN COMPOSITION BY PASSING THE ENGLISH PROFICIENCY EXAMINATION. (Students who fail this examination should prepare to repeat it by taking advantage of directed self study opportunities and/or tutorial assistance provided by the English Composition Clinic. Students who fail the English Proficiency Examination a second time must elect and satisfactorily complete ENG 1080, (EP) Writing Workshop.

Writing-Intensive Course in Major (WI): All students must demonstrate an ability to communicate effectively with specialized or professional audiences by completing successfully the writing requirements (courses which incorporate major writing assignments) specified by the Departments or professional Schools in which they are seeking degrees. Students should consult their Departmental adviser for the approved course(s) in their major.

MATHEMATICS (MC): 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.

Students who enrolled in Fall Term 1990 and thereafter may satisfy the mathematics proficiency requirement by one of the following means. PRIOR TO THE COMPLETION OF THIRTY CREDITS, ALL STUDENTS MUST DEMONSTRATE COMPETENCE IN MATHEMATICS BY:

- a) Taking the Department of Mathematics Placement Examination and placing out of MAT 0993 or a higher-level Mathematics course (or by successfully completing in MAT 0993). Students who place into MAT 0993 must satisfactorily complete MAT 0993 or MAT 0991; OR
- b) Achieving an acceptable test score on the quantitative or mathematics section of one of the following tests: AP-CEEB, or CLEP; OR
- c) Transferring credit received for successful completion of a course which is equivalent to MAT 1800 OR MAT 2010 (or higher) taken at another college or university.

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 inability to write cogently, difficulty in communicating orally is mentioned most frequently by employers and others who evaluate the preparedness of college students to compete in contemporary adult society. Consequently, oral communication is a crucial skill needed for success in virtually every field of endeavor. PRIOR TO COMPLETING SIXTY CREDITS, ALL STUDENTS MUST DEMONSTRATE COMPETENCE IN ORAL COMMUNICATION BY:

- a) Completing successfully suitable high school courses, or their equivalent, in oral communication; OR
- b) Passing the Oral Communication Competency Examination; OR
- c) Completing successfully an approved course in oral communication: COM 1010; ENG 3060; ISP 1560; OR
- d) Transferring credit received for successful completion of a comparable course taken at another college or university.

COMPUTER LITERACY (CL): Since the application of computer technology to virtually all academic disciplines and their corresponding array of occupations is clearly a central fact of contemporary life, the need for students to become computer-literate is essential. In the modern world, it is vital that students possess some elementary knowledge of computer functions: they should be able to initiate a file and operate word-processing software, understand how to gain access to the University's main computer system, and command the basic skills needed to perform simple on-line data retrieval and manipulative operations. PRIOR TO COMPLETING SIXTY CREDITS, ALL STUDENTS MUST DEMONSTRATE COMPUTER LITERACY BY:

- a) Completing successfully a suitable high school course in computing; OR

- b) Passing the Advanced Placement (AP) Examination in Computer Science; OR
- c) Passing the Computer Literacy Competency Examination; OR
- d) Completing successfully an approved computer application 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; OR
- e) Transferring credit received for successful completion of a comparable course taken at another college or university.

CRITICAL THINKING (CT): The ability to reason critically 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 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. ALL STUDENTS MUST DEMONSTRATE COMPETENCE IN CRITICAL THINKING PRIOR TO THE COMPLETION OF SIXTY CREDITS BY:

- a) Passing the Critical Thinking Competency Examination; OR
- b) Completing successfully an approved course in critical thinking: B A 1010; COM 2110; ISP 3260; PHI 1050; OR
- c) Transferring credit received for successful completion of a comparable course taken at another college or university.

Group Requirements (1987-2005)

As knowledge proliferates and the interrelatedness of separate disciplines becomes increasingly evident, the traditional goal of mastering discrete or representative bodies of common, canonic 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 appreciation of how scholars and scientists in various disciplines acquire knowledge — particularly, how recently-developed epistemological and methodological approaches are applied. Thus, 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.

To satisfy the Group Requirements, students will be introduced to materials drawn from the natural sciences, the social sciences, historical studies, foreign culture, and the humanities. 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 ful-

filled 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 ONE course from a single subject area as defined by the University system of subject area codes. (Subject area codes are the letter designations which precede course numbers.) For example, a student who takes a HIS (History) course to fulfill a group requirement cannot take a HIS course to fulfill any other group requirement.

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

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.

To meet the natural science requirement objectives, all undergraduate students at Wayne State are required to complete successfully at least one course in the physical sciences and one course in the life sciences as defined below (a minimum of three credits each). A laboratory or interactive demonstration/simulation experience (a minimum of one credit) must be associated with one of these courses. (Courses listed below with an asterisk (*) may also satisfy the Natural Science Laboratory Requirement.)

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.

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*.

Life Sciences (LS): Students must elect one course from the fields of biology, behavioral psychology, physical anthropology, 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.

LIFE SCIENCE OPTIONS:

ANT 2110; BIO 1030, 1050*, 1510*, 2200; HON 4220; IST 2310; NFS 2030*; PSY 1010*, 1020.

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 methods of historical studies explained.

* May also satisfy Natural Science Laboratory Requirement when elected for appropriate credits and/or with appropriate laboratory.

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.

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.

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 2010 or 2110.

HUMANITIES (VP, PL): Meaningful exposure to the humanistic disciplines produces more well-rounded and humane citizens, individuals capable of broadening their view of human experience. It also provides an indispensable creative perspective on the teachings of other disciplines. The general education Group Requirements in the humanities afford students an opportunity to examine a range of humanistic statements and to consider some of the ways in which they are meaningful. Analyzing works drawn from across the humanities (arts, philosophy, and letters), considering the varied contexts to which they belong and within which they are properly understood,

and evaluating a range of interpretations, leads to an appreciation of how imagination and intellect, working in tandem, provide insight into the nature of human experience.

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

Visual and Performing Arts (VP): Students must complete one course in the appreciation or history of art, music, film, dance, theatre, or appropriate combinations of these media. The following approved options are designed to enhance understanding and pleasure; emphasis is placed on developing the fundamental skills of analysis, interpretation, and evaluation and applying them to primary materials in the visual and performing arts. (Studio and applied courses will not satisfy this requirement.)

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.

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

PHILOSOPHY AND LETTERS OPTIONS:

CLA 1010, 2100, 2200; COM 2160; ENG 2200, 2500, 2720, 3110, 3120, 3140; FRE 2700; 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.

INFORMATION POWER: THE UNIVERSITY AND ITS LIBRARIES:

(NOTE: Effective Fall 2005 this requirement is suspended for all students regardless of date of matriculation.)

Newly-matriculated undergraduate students can profit from an introduction to the history and development of the modern university, the function of the university as a social institution, the roles of the faculty, the relationship between research and teaching, and the impact of different methods of inquiry on the growth and evolution of ideas. All students should be familiar with those service units of the University which may enhance educational development and career selection.

To meet these objectives, all freshmen and students who transfer twelve or fewer credits to Wayne State University are required to complete satisfactorily UGE 1000, Information Power, a one-credit course consisting of lectures and applied skills modules designed to introduce modern universities and their research libraries, especially those of Wayne State University. Students will become oriented to the information available in the Wayne State Library System and both the traditional and automated methods of accessing this material. The goal of this experience is to enrich the lives of students while at the University and afterwards, and to improve the ways in which the resources of the University are used. Students may place out of this requirement; otherwise, UGE 1000 should be completed during the student's first semester at Wayne State. THE REQUIREMENT MUST BE SATISFIED PRIOR TO COMPLETING THIRTY CREDITS IN RESIDENCE, BUT NO LATER THAN THE SECOND TERM AT WAYNE STATE UNIVERSITY.

Undergraduate General Education Course (UGE)

1000 (GE) Information Power. Cr. 1

Prereq: admission to Wayne State University. Offered for S and U grades only. Designed to empower students to achieve academic success and develop lifelong learning skills for the information society. Develops student awareness of traditions, goals, and structure of universities and their research libraries, particularly those at Wayne State University. (F,W)

University Requirements

Prior to Fall Term 1987

The following requirements apply to all undergraduate students who matriculated at Wayne State University prior to Fall Term 1987 and to all entering undergraduate students not covered in the General Education Implementation Schedule on page 20:

University Requirements in American Government:

All undergraduate students must satisfactorily complete a course in the principles of American government as a prerequisite to graduating from Wayne State. The courses and course sequences listed below and similar courses completed in other colleges and universities are applicable to this requirement. Credit for these courses may be applied toward fulfillment of a minor in the social sciences.

1. History 1030 (former 103)
2. History 2040 and 2050 (former 204 and 205)
3. History 5160 and 5170 (former 516 and 517)
4. Political Science 1010 (former 101)
5. Political Science 1030 (former 103)
6. former Political Science 201 and 202
7. General Social Science (College of Lifelong Learning). Any six of the following courses: ISS 2010, 2710, 2720, 2730; former GSS 202, 203, 231, 232, 233.

University Proficiency Requirements in English and Mathematics:

ALL UNDERGRADUATE STUDENTS WHO HAVE REGISTERED FOR THE FIRST TIME AT WAYNE STATE UNIVERSITY SINCE FALL SEMESTER 1983 ARE REQUIRED TO DEMONSTRATE PROFICIENCY IN ENGLISH AND MATHEMATICS BY THE TIME THEY HAVE EARNED SIXTY SEMESTER CREDITS TOWARD A BACHELOR'S DEGREE. The following proficiencies establish minimal standards throughout the University, and students who meet these standards have satisfied the University-wide requirements. Individual colleges or schools, as part of their own requirements, may set higher standards as a prerequisite for admission to a major or as a prerequisite for enrollment in certain classes.

Undergraduate students who have completed sixty credits of college-level work are expected to demonstrate the following proficiencies:

English Proficiency — Students will be expected to: (1) use English as an effective means of written communication; (2) write with facility at the level of writing demanded by courses throughout the University; (3) support statements with specific details or relevant evidence; (4) present a recognizable point of view or aim; (5) adapt tone and style to the needs of the audience and to the demands of the occasion; (6) vary sentence structure, length, and style; (7) employ vocabulary appropriate to the subject matter; (8) exercise command over standard written English, especially in spelling, punctuation, inflections, mechanics, and diction.

English proficiency can be established in the following ways:

1. Pass the English Proficiency Examination.
2. Pass English 1080 (restricted to those who have failed the English Proficiency Examination).

Mathematics Proficiency — Students will be expected to: (1) perform, with reasonable accuracy, addition, subtraction, multiplication, and division, using fractions, decimals, and integers; (2) use ratios, percentages, proportions, roots, and powers; (3) apply the concepts of introductory algebra and informal geometry; (4) make estimates and approximations and judge the reasonableness of the results; (5) formulate and solve a problem in mathematical terms; (6) read and interpret graphs, charts, and tables; (7) apply elementary concepts of probability and statistics; (8) deal with different units of measurement.

Mathematics proficiency can be established in the following ways for students who enrolled at Wayne State from Fall Term 1983 through Spring/Summer Term 1990:

1. Completing successfully (with an overall grade of 'C') a four-year program of high school mathematics which includes at least one year of algebra and one year of plane geometry; OR
2. Achieving an acceptable test score on the quantitative or mathematics section of one of the following tests: ACT, SAT, AP-CEEB, or CLEP; OR
3. Achieving an acceptable score on the Placement (Screening) Examination for MAT 1500 or MAT 1800; OR
4. Passing the Mathematics Proficiency Examination. (Students who fail this examination should prepare to repeat it by taking advantage of directed self study opportunities and/or tutorial assistance. Students who fail the Mathematics Proficiency Examination for a second time must elect and satisfactorily complete MAT 0991); OR
5. Transferring credit received for successful completion of an algebra or trigonometry course, taken at another college or university, equivalent to the level of achievement attained in MAT 1500, MAT 1800, or MAT 2010.

Students who do not establish proficiency by the time they earn sixty credits toward a bachelor's degree will have up to two semesters (or equivalent), without penalty, in which to meet the requirements. During that period they must pass the English Proficiency Examination and/or the Mathematics Proficiency Examination; or, if they fail these, pass English 1080 and/or Mathematics 0991.

The University expects all undergraduate students to meet the English and mathematics proficiency requirements. There shall be strict enforcement of the requirements, and only in extraordinary circumstances will the requirements be waived.

Examinations: The English Proficiency Examination, the Mathematics Proficiency Examination, and the Mathematics Qualifying Examinations are administered by the Testing and Evaluation Office, University Counseling Services, at regularly scheduled intervals. Students should contact the Testing, Evaluation, and Student Life Research Services Office for information on examination dates, times, and fees.

Enrollment prior to Fall 1983: For students who first registered at Wayne State University prior to Fall Semester 1983, the following College requirements apply in regard to English proficiency:

Students in the Colleges of Liberal Arts, Nursing, and Pharmacy and Allied Health Professions who have accumulated forty credits, and students in the School of Business Administration, must take the English Proficiency Examination. Students in the College of Engineering must take the examination at least two semesters before they plan to register for ENG 3050. Students should contact the Testing, Evaluation, and Student Life Research Services Office for information on examination dates, times, and fees.



**Table Showing the Various Ways Competencies Requirements May Be Fulfilled
(other than through WSU or equivalent transfer courses)**

In general, any of the competencies requirements may be fulfilled by obtaining appropriate course credit through Wayne State University Credit by Special Examination procedures (described in the Undergraduate Bulletin). Advanced Placement (AP) and College-Level Examination Program (CLEP) scores shown in these columns will fulfill the General Education Competencies Requirements, but will not necessarily qualify the student to receive college credit. For information about college credit earned through the AP or CLEP exams, refer to the full descriptions of these programs in the Undergraduate Bulletin. Information regarding registration for any of the exams cited below may be obtained from Testing, Evaluation, and Student Life Research Services (698 Student Center Building). (N.A. = Not Applicable)

Competency	High School Courses	SAT or ACT score	AP score	CLEP Exam name: score	WSU Qualifying Exam	WSU Proficiency Exam
<i>A. English Composition</i>						
1. Basic Composition (BC)	N.A.	N.A.	3, 4, or 5	Eng. Comp: 50	Placement out of ENG 1020	N.A.
2. Intermediate Composition (IC)	N.A.	N.A.	4 or 5	N.A.	N.A.	N.A.
3. English Proficiency Exam (EP)	N.A.	N.A.	N.A.	N.A.	N.A.	Exam to be passed before completion of 60 credit hrs.
4. College/School/Dept. Required Writing Intensive Course (WI)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
<i>B. Mathematics Competency (MC)</i>						
N.A.	N.A.	N.A.	2, 3, 4, or 5	Genl. Math: 50 Algebra/Trig: 50 Coll. Algebra*: 50 Trigonometry*: 50 Calculus with Elementary Functions: 50	N.A.	Exam to be passed before completion of 30 hours unless requirement previously fulfilled by other means
<i>C. Oral Communication (OC)</i>						
2 semesters	N.A.	N.A.	N.A.	50	N.A.	Exam to be passed before 60 hours unless requirement previously fulfilled by other means
<i>D. Computer Literacy (CL)</i>						
1 semester	N.A.	N.A.	3, 4, or 5	Information Systems & Computer App.: 50	N.A.	Exam to be passed before 60 hours unless requirement previously fulfilled by other means
<i>E. Critical and Analytic Thinking (CT)</i>						
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Exam to be passed before completion of 60 hours unless requirement previously fulfilled by other means

* A student who receives a score of 50 in both College Algebra and College Trigonometry will receive credit for MAT 1800 (Cr. 5) and will satisfy Math Competency.

**Table Showing How General Education Group Requirements May Be Met
through Advanced Placement or College-Level Examination Program Examinations**

In general, students will fulfill Group Requirements by successfully completing specially-designated Wayne State University courses or by transferring credit for equivalent courses taken at other collegiate institutions. However, Group Requirements may also be fulfilled by obtaining course credit for these courses through regular WSU Credit by Special Examination procedures or by obtaining course credit through Advanced Placement (AP) or College-Level Examination Program (CLEP) examinations as specified below. See the Undergraduate Bulletin for descriptions of these three examination programs. (Note also that course credit may be granted for AP and CLEP exams other than those indicated below, but such credit will not fulfill General Education Competency or Group Requirements.) The CLEP Examinations, when passed with the indicated scores, grant the student credit for two courses, as follows:

Credit granted for Natural Science Examination is 4 semester credits of physical science and 4 semester credits of biological science.

Credit granted for Social Science and History Examination is 4 semester credits of social science and 4 semester credits of history.

Credit granted for Humanities Examination is 3 semester credits of fine arts and 3 semester credits of literature.

Group Requirement	Advanced Placement Program			College-Level Examination Program		
	<i>AP Test</i>	<i>AP Score</i>	<i>Credits Awarded</i>	<i>CLEP Test S = Subject Exam</i>	<i>CLEP Score</i>	<i>Credits Awarded</i>
<i>Natural Science:*</i>						
<i>Physical Science (PS)</i>	Chemistry	3, 4, or 5	5 - 8	Chemistry (S)	50	4
	Physics (Basic)	3, 4, or 5	4 - 8	Natural Science	50	8
	Physics (E & M)	4 or 5	4 - 8			
	Physics (Mechanics)	4 or 5	4 - 8			
<i>Life Science (LS)</i>	Biological Science	3, 4, or 5	4 - 8	Biology (S)	50	3
	Psychology	3, 4, or 5	3	General Psychology (S)	50	3
				Natural Science	50	4
<i>Historical Studies (HS)</i>	European History**	4, or 5	4	Western Civ. I (S)	50	3
				Western Civ. II (S)	50	3
				Social Sci. & History	50	4
<i>American Institutions (AI)</i>	American History**	4, or 5	4	American Hist. I (S)	50	3
				American Hist. II (S)	50	3
	American Government**	3, 4, or 5	3 - 4	American Govt. (S)	50	3
<i>Basic Social Science (SS)</i>	Macroeconomics	3, 4, or 5	3 - 4	Intro. Sociology (S)	50	3
	Microeconomics	3, 4, or 5	3 - 4	Intro. Macroeconomics (S)	50	3
				Intro. Microeconomics (S)	50	3
				Social Sci. & History	50	84
<i>Foreign Culture (FC)</i>	French Language	3, 4, or 5	4 - 8	Not applicable.		
	German Language	3, 4, or 5	4 - 7			
	Spanish Language	3, 4, or 5	4 - 8			
	Comparative Politics**	3, 4, or 5	4			
<i>Humanities:</i>						
<i>Visual and Performing Arts (VP)</i>	Art History	3, 4, or 5	4	Humanities	50	3
	Music History	3, 4, or 5	2 - 3			
<i>Philosophy and Letters (PL)</i>	French Literature	3, 4, or 5	4 - 8	American Literature (S)	50	3
	German Literature	3, 4, or 5	4 - 7	Analysis and Interpretation of Literature (S)	50	3
	Spanish Literature	3, 4, or 5	4 - 8	English Literature (S)	50	3
				Humanities	50	3

*If a student satisfies Natural Science in both areas (Life Science; Physical Science) by examination (AP, CLEP, or credit by exam), the Natural Science Laboratory requirement is considered fulfilled.

** Students may NOT receive General Education credit for both European and American History, or for both American Government and Comparative Politics.

**Table of University General Education Courses
Listed By Subject Area Codes under General Education Course Title Prefixes**

*** American Society and Institutions (AI)**

HIS 1050 — (AI) American Civilization Since World War II. Cr. 3-4
 HON 2000 — (AI) City II. Cr. 3
 ISP 3420 — (AI) The American Constitution and the Judicial System. Cr. 4
 ISS 1510 — (AI) American Political Development. Cr. 4
 P S 1010 — (AI) American Government. Cr. 4
 P S 1030 — (AI) The American Governmental System. Cr. 3

Basic Composition Competency (BC)

ENG 1020 — (BC) Introductory College Writing. Cr. 4
 ENG 1050 — (BC) Freshman Honors: English I. Cr. 4
 ISP 1510 — (BC) Written Communication Skills. Cr. 4 (Max. 8)

Computer Literacy Competency (CL)

B E 1200 — (CL) Introduction to Computers in Engineering. Cr. 3
 COM 3210 — (CL) News Editing. Cr. 4
 CSC 1000 — (CL) Introduction to Computer Science. Cr. 3
 CSC 1050 — (CL) Introduction to C and Unix. Cr. 2
 CSC 1100 — (CL) Problem Solving and Programming. Cr. 4
 CSC 1140 — (CL) Introduction to COBOL. Cr. 3
 CSC 1500 — (CL) Fundamental Structures in Computer Science. Cr. 3
 CSC 2110 — (CL) Introduction to Data Structures and Abstraction. Cr. 4
 IST 2710 — (CL) Computers and Society. Cr. 4
 MED 5590 — (CL) Computer Applications in Music Teaching. Cr. 2
 MUA 5610 — (CL) Introduction to Music Technology. Cr. 3
 NUR 1110 — (CL) Introduction to Computers and Technology for
 Health Care Professionals. Cr. 2

Critical Thinking Competency (CT)

B A 1010 — (CT) Critical Thinking for Consumer Decisions. Cr. 3.
 COM 2110 — (CT) Argumentation and Debate. Cr. 3
 ISP 3260 — (CT) Methods of Search and Critical Thinking. Cr. 4
 PHI 1050 — (CT) Critical Thinking. Cr. 3

English Proficiency (EP)

ENG 1080 — (EP) Writing Workshop. Cr. 2

***Foreign Culture (FC)**

***EITHER a course from the list below,
 OR completion of one of the foreign language sequences
 in the list which follows:***

AFS 3250 — (FC) Politics and Culture in Anglophone Caribbean. Cr. 3
 AFS 3610 — (ISP 3610) (FC) Interdisciplinary Perspectives on Foreign Culture:
 The Africans. Cr. 4
 ANT 3150 — (FC) Anthropology of Business. Cr. 3-4
 ANT 3520 — (FC) Understanding Africa: Past, Present and Future. Cr. 3
 ANT 3540 — (FC) Cultures and Societies of Latin America. Cr. 3
 ANT 3550 — (FC) Arab Society in Transition. (N E 3550) Cr. 3
 ARM 3410 — (SLA 3410) (FC) New Soil, Old Roots: The Immigrant Experience
 (GER 3410) (POL 3410) (RUS 3410) (UKR 3410) Cr. 3
 ARM 4750 — (FC) Survey of Armenian Culture and Literature:
 The Modern Period. Cr. 3
 CBS 2410 — (FC) History of Mexico. (HIS 2440). Cr. 3
 CBS 2420 — (FC) History of Puerto Rico and Cuba. Cr. 3
 DNC 2400 — (FC) Introduction to African Dance. Cr. 3
 ENG 2670 — (P S 2700) (FC) Intro. to Canadian Studies (HIS 2700)
 (GPH 2700). Cr. 3
 FRE 2710 — (FC) Introduction to French Civilization I. Cr. 3
 FRE 2720 — (FC) Introduction to French Civilization II. Cr. 3
 GER 2710 — (FC) Survey of Germanic Culture I. Cr. 3
 GER 2720 — (FC) Survey of Germanic Culture II. Cr. 3
 GER 3410 — (SLA 3410) (FC) New Soil, Old Roots: The Immigrant Experience
 (ARM 3410) (POL 3410) (RUS 3410) (UKR 3410) Cr. 3
 GPH 2700 — (P S 2700) (FC) Intro. to Canadian Studies (HIS 2700)
 (ENG 2670). Cr. 3

GRK 3710 — (FC) Modern Greek Literature and Culture (in English). Cr. 3
 HIS 2440 — (CBS 2410) (FC) History of Mexico. Cr. 3
 HIS 2700 — (P S 2700) (FC) Intro. to Canadian Studies (GPH 2700)
 (ENG 2670). Cr. 3
 HON 4260 — (FC) Seminar in Foreign Culture. Cr. 3 (Max. 9)
 ISP 3600 — (FC) Interdisciplinary Perspectives on Foreign Culture:
 The Arabs. Cr. 3
 ISP 3610 — (FC) Interdisciplinary Perspectives on Foreign Culture:
 The Africans. (AFS 3610) Cr. 4
 ISP 3620 — (FC) Interdisciplinary Perspectives on Foreign Culture:
 The Chinese. Cr. 3
 ITA 2710 — (FC) Italian Culture and Civilization I. Cr. 3
 ITA 2720 — (FC) Italian Culture and Civilization II. Cr. 3
 JPN 4550 — (FC) Japanese Culture and Society I. Cr. 4
 JPN 4560 — (FC) Japanese Culture and Society II. Cr. 4
 N E 2000 — (FC) Introduction to Islamic Civilization of the Near East. Cr. 3
 N E 3550 — (ANT 3550) (FC) Arab Society in Transition. Cr. 3
 NUR 4800 — (FC) Transcultural Health Through the Life Cycle. Cr. 3
 POL 2710 — (FC) Survey of Polish Culture. Cr. 3
 POL 3410 — (SLA 3410) (FC) New Soil, Old Roots: The Immigrant Experience.
 (ARM 3410) (GER 3410) (RUS 3410) (UKR 3410) Cr. 3
 P S 2700 — (FC) Intro. to Canadian Studies (HIS 2700) (GPH 2700)
 (ENG 2670). Cr. 3
 RUS 2710 — (FC) Study of Russian Culture. Cr. 3
 RUS 3410 — (SLA 3410) (FC) New Soil, Old Roots: The Immigrant Experience.
 (ARM 3410) (GER 3410) (POL 3410) (UKR 3410) Cr. 3
 SLA 3410 — (FC) New Soil, Old Roots: The Immigrant Experience. (ARM 3410)
 (GER 3410) (POL 3410) (RUS 3410) (UKR 3410) Cr. 3
 UKR 3410 — (SLA 3410) (FC) New Soil, Old Roots: The Immigrant Experience.
 (ARM 3410) (GER 3410) (POL 3410) (RUS 3410) Cr. 3

***EITHER a course from the list immediately above,
 OR completion of one of the following foreign language
 sequences (through 2010 or 2110, as applicable):***

ARB 2010 — (FC) Intermediate Arabic I. Cr. 4
 ARM 2010 — (FC) Intermediate Armenian. Cr. 4
 CHI 2010 — (FC) Intermediate Chinese. Cr. 4
 FRE 2010 — (FC) Intermediate French. Cr. 4
 GER 2010 — (FC) Intermediate German. Cr. 4
 GRK 2010 — (FC) Intermediate Ancient Greek. Cr. 4
 GRK 2110 — (FC) Intermediate Modern Greek I. Cr. 4
 HEB 2010 — (FC) Intermediate Hebrew I. Cr. 4
 ITA 2010 — (FC) Intermediate Italian. Cr. 4
 JPN 2010 — (FC) Intermediate Japanese I. Cr. 4
 LAT 2010 — (FC) Intermediate Latin. Cr. 4
 POL 2010 — (FC) Intermediate Polish. Cr. 4
 RUS 2010 — (FC) Intermediate Russian. Cr. 4
 SPA 2010 — (FC) Intermediate Spanish I. Cr. 4
 SWA 2010 — (FC) Intermediate Swahili. Cr. 4
 UKR 2010 — (FC) Intermediate Ukrainian. Cr. 4

*** Historical Studies (HS)**

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. 3-4
 HIS 1610 — (HS) African Civilizations Since 1800. Cr. 3-4
 HIS 1800 — (N E 2030) (HS) The Age of Islamic Empires: 600 - 1600. Cr. 3.
 HIS 1810 — (N E 2040) (HS) The Modern Middle East. Cr. 3

(continued on following page)

* For the Group Requirements: AI, FC, HS, LS, PL, PS, SS and VP, students may elect no more than two courses from any single subject area code (as defined by the letters which precede course numbers).

Historical Studies (HS) (cont'd.)

- HIS 1995 — (HS) Society and the Economic Transition. Cr. 3
HON 4250 — (HS) Seminar in Historical Studies. Cr. 3 (Max. 9)
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.

Intermediate Composition Competency (IC)

- AFS 2390 — (ENG 2390) (IC) Introduction to African-American Literature: Literature and Writing. Cr. 4
ENG 2050 — (IC) Freshman Honors: English II. Cr. 4
ENG 2100 — (IC) Introduction to Poetry: Literature and Writing. Cr. 3
ENG 2110 — (IC) Introduction to Drama: Literature and Writing. Cr. 3
ENG 2120 — (IC) Introduction to Fiction: Literature and Writing. Cr. 4
ENG 2210 — (IC) Great English Novels: Literature and Writing. Cr. 3
ENG 2310 — (IC) Major American Books: Literature and Writing. Cr. 3
ENG 2390 — (IC) Introduction to African-American Literature: Literature and Writing. (AFS 2390) Cr. 4
ENG 2570 — (IC) Literature By and About Women: Literature & Writing. Cr. 3
ENG 3010 — (IC) Intermediate Writing. Cr. 3
ENG 3050 — (IC) Technical Communication I: Report Writing. Cr. 3
HUM 2000 — (IC) Reading and Writing About the Arts. Cr. 3
I H 2010 — (IC) Cultural Identity and the American Experience: Writers' Responses. Cr. 4
ISP 3510 — (IC) Intermediate Reading and Writing. Cr. 4
ISP 4991 — (IC) Senior Essay Seminar I. Cr. 4

*** Life Sciences (LS)**

- ANT 2110 — (LS) Introduction to Physical Anthropology. Cr. 3
BIO 1030 — (LS) Biology Today. Cr. 3-4
BIO 1050 — (LS) An Introduction to Life. Cr. 3-4**
BIO 1510 — (LS) Basic Life Mechanisms. Cr. 3-4**
BIO 2200 — (LS) Introductory Microbiology. Cr. 4
HON 4220 — (LS) Seminar in Life Science. Cr. 3
IST 2310 — (LS) Living in the Environment. Cr. 4
NFS 2030 — (LS) Nutrition and Health. Cr. 3**
PSY 1010 — (LS) Introductory Psychology. Cr. 4**
PSY 1020 — (LS) Elements of Psychology. Cr. 3

Mathematics Competency (MC)

- MAT 0991 — (MC) Basic Concepts in Mathematics. Cr. 3
MAT 0993 — (MC) Beginning Algebra. Cr. 3
MAT 1000 — (MC) Mathematics in Today's World. Cr. 3

Oral Communication Competency (OC)

- COM 1010 — (OC) Oral Communication: Basic Speech. Cr. 3
ENG 3060 — (OC) Technical Communication II: Writing and Speaking. Cr. 3
ISP 1560 — (OC) Dimensions of Oral Communication. Cr. 4 (Max. 8)

*** Philosophy and Letters (PL)**

- CLA 1010 — (PL) Classical Civilization. Cr. 3-4
CLA 2100 — (PL) Classical Origins of Western Thought. (HON 2100) Cr. 3
CLA 2200 — (PL) Introduction to Greek Tragedy. Cr. 3-4
COM 2160 — (PL) Contemporary Persuasive Campaigns and Movements. Cr. 3
ENG 2200 — (PL) Shakespeare. Cr. 3
ENG 2500 — (PL) The English Bible as Literature. Cr. 4
ENG 2720 — (PL) Basic Concepts in Linguistics. (LIN 2720) 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
FRE 2700 — (GER 2700) (PL) Anguish and Commitment: European Existentialist Literature. (SPA 2700) (ITA 2700) (RUS 2700) Cr. 3-4
GER 2310 — (PL) Short Fiction from Central Europe & Russia (SLA 2310). Cr. 3
GER 2700 — (PL) Anguish and Commitment: European Existentialist Literature (SPA 2700) (FRE 2700) (ITA 2700) (RUS 2700) Cr. 3-4
GER 2991 — (PL) Understanding the Fairy Tale. Cr. 3

- HON 2100 — (CLA 2100) (PL) Classical Origins of Western Thought. Cr. 3
HON 4200 — (PL) Seminar in Philosophy and Letters. Cr. 3 (Max. 9)
HUM 2100 — (PL) Ancient and Medieval: Literature and the Arts. Cr. 4
HUM 2200 — (PL) Sophomore Honors Colloquium in Humanities. Cr. 4 (Max. 8)
I H 2710 — (PL) Art and Aesthetics: Literature and Philosophy. Cr. 4
I H 3710 — (PL) Significant Issues in Cultural Studies. Cr. 3-4
ISP 3600 — (FC) Interdisciplinary Perspectives on Foreign Culture: The Arabs. Cr. 3
ISP 3610 — (FC) Interdisciplinary Perspectives on Foreign Culture: The Africans. (AFS 3610) Cr. 4
ISP 3620 — (FC) Interdisciplinary Perspectives on Foreign Culture: The Chinese. Cr. 3
ITA 2700 — (GER 2700) (PL) Anguish and Commitment: European Existentialist Literature. (SPA 2700) (FRE 2700) (RUS 2700) Cr. 3-4
LIN 2720 — (ENG 2720) (PL) Basic Concepts in Linguistics. Cr. 3
PHI 1010 — (PL) Introduction to Philosophical Systems. Cr. 3-4
PHI 1020 — (PL) Honors Introduction to Philosophical Systems. Cr. 3-4
PHI 1030 — (PL) Introduction to Philosophical Problems. Cr. 3-4
PHI 1040 — (PL) Honors Introduction to Philosophical Problems. Cr. 3-4
PHI 1100 — (PL) Contemporary Moral Issues. Cr. 3 (Max. 9)
PHI 2100 — (PL) Ancient and Medieval Philosophy. Cr. 3
PHI 2110 — (PL) Seventeenth and Eighteenth Century Philosophy. Cr. 3
PHI 2320 — (PL) Introduction to Ethics. Cr. 3-4
PHI 3500 — (PL) Theory of Knowledge. Cr. 3
PHI 3550 — (PL) Metaphysics. Cr. 3
PHI 3700 — (PL) Philosophy of Art. Cr. 3
P S 3510 — (PL) Law, Authority and Rebellion. Cr. 4
P S 3520 — (PL) Justice. Cr. 4
RUS 2700 — (GER 2700) (PL) Anguish and Commitment: European Existentialist Literature. (SPA 2700) (FRE 2700) (ITA 2700) Cr. 3-4
RUS 3600 — (PL) Literature Before Communism. Cr. 3
RUS 3650 — (PL) Twentieth Century Russian Literature. Cr. 3
SLA 2310 — (GER 2310) (PL) Short Fiction from Central Europe and Russia. Cr. 3
SPA 2700 — (GER 2700) (PL) Anguish and Commitment: European Existentialist Literature. (FRE 2700) (ITA 2700) (RUS 2700) Cr. 3-4

*** Physical Sciences (PS)**

- AST 2010 — (PS) Descriptive Astronomy. Cr. 4
CHM 1000 — (PS) 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: A Historical Introduction 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) Einstein, Relativity & Quanta: A Conceptual Introduction. 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**

*** Social Sciences (SS)**

- AFS 2210 — (SS) Black Social and Political Thought. Cr. 4
ANT 2100 — (SS) Introduction to Anthropology. Cr. 3-4
ECO 1000 — (SS) Survey of Economics. Cr. 4

(continued on following page)

* For the Group Requirements: AI, FC, HS, LS, PL, PS, SS and VP, students may elect no more than two courses from any single subject area code (as defined by the letters which precede course numbers).

** Courses which also satisfy the Natural Science Laboratory Requirement when elected for appropriate credits and/or with appropriate laboratory.

Social Sciences (SS) (cont'd.)

ECO 2010 — (SS) Principles of Microeconomics. Cr. 3-4
ECO 2020 — (SS) Principles of Macroeconomics. Cr. 3-4
GPH 1100 — (SS) World Regional Patterns. Cr. 4
GPH 2000 — (U S 2000) (SS) Introduction to Urban Studies (HIS 2000)
(SOC 2500) (P S 2000). Cr. 4
GPH 3130 — (SS) Introductory Urban Geography. Cr. 4
GPH 3200 — (SS) Europe. Cr. 3
HIS 2000 — (U S 2000) (SS) Introduction to Urban Studies (SOC 2500) (P S 2000)
(GPH 2000). Cr. 4
HON 1000 — (SS) City I. Cr. 3
ISP 3480 — (SS) Theoretical and Practical Analysis of Work Organizations. Cr. 4
ISS 2710 — (SS) Selected Perspectives on Ethnicity. Cr. 4
P S 1000 — (SS) Introduction to Political Science. Cr. 3
P S 2000 — (U S 2000) (SS) Introduction to Urban Studies. (HIS 2000) (SOC 2500)
(GPH 2000) Cr. 4
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 2500 — (U S 2000) (SS) Introduction to Urban Studies (HIS 2000) (P S 2000)
(GPH 2000). Cr. 4
SOC 3300 — (SS) Social Institutions and Social Structure. Cr. 4
SOC 3510 — (SS) The Nature and Impact of Population on Society. Cr. 3
SOC 4100 — (SS) Social Psychology. Cr. 4
U S 2000 — (SS) Introduction to Urban Studies. (HIS 2000) (SOC 2500) (P S 2000)
(GPH 2000) Cr. 4
W S 3010 — (SS) Interdisciplinary Introduction to Women's Studies. Cr. 3-4

*** Visual and Performing Arts (VP)**

A H 1000 — (VP) Introduction to Art. Cr. 4
A H 1110 — (VP) Survey of Art History: Ancient through Medieval. Cr. 3-4
A H 1120 — (VP) Survey of Art History: Renaissance through Modern. Cr. 3-4
COM 2010 — (ENG 2450) (VP) Introduction to Film. Cr. 4
COM 2020 — (VP) History of Film. (ENG 2460) Cr. 3
DNC 2000 — (VP) Introduction to Dance. Cr. 4
DNC 2310 — (VP) History of Dance from 1800 to the Present. Cr. 3
ENG 2450 — (VP) Introduction to Film. (COM 2010) Cr. 4
ENG 2460 — (COM 2020) (VP) History of Film. Cr. 3
HON 4240 — (VP) Seminar in Visual and Performing Arts. Cr. 3 (Max. 9)
HUM 1010 — (VP) Introduction to Art and Music in Western Civilization. Cr. 4
HUM 1020 — (VP) Experiencing the Arts. Cr. 3-4
HUM 1030 — (VP) Exploring the Arts in Detroit. Cr. 4
I H 2730 — (VP) Meaning in the Visual and Performing Arts. Cr. 3
I H 3730 — (VP) Music and American Culture. Cr. 3
MUH 1340 — (VP) Music Appreciation: World Music. Cr. 3
MUH 1350 — (VP) Music Appreciation: Popular Music to the Present. Cr. 3
MUH 1370 — (VP) Music Appreciation: Beginnings to the Present. Cr. 3
SLA 3710 — (VP) Russian and East European Film. Cr. 3
PSY 1500 — (VP) Freshman Seminar. Cr. 3.
THR 1010 — (VP) Introduction to the Theatre. Cr. 3
THR 1030 — (VP) Black Theatre: An Introduction. Cr. 3

Writing Intensive Competency (WI)

ACS 5997 — (WI) Senior Seminar in the Visual Arts. Cr. 3
AFA 5997 — (WI) Seminar. Cr. 3
AGD 5260 — (WI) Senior Seminar. Cr. 3
A H 5090 — (WI) Theory and Methods of Art Historical Research. Cr. 3
A H 5993 — (WI) Writing Intensive Course in Fine Arts. Cr. 0
AIA 5997 — (WI) Senior Seminar. Cr. 3
AID 5997 — (WI) Senior Seminar. Cr. 3
ANT 5993 — (WI) Writing Intensive Course in Anthropology. Cr. 0
BIO 4110 — (WI) Molecular Biology and Biotechnology. Cr. 4
BIO 4120 — (WI) Principles of Physiology. Cr. 4.
BIO 4130 — (WI) Ecology. Cr. 4
BIO 5993 — (WI) Writing Intensive Course in Biological Sciences. Cr. 0

C E 4995 — (WI) Senior Design Project. Cr. 3
CHE 4800 — (WI) Chemical Process Integration. Cr. 3
CHE 6810 — (WI) Chemical Engineering Research Project. Cr. 4.
CHM 5550 — (WI) Physical Chemistry Laboratory. Cr. 2
CLA 5993 — (WI) Writing Intensive Course in Classical Civilization. Cr. 0
CLS 4800 — (WI) Professional Practice III. Cr. 1-2
CLS 5993 — (WI) Writing Intensive Course in Clinical Laboratory Science. Cr. 0
COM 3010 — (WI) Television Criticism. Cr. 3
COM 3300 — (WI) Business and Professional Presentations. Cr. 3
COM 3400 — (WI) Theories of Communication. Cr. 4
COM 4100 — (WI) Feature Writing. Cr. 4
COM 4170 — (WI) Public Relations Writing. Cr. 3
COM 5270 — (WI) Screenwriting. Cr. 3 (max. 6)
COM 5993 — (WI) Writing Intensive Course. Cr. 0
CRJ 5993 — (WI) Writing Intensive Course in Criminal Justice. Cr. 0
CSC 4996 — (WI) Frontiers of Computing. Cr. 2
DNC 5993 — (WI) Writing Intensive Course in Dance. Cr. 0
ECE 4600 — (WI) Capstone Design. I Cr. 4
ECO 5993 — (WI) Writing Intensive Course in Economics. Cr. 0
ENG 5993 — (WI) Writing Intensive Course in English. Cr. 0
E T 4999 — (WI) Senior Project. Cr. 3
FRE 5100 — (WI) Advanced Composition. Cr. 3
GEL 5993 — (WI) Writing Intensive Course in Geology. Cr. 0
GER 5993 — (WI) Writing Intensive Course in German. Cr. 0
GPH 3020 — (WI) Spatial Organization: Concepts and Techniques. Cr. 3
HIS 5993 — (WI) Writing Intensive Course in History. Cr. 0
I E 4310 — (WI) Production Control. Cr. 3
ISP 4860 — (WI) Senior Seminar II. Cr. 4
ISP 4992 — (WI) Senior Capstone Essay/Project. Cr. 4
ISP 4996 — (WI) Senior Essay Seminar II. Cr. 4
ITA 5993 — (WI) Writing Intensive Course in Italian. Cr. 0
KIN 3550 — (WI) Motor Learning and Control. Cr. 3
LBS 4700 — (WI) Senior Seminar. Cr. 3 (Max. 6)
LIN 5993 — (WI) Writing Intensive Course in Linguistics. Cr. 0
MAT 5993 — (WI) Writing Intensive Course in Mathematics. Cr. 0
M E 4500 — (WI) Mechanical Engineering Design II. Cr. 4
M E 5500 — (WI) Advanced Engineering Design. Cr. 4
M S 5250 — (WI) Applied General Pathology. Cr. 4
M S 5350 — (WI) Applied Grief Counseling: Aftercare. Cr. 3
MKT 5330 — (WI) Business Communication. (COM 3300) Cr. 3
MUH 5993 — (WI) Writing Intensive Course in Music. Cr. 0
N E 5993 — (WI) Writing Intensive Course in Near Eastern and Asian Studies. Cr. 0
NFS 6850 — (WI) Controversial Issues. Cr. 2
NUR 4120 — (WI) Community Focused Nursing Practice. Cr. 4
O T 5993 — (WI) Writing Intensive Seminar in Occupational Therapy. Cr. 0
PHI 5993 — (WI) Writing Intensive Course in Philosophy. Cr. 0
PHY 5600 — (WI) Electricity and Magnetism I. Cr. 4
PHY 6850 — (WI) Modern Physics Laboratory. I Cr. 2
POL 5993 — (WI) Writing Intensive Course in Polish. Cr. 0
PPR 5000 — (WI) Drug Literature Evaluation. Cr. 2
PPR 5120 — (WI) Hospital Pharmacy Externship. Cr. 4-7
P S 5993 — (WI) Writing Intensive Course in Political Science. Cr. 0
PSY 5993 — (WI) Writing Intensive Course in Psychology. Cr. 0
R T 4360 — (WI) Clinical Practicum V. Cr. 4
RUS 5993 — (WI) Writing Intensive Course in Russian. Cr. 0
SLP 5360 — (WI) Clinical Practice in Speech-Language Pathology. Cr. 3
SOC 4200 — (WI) Methods of Social Research. Cr. 3
SPA 5100 — (WI) Advanced Composition. Cr. 3
S W 4997 — (WI) Integrative Seminar in Social Work. Cr. 2
TED 3550 — (WI) Teaching: Research, Theory and Practice. Cr. 5
TED 5160 — (WI) Analysis of Middle and Secondary School Teaching. Cr. 3
THR 5993 — (WI) Writing Intensive Course in Theatre. Cr. 0

* For the Group Requirements: AI, FC, HS, LS, PL, PS, SS and VP, students may elect no more than two courses from any single subject area code (as defined by the letters which precede course numbers).

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 Honors Programs, who is responsible for overall administration of the University's honors curricula, or their program adviser, 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 and Mathematics Proficiency 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.

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

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 16), but the approved General Education courses may, with prior approval, differ for the Honors Program. The Honors Adviser 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 (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 curricula leading to honors degrees. College or Department Honors Programs are included in the College and Departmental 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 bestows upon students completing the baccalaureate degree three separate designations for scholastic excellence reflected in the cumulative grade point average: *Cum Laude*, *Magna Cum Laude*, and *Summa Cum Laude*. Graduation with distinction will be indicated on the student's diploma and on the transcript.

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

Summa Cum Laude: Top five per cent
Magna Cum Laude: Next five per cent
Cum Laude: Next ten per cent

The specific minimum grade point average 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 each college will be established to provide for recognition of the top eighteen to twenty per cent of the graduating students.

The criteria for Graduation with Distinction include:

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



UNDERGRADUATE ADMISSION

Office of Undergraduate Admissions

Welcome Center, 42 W. Warren Avenue, PO Box 2759,
Detroit MI 48202

Telephone: 313-577-3577, Fax: 313-5773-376

Website: <http://www.admissions.wayne.edu>

Service Hours

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

The office of Undergraduate Admissions has the primary function of recruiting, admitting, and enrolling new undergraduate students to the University. The office also helps to coordinate the recruitment activities of individual Departments, alumni groups, and students. The office organizes visits and programs at local high schools and community colleges as well as the State of Michigan and selected regions outside of the State. Services offered to students include walk-in college admission advising.

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

Application

An official Application for Undergraduate Admission with a \$30.00 non-refundable application fee for U.S. Residents should be filed in the office of Undergraduate Admissions. The application fee for international students is \$50.00. Students are encouraged to apply online at: <http://www.admissions.wayne.edu>. Application forms are also available in the Welcome Center and at high school and community college counseling offices in Michigan.

Admission Application Procedures Dates

1. Students still in high school may apply after completion of their junior year.
2. Out-of-State applicants (including transfer students not currently attending another college) who do not plan to enroll in another college or university before entering Wayne State may apply up to eleven months in advance of the term desired.
3. Applicants currently registered at another college or university should apply early in the last term prior to transfer.
4. Preferred deadlines for receipt of applications are: Fall, August 1; Winter, December 1; Spring/Summer, May 1.

Admission Requirements and ACT Score Requirement

Admission to Wayne State is selective. In order to qualify for admission an applicant must present scholastic records indicating college preparation in accordance with the Presidents' Council guidelines and ability to undertake a college degree program. Graduates of accredited high schools can qualify for admission in two ways: (1) admission is 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.**

Transfer students who have completed at least twelve transferable credits of college course work (twelve semester credits or eighteen quarter credits) at an accredited institution with a 2.00 ('C') cumulative grade point average will be considered for admission on the basis of that work. For those students who have completed less than twelve transferable academic credits, the high school record will be used to determine admissibility.

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 55), Chicano-Boricua Studies (page 456), Division of Community Education (page 54), and Interdisciplinary Studies (page 460) 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.

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 16) 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 16). For further information, please consult advisers, school or college offices, or University Advising Center at 313-577-8889.

For information on credit by Special Examination, see page 44.

Special Requirements and Professional Admission

For additional undergraduate admissions information relating to special requirements and professional admission in particular Schools and Colleges, please refer to the following sections: *Business Administration* — page 71; *Education* — page 106; *Engineering* — page 132; *Engineering Technology* — page 162; *Fine, Performing and Communication Arts* — page 182; *Nursing* — page 387; *Pharmacy and Health Sciences* — page 405 and page 415; *Social Work* — page 441.

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 59. For information on international student admission to the Graduate School, see the Wayne State University Graduate Bulletin and page 37 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 advisers.

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 adviser develop an academic contract, and the adviser 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 16) within two years under the Phoenix Program. (REMINDER: a grade of 'C-' 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/yr. 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/yr. 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 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: 313-577-3376
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 this 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 Michigan resident. This ruling may not be invoked to secure admission to

a Michigan resident if his/her grade point average entitles him/her to qualified status only.

Qualified Graduate Admission

In most Departments, qualified admission to a master's or certificate program may be authorized if an applicant's grade point average is between 2.25 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 ensured 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. Not more than nine credits, subject to the approval of the Graduate Officer, may be applied at a later date toward the residency and credit requirements for either the master's or Ph.D. degree. For the Ed.D. degree, credit earned beyond the nine-credit limitation will be reviewed by the appropriate Division and the Education Graduate Officer for possible application toward the degree.

If 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 of 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 may be earned as a Graduate Guest Student. Admission as a Graduate Guest student does not constitute permission to register as a degree applicant

Senior Rule Admission: In their last undergraduate semester, Wayne State students with a 3.0 (or above) upper division grade point average have the option of taking a limited number of graduate credits. Graduate credit is awarded only for those courses taken in excess of baccalaureate degree requirements. Undergraduate and graduate courses combined may not exceed sixteen credits for the final semester of baccalaureate degree course work. A Senior Rule student must register for at least one credit which is required for the undergraduate degree in order to be eligible for this status. Students who have completed all required registrations for the baccalaureate may not obtain Senior Rule status. Completion of the *Application for Graduate Admission* form is required, and students are advised to consult their advisers 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 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: Admission may be granted on a one-term-only basis 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' — Accelerated Graduate Enrollment

Some Departments or programs in the Colleges of Engineering, Liberal Arts and Sciences, and Nursing, permit academically superior majors to petition for admission into the College's 'AGRADE' program. 'AGRADE' procedures enable qualified seniors in these Colleges 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 g.p.a. at the 'Cum Laude' level (approximately 3.4) 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.

International Graduate Students

For complete information, see 'International Students and Scholars,' page 59.

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 Graduate Admission English Proficiency Requirement).

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

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. This information is available on our website at: <http://www.classschedule.wayne.edu>

Undergraduate Tuition and Fees

Freshmen and Sophomores:

Resident: Registration Fee plus \$159.80 per credit.

Non-Resident: Registration Fee plus \$360.10 per credit.

Juniors, Seniors and Post-Bachelors:

Resident: Registration Fee plus \$188.40 per credit.

Non-Resident: Registration Fee plus \$433.30 per credit.

Student Fees

Omnibus Fee: Undergraduate students are assessed a \$14.40 fee per credit. Graduate and Law School students are assessed a \$21.60 fee per credit per term. M.D. students are assessed a flat \$516.90 fee per year

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. 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 an \$98.50 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 on the Schedule of Classes website: <http://www.classschedule.wayne.edu> for the applicable semester) must pay either a \$35.00 open or \$70.00 late non-refundable Registration Fee.

Late Payment Fees: A student who does not satisfy his/her tuition and fee assessment by the prescribed dates on the invoices (and as indicated on <http://www.classschedule.wayne.edu> or WSU Pipeline) 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 partial payment fee will be assessed on all balances owed as of the last day of late registration.

Course Material Fees: These fees are required of some classes (the fee is noted in the fee column after the course listing on the Schedule of Classes website (<http://www.classschedule.wayne.edu>) in which a relatively large portion of instructional costs is due to the necessary use of consumable resources. The fee is automatically assessed; a fee card is not required. The fee may be cancelled when a course is officially dropped within the fee cancellation period. Course material fees are also cancelled in accordance with the Tuition Cancellation schedule as they appear on the 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.

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 per year. A fee of \$5.00 per transcript is charged for copies in excess of ten. A fee of \$20.00 is assessed for each emergency transcript. An emergency transcript is one which is 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 selecting 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

By completing registration for a semester students become financially responsible for payment of all applicable fees by the published due date(s). Payments not received by the due date(s) are subject to collection, attorney, and litigation costs, which also become a financial obligation of the student. Failure to make payment because an invoice is not received does not exempt students from late payment or partial payment fees. Students are encouraged to make certain that the University has their correct mailing address and to familiarize themselves with the required payment due dates and deadlines outlined below. Students' statements of account are also available on the web: <http://pipeline.wayne.edu/>

Registration Periods and Payment Due Dates

Priority Registration: Due Friday preceding the first day of the semester. Invoice mailed.

Open Registration: Due Friday preceding the first day of the semester. NO Invoice mailed.

Late Registration: Due the same day as registration. NO invoice mailed.

Priority registration period - Invoices for fees due will be mailed approximately one month prior to the due date. Payment must be received in the Cashier's Office by the specified due date.

Open registration period - Invoices will not be mailed to students registering during this period. Students may review their bill on-line using Pipeline.

Late registration period - Invoices will not be mailed to students registering during this period. Students may review their bill on-line using Pipeline.

Students should check Pipeline each time they register or add courses to ensure their account is paid up to date. Invoice balances are available on Pipeline at any time. Students do NOT need a bill issued through the mail in order to pay their tuition. Depending on when they register and/or add courses, they may not receive a bill by the due date.

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, please 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 on the Web at: <http://admpweb1.wayne.edu/SmartPay>. Telephone payments are accepted at: 1-866-520-7786.

Delinquent Prior Term Balances: During registration, a personal check 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/> 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-advisement by a University representative. Students (or an authorized representative in the case of death or serious illness) must submit their applications and supporting documentation to Registration and Scheduling, Suite 51001, 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 reg-

istration 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 withdraw from classes by the Web, by submitting a properly completed Register/Drop/Add form, or by sending a letter to Registration and Scheduling, in the Office of the Registrar. A letter of withdrawal 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 canceled 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 withdraw from 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 withdraw from 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 withdraw from 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 withdraw from 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 withdraw from 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 University 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 (pursuant 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;
- (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.

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 residence 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>

The Office of Student Financial Aid (OSFA) provides access to financial aid resources in a fair, sensitive and confidential manner, and informs and educates students and their families about financial options so that students may take full advantage of their educational opportunities.

Service Hours

Financial Aid Administrators assist students by providing counseling services by telephone and on a walk-in basis in the Welcome Center lobby. Service hours can be found at <http://www.financial-aid.wayne.edu>.

Definition and Purpose of Financial Aid

Financial aid is assistance to help students and their families (parents, if the student is a dependent; spouse, if the student is married) pay educational expenses. The Office of Scholarships and Financial Aid (OSFA) annually administers more than \$150 million in financial aid funds from federal, State, University and private sources. Financial aid may supplement the financial contribution that students and their families make toward their educational costs. Some financial aid is need-based; some aid is non-need-based and awards are given in recognition of special skills, talents, or academic ability.

Financial Aid Types

Financial aid at Wayne State University is awarded in the form of a package, or combination of aids, and generally consists of four types: grants, scholarships, loans and employment. The total amount of financial aid that students may receive can never exceed their demonstrated financial need based on information provided on their application or the cost of education.

Grants: Gift assistance that requires no repayment and is awarded on the basis of financial need, see page 42.

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

A University-wide list of private scholarships, including criteria and amounts, is provided in a separate publication: *Unlocking the Door to Your Future: Scholarships and Loans at Wayne State University*. Although scholarships directly administered by OSFA are included in that publication, as a convenience to students they are listed separately in *Private Scholarships*. Both publications are available on the OSFA Website: <http://financialaid.wayne.edu> and may be downloaded and printed. The lists are updated annually.

The OSFA Private Scholarships application is available on the OSFA Website beginning mid-November. The deadline is March 1.

Loans: Money that must be repaid at a future date, usually following graduation or when the student ceases to be enrolled on at least a half-time basis. Loans bear a 5% to 8.25% simple interest on the unpaid balance during the repayment period.

NOTE: *first-time borrowers* under the Federal Perkins Loan Program or Federal Direct Loan Program must participate in entrance loan counseling. The purpose of the counseling is to advise students of their rights and responsibilities as borrowers. Federal regulations prohibit OSFA from paying loan proceeds to students before they participate in the required counseling. Federal Perkins Loan entrance

counseling is available on-line at <http://www.mapping-your-future.org/> Federal Direct Loan entrance counseling is available at:

<http://www.dlssonline.com/entrancecounseling/main-entc.asp/>

Work-Study: An employment program of on- or off-campus jobs that involves a direct exchange of money (an hourly wage) for work performed.

A work-study award offer is not an employment guarantee. Students interested in work-study should carefully read the Student Guide to On-Campus Employment, which explains the hiring process and the terms and conditions of employment. The guide is available from Career Planning and Placement Services, 1001 Faculty/Administration Building, and from the Website: <http://www.stuaffrs.wayne.edu>

Financial Aid Application Procedures

Financial aid eligibility requirements, award amounts and conditions for continuing the awards after the initial year vary. Students wanting financial aid must apply for aid each academic year.

To determine eligibility to receive financial aid, students must complete the Free Application for Federal Student Aid (FAFSA) which may be filled out on the Web at <http://www.fafsa.ed.gov>. Questions concerning the FAFSA should be directed to the U.S. Department of Education, (800) 433-3243, or to OSFA, 313-577-3378, during regular business hours.

Transfer Students: To have a copy of the FAFSA that was completed for financial aid consideration at another institution sent to Wayne State University, telephone the Federal Student Aid Information Center at 1-800-4-FED-AID (1-800-433-3243) and request the addition of the WSU federal code to the FAFSA. The WSU federal code is 002329.

To complete the FAFSA on the Web, students will need a federal personal identification number (PIN), which is issued by the U.S. Department of Education. They may request a PIN on-line at <http://www.pin.ed.gov>. Allow at least two weeks to receive the PIN in the mail. You can receive the PIN via e-mail within one business day.

Fall/Winter Application Processing Priority Date: The application deadline for Wayne State financial aid consideration is March 1 for the Fall and Winter semesters. The Wayne State University federal code, 002339, should be listed under Step Six on the FAFSA to have the application data sent to WSU.

The FAFSA may be submitted after the processing priority date, but it is likely that only loans and work-study will be available. It is unlikely that gift aid, other than the Federal Pell Grant, will be available by that time.

Spring/Summer Application Processing Priority Date: Supplemental applications (for the Federal Direct Loan and Work-Study) are required *in addition* to the FAFSA to apply for spring/summer semester financial aid. They will be available from OSFA and on the OSFA Website <http://www.financialaid.wayne.edu> in mid-February. The deadline for each application is March 30.

Special Note: A supplemental application is *not* required for students to use the remaining portion, if any, of their Federal Pell Grant in the spring/summer semester.

Expected Family Contribution (EFC): To determine the amount of Expected Family Contribution, the federal processing agency uses the FAFSA data that students and their families submit in a formula mandated by the U.S. Congress, the Federal Methodology. The EFC is the amount that students (and their parents, if they are dependents; or their spouses, if they are married) can contribute toward their educational costs. The EFC is stated as a five-digit number (00000 to 99999) on the Student Aid Report (SAR).

The Federal processing agency will mail a Student Aid Report to students within four weeks of receiving their FAFSA. The SAR either will identify their EFC or request additional action that will allow the EFC

to be determined. Students should carefully read and follow the SAR instructions.

Students are not required to submit their SAR to the Office of Scholarships and Financial Aid. The FAFSA processing agency will electronically transmit your SAR data to the Office.

Financial Need

Purposes of the Student Aid Report (SAR):

1. The SAR data are used by OSFA to determine the type(s) and amount(s) of financial aid that will be awarded, if any. That is, the SAR data are used to determine financial need.
2. The SAR states whether or not students are eligible for a Federal Pell Grant.
3. The SAR states whether or not an application has been selected for verification, which is explained below.

Financial Need: To determine financial need, OSFA subtracts the amount of the EFC (expected family contribution) from the average COA (cost of attendance) at Wayne State University: COA minus EFC = financial need.

The COA, which also is referred to as the 'student budget,' usually is the sum of costs for tuition; fees; room and board; books and supplies; transportation; and miscellaneous expenses. As a state institution, Wayne State University has a relatively low COA. Caution: The following amounts are estimated averages and may not reflect any particular student's actual expenses.

Off-Campus Cost of Attendance (COA)

The estimated average total cost for the 2003-2004 academic year is \$15,356 for a Michigan resident who is an undergraduate student enrolled full-time, living off campus.

Tuition and Fees:¹ \$4,755
Books and Supplies: \$800
Room and Board: \$6,500
Transportation & Misc.: \$3,301
Total Cost (Budget):² \$15,356

On-Campus Cost of Attendance (COA)

The estimated average total cost for the 2003-2004 academic year is \$14,356 for a Michigan resident who is an undergraduate student enrolled full-time, living on campus.

Tuition and Fees:³ \$4,755
Books and Supplies: \$800
Room and Board: \$6,500
Transportation & Misc.: \$2,301
Total Cost (Budget):¹ \$14,356

Verification Process: The process by which a college or university confirms the data on an individual student's FAFSA is called verification. If the federal processing agency selects an application for verification, OSFA will ask the student to provide additional information to document that the information reported on his/her FAFSA is accurate. OSFA will provide and ask students to complete a verification worksheet. OSFA also will request a copy of their federal tax return (and their parents' federal tax return, if they are dependents; their spouses' federal tax return, if they are married). After verifying the additional information submitted, OSFA will send corrections for the FAFSA to the federal processing agency, if necessary. That agency

1. Subject to change by the WSU Board of Governors without notice.

2. The Budget may be adjusted to include loan fees (if applicable); dependent care directly related to attendance at Wayne State; costs related to a disability; reasonable costs for eligible study-abroad programs; and an allowance for reasonable costs connected with a student's employment as part of a cooperative education program. Out-of-state tuition is \$12,753.00.

3. Subject to change by the WSU Board of Governors without notice.

will then send a corrected SAR to the student and transmit the data electronically to OSFA.

Standards of Satisfactory Academic Progress. To receive financial aid, students must maintain satisfactory academic progress toward their degree or certificate. The Wayne State University standards of satisfactory academic progress govern all federal and State financial aid programs and Board of Governors scholarships and grants. They contain three elements: 1) the maximum length of time for which students may receive financial aid; 2) the number of credits students must complete each academic year; and 3) The grade point average (g.p.a.) that must be maintained. The Standards of Satisfactory Academic Progress Policy is available from OSFA and on the OSFA Website, <http://www.financialaid.wayne.edu>

Academic Enrollment Requirements: To receive consideration for the maximum award amounts under financial aid programs, students must enroll full-time in a program that leads to a degree or certificate. At the undergraduate level, enrollment for twelve or more credits is full-time; enrollment for six to eleven credits is half-time. If students enroll less than full-time but at least half-time, financial aid will be pro rated.

Eligible Program Exceptions: 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 program eligibility requirement: students may receive aid who are 1) enrolled in prerequisite course work to gain admission to an eligible program, or 2) enrolled in the Teacher Certification program. Descriptions of the exceptions are available from OSFA and on the OSFA Website, <http://www.financialaid.wayne.edu>

Programs Ineligible for Financial Aid: Students who meet any of the following admission criteria are NOT eligible for financial aid.

1. Admission to the University is granted with status as a 'Guest Student,' 'Permit to Register,' or undergraduate 'temporary' admit.
2. Enrollment is not in a program that leads to a degree or certificate and neither of the eligible program exceptions listed above apply.
3. Admission to the University or enrollment is in the English Language Institute or Post-Bachelor's Rank 06.

Financial Aid Payment

Financial aid is paid in two disbursements if the award is for the academic year. Half of the award is paid in the Fall term and half if paid in the Winter term.

Refund Policy: The University has a refund policy, which is stated in the Schedule of Classes. Federal regulations require all post-secondary institutions to have a fair and equitable refund policy for recipients of federal (Title IV) financial aid. The Refund Policy for Title IV Financial Aid Recipients states the conditions under which federal aid must be returned to the originating programs when a student completely withdraws from the University before completing more than 60 percent of the enrollment period. The policy is available from OSFA.

Caution: OSFA strongly encourages students to discuss with a financial aid administrator the effect that withdrawing from classes will have on financial aid before they implement the change. After officially withdrawing from classes students receiving aid must immediately notify OSFA of their enrollment status change.

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 and the alphabetic appointment schedule, 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 adviser. Individual Schools and Colleges may set credit restrictions below those specified here; for details see their respective sections of this bulletin.

Auditing Courses

To audit a course, a student must notify Registration and Scheduling (Suite 51001, 5057 Woodward) in the Office of the Registrar and indicate that he/she wishes to audit the course rather than receive academic credit. Registration to audit a course is subject to the following regulations:

1. Students must pay the tuition assessment for the course, which is the same as if it were taken for academic credit;
2. A student is not permitted to take quizzes and examinations in audited courses;
3. A student may not normally change from audit status after registering for the course. In some cases, exceptions may be permitted during the term with the written recommendation of the instructor and the written approval of the Dean of the College/School in which the student is enrolled. The instructor's recommendation and Dean's approval must be included with the student's Drop/Add Form indicating the requested change.

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

Dual Enrollment

Undergraduate Election of a Graduate Course: Highly qualified undergraduate students may, under special circumstances, take a 7000-level course for undergraduate credit only. A written petition initiated by the student's adviser 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 graduate admission for one semester only to a graduate program. Students who desire this status must file an *Application for Graduate Admission* and be admitted to the Graduate School. A completed Senior Rule/Dual Enrollment form should be submitted to Student

Records in the Office of the Registrar. For further information, see Senior Rule Admission, page 36.

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 in 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 the Wayne State University—University of Michigan dual registration should obtain the necessary forms from Registration and Scheduling (Suite 51001, 5057 Woodward) 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 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 'E,' the following rules will apply in posting the student's cumulative record:

1. The grade, grade points and credits for an earlier attempt will be eliminated from the student's grade point average computation.
2. The grade, grade points and credits of only the latest retake will be included in the student's grade point average computation.
3. The original grade in the course repeated under this rule will remain on the student's academic record. Earlier attempts will be flagged for exclusion in the g.p.a. calculation and the latest attempt will be flagged for inclusion in the g.p.a. calculation.

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 degree may be changed.

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

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

Eugene Applebaum College of Pharmacy and Health Sciences—Faculty of Health Sciences: No course may be repeated without the prior written consent of the adviser(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 38.

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 adviser.

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 Colleges of Liberal Arts and Sciences, Fine, Performing and Communication Arts, and Urban, Labor, and Metropolitan Affairs. Students must consult with an academic adviser regarding appropriate deadlines for academic hold releases and/or reinstatement procedures.

Obligations of Faculty and Students to the Instructional Process

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

Responsibilities of Faculty Members

1. To contribute to and remain abreast of the latest developments in their fields;
2. To continually pursue teaching excellence;
3. To treat all students with respect and fairness without regard to ancestry, race, religion, political belief, country of origin, sex, sexual preference, age, marital status, or handicap;

4. To encourage differing viewpoints and demonstrate integrity in evaluating their merit;
5. To attend regularly and punctually, adhere to the scheduled class and final examination times, and arrange for notification of absence and coverage of classes;
6. To establish and maintain appropriate office hours;
7. To present, early in the semester, the following course information:
 - a) course objectives and general outline;
 - b) classroom procedures to be followed, expectations concerning class attendance, and proposed dates of major evaluations (including examinations, papers, and other projects);
 - c) grading policy;
 - d) where appropriate, a schedule of class-related activities, including class meetings and laboratory sessions;
 - e) lists of texts and/or other materials needed for the course;
 - f) late enrollment, withdrawal, and other special policies.
8. To provide and adhere, within reasonable limits, to the written syllabus of the course;
9. To know course matter thoroughly and prepare and present the material conscientiously;
10. To be informed of University services and recommend their use to students when advisable;
11. To follow these policies concerning written work and grades:
 - a) grade and return written work promptly;
 - b) submit final grades by the scheduled time;
 - c) retain written materials not returned within the semester (e.g., final examinations, major term papers) for one academic semester in accordance with unit policy and allow students to examine such materials;
12. To implement unit procedures for student evaluation of faculty teaching, with attention to preserving student anonymity;
13. To behave appropriately in dealing with students so as to maintain a scholarly atmosphere.

Responsibilities of Students

1. To inform themselves of and to fulfill all requirements of the University and those of the College and Department from which they expect to receive their degree;
2. To fulfill conscientiously all assignments and requirements of their courses;
3. To attend classes regularly and punctually;
4. To maintain a scholarly, courteous demeanor in class;
5. To uphold academic honesty in all activities;
6. To notify the instructor as early as possible if prevented from keeping an appointment or carrying out an assignment;
7. To discuss with the instructor any class-related problem and follow established procedures in the resolution of these problems;
8. To adhere to the instructor's and general University policies on attendance, withdrawal, or other special procedures.

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

Classroom Attendance Policy for Undergraduate Students

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

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

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

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

These policies are applicable to all courses within the University.

Student Ethics

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

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

Student Rights and Responsibilities

Upon the recommendation of the Student-Faculty Council, the University (Faculty) Council, the President-Deans Conference and the President, the Board of Governors, in January, 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 Office of the Vice President for Student Development and Campus Life.

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) describes acceptable student conduct, both academic and non-academic; 3) describes disciplinary policies and procedures; 4) specifies the rights of students and other parties; 5) specifies prohibited conduct 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.

REGISTRATION and STUDENT RECORDS

5057 Woodward, Fourth Floor
Telephone: 313-577-3531; Fax: 313-577-0945

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 mission and, to a lesser extent, the research and professional service missions of the University. The Office co-ordinates, supplements and facilitates many activities necessary to the instructional process. Administrative services are also provided to the Associate Provost for Student Development and Campus Life and many academic and program units across the University.

The Office consists of three major units: 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 Final Examinations, makes room assignments for classes and special events, processes registrations, drops and adds, 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: 313-993-7758

OFFICE OF THE REGISTRAR
5057 Woodward, Fifth Floor

Registration is the process of officially enrolling in classes for a particular term. The Class Schedule Website, offered 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 on the web at: <http://www.classschedule.wayne.edu>

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

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

Registering for Classes — On the Web

Complete instructions for registration appear in the Schedule of Classes, on the Web at <http://www.classschedule.wayne.edu/> Additional information and assistance is available from Registration and Scheduling (Suite 51001, 5057 Woodward): 313-577-3541.

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 Information is also available on the Web at: <http://support.wayne.edu>

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>. The student should enter his/her WSU AccessID and password, and hit 'enter.' Then, successively click on: the Student Tab, then select Registration from the Student Services Menu listed on the left; and then follow the prompts.

Complete instructions for registration appear on the Schedule of Classes website at: <http://www.classschedule.wayne.edu>. It is highly recommended that students print a copy of their student schedule from WSU Pipeline prior to the beginning of the term. This is the only way students can obtain a printed version of their schedule. Additional information and assistance is available by calling Registration and Scheduling, 313-577-3541.

WSU Pipeline

Website: <http://pipeline.wayne.edu>

WSU Pipeline is a secure Internet gateway that provides access to convenient 'self-service' facilities for Wayne State students, faculty, staff, and guests. This comprehensive Web environment is also a one-stop location for targeted Wayne State information and helpful tools that meet day-to-day needs. Prospective students are able to use WSU Pipeline to track the progress of admission and financial aid applications. Current students can register for and drop/add classes, pay tuition and fees, check final grades, and much more. In addition, students can use WSU Pipeline to access e-mail, University-wide electronic calendars and to-do lists, and the Blackboard Learning System for class information (e.g., syllabi, assignments and tasks, lecture notes, tests and grades), additional communication and collaboration tools (e.g., secure chat, threaded discussions, groups), online education, and valuable electronic resources.

Accessing the Pipeline: All that is needed to access WSU Pipeline on the Web at: <http://pipeline.wayne.edu> is a current Web browser on any computer connected to the Internet and a WSU AccessID (e.g., xy6789) and password. As soon as a student applies for admission or an employee is hired, an AccessID is automatically created. Instructions on how students and employees can look up an AccessID and find the initial password needed to activate it are on the following Website: <http://computing.wayne.edu/accessid>.

Drop/Add — Adjusting Your Schedule

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

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

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

3. Students may drop (not add) courses after the deadline to drop using the phone or Web, by sending a letter to Registration and Scheduling 5057 Woodward, Fifth Floor, Detroit, MI 48202 or a Fax to 313-993-7758. 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 'W,' Withdrawal.

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

7. Students are required to have instructors' signatures for drops processed after the fourth week of the term.

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

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 adviser. Some Departments have more stringent restrictions on dropping of courses.

University Grading System

Grades are not mailed to students. Final grades are available on the campus Pipeline web service (<http://pipeline.wayne.edu>). Grades are available to students by 5:00 p.m. on the day they are posted by instructors. The following system is in effect for degree credit in all Colleges and Schools of the University, with the exception of the School of Medicine four-year M.D. program and the Law School:

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

'E' — Failure: 0.00 grade points per credit

'P' — Passed

'PNC' — Pass: no credit

'N' — Not Passed

'NNC' — Not Passed: no credit

'S' — Satisfactory

'SNC' — Satisfactory: no credit

'U' — Unsatisfactory

'UNC' — Unsatisfactory: No credit

'M' — Marginal Pass

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

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

Marks

'I' — Incomplete.

'R' — Repeated. See page 44 for explanation of this mark (this mark applies to undergraduate students only)

'W' — Official Withdrawal.

'X' — Unofficial Withdrawal.

'Y' — Deferred.

'Z' — Auditor.

The mark of 'I'—Incomplete, is given to either an undergraduate or a graduate 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 can complete the course successfully without again attending regular class sessions. The responsibility for completing all course work rests entirely with the student. The mark of 'I' will be changed to a grade only 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. The mark of 'I' shall not be changed to a grade of 'E' unless, after receiving the 'I', the student's subsequent work is of such quality that the overall average for the course is below passing.) Work must be completed within one calendar year.

The mark of 'I' is inappropriate if, in the instructor's judgment, it will be necessary for the student to attend subsequent sessions of the class regularly. Should regular attendance become necessary, the student must register for the class for the semester in which attendance is planned. In the event of a second registration for the course, the mark of 'I' for the original election will be considered a Withdrawal ('W'), and the student will be assessed tuition and applicable fees for the second registration.

The mark of 'I' which is not converted to a letter grade within one calendar year from the time it was received will be considered a withdrawal ('W'), unless, prior to the end of that year, the student requests, and the instructor agrees to certify in writing to Student Records that an additional year is needed for the removal of the Incomplete. The mark of 'I' cannot be extended beyond two calendar years.

The mark of 'R'—Repeated: See page 44 for explanation of this mark (this mark applies to undergraduate students only).

The mark of 'W'—Official Withdrawal, is given when a student reports the withdrawal to Registration and Scheduling (Suite 51001, 5057 Woodward) in accordance with University policy. See Drop/Add, above, page 47.

The mark of 'X'— Unofficial Withdrawal, is a non-punitive mark used when there has been insufficient work submitted and there is no basis on which to assign a grade.

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

The mark of 'Z'—Audit, is given when the student has formally registered for audit. To register, the student's registration must be processed in person through the Department offering the class, or through Registration and Scheduling (Suite 51001, 5057 Woodward). Students must complete the Registration Schedule Authorization Form and secure Department approval.

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 adviser, 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 Grades 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/marked.

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' or 'X' or a grade of 'S,' 'U,' 'M,' 'P,' 'N,' 'ANC,' 'BNC,' 'CNC,' 'MNC,' 'NNC,' 'PNC,' 'SNC,' and 'UNC' has been earned are excluded from grade point average computation.

At the undergraduate level, courses repeated are computed in the grade point average according to the procedures given on 'Repeating Courses,' see page 44

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) and 'W' (Withdrawal) may be refused the privilege of further registration by the dean or the dean's designee of their School or College. Students experiencing attendance difficulties should seek counseling from appropriate College or University offices.

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. Students and former students are entitled to ten (10) Official Transcripts each calendar year without charge. A \$5.00 fee is assessed for each additional transcript. 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.

A transcript may be requested in person, via mail, e-mail using your Access ID addressed to transcripts@wayne.edu, or faxing the request to 313-577-0945. The University will not honor telephone requests for transcripts. Requests by mail should be addressed to: Student Records, Attn: Transcripts, 5057 Woodward, Wayne State University, 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 admission and academic 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.

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 docu-

ments, 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.

The Media Relations Office, 3222 Faculty/Administration 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 in Student Records, 5057 Woodward, Fifth Floor, not later than the 10th day 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 commencement period in which the student did not graduate, a new application 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)

Website: <http://www.busop.wayne.edu/onecard>

The WSU OneCard is a photo identification card that also implements student use of many campus facilities. It serves as a library card, parking card, door access card, and debit card. The debit card feature of OneCard provides a cashless environment for cardholders throughout the campus. When the card is activated and money deposited on it by the cardholder, the OneCard allows access to parking facilities and may also be used for purchases on campus including photocopies, printing, food at the Student Center and other food venues, vending machine items, Barnes & Noble bookstore items, testing services, and Fitness Center usage.

Students may obtain the OneCard from the Welcome Center, located at 42 W. Warren Ave, Suite 257, Monday, Wednesday and Friday, 8:30 a.m. to 5:00 p.m., Tuesday and Thursday, 8:30 a.m. to 6:00 p.m.; telephone 313-577-2273.

Funds may be added to the OneCard via the Internet (<http://www.busop.wayne.edu/OneCard.htm>) with a credit card or at one of the Cash System Value Terminals located in the following University buildings: Adamany Undergraduate Library, Purdy/Kresge Library, Law Library, North Hall, Science and Engineering Library, Shiffman Medical Library, State Hall, Old Main, Student Center, Scott Hall, Applebaum College of Pharmacy and Health Sciences, Matthaehi Physical Education Center, Parking Structures 1, 2, 5, and 6, University Tower Apartments, Welcome Center, WSU Bookstore and Oakland Center.

STUDENT SUCCESS SERVICES

University Advising Center

1600 David Adamany Undergraduate Library; 313-577-2680
Fax: 313-577-5020; Appointments: 313-577-8889;

Service hours: 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 Colleges of Liberal Arts and Sciences, Fine, Performing and Communication Arts, and Urban, Labor, and Metropolitan Affairs. The Center is staffed by professional advisers. The major responsibilities and services provided by the University Advising Center 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. Advisers are fully informed on undergraduate degree requirements, including group requirements, restrictions on credits, transfer credit, and residency. Advisers 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 and are placed on academic probation are required to discuss their progress with an academic adviser. Advisers 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.

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. Advisers provide details of program change including changes in prerequisites, and process requests for change.

Preprofessional Advising: Advisers assist students in planning programs which will fulfill requirements for admission to the various professional programs offered by Wayne State University, including those of the School of Business Administration, the College of Education, 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.

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: posted on our website at: <http://www.success.wayne.edu/>

This Center has a variety of programs and services oriented toward academic success:

Individual Learning Fitness Plan: Professional learning specialists are available to aid students in academic success. Any Wayne State student may set up a learning fitness plan. A learning specialist and a student may cooperatively develop a learning fitness plan for a particular term, based on the specialist's assessment of the student's academic strengths and weaknesses.

Tutoring: Four types of tutoring are available at the Academic Success Center: 1) students may apply to meet one hour weekly with a student expert, to assist them with work in a particular undergraduate course; 2) drop-in tutoring is available at the Center in specific courses; 3) supplemental Instruction (SI) is available in many first-year introductory courses, in which SI leaders collaborate with the course instructor. These student experts attend each lecture, organize and facilitate group study sessions following the lecture (one to three hours per week), and direct students toward academic success. In addition, students may apply for a personal tutor or contact a tutor on the Website: <http://www.success.wayne.edu>

Reading and Study Skills: Students may enroll in free, structured courses such as R E 0990, Learning Theory and Study Skills, or R E 0995, Analytical Reading for Textbook Study. Students can also work on self-managed, individualized laboratory programs that are developed according to the needs of each student. These programs are designed to improve students' study skills including vocabulary, reading speed, and comprehension. See page 474 for Reading Efficiency (R E) courses.

Technology Center/Lab: The Center has multi-media computers and computer software available which are designed to improve students' reading, writing, and math skills. Course-specific reviews and study modules are available for student use, along with material designed to prepare students for taking the GRE, GMAT, LSAT, and MCAT standardized tests. The Lab is equipped with twenty computers, a SMART board and instructor's station. Scheduled use of Technology Center resources is available to the University community.

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 strategies.

Customized Workshops: Workshops may be scheduled for groups, student organizations, and academic Departments, customized to specific needs by Academic Success Center learning specialists. Workshop topics may cover techniques required by individual students, such as managing time, preparing for final examinations, coping with test-taking anxiety, methods of textbook use, reversing negative trends in scholarship, or developing the capacity to concentrate while studying; or may have a specific focus such as: how successful nursing students study, effective study strategies in organic chemistry, or how to navigate the psychology textbook.

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, we provide a variety of psychological services and educational programming that promotes students' personal well being.

CAPS provides 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, emergency help is available. CAPS staff can be reached by calling 313-325-5634; the Wayne State University Public Safety Department is also available: 313-577-2222.

Career Planning and Placement Services

1001 Faculty/Administration Building; 313-577-3390; Fax: 313-577-9943

Career Planning and Placement 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/placement 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 made available, including a wide variety of part- and full-time experiential learning situations. 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.

Placement 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 related support services.

Study Abroad and Global Programs Office

Student Academic Success Services, 5155 Gullen Mall
1600 David Adamany Undergraduate Library; 577-3207
e-mail: studyabroad@wayne.edu

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 global grants competition for faculty and students to encourage international activity on campus including international research, faculty exchanges, and student study/internship abroad initiatives; the administration of the Fulbright program; 2) coordinating and supporting the organization of internationally-themed conferences; 3) developing and coordinating international outreach activities and off-campus programs including agreements between Wayne State University and universities outside the United States; and 4) coordinating international travel for Wayne State delegations.

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.

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.

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.

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 adviser 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 Adamany Undergraduate Library; 577-3207. The Fulbright Program website is: <http://www.iie.org/fulbright/us/>

International Students requiring information on study at Wayne State University should contact the Office for International Students and Scholars; see page 59.

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.

Testing, Evaluation, and Student Life 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 16).

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 a small Educational Testing Service (ETS) and Computer-Based Testing Center for high stakes testing at the graduate and undergraduate levels, examples of which are the Graduate Record Examinations (GRE) General Test, the Graduate Management Admissions Test (GMAT), and the Test of English as a Foreign Language (TOEFL).

Testing, evaluation, and psychometric support services are also provided to faculty and academic personnel, and include preparation of class reports based on teacher-made tests or qualifying examination data, consultation regarding test programs commercially available, consultation on the construction of course examinations, the scoring of multiple choice Departmental examinations, as well as the design, printing, and processing of Optical Mark Recognition (OMR) data collection forms. The staff is also available to advise individuals with regard to the design and use of survey forms tailored to specific purposes.

An undergraduate retention data base is maintained for the University, and research studies are undertaken to provide background data for planning adequate services and other resources for the Wayne State University student body.

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 and Department level reports based on data collected during the evaluation process. 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: All students must take this examination in order to determine placement in the appropriate Freshman English course, unless they have met the Basic Composition requirement by receiving transfer credit or credit through the Advanced Placement or College-Level Examination Program (see page 34). The examination places students into one of the following courses:

ENG 1010 -- Basic Writing: Cr. 3-4
ENG 1020 -- (BC) Introductory College Writing: Cr. 4

The examination is an impromptu essay, timed for sixty minutes; total administration time is approximately two hours. A standard, non-electronic dictionary is the only aid permitted. This examination may be repeated within the same semester.

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 0993 -- (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) / (PROFICIENCY PRIOR TO 1987) REQUIREMENT: The pre-calculus level of the Mathematics Placement Examination is also used to meet the University's General Education requirement in Mathematics Competency (also referred to as Mathematics Proficiency prior to 1987). Students not intending to take any math courses at WSU, must still take this examination to establish competency unless they have met the requirement by receiving transfer credit or credit through the Advanced Placement or College-Level Examination Program (see page 34). Placement into MAT 0995 or any higher level WSU mathematics course meets the General Education requirement in Mathematics Competency (see page 22).

The test results will include: 1) the math course(s) students are eligible to take within the time-period specified, and 2) whether or not students have met the mathematics competency requirement. The Mathematics Placement Examination may be taken only once per semester regardless of the purpose for which the examination was taken, i.e., for course placement and/or Mathematics Competency. Students who place into a course below the level they had expected may either take the lower level course or study independently and retake the examination during the next testing period.

Test-out Options for Other University

General Education Competency Requirements:

COMPUTER LITERACY (CL) COMPETENCY EXAMINATION:

There are two versions of this exam: Macintosh or Windows (IBM or IBM compatible). Students who successfully complete the examination will be those who have learned general purpose applications of computers such as using them to write, display information, or create graphs or diagrams. The examination is divided into the four parts described below. The first part of the test is multiple-choice. In the remaining parts students are expected to complete specified tasks using a computer and store their responses on a diskette.

Part 1 — Basic Knowledge about Computers and the Internet. A multiple-choice test about computers and their applications.

Part 2 — Basic File Manipulations. Initialize (format) a diskette, copy files to and from the diskette, create folders and erase/delete/destroy files.

Part 3 — Word Processing. Create a file or access a previously saved file, format (justify, center, boldface, etc.) and edit (insert, correct, move, etc.) text.

Part 4 — Spreadsheets. Use a spreadsheet to complete an exercise, a graph, and a pie chart.

The exam is timed for two hours; total test administration time is approximately two hours.

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 encoun-

tered 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.

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-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 web site <http://www.comm.wayne.edu/oc.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 provides students the resources they need to succeed, and to support their participation in all University programs and activities with dignity, professionalism and independence. EAS is committed to a philosophy that allows for the full integration and participation of a student with a disability in campus life. Services are free of charge.

Disability Determination: Professional counselors are available to assist students with disabilities throughout their university career. The counselor verifies the disability and develops with the student appropriate accommodations. The individualized accommodation document determines the special needs necessary to academically succeed at Wayne State University. It is the student's responsibility to give their accommodation letter to their professor to allow for alternative course presentation and testing as needed.

Academic Accommodations: Students are offered consultation prior to University enrollment, priority registration, volunteer note-taker services, study rooms with adaptive equipment, alternative testing arrangements, scribes, interpreters, and information on community resources. If books need to be put into alternative formats students should present them to EAS prior to the semester. The staff will work with the student to present documentation to faculty to discuss ways to implement accommodations. Faculty can refer to the Faculty Forum, an online training module to acquaint faculty with State and Federal regulations and guidelines.

Scholarships: Scholarships are available for student with disabilities through the EAS office. The scholarships are based on academics and not financial need. Contact the EAS office for more information.

Academic Advising and Tutoring: EAS collaborates with University Advising Center and the Academic Success Center to provide appropriate advising and tutoring services. The Student Academic Success Services advocates for students in such issues as waivers for Wayne State University standardized tests, language requirements, and any academic requirement that the student cannot fulfill as a result of the specific disability. Study rooms are available with adaptive equipment.

Technology Center/Lab: The Center has multi-media computers and computer software available which are designed to assist students' reading and writing. The Lab is equipped with, but not limited

to: JAWS, Dragon Dictate, scanners, Braille, enlargers, tape recorders, and FM system. Scheduled use of Technology Center resources is available to the University community.

Community Agencies: EAS works cooperatively with various community agencies that assist students at the University. The agencies include but are not limited to: Michigan Department for Rehabilitation, Commission for the Blind, Center for Independent Living, and Reading for the Blind and Dyslexic.

Office of Military and Veterans' Educational Benefits (OMVEB)

1600 Adamany 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, U.S.C., including: the Montgomery G.I. Bill (chapter 30), the Reserve G.I. Bill (chapter 1606), V.E.A.P. (chapter 32), Vocational Rehabilitation (chapter 31), and the Survivors'/Dependents' Educational Assistance (chapter 35). All eligible students must officially request to use their educational benefits each semester.

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

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

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

Tutorial Assistance is also available as part of all benefit packages. Eligible recipients may receive \$100.00 per month, up to 12 months to help defray tutoring costs. Contact the OMVEB for further details. No charge to benefit entitlement is incurred for the first six months received of Tutorial Assistance.

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

VA Work-study Program: The VA work-study allowance is available to all students eligible for VA Educational Benefits. 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 WSU campus interested personnel can be attached to UM or EMU's ROTC units. 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) 764-2403 (also see page 474).

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.

OMVA Photo Album: WSU has a Military Photo Album available to all current and past faculty, staff and students. Honor yourself or a family member for service to country by posting a photo in uniform to this site. Log on to <http://www.omveb.wayne.edu> for a tour through the gallery.

Division of Community Education

2800 Academic/Administrative Building
313-577-4695; Fax: 313-577-8000
Director: Sandra E. Alford
Associate Director: Mary C. Dickson

Website: <http://www.dce.wayne.edu>

Service hours: see our website at www.success.wayne.edu

ACADEMIC ADVISORS

Kevin Reeves, Darryl Gardner, Pamela Dale, Adrienne Elliot-Brown, Dawn Dolly, and Audrey Whitfield

RECRUITMENT SUPPORT

Daune Elston and Candice LeFlore

COORDINATORS

Julie Mix (English), Sandra Merriweather (Mathematics)

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, study skills courses, and orientation to Web resources. 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 into other Schools/Colleges

within the University after satisfactory completion of DCE program requirements.

Admission Requirements: Admission to DCE is not restricted by age or previous academic performance. Minimum requirements are a high school diploma 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.

Application: Students are admitted for the Fall term. Admissions applications and transcripts are due no later than July 15.

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 into other University Schools and Colleges, having completed either twenty-four credits with a 'B' (3.0) average or thirty credits with a 'C' (2.0) average.

Financial Aid: Individuals interested in the Division of Community Education program may apply for federal, State, or University grants using applications available at the extension centers, on campus at the DCE administrative office, or the Office of Scholarships and Financial Aid. Also, the Urban Extension Grant makes funds available to qualified DCE students. Contact the Division of Community Education for additional information: (313-577-4695).

Non-matriculant Advising

2100 Academic/Administrative Building, 5700 Cass Avenue

Telephone: 577-4590; Fax: 577-9826

Advisor: Ellen Holmes; 313-577-4693

Advising services for nonmatriculant students in the College of Liberal Arts and Sciences are provided both on main campus and at extension centers. Students without matriculated status in the University are especially urged to consult with an advisor before registration. Appointments on campus can be arranged by telephoning the Non-Matriculant Advisor's Office or any off-campus extension center.

Off-campus Course Registration

Records and Registration Services

Lead Records Clerk: Anestine Crawford; 313-577-4671

Registration for off-campus academic courses is held during regular registration periods each semester (see Academic Calendar, page 4). Forms for each registration period are available in person from the Records and Registration Office (Second floor, Academic/Administrative Building, 5700 Cass Avenue); and on the Wayne State website at <http://www.wayne.edu>. Specific registration information is provided at 313-577-4671.

Academic College Enrichment Services (ACCESS)

Suite 1330 Academic Administration Building; 313-577-5050

Website: <http://www.wayne.edu/access/accesshome>

ACCESS provides academic assistance and support services to promising youths 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. ACCESS serves an extremely diverse student population that ranges from 12-19 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.

ACCESS is comprised of six federally funded (TRIO) programs and one State of Michigan program designed to increase the postsecondary admission rates of the diverse populations it serves, and to advance the retention rate of such 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 Administration 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 Administration 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 motivational and informational activities and college visitations designed to encourage seventh- through twelfth-grade students in targeted schools to complete high school and enroll in higher education.

Student Support Services (Project 350), 5700 Cass Avenue, Academic Administration 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 Project 350 students are required to participate in an 8 week summer residential program.

Upward Bound Program, 5425 Woodward, 577-1943, provides services for low income and first generation college students in grades 9-12 with the potential and motivation to be successful in higher education. The students must attend designated Detroit high schools, in the service target area. 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 cultural enrichment activities.

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.

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 convocation, homecoming, student organizations day, the finals week late night breakfast, and WSU's annual Dr. Martin Luther King, Jr. celebration. The office coordinates the campus calendar of student activities for WSU's celebration of Black History Month. In addition, the office presents programs and workshops on topics including awareness programs during Native American Awareness Week, Hispanic Awareness Month, and Alcohol Awareness Week. The office also presents diversity programs for Arab-American awareness, Indian and Pakistan awareness programs, and other Asian American groups. Women's programs are also presented from the Dean of Students Office. The office also coordinates leadership development programs; advises fraternities and sororities; designs service learning opportunities and faculty interaction programs; and promotes student involvement in co-curricular life at Wayne State. The office is responsible for residence life programming and the University Judicial Officer is housed in the Dean of Students Office.

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 Organizations: There are approximately 200 active student organizations including such diverse categories as academic/professional, social action, political, sororities/fraternities, honoraries, ethnic and religious groups, as well as student governments. The South End, the official student newspaper, is published daily during the academic year. Dean of Students Office staff are available to assist students who want to organize new student groups. The staff coordinates various campus publications including the on-line newsletter Warrior Net News and the WSU yearbook, The Sabre.

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

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 Student Council, through the Student Activities Budget Committee (SABC), allocates the student life portion of the Omnibus Fee. The Student Council 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.centerofitall.wayne.edu>

The mission of the Office of Housing and Residential Life, consistent with the academic mission of Wayne State University, commits to creating 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 just steps away from classrooms, libraries, the Student Center, and the Recreation and Fitness Center and combine the convenience and activity of the campus with the energy and pace of downtown urban living.

Residence Halls: August 2002 saw the opening of North Residence Hall located on Williams Mall. This residence hall houses over 370 undergraduate students in traditional residence hall fashion featuring double and triple rooms with private bathrooms, high speed internet connections, cable, local phone services, laundry facilities, study lounges, on-site food service, and a Starbucks Coffee shop. Ten rooms are ADA compliant with additional accommodations provided as necessary. In August of 2003, South Residence Hall opened with an additional 465 beds with similar accommodations. The Fall of 2005 will bring the third residence hall with 970 beds. This hall will feature accommodations similar to North and South Hall, but it will be open to graduate students as well. The new hall will have laundry rooms on each floor with loft style lounges, a fitness room, a 1,000 seat cafeteria, and an array of suite style rooms. The new residence hall has been named The Towers. Please see <http://www.housing.wayne.edu/reshall/newresidence.php?val=residence> for updated information on The Towers.

University Towers is for graduate, undergraduate, professional students and families, with one-, two- and three-bedroom units; the two- and three-bedroom units have two baths. University Towers has central air conditioning, a computer lab, an on-site child care center, and a 24-hour reception desk.

DeRoy Apartments are available for graduate and professional students and families; it includes efficiency, one-, and two-bedroom units and has central air conditioning and a 24-hour reception desk.

Chatsworth Tower offers graduate and professional students spacious efficiency, one-, and two-bedroom apartments in an elegant early-twentieth century building with a 24-hour reception desk. Some air conditioned units are available.

Chatsworth Annex is closing at the end of the academic year. No leases will be signed for 2005-2006.

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

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

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, hip-hop, step, yoga, spinning, stretch and tone, and aqua aerobics classes.

Open Recreation: The fitness area, courts, walking track, climbing wall, pool, aerobics gym, and multi-activity center offer opportunities for unstructured play and participation. Basketball, volleyball, and a variety of equipment and areas for working out, stretching, or socializing are offered.

Fitness and Wellness Programs: Health assessment and personal training programs for every level of fitness are available to all members.

Leisure Pool: The pool includes a giant water slide, lazy river, bubble bench, and spa. Water basketball, volleyball, water polo and aqua fitness programs are offered at various times.

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

The 75,000 square-foot Recreation and Fitness Center also features a concession and merchandise area, a service center on the lower level with equipment check-out and locker services, a family/disabled locker room, two lifts in the pool area for use by disabled persons, weight equipment specifically for use by the disabled, men's and women's locker rooms with individual private showers, day lockers and dressing areas.

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

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 distinction. The over 400 student-athletes currently involved in competitive athletics have a combined grade point average of 2.92. 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.

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; a current University ID is required for admission to the indoor 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 available 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, 101 Matthaei Building, 313-577-4280; or call the ticket office toll-free: 1-866-WSU-TIKS. For current information on WSU athletic teams (including ticket information), intramurals or recreation, visit the 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 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, Student Center Administration offers a variety of different programs for the general student population. These programs include: the Wayne Underground Music Series, Multiformity: An Entertainment Series, and special evening programming.

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. Dining options include 'Little Caesars,' 'Friar's Kitchen,' 'Subway,' 'Taco Bell Express,' 'McDonald's,' and 'KFC Express' located on the first floor, Underground Grill' on the lower level. Additional food options are provided by the 'Barnes and Nibble' convenience shop and numerous vending machines located in the Student Center.

Postal Contract Station, 313-577-4328: Located in 101 Student Center, the station provides the following services Monday-Friday, 9:00 a.m. to 4:00 p.m.: postage stamps, express mail, certified/registered mail envelopes, postcards, priority mail, package handling, and money orders.

Game Room, 313-577-3477: Recreation facilities are located on the lower level of the Student Center. Billiards and table tennis equipment may be rented by the hour. Table games, foosball, and a variety of video games are also available in the facility.

Campus Information and Service Center, 313-577-3484 or 313-577-3568: Located in 50 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 rental. In addition, the University Lost and Found, student organization mailboxes, and the campus bulletin board posting service are located here.

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. The Center also co-sponsors informational and entertainment programs such as Hallo-Wayne, The Dating Game, Wayne Winter Week, and Tax Fair.

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.

Graphics Office, 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, located at 4B in the University Health 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 to any Wayne State department, student, staff, or faculty member. Examples of services provided include: Security Services, Street Smarts seminars, Operation Identification, Alcohol Awareness, Crime Free Multi-Housing, and Rape Aggression Defense Training. The Crime Prevention Section also publishes monthly 'Campus-Watch' articles. E-mail inquiries may be made to: campus-watch@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, faculty and staff in solving University-related problems. The Office can help students break through bureaucratic issues, overcome unfair treatment, or obtain consideration of extenuating circumstances by providing information and advice and by facilitating communication. The Office has no authority to change academic or administrative decisions, although it may be able to influence them.

Students may request assistance on academic problems related to admission, advising, degree requirements, discrimination, dishonesty, grades, harassment, records, registration, and teaching; and on nonacademic problems relating to financial aid, housing, parking, payroll, and tuition and fees.

The Ombudsperson's Office investigates appeals and complaints and exercises independent judgment regarding any action it may take. It is not required to fulfill any request or advocate a particular point of view. It will maintain student anonymity if requested to do so. Students, faculty and staff can improve the quality of University service by calling attention to problems they experience.

The Ombudsperson is the Chairperson of the Tuition and Fees Appeals Board (TFAB). The TFAB is charged by the President in Executive Order 96-1 to be the final arbiter of appeals for tuition and related fees. Each appeal is reviewed as an individual case, and cancellation of tuition and/or fees is granted only when circumstances warrant. The TFAB will consider only those appeals that are filed within one calendar year following the last day of the academic term in which the challenged fees were assessed.



INTERNATIONAL STUDENTS and SCHOLARS

Office of International Students and Scholars (OISS)

416 Welcome Center; 313-577-3422; Fax: 313-577-2962
Website: <http://www.oiss.wayne.edu>

The University is home to approximately 4,000 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's 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 United 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 attended 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 (includ-

ing changes in level and field of study), and full-time enrollment. 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 adviser 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 adviser to determine the impact of this 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 USC IS Form I-9, 'Employment Eligibility Verification' and present evidence of their identity and employment eligibility at OISS before commencing employment at Wayne State University.

Health Insurance: International students and 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 which 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. Forms to purchase this insurance are available by contacting the OISS Health Insurance Advocate: 313-577-0724

Insurance For U.S. Citizen and Permanent Resident students and their dependents, the Student Injury and Sickness Insurance Plan is a voluntary insurance program plan available for purchase. For more information, including purchasing the Domestic Health Insurance plan, students may go to <http://www.collegiatrisk.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 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.

Metropolitan Programs and Summer Sessions

5700 Cass Ave., Detroit MI 48202

Website: <http://www.mpss.wayne.edu>

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 five instructional centers in the Detroit metropolitan area as well as in other selected locations in Michigan, and delivers instructional programs through television broadcasting 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

Metropolitan Programs and Summer Sessions maintains comprehensive instructional centers at convenient locations throughout the Detroit metropolitan area:

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 or 313-577-6261; Fax: 586-263-6120

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

HARPER WOODS CENTER: Trinity High School, 19360 Harper Avenue; Harper Woods, MI 48225; Telephone: 586-263-6700 or 313-577-6261; Fax: 586-263-6120

LAMPHERE CENTER: Lamphere High School, 610 W. Thirteen Mile Rd., Madison Heights, MI 48071; Telephone: 586-263-6700 or 313-577-6261; Fax: 586-263-6120

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. These criteria apply regardless of whether or not the student has been formally matriculated at the University. 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 (see page 55). Students are advised to consult the non-matriculant adviser 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)

BACHELOR OF ARTS with a Major in:

- English (partial)
- Political Science (partial)
- Sociology (partial)

Collateral-College Course Offerings

Metropolitan Programs and Summer Sessions and Summer Sessions (MPSS) offers entire curricula or selected courses applicable to many Wayne State University degrees and certificates at convenient times and places for adult learners. The following Schools and Colleges regularly schedule courses through extension facilities. For current information on upcoming courses and programs off-campus, visit the MPSS website: www.mpss.wayne.edu.

Business Administration: Business Administration courses are offered in Oakland County at the Oakland Center in Farmington Hills and at the University Center Macomb. School of Business Administration courses in the 6000-6090 series are open only to students holding matriculated graduate status at Wayne State University.

Graduate courses, numbered at the 7000 level, are open only to students admitted to the M.B.A. program at Wayne State University.

Education: Bachelor's, master's, specialist and doctoral programs are offered at extension centers and the University Center at Macomb. In-service courses and programs are offered at the request of local schools and school districts. The College of Education also participates in the interdisciplinary graduate certificate programs in infant mental health and gerontology.

Engineering: Courses leading to a bachelor's degree with a major in electromechanical engineering technology are scheduled at the University Center at Macomb.

The Chemical Engineering Graduate Certificate in Hazardous Waste Management is offered at the Oakland Center and at selected extension locations, including Flint and Grand Rapids; nine of the thirteen credits required for this certificate may be applied towards the master's degree. In addition, engineering courses and programs are offered on-site upon request of businesses or industries.

Periodically, other courses from various Departments in the College of Engineering are scheduled at extension centers.

Fine, Performing and Communication Arts: Courses in art and art history, communications, dance, film, journalism, music, photography, public relations, radio/television, and theatre are offered at several off-campus extension centers.

Liberal Arts and Sciences: Introductory and advanced courses for both full-time and part-time students are available in Africana Studies, Anthropology, Classics, Economics, English, French, Geography, History, Humanities, Philosophy, Political Science, and Sociology, Spanish, Women 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 16).

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 program offers courses at selected extension centers including Lansing, Oakland Center and the Wayne County Center. Courses leading to the Graduate Certificate in Archival Administration are also available.

Pharmacy and Health Sciences: Courses are scheduled off-campus occasionally through the Clinical Laboratory Science, Mortuary Science, Occupational and Environmental Health Sciences, and the Occupational Therapy Departments.

Social Work: The School of Social Work offers the Bachelor of Social Work (BSW) part-time program at the Wayne County Center and a full-time program at the University Center at Macomb. Additional courses leading to completion of partial degree requirements for the BSW and Master of Social Work (MSW) degrees and for the Graduate Certificate Program in Social Work Practice with Families and Couples are offered at several extension sites.

Urban, Labor and Metropolitan Affairs: Off-campus courses for the Certificate Program in Labor Studies; for the Departments of Peace and Conflict Studies; Geography and Urban Planning; and Interdisciplinary Studies; as well as courses in Urban Planning and Urban Studies are offered at several locations.

Alternative Delivery Modes of Instruction: Television courses are equivalent to their traditional campus counterparts and provide a way to earn college credits. Television courses combined televised or videotaped lessons with bi-weekly class meetings, textbook readings, and assignments to provide students with a total learning experience. 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 offer travel-study programs through Metropolitan Programs and Summer Sessions. Some are ongoing programs, and others vary each year. For current information, telephone 313-577-4682.

Noncredit Career and Professional Development Programs

The Professional Development Division (PDD), the executive education, business training and consulting arm of the School of Business Administration, provides organizations with proven, practical solutions to business 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, certificate programs, coaching and cutting-edge business courses in areas such as:

- Business Process Improvement
- Communication Skills
- Conflict Management
- Customer Service
- Leadership Development
- Management Skills
- Managing Change
- Problem Solving
- Strategic Business Planning
- Team Building

For more information, contact: Wayne State University, School of Business Administration, Professional Development Division, 5229 Cass Ave., 240 Rands Bldg., Detroit, MI 48202

Phone: 313-577-4449; e-mail: pdd.wayne.edu

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 43 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 Math Major

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

MASTER OF BUSINESS ADMINISTRATION

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.



ADDITIONAL UNIVERSITY SERVICES

Computing & Information Technology Division (C&IT)

5925 Woodward Avenue; 313-577-4778

Website: <http://computing.wayne.edu/>

Computing & Information Technology (C&IT) provides information technology resources that enhances Wayne State University's teaching, learning, and research activities. The Division aligns its services closely with the University's strategic directions to ensure that Wayne State is successful in a highly competitive and technology-intensive university world. C&IT also strives to deliver its core services efficiently and to anticipate and respond to the changing needs of the University community in using technology creatively and effectively, and most importantly to make it easy for everyone to do business with Wayne State.

Computer Access: C&IT works with and supports the University Library system and all the Schools and Colleges in providing computer labs for student use. The Division also maintains a list of computer availability for students (<http://computing.wayne.edu/labs>).

WSU AccessIDs: Each WSU student and employee receives a unique AccessID and password key to access comprehensive online services and resources at Wayne State. Some of the services students can access with their WSU Access IDs (e.g., xy6789) are: dial-in Internet access from home, free e-mail and directory services, free and discounted software and secure Web access -- through WSU Pipeline -- to self-services specifically for students (such as financial aid, registration, online tuition payments, and final grades) and to online courses or course materials on the Web.

For information about an AccessID and steps needed to activate it, visit the Web (<http://computing.wayne.edu/accessid>). For personal assistance or to reset a password, call the C&IT Help Desk: 313-577-4778.

Access to the Internet: WSU students and employees can access the Internet and the University's network on campus or at home, in the following ways:

— using a computer in any WSU library, at the Oakland and Wayne County Centers, or in a computer lab located in many academic Departments on campus (see 'Computer Access,' above);

— using a home computer, and a WSU AccessID (see 'WSU AccessIDs' above) to dial a WAYNECONNECT network access number in southeast Michigan or Windsor, Ontario. Outside the WAYNECONNECT service area, MichNet dial-in lines are available for shared use with other Merit Network members. Information about WAYNECONNECT and MichNet Internet access is on the Web (<http://computing.wayne.edu/wayneconnect>)

— using a home computer with cable modem/broadband service, DSL service, or a commercial Internet Service Provider, such as AOL, if more extensive Internet access or additional services are needed (such as multiple e-mail addresses or Website options). Information on alter-native ways of accessing the Internet is on the Web (<http://computing.wayne.edu/internetaccess>).

For help or information about these Internet access services, visit the Web sites noted above or contact the C&IT Help Desk: 313-577-4778 or: helpdesk@wayne.edu.

WSU E-mail and Communication Tools: Free electronic mail and other communication and collaboration tools (such as online calendars, secure chat, threaded discussions, and more) are available to all Wayne State students and employees using their WSU AccessIDs (see above). Now that Wayne State is communicating more and more by means of the University's AccessID E-mail System, it is

essential that everyone at Wayne State activate his/her WSU AccessID E-mail account and use it, or forward their WSU E-mail to a regularly used e-mail address. Assistance with using WSU AccessID E-mail 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 has a listing in the University's Online Directory. This helps people find WSU e-mail addresses and other contact information: visit WSU's Website (<http://wayne.edu>) and click WSU Directories.

WSU Pipeline and Self-Service: WSU Pipeline is a secure Internet gateway that provides access to convenient 'self-service' facilities for Wayne State students, faculty, staff, and guests. This comprehensive Web environment also is a one-stop location for targeted Wayne State information and helpful tools that meet day-to-day needs. Prospective students are able to use WSU Pipeline to track the progress of admission and financial aid applications. Current students can register for and drop/add classes, pay tuition and fees, check final grades, and much more. In addition, students can use WSU Pipeline to access e-mail, university-wide electronic calendars and to-do lists, and the Blackboard Learning System for class information (e.g., syllabi, assignments, lecture notes, RSS feeds, course documents and presentations, tests and grades), communication and collaboration tools (e.g., course e-mail, secure chat, threaded discussions, groups), online education, and other valuable academic resources on the Web. All that is needed to log in to WSU Pipeline on the Web at: <http://pipeline.wayne.edu> is a current Web browser on any computer connected to the Internet and 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 Website: Blackboard is the online course management system chosen by Wayne State faculty to deliver all or part of regularly scheduled University courses, because it is comprehensive and easy to use and access. In Blackboard, WSU students can find class information (e.g., syllabi, assignments, and course documents), take tests and view grades, use communication and collaboration tools to interact with other students and the instructor (e.g., course e-mail, secure chat, and threaded discussions), write and save lecture notes in an Electric Blackboard, and access valuable academic resources. Because this course system is Web-based, it can be accessed from anywhere, at any time. Many faculty require students to participate online as part of their grade, and some courses are offered entirely through Blackboard. Check at the start of the semester to find out Blackboard requirements for each course. Students use their AccessID and password to log in to Blackboard directly at: <http://blackboard.wayne.edu>, or they can access it through WSU Pipeline at: <http://pipeline.wayne.edu>. For assistance accessing or using Blackboard at Wayne State, visit: <http://computing.wayne.edu/blackboard>, or contact the C&IT Help Desk: 313-577-4778 and: helpdesk@wayne.edu.

Education Technology Services: Graduate teaching assistants and faculty have many tools for making courses or course materials available on the Web, giving exams and posting grades online, and improving the overall quality of education and learning at Wayne State. The major tool for online development and management of courses at Wayne State is the Blackboard Learning System, 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 Blackboard training and technical resources available on campus, C&IT Education Technology Services (ETS) develops additional support materials on the use of Blackboard. ETS also has a staff of video and multimedia professionals who can produce high-quality video, audio, and 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, contact the C&IT Help Desk: 313-577-4778 and: helpdesk@wayne.edu.

Grid and High-Performance Computing: 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, graduate students, post-doctoral students, and academic staff who have computationally intensive research needs. As of Winter Term 2005, the facility consists of three high-speed Linux clusters, an IBM RS/6000 SP supercomputer, Sun Microsystems Opteron-based systems, and a Silicon Graphics Altix 3000. All these systems are connected to WSU's fiber backbone network and use the Globus Toolkit, as well as components of the National Science Foundation Middleware Initiative (NMI-R5), to form a campus-wide Grid. With a connection to Abilene, the nation's research network for the Internet2 project, WSU's backbone network fully supports the expansion of University research and collaboration with academic institutions around the country and abroad, and with national laboratories and supercomputing centers. C&IT provides accounts on the campus-wide Grid for faculty, researchers, graduate and post-doctoral students, and academic staff who require specialized applications for statistical processing, parallel and distributed computing, and computer programming. Contact the C&IT Help Desk (see below) about obtaining access to WSU's high-performance computers or the Grid; also see 'Research Consulting Services,' below, and the Grid Computing Website (<http://www.grid.wayne.edu>).

Research Consulting Services: C&IT provides free research consulting services in association with a small, fully equipped computer lab for WSU graduate students. These research services are comprehensive -- from one-on-one consulting to group seminars or tutorials on request -- on the use of computer technology at any phase of the research process (design, implementation, statistical analysis, or final presentation). Located in 244 Purdy Library (northwest corner of the second floor; telephone: 313-577-5804), C&IT Research Consulting provides: networked Macintosh and Windows computers and laser printing; statistical, qualitative analysis, geographic information system (GIS), spreadsheet, database, word processing, presentation, graphics, and desktop publishing software that is fully supported by C&IT Research Consulting staff; user manuals for available software; and a collection of research-oriented textbooks. Additional equipment includes a color scanner, a CD burner, and both CD-ROM and videodisc technology.

HELP DESK — for computers and networks:

The Computing & Information Technology (C&IT) Help Desk provides personal assistance to help Wayne State University students, faculty, and staff:

- access the Internet and resources on WSU's network from a computer at home or on campus;
- access and use WSU's AccessID e-mail system and get help with AccessID passwords;
- access other central computer systems and servers at Wayne State (such as the Grid);
- use general-productivity software (such as Microsoft Office) on a Windows PC or a Macintosh;
- obtain site-licensed or public domain software, for free or substantial discounts;
- get information about purchasing a Windows PC or Macintosh computer and commercial software at educational discounts;
- troubleshoot hardware and software problems; and
- use or learn about any of the resources or services C&IT provides.

The C&IT Help Desk can be contacted in a number of ways:

- call 313-577-4778,
- e-mail helpdesk@wayne.edu, or
- visit the Website: <http://computing.wayne.edu>

Computer and Software Purchases: Information about recommended desktop computers and laptops to buy -- with links to computer companies that offer educational discounts for Wayne State students -- is on the Web (<http://computing.wayne.edu/hardware>). Free software, plus an introduction to WSU's computing environment, is available on a free 'Toolkit' CD-ROM. Additional free software can be downloaded by WSU students, using their WSU AccessID (e.g., xy6789) and password. Students also can purchase commercial software for substantial discounts through volume purchase agreements and campus site licenses. Links to the C&IT Download Center, Software Clearinghouse, and companies that offer students educational discounts on commercial software are on the Web (<http://computing.wayne.edu/software>).

Online Computing News & Announcements: C&IT routinely announces changes to the availability and status of Wayne State's networks and central computing resources and services (including revised hours of operation). Recent news items are available on the Web (at <http://computing.wayne.edu/notices>).

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 & High Performance Computing: 313-577-9601 or:
<https://www.grid.wayne.edu>
- Internet Access Help: 313-577-4778 or:
<http://computing.wayne.edu/internetaccess>
- Research Consulting Services: 313-577-5804 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.

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.

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 49.

David Adamany Undergraduate Library

Telephone: 313-577-8852

Website: <http://www.lib.wayne.edu/>

The David Adamany Undergraduate Library is designed to enhance and enrich the learning experience of undergraduate students by helping them to master the research skills necessary for academic success and for success as information-literate citizens. The library features over 500 computers, four instructional labs, a twenty-four hour study area, collaborative study rooms, 2,700 comfortable seats for study, course reserves, and hands-on opportunities for learning to use multimedia and electronic information resources. It also houses University Academic Advising, the Academic Success Center and Educational Accessibility Services, the Office for Teaching and Learning, the UGE 1000 department, 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>

The Neef Law Library is located at the north end of the University main campus. Its collection of over 550,000 volumes makes it the second largest law library in Michigan. The Library subscribes to over 1,500 journals and 1,000 loose-leaf services. An official depository since 1971, the Library holds over 100,000 U.S. documents including 3,500 current serials. Students and faculty have access to the two major legal databases, LEXIS and WESTLAW, as part of the educational program of the Law Library.

In addition to complete collections of federal and Michigan legal materials, the Library contains the reported cases of the highest courts of all states and territories, as well as their statutory compilations, digests and encyclopedias. The Library owns major microform collections of U.S. government publications; colonial, state, and territorial session laws; and the U.S. Supreme Court records, briefs, and oral arguments.

Purdy/Kresge Library

Telephone: 313-577-4042

Website: <http://www.lib.wayne.edu/>

The Purdy/Kresge Library is the primary research library for the social sciences, humanities, arts, education, and business disciplines at Wayne State University. The Library provides access to books, periodicals, government documents, and numerous electronic resources. The Purdy/Kresge Library supports the research and instructional needs of faculty, graduate students, and upper-level undergraduates in these disciplines, as well as the information needs of the greater Detroit community.

The Purdy/Kresge Library houses a book collection of over 1.5 million volumes, an extensive microform collection, and a large document collection. It also houses 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. In addition, the libraries' digitalization projects are managed within this Library.

Science and Engineering Library

Telephone: 313-577-4066

Website: <http://www.lib.wayne.edu/>

The Science and Engineering Library serves the College of Engineering, the College of Nursing, and the Departments of Biology, Chemistry, Physics, Mathematics, Computer Science, Nutrition and Food Science, Geology, and Audiology/Speech-Language Pathology in the College of Science. It also houses the computer lab that hosts

the computer-based version of the Wayne State Mathematics competency course.

The Science and Engineering Library has over 600,000 volumes and receives nearly 3,000 current serials. Special holdings include the System on Automotive Safety Information (SASI) collection, a unique resource for transportation research, as well as the River Rouge Collection, the Dubpernell Electrochemistry Collection, and a large map collection. The Library also houses the Resource Services unit of the University Library System as well as the consortium offices of the Detroit Area Library Network.

Shiffman Medical Library and Learning Resources Centers

Telephone: 313-577-1088

Website: <http://www.lib.wayne.edu/shiffman>

The Shiffman Medical Library supports the research, education and clinical and public health care information needs for the University, major hospitals within the Detroit Medical Center, and unaffiliated health care providers and trainees throughout Michigan. In addition to assisting WSU undergraduate students with research, learning and internship information needs in the health sciences, all WSU students are encouraged to use our consumer health information services via our Web site, by telephone, or by visiting the library to obtain the latest health information. The 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 by telephone: 313-577-1088.

The library maintains access to all the major health sciences, bio-scientific and consumer health databases; a core collection of journals dating from the mid-19th century; and books in print and digitally recorded. Health information learning programs and informatics workshops, listed on our Web site, are open to all members of the University community. Internet access, printing and photocopying services are identical to those found in all University Libraries.

A Learning Resources Center focused on the daily information and computing needs of students of the Applebaum College is available Monday through Friday.

Oakland Center Library Services Center

Telephone: 248-553-6632

The Oakland Center Library Services Center provides services such as document delivery, interlibrary loan, instructional sessions, and circulation of materials from main campus libraries. A small collection of course reserves and reference materials is available, as well as access to electronic resources.

University Archives

Walter P. Reuther Library; 313-577-4024

The University Archives, a unit of the College of Urban, Labor and Metropolitan Affairs, 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 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, a unit of the College of Urban, Labor, and Metropolitan Affairs, enjoys an international reputation as the largest and finest labor archives in the world. In all, the Archives has some 95 million documents in addition to 20,000 books, monographs, union publications and proceedings; 2,000,000 photographs; and 20,000 films and tape recordings. A unique portion of the holdings is the labor journal and newspaper collection, which has nearly 1,600 current and non-current titles dating from the late 1800s to the present. The Archives is housed in the Walter P. Reuther Library of Labor and Urban Affairs.

The Archives was established in 1960 to collect and preserve records of the American labor movement, related social, economic, and political reform groups, and twentieth century urban America. The Archives has since become the official depository for the inactive files of the United Auto Workers, the Congress of Industrial Organizations, the American Federation of Teachers, the National Association of Letter Carriers, The Newspaper Guild, the United Farm Workers, the Service Employees International Union, the American Federation of State, County and Municipal Employees, the Air Line Pilots Association, the Association of Flight Attendants, the Industrial Workers of the World, and many state and local labor organizations. Records have also been received from such groups as the Citizens Crusade Against Poverty, the Michigan Chapter of the American Civil Liberties Union, the Detroit Branch of the National Association for the Advancement of Colored People, the United Community Services of Detroit, United Way for Southeastern Michigan, and New Detroit, Inc. Many individuals who played leading roles in labor and urban affairs have also placed their papers in the Archives.

UNIVERSITY CENTERS and INSTITUTES

These University Centers and Institutes have programs pertaining to undergraduate study. A list of additional Centers and Institutes follows below. You can also visit the University's web page for Centers and Institutes for a full listing and links to web pages: <http://www.research.wayne.edu/ci>

Center for Chicano-Boricua Studies

3326 Faculty/Administration Building; 313-5L77-4378;
Fax: 313 993-4073

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

Purpose: The mission of the Center for Chicano-Boricua Studies (CBS) is to provide equitable access to a quality university education to Latina/o students in the Detroit metropolitan area, and to enhance the environment of diversity on the WSU 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 metropolitan communities.

Teaching: The Center is the sponsor or associate sponsor for a number of courses on Latina/o and Latin American history and culture. These include the histories of Mexico, Puerto Rico, Cuba, and of Latina/os in the United States along with Chicana/o and Puerto Rican literatures and cultures. The Center has a co-major that is the equivalent of a Latina/o/Latin American Studies co-major. The Center offers a two-semester sequence in Student Academic Self-Empowerment.

Research: The research 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.

Service: Chicano-Boricua Studies is a comprehensive student services center. CBS recruits Latina/o students from the metropolitan area into a two-year Academic Self-Empowerment Program; they are advised from entry through graduation. CBS administers an annual scholarship fund of \$150,000. The Center also serves as a source for cultural programming, networking, and information for the university and the metropolitan community.

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 mission of the Developmental Disabilities Institute is to contribute to the development of inclusive communities and quality of life for people with disabilities and their families through a culturally-sensitive statewide program of interdisciplinary education, community support and services, research and dissemination.

In the Institute's education program, research findings and state-of-the-art practices are used to educate and to produce sensitive, competent professionals and direct support professionals needed to advance the field. Educational activities include interdisciplinary seminars, courses for degree or certificate credit, guest lectures, and one-to-one educational support or advisement.

The Institute's research, evaluation and dissemination programs coordinate efforts of all Institute projects to evaluate results, engage in original research and disseminate information and products developed through project work. The research and evaluation area also provides evaluation services to outside organizations and agencies.

The Institute's community support program provides technical assistance and training to disability agencies and organizations. The program works closely with partner agencies in pre-implementation evaluation, planning, provision of training and technical assistance, follow-up evaluation and revision of approaches.

Students have the opportunity to complete field placements, internships and work as student assistants on projects in the Institute's education, research and service programs.

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 and research 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. Undergraduates can receive a bachelor's degree in labor studies. An internship program is also available.

Merrill-Palmer Institute

Freer House, 71 E. Ferry Ave.; 313-872-1790; Fax: 313-875-0947

Interim Director: Gail Brumitt, Ph.D.
e-mail: g.brumitt@wayne.edu
Website: <http://www.mpi.wayne.edu>

The Merrill-Palmer Institute (MPI) is a multidisciplinary research institute committed to enhancing the development of children. It conducts basic and applied research on childhood development, facilitates research on children through the University and beyond, prepares

students and researchers to contribute to the understanding of the development of children, and develops and evaluates programs and policies that contribute to children's well-being.

The Institute does not offer undergraduate courses; however, undergraduates can take a directed study with MPI faculty, and conduct Honors theses with MPI faculty. In addition, undergraduates can work as student assistants in the MPI Child Development Laboratory. Periodically, there are opportunities for undergraduates to participate in research projects conducted by the Institute. The Institute typically employs two or three student assistants every year to assist with routine work of the Merrill-Palmer staff.

Center for Peace and Conflict Studies

2320 Faculty/Administration Bldg.; 313-577-3453
Fax: 313-577-8269

Director: Frederic Pearson, Ph.D.
e-mail: fredericpearson@wayne.edu
Website: <http://www.pcs.wayne.edu>

The Center for Peace and Conflict Studies presents programs and courses on the management and resolution of conflict in all contexts, from the local community to the international system. With the advice of an interdisciplinary executive committee, projects are developed that contribute to the exploration of the social and political controversies of our time. The Center serves as the base for an undergraduate co-major in peace and conflict studies and also involves students in active research. Following such experiences, students may go on to a number of related careers, or to the Master of Arts in Dispute Resolution in the College of Urban, Labor, and Metropolitan Affairs.

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, 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 become 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 mission of Wayne State University's Center for Urban Studies is to improve understanding of and provide innovative responses to urban challenges and opportunities. Committed to serving Detroit and its metropolitan area, the Center is part of the College of Urban, Labor and Metropolitan Affairs and exemplifies Wayne State University's urban research and service mission. The Center pursues its mission by conducting and disseminating research, developing policies and programs, and providing training, capacity-building, and technical assistance.

The Center participates in defining and influencing local, regional, state and national urban policy. It engages community, government, institutions, and policymakers in collaboration with university faculty and resources to transform knowledge into action. Through its Urban Linkage Program, the Center offers paid internship opportunities to Wayne State juniors, seniors and graduate students. These internships are available with metropolitan area municipalities, community agencies and City of Detroit departments as a way to provide professional experience to Wayne State students.

Through the Michigan Metropolitan Information Center, the resources of the State Data Center network are available to Wayne State students. This makes all U.S. Census Bureau data available at low or no cost. The Center for Urban Studies' Website also contains a

variety of state and local data resources. The Center has continued to add to its website, most recently adding a new research tools section that will allow students to retrieve demographic and other statistical data and work with interactive maps. Detroit and Southeast Michigan are the focus of this information.

Periodically, the center also has student assistant opportunities available to undergraduates.

Other WSU Centers and Institutes

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

Bioengineering Center

2208 Bioengineering Bldg.; 313-577-0252; Fax: 313-577-8333
e-mail: king.yang@wayne.edu
Website: <http://ttb.eng.wayne.edu/>

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: Naiem Henein, Ph.D.

Center for Health Research

319 Cohn Bldg.; 313-577-4135; Fax: 313-577-5777
e-mail: judith.floyd@wayne.edu
Website: <http://www.nursing.wayne.edu/research/>
Director: Mary Nies, Ph.D.

Center for Healthcare Effectiveness Research

121 Shiffman Library; 313-577-5189
e-mail: mmassana@med.wayne.edu
Website: <http://www.med.wayne.edu/cher/>
Director: R. Michael Massanari, M.D.

Center for Legal Studies

3369 Law School Bldg.; 313-577-3947; Fax: 313-577-1060
e-mail: swinter@wayne.edu
Website: <http://www.law.wayne.edu/organization/cls/default.htm>
Director: Steven Winter, J.D.

Center for Molecular Medicine and Genetics

540 E. Canfield; 313-577-5326; Fax: 313-577-5218
e-mail: lgrossman@wayne.edu
Website: <http://cmmg.biosci.wayne.edu/>
Interim Director: Lawrence Grossman, Ph.D.

Center for the Study of Arts and Public Policy

3347 Old Main; 313-577-5200; Fax: 313-577-0935
e-mail: d_magidson@wayne.edu
Website: <http://www.capp-wsu.org/>
Co-Directors: David Magidson, Ph.D.; Bernard Brock, Ph.D.

Center for the Study of Citizenship

3089 Faculty/Admin. Bldg.; 313-577-2593; Fax: 313-577-6987
e-mail: mkruman@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.

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

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.

Humanities Center

2226 Faculty/Admin. Bldg.; 313-577-5471; Fax: 313-577-2843
e-mail: Walter.Edwards@wayne.edu
Website: <http://www.research.wayne.edu/hum>
Director: Walter Edwards, Ph.D.

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

226 Knapp Bldg.; 313-577-2297; Fax: 313-993-7122
e-mail: p.lichtenberg@wayne.edu
Website: <http://www.iog.wayne.edu>
Director: Peter Lichtenberg, Ph.D.

Institute for Information Technology & Culture

163 Manoogian Hall; 313-874-7010; Fax: 313-577-0174
e-mail: a.batteau@wayne.edu
Website: <http://www.iitc.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.ilpi.wayne.edu/>
Director: Dale Brandenburg, Ph.D.

Institute for Manufacturing Research

237 Physics Bldg.; 313-577-2970; Fax: 313-577-4880
e-mail: skip@wayne.edu
Website: <http://www.imr.wayne.edu>
Director: Lawrence Favro, Ph.D.

Institute for Organizational & Industrial Competitiveness

214 Prentis Bldg.; 313-577-4484; Fax: 313-577-2253
e-mail: lfobes@wayne.edu
Director: Larry Fobes

Institute for Scientific Computing

422 State Hall; 313-577-9038; Fax: 313-577-6868
e-mail: vipin@wayne.edu
Website: <http://www.isc.wayne.edu>
Interim Director: Vipin Chaudhary, Ph.D.

Karmanos Cancer Institute

4100 John R., 2nd Floor; 313-993-7770; Fax: 313-993-7165
e-mail: ruckdeschel@karmanos.org
Website: <http://www.karmanos.org>
Director: John Ruckdeschel, M.D.

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.

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.

Skillman Center for Children

100 E. Palmer; 313-577-7166; Fax: 313-872-7126
e-mail: kristine.miranne@wayne.edu
Website: <http://www.skillmancenter.culma.wayne.edu/index.html>
Managing Director: Kristine Marianne, Ph.D.



SCHOOL OF BUSINESS ADMINISTRATION

DEAN: Harvey Kahalas

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 study designed to provide professional education. Students may select majors in accounting, business logistics, finance, management, information systems and manufacturing, and marketing. Degrees of Bachelor of Science in Business Administration or 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 School Bulletin.

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, 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, 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 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 and Manufacturing
- 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

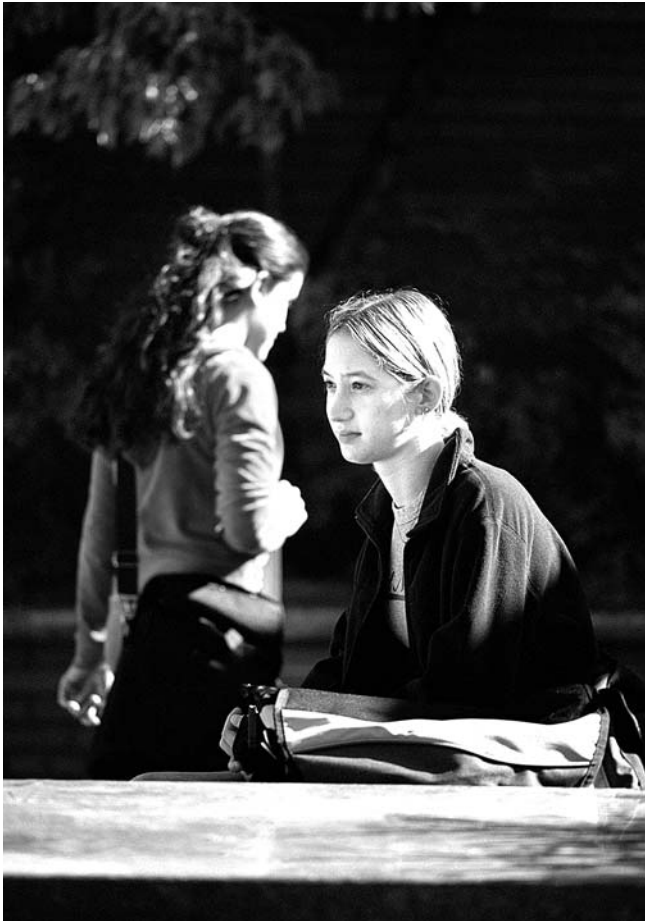
MASTER OF SCIENCE IN ACCOUNTING

MASTER OF SCIENCE IN TAXATION

* For specific requirements, see the Wayne State University Graduate Bulletin*

DIRECTORY OF THE SCHOOL

Dean: 226 Prentis Building; 313-577-4501
Associate Dean: 206 Prentis Building; 313-577-4503
Associate Dean: 208 Prentis Building; 313-577-4213
Assistant Dean of Student Services
200 Prentis Building; 313-577-4510
Assistant Dean of Administrative Services
105M Prentis Building; 313-577-4502
Assistant Dean of External Affairs
240 Rands House; 313-577-4448
Director, Computing and Information Services
6 Prentis Building; 313-577-4546
Director of Development/Alumni Affairs
226 Prentis; 313-577-9208
Director of Professional Development
240 Rands House; 313-577-4448
Director, Institute for Organizational and Industrial
Competitiveness (IOIC): 226 Prentis; 313-577-4484
Director, Manufacturing Information Systems Center (MISC)
100 Rands House; 313-577-7837
Director, Office of Student Services: 200 Prentis Building; 313-577-4510
Student Senate Office: 116 Rands House; 313-577-4783
Department of Accounting: 200 Rands House; 313-577-4530
Department of Business: 328 Prentis Building; 313-577-4520
Undergraduate Program Information: 313-577-4505
Graduate Program Information: 313-577-4510
Website: <http://www.busadm.wayne.edu>



BACHELOR'S DEGREES

Admission Requirements

For 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 32.)

For Transfer Students: Students must meet University requirements for general admission. (See Undergraduate admission requirements, page 32.) 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.

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; 313-577-4510

Business Administration Curriculum

The Undergraduate program in Business Administration includes course work in University General Education requirements (see page 16), 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 -- Introductory Financial Accounting Theory: Cr. 3
Prereq: Sophomore standing; MAT 1500 or equiv; ECO 2010, 2020 or equiv.

*ACC 3020 -- Introductory Managerial Accounting Theory: Cr. 3
Prereq: ACC 3010 (with a minimum grade of C (2.0)) and ALL ACC 3010 prerequisites.

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 ENG 1010.

and

Pass the English Proficiency Examination in Composition.

NOTE: Students must successfully pass this examination prior to the completion of 60 semester credits.

Mathematics

Courses Equivalent to or at a higher level than:

*MAT 1500 -- Finite Mathematics for the Social & Management Sciences: Cr. 3 (Prereq: Placement Examination)
and

Pass the Mathematics Competency (MC) Examination.

Statistics

*ISM 3300 -- Quantitative Methods I: Probability & Statistical Inference: Cr. 3 (recommended) 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 16) 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 16). In reviewing that material, students should note that COM 3300 satisfies the Writing-Intensive major course requirement for business administration curricula. Passing the Computer Literacy Competency Examination satisfies the Computer Literacy requirement for students enrolled as freshmen prior to Fall 2005; students enrolled thereafter must also complete the Computer Proficiency requirement (see page 18). 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 4400 -- Quantitative Methods II: Statistical Methods: Cr. 3

Must be satisfactorily completed in first sixteen credits after admission to the School of Business Administration

ISM 4600 -- Production Operations Management: Cr. 3

ISM 4630 -- Business Information Systems: Cr. 3

MGT 4530 -- 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 4300 -- 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 and Manufacturing, 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 56 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 56 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 Urban, Labor and Metropolitan Affairs, 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.

LANGUAGE ELECTIVES: Students who are preparing for careers in the global economy or employment opportunities overseas or with multinational corporations should consider electing foreign language courses. In addition, students who wish to earn the Bachelor of Arts degree may utilize their electives toward the satisfying of the Bachelor of Arts foreign language requirements (see below). For more information, contact the Department in the College of Liberal Arts and Sciences in which the language is taught.

Bachelor of Arts in Business Administration

Admission Requirements: see above, page 71.

DEGREE REQUIREMENTS are the same as for the Bachelor of Science, cited above, with the additional requirement that a student must attain a level of proficiency in a single foreign language equivalent to the completion of eleven credits through university-level course work or placement by examination administered by the appropriate Wayne State University foreign language Department. In some instances, completion of the Bachelor of Arts foreign language requirements may result in course work beyond the 122 credit minimum.

Minor in Business Administration

The School of Business Administration offers a minor in business administration for undergraduate students majoring in other disciplines. The Business Minor consists of six courses, totaling eighteen credits. Students must also complete prerequisite courses with a minimum grade of 'C' (2.0 g.p.a.) for each course. The minor provides an excellent opportunity for non-business majors to broaden their knowledge of the business disciplines. In addition, the program enhances career prospects and establishes a solid business base for pursuing a Master of Business Administration degree. To be eligible to apply for the Business Minor, students must have a minimum overall grade point average of 2.5.

PREREQUISITE COURSES

ECO 2010 -- (SS) Principles of Microeconomics: Cr. 3

ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 3
and

Course(s) Equivalent to or at a higher level than:

MAT 1500 -- Finite Mathematics for the Social & Management Sciences: Cr. 3

REQUIRED COURSES

ACC 3010 -- Elementary Financial Accounting Theory: Cr. 3

FIN 4290 -- Business Finance: Cr. 3

MGT 4530 -- Management of Organizational Behavior: Cr. 3

MKT 4300 -- 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; 313-577-3390.

Students admitted to the program with minimum junior standing should recognize that an additional calendar year may be needed to fulfill the requirements for the bachelor's degree. No academic credit is granted for participation in the Co-op Program; Satisfactory/Unsatisfactory ('S/U') grades are given, however, and are entered on the official University transcript.

ACADEMIC REGULATIONS

For complete information regarding academic rules and regulations of the University, students should consult the General Information section of this bulletin, beginning on page 5. The following additions and amendments pertain to the School of Business Administration.

All students must fulfill the upper-division requirements of the School of Business Administration in effect at the time of admission to the School of Business Administration.

Admission to the School

Students seeking a business degree must be granted regular admission to the University to be eligible for admission to the School of Business Administration.

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. Furthermore, it is the responsibility of each student to adhere to the principles of academic integrity. Academic integrity means that a student is honest with him/herself, fellow students, instructors, and the University in matters concerning his or her educational endeavors. Thus, a student should not falsely claim the work of another as one's own, or misrepresent him/herself so that the measures of one's academic performance do not reflect his/her own work or personal knowledge. Assignments submitted for any class are expected to be original, i.e., not resubmissions of work submitted in a previous or concurrent class.

If there are reasonable grounds to believe that a student has disregarded the regulations or student responsibilities, he or she may be disciplined. Such discipline may include suspension or dismissal, but

no dismissal will be directed without reasonable opportunity for an appropriate hearing, as provided in the Student Due Process statute.

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 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: 313-577-3400. 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 requirements are stated in the University General Education Program; see page 22.

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.

For students enrolled in Fall 1987 or after and prior to Fall 1990, the mathematics competency is fulfilled by the satisfactory completion of former MAT 150, 180, 201, or their equivalents, prior to the student earning thirty credits. For students enrolled in Fall 1990 or thereafter, MAT 150 or MAT 180 will no longer satisfy the competency requirement; students must also pass the Mathematics Competency Examination. Students should consult with their adviser regarding the various course or test options and procedures for satisfying the competency requirement.

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 31.

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 58) 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 considered a withdrawal ('W'), unless prior to the end of that year the student requests and the instructor agrees to certify in writing to the University Records Office that additional time is needed for the removal of the Incomplete.

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 44. 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.

Transfer of Courses in Major

No more than six semester transfer credits may be applied toward a student's major requirements. These courses must have received a grade of 'C' or better. Transfer of major credit beyond six semester hours may be applied toward free elective requirements.

Waiver of Course Prerequisites

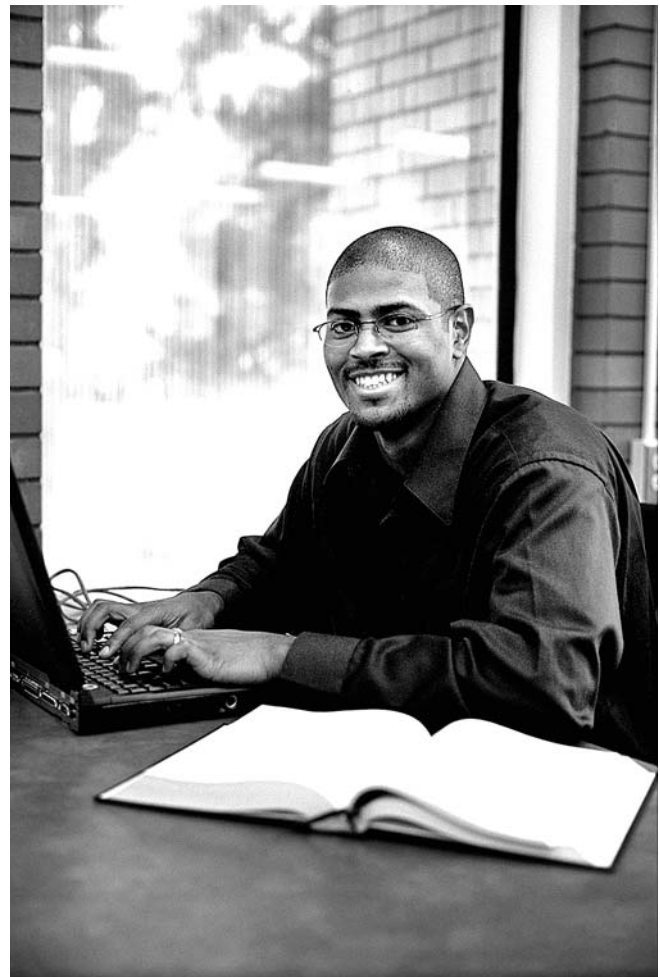
Students must comply with all course prerequisites as stated in this bulletin and in the Schedule of Classes. Exceptions may be granted in certain cases for which prior written approval of the Assistant Dean of Student Services or the appropriate Department Chairperson is required.

Waiver of Degree Requirements

Students must comply with degree requirements as listed in this bulletin and on their Plans of Work. Students may petition for a modification in degree requirements by completing a waiver form and submitting it to the Office of Student Services of the School of Business Administration. Waiver of a *School requirement* requires the recommendation of the Undergraduate Committee and the approval of the Dean or his/her designee. Waiver of a *Departmental requirement* requires the recommendation of the Departmental Chairperson. Undergraduate students are advised that no faculty member is authorized to approve a change in degree requirements.

Withdrawals from Class

See page 47 for the University policy on adjusting your schedule. Tuition refund and withdrawal policy also appears each semester in the Schedule of Classes.



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 Prentiss.

Richard H. Austin Excellence in Accounting Scholarship: Award of variable amount established to recognize potential abilities and academic achievements of minority accounting students.

Stanton P. Bocknek Memorial 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 Charlynnne 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 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 Czamanske/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 Fund: 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 Scholarship: This scholarship is designated for academically-gifted minority business students.

Irving H. Frank Memorial Award: Established to encourage a student interested in the retail field.

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 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.

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.

George R. Husband 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 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 Prentiss.

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 Scholarship: Established to recognize business students who are employed a minimum of twenty hours per week and are in financial need.

Jack Kuzminski Memorial Scholarship: Established to recognize scholastic achievement of students majoring in finance.

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.

MichCon—Leon Atchison Scholarship: Amount depends on funds available; open to any minority 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 Scholarships and Financial Aid.

Bruce E. Mullican Memorial Scholarship: Established in 1984 in memory of MBA 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 Scholarship Fund: Recognizes scholastic achievement of female graduate students in the School of Business Administration.

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.

Aubrey C. Roberts Memorial Scholarship: Award open to accounting majors demonstrating high overall scholarship and outstanding academic achievement in accounting subjects.

Bruce H. and Rosalie Rosen Endowed Scholarship: Established to recognize a full-time undergraduate majoring in management who exhibits excellence in academics, leadership, and character.

Peter A. Schweitzer 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 Scholarship: Award of variable amount open to marketing students of high academic achievement specializing in advertising/public relations.

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

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

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 JD/MBA degree.

Louise C. Wissman Endowed Memorial Scholarship: This award recognizes African-American 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.

Dean's Award for Outstanding Service: Award made in recognition of outstanding student service to the School of Business Administration. For information, contact the School's Student Services Office, 200 Prentiss.

Dean's List: Each semester undergraduate students who have excelled in their academic studies are honored by placement on the Dean's List.

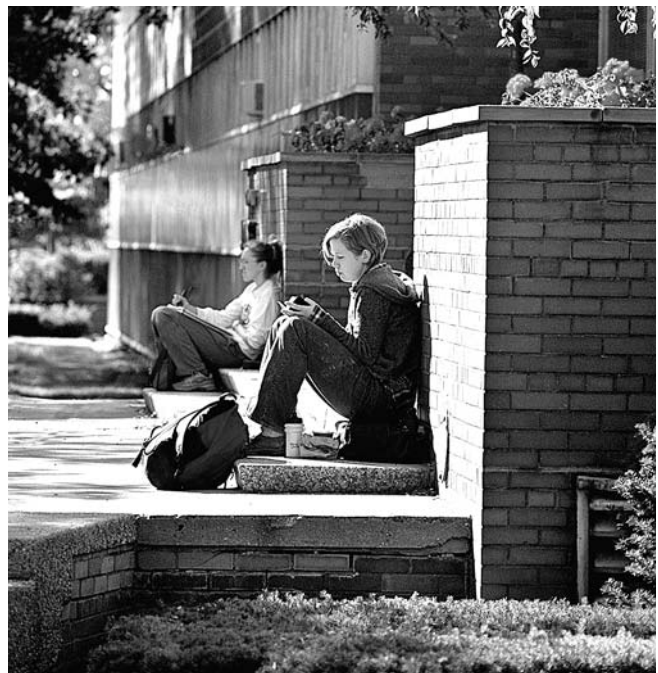
Delta Sigma Pi Scholarship Award: Awarded annually to the graduating senior with the highest scholarship in business administration.

Distinguished 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.

Beta Gamma Sigma

Membership in Beta Gamma Sigma is the highest national recognition a student can receive in an undergraduate or master's program in business. To be eligible for membership in this honor society, a student must rank in the upper five per cent of the junior class, upper ten per cent of the senior class, or upper twenty per cent of the master's program.



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: 313-577-4510 or 313-577-4505.

Institute for Organizational and Industrial Competitiveness (IOIC)

IOIC provides companies with current information about the elements of organizational competitiveness; fosters interaction among executives, policy makers and academics; and increases the exposure of students to the opportunities and challenges confronting organizations. Through the Institute, Director Harvey Kahalas facilitates and supports research to assist companies in gaining and sustaining a competitive advantage. For further information, call 313-577-4484.

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 underutilized. 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 313-577-7837.

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 35 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, video-conferencing, 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

SMALL BUSINESS SERVICES

Building on 20 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: 313-577-4449, or Fax: 313-577-4354.

Placement Services

The School of Business Administration has its own Placement Office to assist students in making informed career decisions and securing employment. Individual and group assistance is available on resume writing, interview techniques and business etiquette.

The School works with the University Placement Services office (1001 Faculty/Administration Building) to assist students in finding employment both while going to school and upon obtaining their degrees. Prospective employers visit the University twice each year to recruit graduating seniors and M.B.A. students for positions with their firms. Career counseling and other placement services, including a career/placement library, are also available for business administration students. Some employment opportunities are posted on the Career Board located in the Prentis Building lower level.

Student Organizations

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.

The Business Marketing Association (BMA) is a national organization consisting of over 5000 members who hold various positions throughout the industry of business-to-business advertising and communication. The Wayne State Chapter members benefit by exposure to opportunities within the advertising industry, gaining practical experience and developing professional methods and techniques within the field. The BMA also provides opportunities for scholarships, internships, and chapter competition.

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 MBA 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 (313-577-4783) or the University Student Center and Program Activities Office (313-577-3444).

ACCOUNTING

Office: 200 Rands House; 313-577-4530

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), Albert D. Spalding, Jr., James F. Wallis (Emeritus)

Assistant Professors

Angela Andrews, Kreg Danvers, Huijing Fu

Senior Lecturers

Susan D. Garr, Deborah Jones

Lecturers

Melvin Houston, Frank Lamarra, Randolph C. Paschke

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 72). 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 page 16, 43, and 71.

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 -- Asset Accounting: Cr. 3

ACC 5110 -- Equity Accounting: Cr. 3

ACC 5130 -- Accounting Systems Design and Control: Cr. 3

ACC 5160 -- Managerial Accounting: Cr. 3

ACC 5170 -- Taxes on Income: 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 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 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 5992 -- Database Systems: Cr. 3

ISM 5860 -- Data Communications and Networks: 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 their status at the Registrar's Office to 'Post-Baccalaureate.' Students who have received an undergraduate degree in these areas from another institution must complete the Application for Undergraduate Admission form and request that official transcripts be sent directly to the Office of Admissions.

CERTIFICATE REQUIREMENTS: Candidates for this certificate must successfully complete a minimum of twenty-four credits in course work at Wayne State University following completion of the bachelor's degree, with a cumulative grade point average of not less than 2.0. Of these twenty-four credits, students must complete a minimum of six credits from courses offered by the Department of Accounting. Additionally, a minimum of twelve credits must be from courses offered within the School (Accounting, Finance, Information Systems, Marketing, and Management).

Each student's Plan of Work will be individually designed. Students intending to use this certificate to meet the requirements for licensure as a Certified Public Accountant in Michigan will work with their adviser to insure 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 479. 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.

3010 Introductory Financial Accounting Theory. Cr. 3

Prereq: sophomore standing, ECO 2010 and ECO 2020, MAT 1500. Introduction to financial accounting principles; preparation and interpretation of balance sheets and income statements. (T)

3020 Introductory Managerial Accounting Theory. Cr. 3

Prereq: ACC 3010 with minimum grade of C, ECO 2010, ECO 2020, MAT 1500. Introduction to managerial accounting: terms and concepts, systems design, cost behavior, cost-volume-profit analysis, business planning and control, and the use of accounting information in managerial decision making. (T)

3510 Business Law I. Cr. 3

Prereq: sophomore standing. Introduction to the domestic and international legal systems. Impact of the legal environment on management decision-making. Law of contracts and sales, including products liability. (T)

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)

4990 Directed Study in Accounting. Cr. 1-3 (Max. 6)

Prereq: 2.75 cumulative g.p.a. to be eligible; written approval on proposal form prior to registration; consent of chairperson of student's major Department. Open only to School of Business Administration upper division students; others by consent of adviser. Three credits maximum in an academic semester. Advanced readings and research or tutorial under the supervision of a faculty member in areas of special interest to student and faculty member. (T)

5100 Intermediate Financial Accounting: Assets. Cr. 3

Prereq: ACC 3020. Open only to School of Business Administration upper division students; others by consent of adviser. Offered for undergraduate credit only. Conceptual foundations of accounting principles for preparing financial statements; analysis of theories and procedures for valuing and accounting for assets, including receivables, inventory, property, plant and equipment, and intangibles. (F,W)

5110 Intermediate Financial Accounting: Liabilities and Equities. Cr. 3

Prereq: ACC 5100. Open only to School of Business Administration upper division students; others by consent of adviser. Offered for undergraduate credit only. Study of equities in corporate assets; concepts and procedures in accounting for bonds, leases, pensions, income taxes, and owners' equity; calculation of earnings per share and disclosure requirements; measurement of income concepts. (F,W)

5120 Advanced Accounting. Cr. 3

Prereq: ACC 5110. Offered for undergraduate credit only. Open only to School of Business Administration upper division students; others by consent of adviser. No credit after former ACC 6996. Advanced financial accounting course focusing on theory and practical applica-

tions of accounting for consolidated entities and partnerships; includes foreign currency transactions, hedging, and derivatives. (W)

5130 Accounting Systems Design and Control. Cr. 3

Prereq: ACC 5100, ISM 4630. Open only to School of Business Administration upper division students; others by consent of adviser. Offered for undergraduate credit only. Principles of design, control, and evaluation of computer-based systems for processing accounting information. Techniques for data base design and information systems auditing. (F,W)

5160 Managerial Accounting. Cr. 3

Prereq: ACC 3020. Open only to School of Business Administration upper division students; others by consent of adviser. Offered for undergraduate credit only. Strategic examination of cost management topics, including: cost-benefit analysis, product-costing systems, cost allocation and estimation, financial and cost-volume-profit models, decision-making, capital investment issues, variance analysis and flexible budgets, organizational design and responsibility accounting. (F,W)

5170 Taxes on Income. Cr. 3

Prereq: ACC 3020 or 6010. Open only to School of Business Administration upper division students; others by consent of adviser. Offered for undergraduate credit only. Introduction to a broad range of tax concepts as they relate to business and individual taxation, emphasizing the role of taxation in the business decision-making process. (T)

5180 Governmental and Not-for-Profit Accounting. Cr. 3

Prereq: ACC 3020 or 6010. Open only to School of Business Administration upper division students; others by consent of adviser. Offered for undergraduate credit only. Theory and practical applications of accounting for governmental and not-for-profit organizations; focus on both technical accounting issues and management and regulatory issues for both state and local governments and for other types of not-for-profit entities. (Y)

5190 Business Law II. Cr. 3

Prereq: ACC 3510 and sophomore standing. Open only to School of Business Administration upper division students; others by consent of adviser. Offered for undergraduate credit only. Law of agency, corporations, partnerships and negotiable instruments. Professional liability. (Y)

5270 Advanced Tax Topics. Cr. 3

Prereq: ACC 5170. Offered for undergraduate credit only. Open only to School of Business Administration upper division students; others by consent of adviser. Advanced tax topics affecting business entities, including compensation plans; mergers, acquisitions and other business restructurings; tax effects of multijurisdictional transactions and operations; and financial accounting for taxes. (F)

5290 Topics in Accounting. Cr. 3

Prereq: ACC 5100. Current developments in the profession of accounting, such as: merger and acquisitions, new government 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 g.p.a. or above, successful completion of ACC 5100 with minimum grade of B. Internship with professional accounting firms or accounting or tax departments of companies. (T)

5996 Auditing, Assurance and Attestation. Cr. 3

Prereq: ACC 5110, ISM 4400. Open only to School of Business Administration upper division students; others by consent of adviser. Offered for undergraduate credit only. No credit after former ACC 5140. Principles and procedures of auditing; professional standards and responsibilities of the certified public accountant. (F,W)

BUSINESS

Office: 328 Prentis Building; 313-577-4520

Chairperson: Margaret Smoller

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), Harvey Kahalas, J. Patrick Kelly (Emeritus), James E. Martin, John G. Maurer (Emeritus), Richard O. Osborn, Irvin D. Reid, Edward A. Riordan, Jone M. Rymer (Emeritus), Milton H. Spencer (Emeritus), Joseph Tan, Attila Yaprak

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, Mbodja 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, Fred P. Unruh (Emeritus), Harish Verma, David Verway (Emeritus), Frank L. Voorheis (Emeritus), John D. Wagster, David L. Williams

Assistant Professors

Neveen Awad, Joan Penner-Hahn, Eric Tsang

Senior Lecturers

Jonathan Lee, Ariel S. Levi, Paul Reagan, Sandra Williams

Lecturers

Thomas C. Anderson, William Burrell, Clinton Andrews, Clyde Chaffee, Christine Miller, David Palmer, William Pritchard, William Spaulding, George Vlachos

Degree Programs

BACHELOR OF ARTS in Business Administration
with majors in

Business Logistics

Finance

Information Systems And Manufacturing

Management

Marketing

BACHELOR OF SCIENCE in Business Administration
with majors in

Business Logistics

Finance

Information Systems and Manufacturing

Management

Marketing

Bachelor's Degrees with a Major in Finance

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 72), 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 page 16, 43, and 71.

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 with currency exchange rates, foreign economic conditions and forecasts, and techniques for reducing the risk of investments.

FINANCE MAJOR REQUIREMENTS

ACC 5100 -- Asset Accounting: Cr. 3

FIN 5210 -- Security Analysis and Valuation: Cr. 3

Electives (Choose four of the following. Students must include either FIN 6996 or FIN 6997 as one of the four choices)

ACC 5110 -- Equity Accounting: 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: 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 an organization 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 and Manufacturing

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 72), 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 page 16, 43, and 71.

Information Systems and Manufacturing (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 5992 -- Database Systems: Cr. 3
ISM 5860 -- Data Communications and Networks: 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
(Since 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) Introduction 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 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 72), 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 page 16, 43, and 71.

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 5680 -- 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 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 72), 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 page 16, 43, and 71.

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: Cr. 3
MKT 5850 -- Promotional 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 -- Transportation and Distribution Management: Cr. 3
BLG 5620 -- Business Logistics Management: Cr. 3
BLG 6997 -- Business Logistics Analysis and Planning: Cr. 3

Three electives from a Departmental list, including:

MKT 5650 -- Purchasing Management (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 7000-9999 which are offered for graduate credit only may be found in the graduate bulletin. For interpretation of numbering system, signs and abbreviations, see page 479. 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)

4580 Business in the International Environment. Cr. 3

Prereq: MGT 4530 or equiv. Open only to students admitted to School of Business Administration; others by consent of instructor. Theoretical and practical rationales for international business activities. Key concepts such as absolute and comparative advantage, mercantilism and the product cycle theory. (F,W)

4590 U.S. - Japan Relations: The Business Perspective. Cr. 3

Prereq: MGT 4530 or equiv. Open only to students admitted to School of Business Administration; others by consent of instructor. Japanese business structure, culture and practice. Dynamics of business activities and transactions between American and Japanese firms. Comparison of American and Japanese styles of management, negotiation, and decision-making. (Y)

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)

5880 U.S. - European Union Relations: The Business Perspective. Cr. 3

Open only to students admitted to the School of Business Administration; others by consent of adviser. Prereq: MGT 4530. Overview of business relations between the U.S. and EU members. Business cultures and practices of major trading partners; dynamics of business activities between U.S. and EU. History and organization of the EU; progress toward European integration. (Y)

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: 2.75 g.p.a, consent of instructor. Advanced readings and research or tutorial under supervision of faculty member. (T)

5600 Transportation and Distribution Management. Cr. 3

Prereq: 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 Business Logistics Management. Cr. 3

Prereq: 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: 3.0 g.p.a., MGT 4600. 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 Business Logistics 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)

4230 Financial Markets, Institutions and Securities. Cr. 3

Prereq: ECO 2010; ACC 3020 recommended. 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)

4290 Business Finance. Cr. 3

Open only to upper division students admitted to School of Business Administration. Prereq: ECO 2010, ACC 3010 and ISM 3300 or equiv. Principles of financial administration, with applications to problems of financial analysis, control, and planning by firms under changing economic conditions. (T)

4500 (MGT 4500) Business Administration Co-op Assignment. (ACC 4500) (MKT 4500) Cr. 0

Offered for S and U grades only. No credit toward degree. Must be elected by Professional Development Co-operative Program students during work semester. Opportunity to put theory into practice on the job. Students will normally be assigned to cooperating business organizations for internship periods of one semester. (T)

4990 Directed Study in Finance. Cr. 1-3 (Max. 6)

Open only to upper division students admitted to School of Business Administration. Prereq: 3.00 cumulative g.p.a. to be eligible; written approval on proposal form prior to registration, consent of Chairperson of Department in which student is majoring. 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 4290 or former FBE 5290, 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 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 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 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 of firms dealing in international money and capital markets. Analysis of international investments, currency problems and financial aspects of exporting and importing functions. (F,W)

5330 Bank Management. Cr. 3

Prereq: 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 4290, prior consent of instructor, 3.0 cumulative g.p.a. Offered for S and U grades only. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. Offered for undergraduate credit only. Minimum ten-page paper (excluding exhibits) discussing a problem or opportunity facing the sponsor organization, application of financial concepts, and outcomes relative to the problem or opportunity; summary presentation to Department Chairperson. (I)

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 and MANUFACTURING COURSES (ISM)

3300 Quantitative Methods I: Probability and Statistical Inference. Cr. 3

Prereq: MAT 1500 or higher or equiv. No business or free elective credit. 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)

4400 Quantitative Methods II: Statistical Methods. Cr. 3

Prereq: ISM 3300 or ECO 5100 or equiv. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. 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)

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)

4600 Production Operations Management. Cr. 3

Prereq: ISM 3300 or ECO 4100 or equiv. No graduate credit. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. 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)

4630 Business Information Systems. Cr. 3

Prereq: ISM 2630 or equiv. and MAT 1500 or equiv. Offered for undergraduate credit only. No credit after former ACC 4630. Open only to School of Business Administration upper division students; others by consent of adviser. 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)

4990 Directed Study in Information Systems and Manufacturing. Cr. 1-3 (Max. 6)

Prereq: 2.75 cumulative g.p.a.; written approval on proposal prior to registration; consent of Chairperson of student's 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) Purchasing Management. Cr. 3

Prereq: 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 selection, quantity and delivery, and price determination. Strategic, ethical, legal, international issues. (Y)

5680 Operations Strategy in a Global Environment. Cr. 3

Prereq: MGT 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. Application of quantitative models to the solution of these problems. Topics covered are decision analysis, aggregate systems, inventory control, material requirements planning and PERT and CPM; emphasis on competing in a global marketplace, quality management. (Y)

5820 Systems Analysis and Design. Cr. 3

Prereq: 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: ISM 4630 and consent of instructor; open only to School of Business Administration upper division students, others by consent of advisor. Offered for undergraduate credit only. Written assignments 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)

5992 Data Base Systems. Cr. 3

Prereq: ISM 4630. No credit after former ACC 5992. Open only to School of Business Administration upper division students; others by consent of adviser. Effective use of data base management systems for processing management information; design and administration of systems. Material Fee As Indicated In The Schedule of Classes (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 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: MGT 4600, ISM 4400 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 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 techniques necessary for the management of information systems. (Y)

MANAGEMENT COURSES (MGT)**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)

4530 Management of Organizational Behavior. Cr. 3

Prereq: PSY 1010 or 1020. No credit after MGT 4510 or 4520. 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)

4990 Directed Study in Management. Cr. 1-3 (Max. 6)

Open only to upper division students admitted to School of Business Administration. Prereq: 2.75 cumulative g.p.a.; written approval on proposal form prior to registration; consent of major chairperson. 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 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 4520 or 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 Managing Diversity. Cr. 3

Prereq: MGT 4520 or 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 4290, MGT 4510 or 4530, MKT 4350. 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 4510 and 4520 or 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 include: job design, employment planning, selection, training and development, performance appraisal, compensation, labor relations and affirmative action within the legal parameters set forth by the Federal and state governments. (T)

5740 Collective Bargaining. Cr. 3

Prereq: MGT 4510 and 4520 or 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. Development of union-management relationships, including legal environment of labor relations; philosophy and practice of collective bargaining. A bargaining simulation is normally utilized. (T)

5770 Advanced Human Resource Management. Cr. 3

Prereq: MGT 5700 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. In-depth study of selected areas within the personnel function such as selection, performance appraisal and compensation; emphasis on applica-

tion of human resource management theory. Specific personnel techniques discussed and utilized. (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: MGT 4530; minimum 2.5 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 to give a fifteen-minute presentation to class summarizing the experience. (T)

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. 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, 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)

4300 Marketing Management. Cr. 3

Prereq: ECO 2010. Planning the marketing program within social, economic and legal environments. Market segmentation and behavior, market systems and strategy, international marketing. (T)

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: 2.75 cumulative g.p.a. to be eligible; written approval on proposal form prior to registration; consent of chairperson of student's 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)

5410 Marketing Research and Analysis. Cr. 3

Prereq: MKT 4300, 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 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 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 4300. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. Advertising principles relevant to a wide variety of organizations; research, advertising copy, layout; media of advertising; advertising management of departments and agencies; campaign strategy; budgeting, and testing effectiveness. (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, criticizing, testing, and revising magazine, newspaper, radio, television, outdoor and direct mail advertisements. (F,W)

5510 Advertising Media Planning. Cr. 3

Prereq: MKT 5490 or consent of instructor. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. Influence of marketing, creative and media objectives upon media planning. Information systems, budgeting approaches, media characteristics, media models, schedule construction, execution, and auditing. (F,W)

5520 Public Relations of Business. Cr. 3

Open only to upper division students admitted to School of Business Administration. Philosophy of public relations of business, history of public relations, study of public opinion, the public relations process, tools of communication, uses of mass media in public relations work, and analysis of methods employed in establishing sound public relations programs. (T)

5650 Purchasing Management. (ISM 5650) Cr. 3

Prereq: 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 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 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 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 Promotion Strategy. Cr. 3

Prereq: MKT 4300. Open only to upper division students admitted to School of Business Administration; others by consent of adviser. Development of integrated strategies, plans and programs in advertising, personal selling, publicity and promotion, and their implementation in the overall marketing effort. (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, Khrushchev thaw, 1960s Renaissance, implosion of Soviet empire. (Y)

5890 Internship in Marketing. Cr. 3

Prereq: 3.0 g.p.a.; MKT 4300; 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 4300, 4330, 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 find 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 occur 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

The programs of the College of Education have been accredited by the National Council for Accreditation of Teacher Education since 1954. The College has been reaccredited regularly since that time. Full accreditation for its programs was again granted in 1997 for a seven-year period. In addition, 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
Exercise and Sport Science
Health Education
Kinesiology
Mathematics Education— Secondary
Science Education— Secondary
Social Studies Education— Secondary
Special Education— with concentrations in
 Speech Impaired
 Cognitive Impairment
Speech Education— Secondary

BACHELOR OF SCIENCE in Education
with majors in the areas listed above

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
 Dance
 English Education
 Foreign Language Education

Mathematics Education
Science Education
Social Studies Education
Speech

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
 Early Childhood Education
 Children's Literature
 General Elementary Education
 Mathematics Education
 Science Education
 Social Studies Education
 Special Education

Secondary Education — with concentrations in:
 Bilingual-Bicultural Education (Minor)
 Career and Technical Education
 English Education
 Foreign Language Education
 Mathematics Education
 Science Education
 Social Studies Education

PK-12 Education - with concentrations in:
 Art Education
 Kinesiology - with concentration in:
 Physical Education
 Special Education

**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
 Bilingual Education
Career and Technical Education
Counseling
Early Childhood Education
Educational Leadership
Educational Psychology
Elementary Education — with concentrations in:
 Early Childhood Education
 Language Arts and Reading
 Literature for Children
 Mathematics Education
 Science Education
 Social Studies Education

* For specific requirements, see the Wayne State University Graduate Bulletin.

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
 Mathematics Education
 Reading
 Science Education
 Social Studies Education— Secondary
 Special Education — with concentrations in:
 Cognitive Impairment
 Early Childhood
 Emotionally Impaired
 Learning Disabilities

***EDUCATION SPECIALIST CERTIFICATES**
with majors in:

Counseling with concentrations in:
 Counseling
 Rehabilitation Counseling and Community Inclusion
 Curriculum and Instruction — with concentrations in:
 Bilingual-Bicultural Education
 Career and Technical Education
 Early Childhood Education
 Elementary Education
 English Education
 Mathematics Education
 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

* For specific requirements, see the Wayne State University Graduate Bulletin.

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 Director 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.

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.

Transferred Credits and Residence Requirements

College credits earned in 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.

In general, a maximum of fifteen credits may be earned by correspondence and 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.

During the senior year, not more than ten transfer credits may be accepted. The student must be in residence during the semester in which he/she completes requirements for graduation.

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 certifi-

cate by transfer but at least fifteen credits must be completed at Wayne State.

Probation and Withdrawal

If, at any time, an undergraduate's scholastic average falls below 2.5, 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 the Office of Academic Services, 469 Education Building. 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.



ACADEMIC SERVICES

Office: 469 Education; 313-577-1601

Assistant Dean: Janice Green

Graduate Advising: Sharon Sellers-Clark, Lee Randall,
Kevin Williams

Undergraduate Advising: Janet Andrews, Ebony Green

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: Counselors in the Academic Services Office may act as temporary advisers for students who have not been assigned permanent advisers or who have special needs. Usually, the counselors act as advisers for in-service teachers working for professional certification and for those seeking additional certificate endorsements.

Freshman and sophomore students enrolled in the pre-teaching curriculum prior to admission to the College of Education are advised by the University advising staff located in 1600 Adamany Library.

Each student admitted to the College at the undergraduate level 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 now 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 application forms and additional information from the Office of the Dean, 441 Education. Refer to application form for deadline date.

Art Education Students:

Art Education Alumni Scholarship: Award of \$350 per semester 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 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.

Freda A. Harrington Endowed Memorial Scholarship: Award of \$500 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.

Clarice O. Percox Endowed Memorial Scholarship: Award of \$500 open to full- or part-time art education majors or students accepted for study in the College of Education Art Education program, with scholastic achievement, qualities of leadership, and financial need.

Earl A. Weiley Endowed Memorial Scholarship: Award of \$500 per academic year 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 Betsey Welling Endowed Memorial Scholarship: Award of \$350 per semester (\$700 per academic year) 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.

Fern E. Zwickey Endowed Memorial Scholarship: Award of \$500 per academic year for 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: Award of \$1000 (pending available funding) 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. Not open to incoming freshmen or transfer students.

Eva Marie and William S. Billups Endowed Scholarship: Award of varying amount open to African-American 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.

Career and Technical Education Scholarship: Award of \$500 (pending available funding) open to full- or part-time African-American students, graduate or undergraduate, in the Career and Technical Education program. Criteria include a cumulative g.p.a. of at least 3.5, scholastic achievement or potential, financial need, and desirable qualities of character and leadership.

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: Award of two academic years' tuition (two semesters per year, twelve credits per semester), 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. Recipients may be eligible for repeat awards.

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): Award of \$1500 open to female 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): Award of \$500 open to fourth year female 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 (Metropolitan Council) Scholarship: Award of \$500 open to full-time female undergraduate students enrolled in a planned degree program. Criteria include a cumulative 3.0 g.p.a. (or above), residence in metropolitan Detroit area, and enrollment in final phase of student teaching.

Delta Kappa Gamma Society / Irene Waldorf Endowed Scholarship: Award of varying amount open to full-time undergraduate or graduate female students enrolled in a planned degree program. Criteria include a cumulative g.p.a. of 3.0 or above and demonstrated financial need. A representative of Delta Kappa Gamma will have the opportunity to review the candidate's files.

Detroit Area Council of Teachers of Mathematics Scholarship: Award of \$500 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 which recognizes scholastic achievement of 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: Award of \$1000 open to full- or part-time graduate students majoring in or otherwise demonstrating a strong interest in a career as an educator. Preference will be given to African American applicants. Transfer stu-

dents are eligible for this scholarship, and recipients are eligible for repeat awards.

Jean Banks Holloway Endowed Scholarship: Award of \$1000 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: Award of \$500 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, or in evaluation of 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. Minority students are encouraged to apply. Criteria include a minimum cumulative 3.0 g.p.a. and financial need.

Gary Murphy Scholarship: Award of \$1000 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 males pursuing elementary education careers. Recipients are eligible for repeat awards.

Gena E. Ratner Memorial Scholarship in Special Education: Award of \$500 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: Award of up to \$500 in 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: Award of \$500 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: Award of \$1500 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: Award of \$500 open to graduates of the Detroit Public Schools who have been accepted to 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.

Elizabeth Halfert Youngman Endowed Memorial Scholarship for Science Teachers: Award of varying amount open to full- or part-time undergraduate or graduate students majoring in science education. Amount depends on available funds and may be used for tuition and books.

Theoretical and Behavioral Foundations Students:

Hazel Graham Endowed Scholarship: Award of \$500 open to full- or part-time Counseling or Educational Psychology students. Criteria include a cumulative g.p.a. of at least 3.5 and financial need. A 500-

word essay regarding the importance of counseling or educational psychology as a field of learning or a career path must accompany the application.

George E. Leonard Memorial Scholarship: Award of \$500 open to graduate students enrolled in a planned degree program in counselor education with a demonstrated professional interest in the area of career education. Criteria include high academic performance; and a 500-600 word essay on some aspect of career education must accompany the application.

Administrative and Organizational Studies Students:

William and Frances LaPlante-Sosnowsky Scholarship (in memory of Amanda Parker Funnelle): An award of varying amount, which may be used for tuition and books, open to a full- or part-time graduate student in the College of Education who has been accepted in or enrolled in the Educational Leadership and Policy Studies Program. Preference is given to female students. 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 (KHSS) Scholarship: Award of \$500 open to a full- or part-time student in a KHSS 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; minority students are encouraged to apply. 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: Award of \$500 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 ALL College of Education Students:

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: Award of \$500 open to full-time African American 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 (determined by the Scholarship Committee), and financial need.

Donna Jean Nunnally 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: Given in memory of former faculty members, this award of \$500 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: Given in honor of the Chairperson of the College of Education Faculty and Academic Staff Assembly, this award of \$500 is 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 African American male students who are 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.

Michigan State Board of Education Scholarship: Award of \$1000 (pending available funding) open to students enrolled in the College of Education who have a minimum g.p.a. of 3.0; preference is given to minority students. Applicants need not demonstrate financial need.

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 of \$500 is open to undergraduate students. Criteria include a minimum cumulative g.p.a. of 3.5, evidence of leadership and potential for becoming an outstanding educator, excellent work in the field component of the teacher education professional sequence, commitment to the field of education, and financial need.

Sally Patterson Memorial Scholarship: Award of \$500 open to physically-challenged undergraduate or graduate students enrolled in the College of Education who have financial need and a cumulative minimum g.p.a. of 3.0.

June and John Rounding Endowed Scholarship: Award of varying amount open to all students in the College, with preference given to women applicants who, in addition to working outside their homes, are pursuing graduate or undergraduate study in Education. 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: Award of \$1000 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: Award of \$1000 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.

Loans

For information on College of Education Student Loan Funds, contact Mr. Brian Jones, Office of the Dean, College of Education, 441 Education Building; 313-577-1640; e-mail: <ac5059@wayne.edu>. Loan programs are designed to assist undergraduate as well as graduate College of Education students who are currently enrolled in degree programs and are attending the University on at least a half-time basis.

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 the Golden Anniversary Tea in honor of fifty-year graduates of the College, honors both alumni and faculty with awards and recognition, and supports the work of the Dean in carrying forward many activities of mutual interest and concern. In becoming active members of the Association, the graduates of the College have ample opportunity to uphold and develop the best movements and ideals set forth by educational leaders and to lead in professional friendliness among all teachers.

COLLEGE OF EDUCATION DIRECTORY

Dean of the College of Education:

Paula C. Wood: Room 441, Education Building; 313-577-1620

Associate Dean, Research:

Steven Ilmer: Room 441, Education Building; 313-577-1620

Assistant Dean, Academic Services:

Janice Green: Room 489, Education Building; 313-577-1605

Interim Assistant Dean, Administrative and Organizational Studies:

Joann Holbert: Room 341, Education Building; 313-577-1721

Assistant Dean, Kinesiology, Health, and Sport Studies:

Sarah Erbaugh: Room 261, Matthaei Building; 313-577-6210

Assistant Dean, Teacher Education:

Gerald Oglan: Room 241, Education Building; 313-577-0902

Assistant Dean, Theoretical and Behavioral Foundations:

Joanne Holbert: Room 341, Education Building; 313-577-1721

Assistant to the Dean:

Cam Liebold: Room 441, Education Building; 313-577-3284

Website: <http://www.coe.wayne.edu/>



KINESIOLOGY, HEALTH, and SPORT STUDIES

Office: 261 Matthaei Building; 313-577-4265

<http://www.KHS.wayne.edu>

Assistant Dean: Sarah J. Erbaugh

Website: <http://www.kinesiology.wayne.edu>

Associate Professors

Herman-J. Engels, Sarah J. Erbaugh, Mariane Fahlman, Randall J. Gretebeck, Qin Lai, Jeffrey J. Martin

Assistant Professors

Joseph A. Dake, Avanelle Kidwell, Nathan A. McCaughtry, Peter A. Roberts, Bo Shen, William W. Sloan, Delano W. Tucker, John C. Wirth

Lecturers

Judith S. Bowen, Suzanna R. Dillon, Bridget A. Norris, Steven P. Singleton

Degree and Certificate Programs

*BACHELOR OF SCIENCE in Education
with a major in kinesiology*

*BACHELOR OF SCIENCE in Education
with a major in health education*

*BACHELOR OF ARTS in Education
with a major in kinesiology*

*BACHELOR OF ARTS in Education
with a major in health education*

**MASTER OF EDUCATION with a major in health education*

**MASTER OF EDUCATION with a major in kinesiology
and concentrations in exercise and sport science,
kinesiology pedagogy, and wellness*

**MASTER OF ARTS IN TEACHING with a major in kinesiology*

**MASTER OF ARTS with a major in sports administration
and with concentrations in interscholastic athletic administration,
intercollegiate athletic administration, professional sports
administration, recreation administration, and commercial
sports administration*

The Division of Kinesiology, Health and Sport Studies provides courses at the undergraduate level in several professional areas: kinesiology - teacher certification, and exercise and sport science, and health education - teacher certification. The Division also provides programs at the Master's level in all three areas. Additionally, the Division offers courses in driver education and lifestyle fitness activities. The latter program is designed to serve the general student population; courses are open to both undergraduate and graduate students.

Courses in these areas may be used to meet degree and curricular requirements of the various Schools and Colleges of the University. Students are advised to consult their academic advisers in their respective Schools or Colleges prior to registration.

* For specific requirements, see the Wayne State University Graduate Bulletin.

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 Liberal Arts and Sciences. General Education courses are taken concurrently with Kinesiology requirements. Students must apply for formal admission to the College of Education, Room 469 Education Building, when they have completed fifty credits and must have met all the criteria listed below. Upon application, students should request admission into the Kinesiology major program.

1. Effective Winter 2005, students interested in becoming certified teachers must supply a criminal background record prior to admission to the College of Education and again upon certification.
2. A minimum overall grade point average of 2.5.
3. Completion of English 1020 or equivalent.
4. Satisfactory completion of the University English Proficiency Examination and Mathematics Competency Examination. Students in the Teacher Certification Program must also pass the basic skills portion of the Michigan Test for Teacher Certification (MTTC).
5. Attendance at a College of Education Orientation session.
6. Documentation of group work with children at the time of application (teacher certification track only).
7. Possession of personal attributes most desirable for teachers, including a high standard of moral conduct and an understanding of the nature of responsible citizenship (teacher certification track only).
8. Physical and emotional health commensurate with the demands of the kinesiology profession.
9. Negative TB test (teacher certification track only).

Post Degree: Students should follow the procedures for application and file a Post Degree Form in Room 469 Education Building.

DEGREE REQUIREMENTS: A minimum of 124 credits are required for completion of this degree: a minimum of forty credits in general education (including satisfaction of the University General Education requirements, see page 16); forty-seven 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 124 credit requirement may be used in any area. All course work must be completed in accordance with the academic procedures of the College of Education and University governing undergraduate scholarship and degrees; see sections beginning on pages 16, 43, 91 and 107. 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 track include: acquisition of skills in and knowledge of a variety of movement activities, including fundamental motor skills, dance, fitness, and leisure activities; the ability to apply knowledge about human movement acquired from its subdisciplines to the teaching of kinesiology; the ability to analyze and evaluate individual human motor performance in a variety of age groups and skill levels; and the capacity to systematically evaluate one's own teaching performance and to plan, implement and manage effective lessons.

Exercise and Sport Science Track: This degree track is designed to provide self-directed students with a specialized background for graduate-level study and professional work in the field of exercise

and sport science. This track is basic to careers in such fields as adult fitness, corporate fitness, exercise physiology, athletic training, cardiac rehabilitation, and recreation and leisure; and it is prerequisite to the necessary post-graduate study or additional certification requirements of the field. (For additional information, please see Division website: <http://www.kinesiology.wayne.edu>)

General Education Requirements

(Required with each option)

BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3-4
BIO 2870 -- Anatomy and Physiology: Cr. 5
HEA 2330 -- First Aid and CPR: Cr. 3

KINESIOLOGY CORE

(Required with each option: Pedagogy, and Exercise and Sport Science Tracks)

KIN 1991 -- Professional Perspectives in Physical Education: Cr. 2
KIN 3400 -- Lifespan Growth and Development: Cr. 3
KIN 3540 -- (H E 3540) Cultural Foundations of Kinesiology: Cr. 3
KIN 3550 -- (WI) Motor Learning and Control: Cr. 3
KIN 3580 -- Biomechanics: Cr. 3
KIN 5500 -- Evaluation and Measurement in Kinesiology and Health: Cr. 3
KIN 5580 -- Pediatric Exercise Physiology: Cr. 3
Total credits: 20

KINESIOLOGY PEDAGOGY TRACK

KIN 2580 -- Individual Sports I & II (Cr. 3, Max. 6): Cr. 6
KIN 2590 -- Team Sports I & II (Cr. 3, Max. 6): Cr. 6
KIN 3440 -- Aquatic Leadership: Cr. 4
KIN 5400 -- Inclusion in Physical Education: Cr. 3
KIN 5440 -- Physical Education for Elementary School Children I: Cr. 3
KIN 5450 -- Physical Education for Elementary School Children II: Cr. 3
Lifestyle Fitness Activity (LFA) course: Cr. 2
Total credits: 27

PROFESSIONAL EDUCATION REQUIREMENTS

EDP 3310 -- Educational Psychology: Cr. 3
KIN 5460 -- Instructional Methods in Physical Education: Cr. 3
KIN 5780 -- Student Teaching and Seminar I: Cr. 8
KIN 5790 -- Student Teaching and Seminar II: Cr. 5
RLL 4431 -- (WI) Reading: Middle and Secondary Subject Areas: Cr. 3
Total credits: 22

EXERCISE SCIENCE AND SPORT SCIENCE TRACK

REQUIRED

BIO 2870 -- Anatomy and Physiology: Cr. 5
H E 3440 -- Nutrition and Health Education: Cr. 3
HEA 2310 -- Dynamics of Personal Health: Cr. 3
KHS 5520 -- Sport Psychology: Cr. 3
KHS 5522 -- Exercise Psychology: Cr. 3
KHS 5523 -- Health Psychology: Cr. 3
KIN 1991 -- Professional Perspectives in Physical Education: Cr. 2
KIN 2010 -- Psycho-Physiological Foundations: Cr. 3
KIN 3400 -- Lifespan Growth and Development: Cr. 3
KIN 3540 -- (H E 3540) Cultural Foundations of Physical Education: Cr. 3
KIN 3550 -- (WI) Motor Learning and Control: Cr. 3
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 5350 -- Exercise Science Internship: Cr. 2-4
KIN 6320 -- Fitness Assessment and Exercise Prescription: Cr. 3
KIN 6310 -- Physiology of Exercise II: Cr. 3
Total credits: 60

ELECTIVES

H E 5440 -- Mental Health and Substance Abuse: Cr. 3
HEA 2330 -- First Aid/CPR: Cr. 3
KHS 5521 -- Physical Education Psychology: Cr. 3

KHS 6540 -- Workshop in KHS: Cr. 1-3
KIN 2560 -- Individual Problems in Kinesiology: Cr. 1-3
KIN 5330 -- Principles of Athletic Training: Cr. 3
KIN 5340 -- Prevention, Care and Evaluation of Athletic Injuries: Cr. 3
KIN 5360 -- Senior Research Project: Cr. 1-8
KIN 5510 -- Coaching Principles and Certification: Cr. 3

Total Credits: 10

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, 2580, 2590, 3550, 3580, 5440, 5450, 5460, 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 CORE FOR PEDAGOGY MINOR

Select two of the following:

KIN 3400 -- Lifespan Growth and Development: Cr. 3

KIN 3550 -- (WI) Motor Learning and Control: Cr. 3

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

KIN 5580 -- Pediatric Exercise Physiology (Prereq: BIO 2870 or equiv.): Cr. 3

SPECIALIZED TEACHING CORE (Fifteen Credits — One of the following options required)

Secondary

KIN 2010 -- Psycho/Physiological Fdns. of Physical Activity: Cr. 3

KIN 2580 -- Phys. Ed. in Secondary Schools I and II: Cr. 6

KIN 2590 -- Phys. Ed. in Secondary Schools I and II: Cr. 6

Secondary minors must also complete KIN 5460, Instructional Methods in Physical Education.

Elementary

KIN 2010 -- Psycho/Physiological Foundations of Physical Activity: Cr. 3

KIN 2580 -- Individual Sports I (or) II: Cr. 3

KIN 2590 -- Team Sports I (or) II: Cr. 3

KIN 5440 -- Physical Education for Elementary School Children I: Cr. 3

KIN 5450 -- Physical Education for Elementary School Children II: 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 -- P.E. for Students with Special Needs: Methods & Matls.: Cr. 3

KIN 5420 -- Sports and Recreation for Children with Special Needs: Cr. 3

KIN 5430 -- Practicum in Physical Education 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 Instrnl. Strategies for Exceptional Learners: Cr. 4

SED 5600 -- Collaborative Support for Inclusive Education for Students with Special Needs: Cr. 3

Total credits: 24

Bachelor of Science in Education with a major in Health Education

Admission Requirements: Undergraduate health education students entering Wayne State University, either from high school or transferring from other universities or colleges, are admitted directly into the College of Liberal Arts and Sciences. General Education courses are taken concurrently with health program requirements. Students must apply for admission to the College of Education, room 469 Education Building, when they have completed fifty credits and must have met all of the criteria listed below. Upon application, students should request admission into the Health Education program.

1. Effective Winter 2005, students interested in becoming certified teachers must supply a criminal background record prior to admission to the College of Education and again upon certification.
2. Satisfactory completion of two years of college work: A minimum of fifty-three semester or eighty quarter credits of work must be completed with an overall grade point average of 2.5 or above. In addition, the g.p.a. for any courses taken at Wayne State must also be at 2.5 or above. Transfer student work should generally conform to the two years of preprofessional work prescribed by the College for students who expect to prepare for teaching. The quality of course work, especially in the major area, must indicate a strong potential for success in a teacher education program.
3. Students must satisfactorily complete both the University English Proficiency Examination and the University Mathematics Proficiency Requirements. Students must also have completed ENG 1020 or an acceptable equivalent.
4. All students must pass the basic skills portion of the Michigan Test for Teacher Certification (MTTC).
5. Definite standards of health must be met by all students. All students are required to pass a TB test.
6. Students must provide documentation of group work with children at the time of application.
7. Students must possess personal attributes most desirable for teachers, including a high standard of moral conduct and an understanding of the nature of responsible citizenship.

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 16); 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 page 16, 43, 91 and 107. All courses must be completed with grades of 'C' or better and an overall 2.5 grade point average, to meet College graduation requirements. Course changes may occur through periodic curriculum revision and students are urged to consult assigned advisers prior to each registration period to insure that all requirements are met.

Teacher Certification: The following requirements apply to students seeking teacher certification:

1. Students must complete one semester of student teaching/seminar at the secondary level.
2. Students must submit completed application forms by the appropriate application period deadline:

Term I (Fall Semester): 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 TB test within six months prior to the time the assignment begins. Test results must be submitted with the application.
4. 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 subject matter tests
5. Students must successfully complete the following courses: BIO 1510; HEA 2310, 2320, 2330; H E 3300, 3330, 3400, 3440, 3540, 4340, 5500, 5660, 6430; KHS 6600; EDP 3310; and RDG 4430. (An incomplete grade does not constitute satisfactory completion.)
6. 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 CORE (Forty-four credits)

- 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 3400 -- Lifespan Growth and Development: Cr. 3
- H E 3440 -- Nutrition and Health Education: Cr. 3
- 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 5660 -- Mental Health: Cr. 3
- H E 6430 -- School Health Curriculum: Cr. 3
- KHS 6600 -- Role of Health Professional in Substance Abuse: Cr. 3
- KIN 2010 -- Psycho-Physiological Found. of Phys. Activity and Health: Cr. 3
- KIN 3540 -- (H E 3540) Cultural Foundations of Kinesiology: Cr. 3
- KIN 5500 -- Evaluation and Measurement in Kinesiology and Health: Cr. 3

PROFESSIONAL EDUCATION REQUIREMENTS (Twenty credits)

- H E 3330 -- School Health Education: Cr. 3 (for minors); Cr. 4 (for majors)
- H E 5780 -- Directed Student Teaching: Cr. 10
- RLL 4431 -- (WI) Reading: Middle and Secondary Subject Areas: Cr. 3
- EDP 3310 -- Educational Psychology: Cr. 3

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 degree 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 7-12. The elementary minor qualifies individuals for a health teaching endorsement in grades K-6. In addition, a minor in this field may be combined with nursing or other health science fields.

The requirements for a minor in health education include courses in five areas: 1) professional preparation; 2) physical health (classes need to be taken in a specific order for this reason); 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:

- 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 3330 -- School Health Education (Secondary Minors): Cr. 3
(Prereq: 18 credits of health education course work)
- H E 3340 -- Health Ed. for Elem. School Teachers (Elem. Minors): Cr. 3
- H E 3440 -- Nutrition and Health Education: Cr. 3
- H E 4340 -- Family and Reproductive Health: Cr. 3
- H E 5440 -- Mental Health and Substance Abuse: Cr. 3
- H E 6430 -- School Health Curriculum: Cr. 3 (Prereq: H E 3330)
(Taken after completion of all other Minor Requirements)

Total credits: 24

Kinesiology Pedagogy Minor for Health Education Major - Secondary

Required Courses (15 credits)

- KIN 1991 -- Professional Perspectives in Physical Education: Cr. 2
 - KIN 2580 -- Individual Sports I and II (Cr. 3, Max. 6): Cr. 6
 - KIN 2590 -- Team Sports I and II: (Cr. 3, Max. 6): Cr. 6
 - KIN 5460 -- Instructional Methods in P.E.: Cr. 3
(Prereq: KIN 2580 I&II & KIN 2590 I&II and admission to College of Education): Cr. 3
 - KHS 6540 -- Workshop in KHS: Cr. 1
- Select two of the following: (6 credits)
- KIN 3550 -- (WI) Motor Learning and Control: Cr. 3
 - KIN 3580 -- Biomechanics (Prereq: BIO 2870 or equiv.): Cr. 3
 - KIN 5400 -- Inclusion in Physical Education: Cr. 3
 - KIN 5580 -- Pediatric Exercise Phys. (Prereq: BIO 2870 or equiv.): Cr. 3

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 479.

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 teaching role in driver and traffic safety education. (W,S)

HEALTH COURSES (HEA)

- 2310 Dynamics of Personal Health. Cr. 3**
For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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 (H E)

- 2010 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. (Y)
- 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 School Health Education. 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. (Y)

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 science, and health. (Y)

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 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. (Y)

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 School Health Curriculum. Cr. 3

Prereq: H E 3330. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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. (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)

2010 Psycho-Physiological Foundations of Physical Activity and Health. Cr. 3

Physiological and psychological foundations of physical activity evaluated using the scientific method. Laboratories demonstrate relevant concepts and principles. (T)

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 science, and health. (F)

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)

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. (F,W)

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)

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 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. 3

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)

5440 Physical Education for Elementary School Children I. Cr. 3

Prereq: KIN 2580 I & II, KIN 2590 I & II, KIN 3400. 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)

5450 Physical Education for Elementary School Children II. Cr. 3

Prereq: KIN 5440. Continuation of KIN 5440, 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)

5460 Instructional Methods in Physical Education. 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)

5500 Evaluation and Measurement in Kinesiology and Health. 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,W)

5580 Pediatric Exercise Physiology. Cr. 3

Prereq: BIO 2870. Contemporary physiological concepts as related to exercise and physical performance capacity in children, and their practical applications. (Y)

5780 Student Teaching and Seminar I. Cr. 6-8 (FLD: 0;SMR: 0)

Prereq: consent of kinesiology student teaching coordinator. Offered for S and U grades only. Elementary experience in student teaching in the schools for students pursuing physical education teacher certification. Includes weekly seminar, covering topics related to teaching physical education in schools. (F,W)

5790 Student Teaching and Seminar II. Cr. 4-5

Prereq: consent of kinesiology student teaching coordinator. Offered for S and U grades only. Secondary experience in student teaching for students pursuing physical education teacher certification; includes weekly seminar. (F,W)

6310 (PSL 6010) Physiology of Exercise II. (PT 6310) Cr. 3

Prereq: KIN 5570 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 Fitness Assessment and Exercise Prescription. Cr. 3

Prereq: KIN 6310. Physiological and anatomical principles of physical fitness. Optimum nutrition for health, weight control and performance. Construction of fitness programs and evaluation of fitness levels. (W)

6410 Introduction to Sports Administration. Cr. 3

Current categories of competitive sports and athletics identified and analyzed to determine potential administrative positions in their structures and the qualifications necessary for each position. (F,W)

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

5520 Sport Psychology. Cr. 3

History, personality, psychology of injury; theories of motivation, arousal, and anxiety; competition and cooperation, feedback, reinforcement and intrinsic motivation. Team dynamics, group cohesion, communication, and leadership processes, psychological qualities and skills (such as goal setting, imagery, concentration). Unhealthy sport behaviors, burnout, and over-training. (Y)

5521 Physical Education Psychology. Cr. 3

Research on teacher-affect, behavior, and cognition in the areas of teacher efficacy, stress, attitudes, knowledge, and class management. Student-related topics include motivation, efficacy/competency, attitude, self-esteem development, knowledge, affect, learned helplessness, meaningfulness, alienation in physical education. (W)

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. (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)

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)

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. (T)

1190 Lifeguard Training. Cr. 2

Prereq: Level IV 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 Aquaerobics. Cr. 2 (Max. 4)

Cardiovascular and muscular endurance program using water resistance exercises performed to music; shallow water, low-impact; variable workout intensity, controlled by music tempo, choreography, and optional use of additional resistance devices. Swimming skills not necessary. (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. (F)

1350 Pocket Billiards: Beginning. Cr. 2 (Max. 4)

Bowling lane rental fee: \$25. Basic skills and technique; history, rules, equipment and game courtesies. (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 courtesies. 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)

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. (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 Oglan

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 Whitin

Associate Professors

Navez Bhavangri, John S. Camp, Ann Cavallo, Jazlin Ebenezer, Thomas Edwards, Sharon Elliott, Karen Feathers, Maria Ferreira, Steve Imer, Gerald Oglan, Joseph Sales, Sr., Jacqueline Tilles, Phyllis Whitin, Paula Wood

Assistant Professors

Gina DeBlase, Holly Feen, Mark Larson, Bob Pettapiece, Sally K. Roberts, Marc H. Rosa, Jo-Ann Snyder, Marshall Zumberg

Lecturers

Kathleen Arkles, Elsie Babcock, Carmen Ruth Bosch, James Brown, Hal Dittenber, Placidia Frierson, Joan Livingston, Anna Miller, Susan Piazza, Anne Williamson

Degree and Certificate Programs

BACHELOR OF ARTS in Education

with majors in the following areas:

Art Education
Career and Technical Education
Elementary Education
English Education — Secondary
Exercise and Sport Science
Health Education — Secondary
Mathematics Education — Secondary
Science Education — Secondary
Social Studies Education — Secondary
Special Education— with concentrations in
 Speech Impaired
 Cognitive Impairment
Speech Education— Secondary

BACHELOR OF SCIENCE in Education

with majors in the areas listed above

All of the baccalaureate degree programs listed above lead to Michigan Provisional Certification.

**MASTER OF ARTS IN TEACHING*

with majors in:

Elementary Education— with concentrations in:
 Bilingual-Bicultural Education
 Early Childhood Education
 General Elementary Education
Secondary Education— with concentrations in:
 Art Education
 Bilingual-Bicultural Education (Minor)
 Career and Technical Education
 English Education
 Foreign Language Education
 Mathematics Education
 Science Education
 Social Studies Education
 Special Education — Elementary

* For specific requirements, see the Wayne State University Graduate Bulletin.

**MASTER OF EDUCATION with majors in:*

Art Education — with a concentration in:
 Art Education
 Art Therapy
Bilingual-Bicultural Education — with a concentration in:
 Bilingual 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
 Literature for Children
 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
 English as a Second Language
Mathematics Education
Reading
Science Education
Social Studies Education— Secondary
Special Education— with concentrations in:
 Cognitive Impairment
 Early Childhood — Special Education
 Emotional Impairment
 Learning Disabilities

**EDUCATION SPECIALIST CERTIFICATE*

Curriculum and Instruction— with concentrations in:
 Art Education
 Bilingual-Bicultural Education
 Career and Technical Education
 Early Childhood
 Elementary Curriculum and Instruction
 Foreign Language Education — Secondary
 Mathematics Education
 Science Education
 Secondary Curriculum and Instruction
 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
 General Education
 K-12 Curriculum
 Mathematics Education
 Science Education
 Secondary Education
 Social Studies Education
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 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

Communication, Dance, Music



BACHELOR'S DEGREE REQUIREMENTS

Admission — Freshmen and Sophomores

— *entering with less than two years of college credit*

All students intending to pursue a teaching curriculum (except in the fields of art education or kinesiology) who enter the University directly from high school, or transfer from other colleges with less than fifty-three semester credits, are admitted by the University Admissions Office into the College of Liberal Arts and Sciences for pre-education course work.

Students intending to prepare for teaching in any of the areas cited as exceptions above, with less than fifty-three semester credits, are admitted directly to the College of Education. Admission for each of these groups is through the University Office of Admissions, Welcome Center, 42 W. Warren Ave., P.O. Box 02759, Detroit, Michigan 48202; telephone: 313-577-3577.

For information regarding application procedures, admission requirements and fees please refer to the General Information section of this bulletin, page 32.

Admission — Juniors and Above

— *entering with two or more years of college credit*

The standards listed below apply to those students entering the College of Education for the first time with junior year or higher standing, those working for a secondary or elementary school teaching certificate, those in a combined degree program, and those previously admitted at the freshman or sophomore level to the College of Education in the fields listed above.

Eligibility for admission is based on the following criteria:

1. Satisfactory Completion of Two Years of College Work: A minimum of fifty-three semester or eighty quarter credits of work must be completed with an overall grade point average of 2.5 or above. In addition, the grade point average for any course work taken at Wayne State University must also be 2.5 or above. This work should generally conform to the two years of preprofessional courses prescribed by the College for students who expect to prepare for teaching. The quality of work, especially in the major area, must indicate a strong potential for success in a teacher-education program.

2. English and Mathematics Proficiency Requirements: All Education students must satisfactorily complete the University English Proficiency Examination and fulfill the University mathematics proficiency requirement prior to admission to the College of Education (see page 21).

3. Michigan Test for Teacher Certification (MTTC): All students must pass the MTTC Basic Skills Test prior to admission. For information and test dates, contact 469 Education Building (telephone: 313-577-1601).

4. Physical Health: Definite standards of health must be met by all students entering the College. All students are required to pass a T.B. test prior to admission to the College.

5. Group Work Experience: All students must have verifiable successful group work experience with children.

6. Specific Prerequisites or other special requirements of the curriculum area for which the student is applying.

College Admission Application

Upon completion of two years of college course work (a minimum of fifty-three semester credits) at Wayne State University, students who intend to teach should apply to the College of Education for admission. 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 Schools and 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 the College of Education 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. NOTE: Some programs require more than 124 credits; note also the addendum cited below for the Bachelor of Arts degree.

1. Forty credits in preprofessional coursework including 6-8 credits in English (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 16).
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.
 - c) Successful completion of First Aid and CPR as verified by certification.

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 in Elementary Education Leading to K-8 Certification

The elementary certificate qualifies the holder to teach all subjects in kindergarten through grade five and all K-8 subjects in a self-contained classroom. Additionally, the major and minor subjects may be taught in the sixth through eighth grade if they have passed their 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: 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 16), but the dual application of any course to both College and University General Education categories cannot be used to reduce the total degree requirement below 124 credits.

No grade below 'C' may be used to meet requirements specific to elementary education, the major, the minor (including the planned minor), or professional education courses; a grade of 'C-minus' is not acceptable.

ENGLISH (Two Courses)

ENG 1020 -- (BC) Introductory College Writing: Cr. 4
Intermediate Composition (IC) -- see General Education Requirements, page 16

EXPOSURE AREAS (for students enrolled as freshmen Fall 2005 and thereafter, see page 20)

FOREIGN CULTURE (see General Education Requirements, page 16)

HEALTH (One Course)

H E 3300 -- Health of the School Child: Cr. 3
HEA 2310 -- Dynamics of Personal Health: Cr. 3
HEA 2330 -- First Aid and CPR: Cr. 3
H E 6500 -- Comprehensive School Health Education: 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 1200 -- (HS) The Medieval World: Cr. 3-4
HIS 1300 -- (HS) Europe and the World: 1500-1945: 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) Society and the Economic Transition: Cr. 3

HUMANITIES (see General Education Requirements, page 16)

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) 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 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
PHY 1020 -- (PS) Conceptual Physics: The Basic Science: Cr. 3-4
PHY 1040 -- (PS) Einstein, Relativity & Quanta: Conceptual Intro.: Cr. 3-4
PHY 2130 -- (PS) General Physics: Cr. 3
PHY 2131 -- General Physics Lab: Cr. 1
PHY 2170 -- (PS) General Physics: Cr. 4
PHY 2171 -- General Physics Lab: Cr. 1
PHY 3100 -- (PS) The Sounds of Music: Cr. 4

LIFE SCIENCES (elect two):

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

MATHEMATICS (Two Courses)

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

SOCIAL STUDIES (Three Courses)

AMERICAN SOCIETY AND INSTITUTIONS:

P S 1010 or P S 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

SPEECH (One Course)

COM 1010 -- (OC) Oral Communication: Basic Speech: Cr. 3

PROFESSIONAL EDUCATION REQUIREMENTS: The following courses are required of all students seeking K-8 certification, regardless of selection of major or minor studies. Courses must be completed with a grade of 'C' or above.

The following courses may be taken while in the College of Liberal Arts and Sciences:

One Biology course from: BIO 1030, 1050, 1500, or 1510
One Health (HEA) course
ELE 3200 -- Literature for Children: Cr. 3
GPH 1100 -- (SS) World Regional Patterns: Cr. 4
HIS 2040 or HIS 2050
-- History of the U.S. to 1877: Cr. 3
-- History of the U.S. Since 1877: Cr. 3
PSY 1010 -- (LS) Introductory Psychology: Cr. 4
MAT 1110 -- Mathematics for Elem. School Teachers I: Cr. 3
MAT 1120 -- Mathematics for Elem. School Teachers II: Cr. 3
P S 1010 or 1030
-- (AI) American Government: Cr. 4
-- (AI) American Governmental System: Cr. 3
SCE 5010 or SCE 5020
-- Biological Sciences for Elem. & Middle School Teachers: Cr. 3
-- Physical Sciences for Elem. & Middle School Teachers: Cr. 3

The following courses, except those marked with an asterisk (), may be taken only after admission to the College of Education:*

CAMPUS COURSES

BBE 5000 -- Multicultural Education in Urban America*: Cr. 2
EDP 3310 -- 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
RDG 4430 -- Tchng. Read. II: Compr. Preprimary -8: (Prereq: 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.

ELE 3320 -- Teaching Reading I: Emergent Literacy: Cr. 3 (Coreq: TED 3550)
TED 3550 -- (WI) Tchng.: Rsch, Theory & Practice: Cr. 5 (Coreq: ELE 3320)

FINAL FIELD EXPERIENCE

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.

ELE 6080 -- Preprimary Goals and Practices: Cr. 3
TED 5780 -- Directed Teaching and Conference: Cr. 8

EARLY CHILDHOOD FINAL FIELD EXPERIENCE

TED 5790 -- Student Teaching & Conference for Special Groups: Cr. 5

MAJOR AREAS OF STUDY: 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 or ENG 5480
-- (IC) Intro. to African American Lit. (AFS 2390): Cr. 4
-- Topics in African American Literature: Cr. 3
ENG 2530 or ENG 2540
-- Literature and Identity: Cr. 3
-- Literatures of the World: Cr. 3
ENG 2310 or ENG 5450
-- Major American Books: Cr. 3
-- Modern American Literature: Cr. 3
ENG 3140 -- (PL) Survey of American Literature: Cr. 3
ENG 2600 or ENG 2110 or ENG 2800
-- Intro. to Folklore: Cr. 3
-- (IC) Introduction to Drama: 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 5720 -- Linguistics and Education: Cr. 3
English Elective: Cr. 3 (English 3100 strongly recommended)

LANGUAGE ARTS GROUP MAJOR (Minimum Thirty-six 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) Intro. to African-American Lit. (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 Elective: Cr. 3

FOREIGN LANGUAGE MAJOR (Thirty to Thirty-five Credits)

French, Italian, and Spanish are the only languages in which Major concentrations are offered. Computation of the thirty required credits includes any and only courses taken at the university level. Courses taught in English translation will not apply toward fulfilling major.

MATHEMATICS MAJOR (Minimum Thirty 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 Tchrs. I: Cr. 3
MAE 5110 -- Number Theory for Middle School Teachers: Cr. 3
MAE 5120 -- (MAT 5120) Number Theory & Algebra
-- for Middle School Teachers: Cr. 3
MAE 5130 -- Problem Solving for Middle School Teachers: Cr. 3
MAT 1110 -- Math. for Elementary School Teachers I: Cr. 3
MAT 1120 -- Math. for Elementary School Teachers II: Cr. 3
MAT 1800 -- Elementary Functions ¹: Cr. 4
MAT 2010 -- Calculus I ¹: Cr. 4
MAT 2860 -- Discrete Mathematics: Cr. 3
STA 1020 or MAT 2210
-- Elementary Statistics: Cr. 3
-- Probability and Statistics for Teachers: Cr. 4

NATURAL SCIENCE GROUP MAJOR (Thirty-Nine Credits)

AST 2010 -- (PS) Descriptive Astronomy: Cr. 4
AST 2011 -- (PS) Descriptive Astronomy Lab: Cr. 1
BIO 1030 -- (LS) Biology Today: Cr. 3

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

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) Chemistry and Your World: Cr. 3-4
CHM 1020 -- (PS) Survey of General Chemistry I: Cr. 4
CHM 6740 -- (PS) Laboratory Safety: Cr. 2
PHY 1020 -- (PS) Conceptual Physics: The Basic Science: Cr. 3-4
SCE 5010 -- Biological Scis. for Elementary & Middle School Teachers: Cr. 3
SCE 5020 -- Physical Scis. 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) World Regional Patterns: Cr. 4
GPH 2200 -- Geography of Michigan: Cr. 3
HIS 1000 -- World Civilization to 1500 Cr. 3-4
HIS 1300 -- (HS) Europe and the World: 1500-1945: Cr. 3-4
HIS 2040 -- United States to 1877: Cr. 3-4
HIS 2050 -- United States Since 1877: Cr. 3-4
HIS 2240 -- History of Michigan: Cr. 3-4
P S 1010 or P S 1030
 -- (AI) American Government: Cr. 4
 -- (AI) The American Governmental System: Cr. 3
P S 3070 -- Michigan Politics: Cr. 4

MINOR AREAS OF STUDY: Additional endorsement areas available to elementary students:

BILINGUAL-BICULTURAL MINOR (Twenty-four Credits)

Note: The student must take the language proficiency examination by the time he/she has completed twelve credits; the exam must be satisfactorily passed before completion of the program.

BBE 5000 -- Multicultural Education in Urban America: Cr. 2
BBE 5020 -- Effective Involvement of Parents in School & Community: Cr. 3
BBE 5500 -- Introduction to Bilingual/Bicultural Education: Cr. 3
BBE 6560 -- Teaching Methods in Bilingual/Bicultural Education: Cr. 3
BBE 6590 -- Culture and Language in BBE: Cr. 3
BBE 6600 -- Internship in Bilingual/Bicultural Teaching: Cr. 4
BBE 6850 -- Applied Linguistics: Issues in Bilingual Education: Cr. 3
LED 6520 -- Teaching English as Second/Foreign Language: Methods I: Cr. 3

DANCE MINOR (Twenty-seven Credits)

DNC 2000 -- (VP) 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 2310 -- (VP) History of Dance from 1800: Cr. 3
DNC 2500 -- Choreography I: Cr. 2
DNC 3010 -- Technique Laboratory II: 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

A Dance Minor carries K-12 certification. For information, contact Professor Eva Powers, 313-577-4273.

EARLY CHILDHOOD MINOR (Minimum Twenty-four Credits)

Note: With the exception of ELE 3200 and PSY 3430, these courses may not be taken prior to admission to the College of Education.

EDP 5450 -- Child Psychology: Cr. 3
ELE 3200 -- Literature for Children:¹ Cr. 3
ELE 6020 -- Seminar in Early Childhood: Cr. 3
ELE 6040 -- Role of Content Areas in Early Childhood Education: Cr. 3
ELE 6070 -- Family, Community and School Partnerships: Cr. 3
ELE 6080 -- Preprimary Goals and Practices: Cr. 3

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

ELE 6340 -- Teaching Reading in Early Childhood Education: Cr. 3
PSY 3430 -- Infant Development: Cr. 3
PSY 3480 -- Parent-Child Interact Across Life Span: Cr. 3
Early Childhood electives: Cr. 3-6

ENGLISH MINOR (Minimum Twenty Credits)

ENG 2200 -- (PL) Shakespeare: Cr. 3
ENG 2390 -- (IC) Intro. to African American Lit. (AFS 2390): Cr. 4
ENG 2530 or ENG 2540
 -- Literature and Identity: Cr. 3
 -- Literatures of the World: Cr. 3
ENG 2600 or ENG 2110 or ENG 2800
 -- Intro. to Folklore: Cr. 3
 -- (IC) Introduction to Drama: Cr. 3
 -- Techniques of Imaginative Writing: Cr. 4
ENG 3120 -- (PL) English Literature after 1700: Cr. 3
ENG 3140 -- (PL) Survey of American Literature: Cr. 3
ENG 5720 -- Linguistics and Education: Cr. 3
Plus English electives (e.g., ENG 2100, 2310, 2600, 3100 [highly recommended], 5450, etc.)

LANGUAGE ARTS GROUP MINOR (Twenty-six Credits)

COM 1500 -- Survey of Mass Communications: Cr. 3
COM 2500 -- Oral Interpretation of Literature: Cr. 3
ENG 2800 -- Techniques of Imaginative Writing: Cr. 4
ENG 2390 -- (IC) Intro. to African-American Lit. (AFS 2390): Cr. 4
ENG 3010 -- (IC) Intermediate Writing: Cr. 3
ENG 3140 -- (PL) Survey of American Literature: Cr. 3
EED 6210 -- Language, Literacy and Learning: Cr. 3
ELE 3200 -- Literature for Children: Cr. 3

FOREIGN LANGUAGE MINOR (Twenty to Twenty-four Credits)

French, Italian, Latin, and Spanish are the only languages in which Minor concentrations are offered. Computation of the twenty required credits includes any and only courses taken at the university level. Courses in literature in English translation cannot be used to fulfill foreign language requirement.

HEALTH EDUCATION MINOR (Twenty-four Credits)

BIO 1050 -- (LS) An Introduction to Life: Cr. 3
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 3330 -- School Health Education: Cr. 3
H E 3440 -- Nutrition and Health Education: Cr. 3
H E 4340 -- Family and Reproductive Health: Cr. 3
H E 5440 -- Mental Health and Substance Abuse: Cr. 3

MATHEMATICS MINOR (Minimum Twenty Credits)

MAE 5100 -- Geometry for Middle School Teachers I: 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 5120 -- Number Theory & Algebra for Middle School Teachers: Cr. 3

MIDDLE-SCHOOL 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
TED 5250 -- Teaching the Emerging Adolescent: Middle Level: Cr. 3
TED 5160 -- (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) Advisor: Cr. 6
Field Experience (credit does not count toward endorsement):
 Student Teaching or on-the-job teaching in grades 6-8

NATURAL SCIENCE GROUP MINOR (Twenty-eight Credits)

AST 2010 -- (PS) Descriptive Astronomy: Cr. 4
AST 2011 -- Descriptive Astronomy Lab: Cr. 1
BIO 1050 -- (LS) An Introduction to Life: Cr. 4

CHM 1000 -- (PS) Chemistry and Your World: Cr. 4
GEL 1010 -- (PS) Geology: The Science of the Earth: Cr. 4
PHY 1020 -- (PS) Conceptual Physics: The Basic Science: Cr. 4
SCE 5010 -- Biological Scis. for Elementary & Middle School Teachers: Cr. 3
SCE 5020 -- Physical Scis. for Elementary & Middle School Teachers: Cr. 3

KINESIOLOGY MINOR (Twenty-one Credits)

REQUIRED CORE (Fifteen Credits):

KIN 5440 -- Physical Education for Elementary School Children I: Cr. 3
KIN 5450 -- Physical Education for Elementary School Children II: Cr. 3
KIN 2580 -- Individual Sports I and II: Cr. 3
KIN 2590 -- Team Sports I and II: Cr. 3
KIN 2010 -- Psycho/Physiological Foundations of Physical Activity: Cr. 3

Plus two courses (six credits) from the following:

KIN 3400 -- Lifespan Growth and Development: Cr. 3
KIN 3550 -- (WI) Motor Learning and Control: Cr. 3
KIN 5570 -- Physiology of Exercise I (Prereq: BIO 2870 or equiv.): Cr. 3
KIN 3580 -- Biomechanics (Prereq: BIO 2870 or equiv.): Cr. 3

Students must contact the Kinesiology Department for advising; appointments may be made by calling 313-577-4265. Courses may be taken only after admission to the College of Education.

SOCIAL STUDIES GROUP MINOR— ELEMENTARY ONLY (Twenty-four Credits)

ECO 1000 -- (SS) Survey of Economics: Cr. 4
ECO elective: Cr. 3
GPH 1100 -- (SS) World Regional Patterns: Cr. 4
GPH 2200 -- Geography of Michigan: Cr. 3
HIS 1000 or HIS 1300
-- (HS) World Civilization to 1500: Cr. 3-4
-- (HS) Europe and the World: 1500-1945: Cr. 3-4
P S 1010 or P S 1030
-- (AI) American Government: Cr. 4
-- (AI) The American Governmental System: Cr. 3
P S 3070 -- Michigan Politics: Cr. 4

Bachelor's Degree Programs in Secondary Education Leading to Grades 7 - 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 College of Fine, Performing and Communication Arts or the College of Liberal Arts and Sciences. For information regarding these combined degree programs, see page 180 and 240, respectively.

Admission Requirements: see page 106.

DEGREE REQUIREMENTS: The following requirements in various curricular areas supplement the degree requirements outlined above (see page 107).

PREPROFESSIONAL REQUIREMENTS: The following courses and course options are required of all students seeking secondary (grades 7-12) 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

ENG 1020 -- (BC) Introductory College Writing: Cr. 4
Intermediate Composition (IC) course: Cr. 3-4

One 2000-level (or above) English course: Cr. 3-4
COM 1010 -- (OC) Oral Communication: Basic Speech: Cr. 3
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
TED 2250 -- Introduction to Education (optional): Cr. 3

EXPOSURE AREAS (for students enrolled as freshmen Fall 2005 and thereafter, see page 20)

FOREIGN CULTURE (see General Education Requirements, page 16)

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) Society and the Economic Transition: Cr. 3

HUMANITIES (see General Education Requirements, page 16)

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) 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 1230 -- General Chemistry I Lab: Cr. 1
CHM 1240 -- Organic Chemistry I: Cr. 4
CHM 1250 -- Organic Chemistry I Lab: Cr. 1
GEL 1010 -- (PS) Geology: The Science of the Earth: Cr. 4
PHY 1020 -- (PS) Conceptual Physics: The Basic Science: Cr. 3-4
PHY 1040 -- (PS) Einstein, Relativity & Quanta: Conceptual Intro.: Cr. 3-4
PHY 2130 -- (PS) General Physics: Cr. 3
PHY 2170 -- (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 1510 or BIO 1030 or BIO 1050
-- (LS) Basic Life Mechanisms: Cr. 4
-- (LS) Biology Today: Cr. 3-4
-- (LS) An Introduction to Life: Cr. 3-4

SOCIAL STUDIES (Two Courses)

AMERICAN SOCIETY and INSTITUTIONS:

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

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

ANT 2100 -- (SS) Introduction to Anthropology: Cr. 4
ECO 1000 -- (SS) Survey of Economics: Cr. 4
ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 4
GPH 1100 -- (SS) World Regional Patterns: Cr. 4
SOC 2000 -- (SS) Understanding Human Society: Cr. 3
SOC 2020 -- (SS) Social Problems: Cr. 3

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: The following courses may be taken only after admission to the College of Education and are required of all students seeking secondary (grades 7-12) 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 4431 -- Tchng. 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 -- 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)

CAREER AND TECHNICAL EDUCATION

- CTE 5410 -- Tchng. Methods for Career and Tech. Ed. Classroom I: Cr. 3
- CTE 6993 -- Tchng. Methods for Career and Tech. Ed. Classroom II: Cr. 3

COMPUTER SCIENCE EDUCATION

- IT 5110 -- Technology Applications in Education & Training: Cr. 3
- IT 5120 -- Producing Technology-Based Instructional Materials: Cr. 2-3

ENGLISH EDUCATION

- EED 5200 -- Methods of Teaching English: Grades 7-12: Cr. 3
- EED 6120 or EED 6330
 - English Composition in Secondary Schools: Cr. 3
 - Teaching Literature in Secondary Schools: Cr. 3

FOREIGN LANGUAGE EDUCATION

- LED 6520 -- Teaching English as Second /Foreign Lang.: Methods I: Cr. 3
- LED 6530 -- Teaching English as Second /Foreign Lang.: Methods II: Cr. 3

MATHEMATICS EDUCATION

Consult a Mathematics Education adviser for possible substitutions and additional courses.

- MAE 5150 -- Methods & Matls. of Instruction -- Sec. Sch. Math.: Cr. 3
- MAE 6050 -- Teaching Mathematics in Middle Grades: Cr. 3

SCIENCE EDUCATION

- SCE 5060 -- Methods & Matls. of Instruction: Secondary Science I: Cr. 3
- SCE 5070 or SCE 6030 (for Group Science Majors only)
 - Methods & Materials of Instruction: Secondary Science II: Cr. 3
 - Adv. Studies in Tchng. Science: Jr. High & Middle Schl.: ¹ Cr. 3

SOCIAL STUDIES EDUCATION

- SSE 6710 -- Methods & Matls. of Instr.: Secondary. Social Studies: Cr. 3
- SSE 6730 -- New Perspectives in Social Studies Education: Cr. 3

SPEECH EDUCATION

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

MAJOR AREAS OF STUDY: Students seeking secondary certification for grades 7-12 must complete one of the following majors:

ENGLISH MAJOR (Thirty-one Credits)

- ENG 2200 -- (PL) Shakespeare: Cr. 3
- ENG 2390 -- (IC) Intro. to African American Lit. (AFS 2390): Cr. 4
- ENG 2530 or ENG 2540
 - Literature and Identity: Cr. 3
 - Literatures of the World: Cr. 3
- ENG 3110 -- (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 -- Traditional Grammar: Cr. 3
- ENG 6010 -- Tutoring Practicum: Cr. 3

FOREIGN LANGUAGE MAJORS (Thirty Credits)

Secondary certification is offered with majors in the following languages: French, German, Italian, Latin, Russian, and Spanish. Requirements for these majors are determined by the appropriate Department in the College of Liberal Arts and Sciences. Students who major in a foreign language are advised to minor in English or in a second foreign language.

MATHEMATICS MAJOR (Forty 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 Math. & Proof Writing: Cr. 3

Plus courses selected from the following to total 40 credits:

- MAT 2210 or MAT 5700
 - (MAT 6150) Probability and Statistics for Teachers: Cr. 4
 - Introduction to Probability Theory: Cr. 4
- MAT 2350 -- Elementary Differential Equations: Cr. 3
- MAT 5070 -- Advanced Calculus: Cr. 4
- MAT 5400 or MAT 5520
 - Elementary Theory of Numbers: Cr. 3
 - Introduction to Topology: Cr. 3
- MAT 5420 -- Algebra I: Cr. 4
- MAT 5610 -- Intro. to Analysis II: Cr. 3
- MAT 6130 -- Discrete Mathematics: Cr. 3
- MAT 6140 -- Geometry: An Axiomatic Approach: Cr. 3

SECONDARY MATHEMATICS MINOR (Minimum 22-23 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

Plus 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

1. Replaces SCE 5070 for Unified Science Group majors only.

SECONDARY SCIENCE MAJOR — SINGLE DISCIPLINE

Students who major in biology (thirty-six credits), chemistry (thirty-six credits), geology (thirty-four credits), or physics (thirty-two credits) must follow the minimum requirements in the major that are designated for a Bachelor of Arts degree by the appropriate Department in the College of Liberal Arts and Sciences. Students who major in chemistry must complete CHM 5600. Students who major in geology must complete AST 2010 and GEL 1370. Students who major or minor in biology must complete BIO 2870.

The following courses outside the major are also required and may be used to fulfill a Group Science Endorsement (36 credits):

BIO 1050 -- (LS) An Introduction to Life: Cr. 4
CHM 1220 -- (PS) General Chemistry I: Cr. 4
CHM 1230 -- General Chemistry I: Laboratory: Cr. 1
CHM 6740 -- Laboratory Safety: Cr. 2
GEL 1010 -- (PS) Geology: The Science of the Earth: Cr. 4
MAT 2010 -- Calculus I: Cr. 4
MAT 2210 or STA 1020
 -- Probability & Statistics: Cr. 4
 -- Elementary Statistics: Cr. 3
PHY 2130 -- (PS) General Physics: Cr. 3
PHY 2131 -- General Physics Laboratory: Cr. 1

All science majors must complete a total of fifty semester credits in science.

UNIFIED SCIENCE GROUP SECONDARY MAJOR *primarily for grades 7 - 9 (Fifty Credits)*

NOTE: North Central Association accreditation requires that new or reassigned science teachers have *at least twelve semester credits* in any science subject that they teach.

Unified Science majors are required to have a total of fifty semester credits in natural science courses, unless their minor is also science. If their minor is natural science they must complete thirty-six credits.

BIOLOGY (12 credits):

BIO 1500 -- Basic Life Diversity: Cr. 4
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
BIO elective: Cr. 3-4

EARTH SCIENCE (11 credits):

AST 2010 -- (PS) Descriptive Astronomy: Cr. 4
AST 2011 -- Descriptive Astronomy Lab: Cr. 1
GEL 1010 -- (PS) Geology: The Science of the Earth: Cr. 4
GEL 1370 -- Meteorology: The Study of Weather: Cr. 3

CHEMISTRY (12 credits):

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 Lab: Cr. 1
CHM 6740 -- Laboratory Safety: Cr. 2

PHYSICS (3 courses plus labs):

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
PHY elective: Cr. 2-4

Additional Science Electives (to total 50 credits): 5

In addition to the above major courses, the following courses are required:

MAT 1800 -- Elementary Functions: Cr. 4
MAT and/or CSC electives: 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) World Regional Patterns: Cr. 4
GPH 2200 -- Geography of Michigan: Cr. 3
HIS 1000 -- (HS) World Civilization to 1500: Cr. 3
HIS 1300 -- (HS) Europe and the World, 1500-1945: Cr. 3-4
HIS 2050 -- United States since 1877: Cr. 3
HIS 2040 -- The United States to 1877: Cr. 3-4
HIS 2240 -- History of Michigan: Cr. 3
P S 1010 or P S 1030
 -- (AI) Principles of American Government: Cr. 4
 -- The American Governmental System: Cr. 3
P S 3070 -- Michigan Politics: Cr. 4

SPEECH COMMUNICATION EDUCATION MAJOR *(Thirty-four Credits)*

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

Required Courses:

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 3270 -- Group Communication and Human Interaction: Cr. 3
COM 3400 -- (WI) Theories of Communication (Coreq: COM 5993): Cr. 4
COM 4040 -- Diversity in Interpersonal Communication: Cr. 3
COM 5030 -- Communication Ethics: Cr. 3
 (Capstone course to be taken in last twenty-one credits of study)
COM 6070 -- Directing Forensics: Cr. 3

Choose one course to satisfy Performing Arts guidelines/standards (Mich. Standards 2.4, 2.5, 2.7, 2.11, 3.1.4, 3.1.5, 3.1.6, 3.2.1, 3.2.2):

COM 2500 -- Oral Interpretation of Literature: Cr. 3
HUM 1020 -- (VP) Experiencing the Arts: Cr. 3
HUM 2000 -- (IC) Reading & Writing about Arts (Prereq: ENG 1020): Cr. 3

Choose one course to satisfy Visual Literacy (Mich. Standards 2.3, 3.1.2, 3.1.6, 3.2.1):

COM 1600 -- Intro. to Audio, TV, and Film Production: Cr. 3
COM 2280 -- Photojournalism: Cr. 3
COM 5300 -- Desktop Publishing: Cr. 4

Total: 34 credits

Required Methods Courses (total six credits): part of undergraduate Education Major or Certification courses (M.A.T. degree):

COM 6060 -- Teaching Communication at the Secondary Level: Cr. 3
Additional Methods Course: Cr. 3

SPEECH -- MEDIA ARTS AND STUDIES MAJOR
(Thirty-six Credits)

This major must be combined with an English Minor (see below).

COM 1500 -- Survey of Mass Communication: Cr. 3
COM 2040 -- Voice and Articulation: Cr. 3
COM 2170 -- Persuasive Speaking: Cr. 3
COM 2230 -- Radio and Television Reporting: Cr. 3
COM 2210 -- Writing for Radio - Television - Film: Cr. 3
COM 3400 -- (WI) Theories of Communication: Cr. 4
COM 4310 -- Audio Production: Cr. 4
COM 4410 -- Television Production: Cr. 4
COM 5400 -- Techniques of Film and Video Production: Cr. 4
COM elective: Cr. 4

MINOR AREAS OF STUDY: Students seeking secondary certification for grades 7-12 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 -- Multicultural Education in Urban America: Cr. 2
BBE 5500 -- Introduction to Bilingual/Bicultural Education: Cr. 3
BBE 6560 -- Teaching Methods in Bilingual/Bicultural Education: Cr. 3
BBE 6600 -- Internship in Bilingual/Bicultural Teaching: Cr. 4
BBE 6700 -- Seminar in Cultural Awareness: Cr. 3
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

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) Intro. to Data Structures and Abstraction: Cr. 4
CSC 2200 -- Data Structures and Algorithm Analysis: Cr. 4
TED 6020 -- Computer Applications in Teaching I: Cr. 3
TED 6030 -- Computer Applications in Teaching II: Cr. 3

Elective (three credits):

CSC 3750 -- Intro. to Web Technology (recommended): Cr. 3

DANCE MINOR (Twenty-seven Credits)

DNC 2000 -- (VP) 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 2310 -- (VP) History of Dance from 1800: Cr. 2
DNC 2500 -- Choreography I: Cr. 2
DNC 3010 -- Technique Laboratory II: Cr. 4
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 Credits)

ENG 2200 -- (PL) Shakespeare: Cr. 3
ENG 2390 -- (IC) Intro. to African American Lit. (AFS 2390): Cr. 4
ENG 2530 or ENG 2540
-- Literature and Identity: Cr. 3
-- Literatures of the World: Cr. 3
ENG 3110 or ENG 3120
-- (PL) English Literature to 1700: Cr. 3
-- English Literature after 1700: Cr. 3
ENG 3140 or ENG 5450
-- (PL) Survey of American Literature: Cr. 3
-- (PL) Modern American Literature: Cr. 3
ENG 5720 -- Linguistics and Education: Cr. 3
ENG 6010 -- Tutoring Practicum: 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. Requirements for these minors are determined by the appropriate Department in the College of Liberal Arts and Sciences. Computation of the twenty credits begins at the intermediate level.

HEALTH EDUCATION MINOR (Twenty-four Credits)

BIO 1050 -- (LS) An Introduction to Life: Cr. 3
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 3330 -- School Health Education: Cr. 3
H E 3440 -- Nutrition & Health Education: Cr. 3
H E 4340 -- Family and Reproductive Health: Cr. 3
H E 5440 -- Mental Health and Substance Abuse: Cr. 3

MATHEMATICS MINOR (Twenty-two to Twenty-three 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

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 20 Credits) (also see the MLE site: <http://ted.coe.wayne.edu/mle>)

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 5160 -- (WI) Analysis of Middle & Secondary School Teaching: Cr. 3

Two methods classes from two different disciplines with the approval of the MLE (Middle Level Endorsement) Advisor: Cr. 6

Electives: Chose at least five MLE credits with the approval of the MLE coordinator

Field Experiences (credit does not count towards endorsement)

Pre-Student Teaching or Student Teaching in grade 6-8.

KINESIOLOGY MINOR (Twenty Credits)

Required Courses:

KIN 2010 -- Psycho-Physiological Foundations of Physical Activity: Cr. 3
KIN 2580 -- Individual Sports I and II: Cr. 6
KIN 2590 -- Team Sports I and II: Cr. 6

Two Elective courses from the following:

KIN 3400 -- Lifespan Growth and Development: Cr. 3
KIN 3550 -- (WI) Motor Learning and Control: Cr. 3
KIN 3580 -- Biomechanics (Prereq: BIO 2870 or equiv.): Cr. 3
KIN 5570 -- Physiology of Exercise I (Prereq: BIO 2870 or equiv.): Cr. 3

Students minoring in kinesiology must be advised by the Kinesiology advisers: 313-577-4265.

SCIENCE MINOR — SINGLE DISCIPLINE (Twenty Credits)

For the science minor, students must complete twenty credits in one of the following disciplines in which the student has NOT accrued major credit: biology, chemistry, geology, and physics. Additionally, students must complete MAT 1800 or its equivalent. Consult a College of Education adviser for specific course requirements.

SOCIAL STUDIES SINGLE SUBJECT MINOR (Twenty Credits)

For a social studies minor in a single subject, twenty credits must be completed in history, geography or political science, and twenty-two credits in economics. The minor in history must include at least two

courses each in United States history and world history. Consult a College of Education adviser for specific course requirements.

SOCIAL STUDIES GROUP MINOR (Minimum Twenty-four Credits)

This minor includes four social studies disciplines: economics, geography, history, and political science. The minor must include at least two courses from each area.

ECO 1000 -- (SS) Survey of Economics: Cr. 4
ECO elective (ECO 2010 or 2020) (SS): Cr. 3-4
HIS 1000 or HIS 1300
 -- (HS) World Civilization to 1500: Cr. 3-4
 -- (HS) Europe and the World: 1500-1945: Cr. 3-4
HIS 2040 or HIS 2050
 -- History of the U.S. to 1877: Cr. 3
 -- History of the U.S. Since 1877: Cr. 3
GPH 1100 -- (SS) World Regional Patterns: Cr. 4
GPH 2200 -- Geography of Michigan: Cr. 3
P S 1010 or P S 1030
 -- (AI) American Government: Cr. 4
 -- (AI) The American Governmental System: Cr. 3
P S 3070 -- Michigan Politics: Cr. 3

SPEECH COMMUNICATION EDUCATION MINOR (Minimum 21 credits in content area; minor is minimum of 24 credits including teaching methods course)

Required Content Area Courses

COM 1010 -- (OC) Basic Oral Communication: Cr. 3
COM 1500 -- Survey of Mass Communication: Cr. 3
COM 2110 -- 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 -- Communication Ethics: Cr. 3
COM 6070 -- Directing Forensics: Cr. 3

Required Methods Course

COM 6060 -- Teaching Communication at the Secondary Level: Cr. 3

Bachelor's Degree Programs in Special Education

Leading to Elementary or Secondary Endorsement

The special education curriculum leads to a bachelor's degree in education and certification in the areas of cognitive impairment or speech impaired. The cognitive impaired concentration prepares teachers to work with children who have a cognitive impairment. The speech impaired concentration (master's degree required for certification) prepares teachers to work with children who have speech and language disorders.

Admission Requirements: see page 106.

DEGREE REQUIREMENTS: The following requirements in various curricular areas supplement the degree requirements outlined above (see page 107). 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 16), 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.

BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
BIO 2870 -- Anatomy and Physiology: Cr. 5
COM 1010 -- (OC) Oral Communication: Basic Speech: Cr. 3
ELE 3200 -- Literature for Children: Cr. 3
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
HEA 2330 -- First Aid and CPR: Cr. 3
MAT 1110 -- Mathematics for Elementary School Teachers I: Cr. 3
PSY 1010 -- (LS) Introductory Psychology: Cr. 4
PSY 2300 -- Psychology of Everyday Living: Cr. 4
PHI 1050 or COM 2110
 -- (CT) Critical Thinking: Cr. 3
 -- (CT) Argumentation and Debate: Cr. 3
Computer Literacy (CL) course: Cr. 3-4
Critical Thinking (CT) course
Foreign Culture (FC) course
Historical Studies (HS) course
Humanities (VP,PL) -- two courses
Intermediate Composition (IC) course
Physical Sciences (PS) course
Social Science (AI,SS) -- two courses:
GPH 1100 or SOC 2000
 -- (SS) World Regional Patterns: Cr. 4
 -- (SS) Understanding Human Society: Cr. 3
P S 1010 or P S 1030
 -- (AI) American Government: Cr. 4
 -- (AI) The American Governmental System: Cr. 3

PROFESSIONAL EDUCATION REQUIREMENTS: The following courses are required of all students seeking special education endorsements and may be taken only after admission to the College of Education.

PHASE I FIELD EXPERIENCE

TED 3550 -- (WI) Teaching: Research, Theory and Practice: Cr. 5
ELE 3320 -- Teaching Reading I: Emergent Literacy: Cr. 3

The following courses may be elected at any time *after* admission to the College of Education and must be completed *prior* to TED 5780:

RDG 4430 -- Tchng. Read II: Comprehn. Preprm.-8 (Prereq: ELE 3320) Cr. 3
EDP 3310 -- 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

The following courses may be elected at any time *after* admission to the College of Education:

BBE 5000 -- Multicultural Education in Urban America: Cr. 2
TED 6020 -- Computer Applications in Teaching I: Cr. 3 (optional)

ELEMENTARY FIELD EXPERIENCE

TED 5780 -- Directed Teaching and Conference: Cr. 5

FINAL FIELD EXPERIENCE

TED 5790 -- Student Teaching & Conference for Special Groups: Cr. 8
SED 6010 -- Seminar in Special Education Teaching: Cr. 2

MAJOR AREAS OF STUDY: Students pursuing a bachelor's degree in education leading to an endorsement in special education must complete one of the following majors. The courses cited in the cognitive impairment program with the exception of SED 5060, 5030, 5040, and 5600 can be taken only after admission to the Special Education Program.

COGNITIVE IMPAIRMENT (Thirty-six Credits)

ECE 6100 -- Enabling Technology: Cr. 4 (College of Engineering)
ELE 6070 -- Family, Community & School Partnerships: Cr. 3
SED 5030 -- Education of Exceptional Children: Cr. 3
SED 5040 -- Speech Improvement in the Classroom: Cr. 2

SED 5060 -- Developing Observation & Assessmt. Skills: Cr. 3
SED 5090 -- Special Education & Transition Services: Cr. 3
SED 5110 -- Mental Impairments and the Cognitive Process: Cr. 3
SED 5130 -- Curriculum Development: Mental Impairments: Cr. 3
SED 5140 -- Behavior Management: Positive Support: Cr. 3
SED 5260 -- Instructional Strategies for Exceptional Learners: Cr. 4
SED 5600 -- Support for Students with Special Needs: Cr. 3
SED 6010 -- Seminar in Special Education Teaching: Cr. 3

SPEECH IMPAIRED: Course requirements for this major are prescribed by the Department of Audiology and Speech-Language Pathology in the College of Liberal Arts and Sciences and are the same as the major requirements for the Bachelor of Arts with a Major in Speech-Language Pathology; see pages 241 and 252.

PLANNED MINOR: Students pursuing a bachelor's degree in education leading to an endorsement in Special Education must complete the following minor requirement.

PLANNED MINOR (Nineteen to Twenty-one Credits)

BIO 2870 or PSY 2400

-- Anatomy and Physiology: Cr. 5

-- Developmental Psychology: Cr. 4

(If PSY 2400, Developmental Psychology, is elected, one course from the following group is also required: PSY 3060 or PSY 3080 or PSY 3120)

-- Psych. of Learning & Memory: Fundamentals: Cr. 3

-- Cognitive Psychology: Fundamentals: Cr. 3

-- Brain and Behavior: Cr. 3

ELE 3200 -- Literature for Children: Cr. 3

MAT 1110 -- Mathematics for Elementary School Teachers I: Cr. 3

PSY 2300 -- Psychology of Everyday Living: Cr. 4

SOC 2000 or GPH 1100

-- (SS) Understanding Human Society: Cr. 3

-- World Regional Patterns: Cr. 4

P S 1010 -- (AI) American Government: Cr. 4

Students who plan to pursue additional minors, such as early childhood education, must consult advisers in the program areas.

Bachelor's Degree Programs

in Art Education

Leading to Grades K-12 Endorsement

The program in art education is designed to provide undergraduates and post-degree students with learning experiences that will enable them to become successful artist-teachers. This curriculum leads to a bachelor's degree and a Michigan Provisional Teaching Certificate which enables the holder to teach art in all grades, kindergarten through grade twelve, and subjects for which the holder has minor certification, in grades seven through twelve.

The art education program admits both undergraduate and post-bachelor students. Undergraduate students are encouraged to begin art coursework as freshmen and to apply to the College of Education after the completion of fifty-three semester credits. Those who have received a bachelor's degree with an art major can enter the program as post-degree students and generally complete the professional education and art education requirements for certification in two years (see page 116). The sequence begins in the Fall Semester.

Admission: see page 106. Applicants for admission to the Art Education program are required to submit a portfolio of art work. Students should inquire for details at the Art Education Office, Room 163, Art Building. Art Education faculty members will advise students concerning portfolio requirements.

The following requirements in various curricular areas supplement the degree requirements outlined above (see page 107). No grade below 'C' may be used to meet any requirement specific to Secondary Education, the Art Education major, or the professional sequence.

GENERAL EDUCATION REQUIREMENTS: see page 16.

PREPROFESSIONAL REQUIREMENTS: Students pursuing a bachelor's degree leading to grades K-12 certification in art education must complete the following courses:

A H 1110 -- (VP) Survey of Art History: Ancient through Medieval: Cr. 3

CSC 1000 -- (CL) Introduction to Computer Science: Cr. 3

COM 1010 -- (OC) Oral Communication: Basic Speech: Cr. 3

ENG 1020 -- (BC) Introductory College Writing: Cr. 4

HEA 2330 -- First Aid and CPR (College of Education requirement): Cr. 3

P S 1010 -- (AI) American Government: Cr. 4

PSY 1010 -- (LS) Introductory Psychology: Cr. 4

Intermediate Composition (IC) course

English Proficiency (EP) course

Mathematics Competency (MC) course

Writing Intensive (WI) course

Critical Thinking (CT) course

Social Science (SS) course

Physical Science (PS) course (plus additional lab)

Foreign Culture (FC) course

Historical Studies (HS) course

Philosophy and Letters (PL) course

PROFESSIONAL EDUCATION REQUIREMENTS: Students pursuing a bachelor's degree leading to grade K-12 certification in art education must complete the courses listed below. Students must be admitted to the College of Education to take the following courses:

AED 5000 -- Introduction to Art Education: Cr. 3

AED 5100 -- Topics in Art Education: Cr. 3

AED 5150 or AED 6150

-- Computer Graphics in the School Art Room: Cr. 3

-- Instructional Applications of Computer Graphics: Cr. 3

AED 5160 -- Theory and Practice in Art Education: Cr. 3

AED 5650 -- Art Teaching Laboratory: Cr. 3

AED electives: Cr. 6

BBE 5000 -- Multicultural Education in Urban America: Cr. 2

EDP 3310 or EDP 5450 or EDP 5480

-- Educational Psychology: Cr. 3

-- Child Psychology: Cr. 3

-- Adolescent Psychology: Cr. 3

EHP 3600 -- Introduction to the Philosophy of Education: Cr. 3

ELE 3200 or EED 6310

-- Literature for Children: Cr. 3

-- Young Adult Literature: Cr. 3

ELE 3300 -- Teaching Lang. Arts: Preprimary - 9 (Coreq: TED 3560): Cr. 3

RLL 4431 -- Teaching Reading in Middle & Secondary Subj. Areas: Cr. 3

SED 5010 -- Inclusive Teaching: Cr. 2

TED 5780 -- Directed Teaching and Conference: Cr. 5

TED 5790 -- Student Teaching and Conference for Special Groups: Cr. 8

TED 3550 -- (WI) Teaching: Research, Theory
& Practice (Coreq: ELE 3320): Cr. 5

MAJOR REQUIREMENTS: Students pursuing a bachelor's degree in art education must complete thirty-six credits in art/art education major courses distributed as follows:

Required Courses:

(1) Choose *one* course from a 3-D area:

AED 5070, 5170, 5230, 5360.

(2) Choose *one* course from a Painting area: AED 5020, 6220.

(3) Choose *one* course from a Film/Printmaking area:

AED 5190, 5280.

The following courses should be elected as early as possible:

ADE 1200, ADE 1210, ADR 1050, ADR 1060, ADR 2070, A H 1110,
A H 1120, APA 2100, ASL 2150.

ADE 1200 -- Design I: Cr. 3

ADE 1210 -- Design II: Cr. 3

ADR 1050 -- Drawing I: Cr. 3

ADR 1060 -- Drawing II: Cr. 3

ADR 2070 -- Beginning Life Drawing: Cr. 3

AED 5070 -- Methods and Materials of Sculptural Expression: Cr. 3
 AED 5020 -- Painting: Methods and Materials: Cr. 3
 AED 5190 -- Light, Sound, Space, and Motion: Cr. 3
 AED 5230 -- Ceramics Education I: Cr. 3
 AED 5280 -- Printmaking: Methods and Materials: Cr. 3
 AED 5360 -- Wood, Metal, and Plastic: Methods and Materials: Cr. 3
 AED 6220 -- Drawing & Watercolor: Field Studies: Cr. 3
 A H 1110 -- (VP) Survey of Art History: Ancient through Medieval: Cr. 3
 A H 1120 -- (VP) Survey of Art History: Renaissance through Modern: Cr. 3
 APA 2100 -- Basic Painting: Cr. 3
 ASL 2150 -- Beginning Sculpture: Cr. 3

MINOR REQUIREMENTS: Students pursuing a bachelor's degree in art education may complete a sufficient number of credits to constitute a minor. Minor concentrations are of two kinds: a single subject minor consisting of twenty credits in one subject area; and a group minor consisting of twenty-four credits distributed among various, but related, subject areas. *Students anticipating teaching at the secondary level are strongly advised to complete an academic minor rather than a fine arts minor for certification.* For the selection of minor areas of study and their requirements, see page 113.

Post-Baccalaureate Program in Art Education

Admission: Applicants to the post-degree certification program in art education must have earned a Bachelor's Degree in Studio Art and must submit an acceptable portfolio prior to admission to the art education program. Students must consult with an adviser for verification that the Art Education Major (thirty-six credits) has been completed, for certification purposes. This program can usually be completed within two years if the applicant begins in the Fall semester. Art Teaching Laboratory and Student Teaching in Elementary and Secondary levels follow in sequence. Art Teaching Laboratory is offered only in the Fall Semester. Student Teaching can only be arranged during the regular school year. Applications for student teaching may be obtained in Room 223 Education.

PROGRAM REQUIREMENTS consist of an art education major (thirty-six credits), a professional education sequence (thirty-six credits), a methods and materials sequence (twenty-four credits), and either a single subject minor (twenty credits) or a group minor (twenty-four credits). *Students anticipating teaching at the secondary level are strongly advised to complete an academic minor rather than a fine arts minor for certification.* For the selection of minor areas of study and their requirements, see page 113.

PROFESSIONAL EDUCATION (Thirty-six Credits)

AED 5000 -- Introduction to Art Education: Cr. 3
 AED 5100 -- Topics in Art Education: Cr. 3
 AED 5150 or AED 6150
 -- Computer Graphics in the School Art Room: Cr. 3
 -- Instructional Applications of Computer Graphics: Cr. 3
 AED 5160 -- Theory & Practice in Art Education (Coreq: AED 5650): Cr. 3
 AED 5650 -- Art Teaching Laboratory: Cr. 3
 AED electives: Cr. 6
 BBE 5000 -- Multicultural Education in Urban America: Cr. 2
 EDP 3310 or EDP 5450 or EDP 5480
 -- Educational Psychology: Cr. 3
 -- Child Psychology: Cr. 3
 -- Adolescent Psychology: Cr. 3
 EHP 3600 -- Introduction to the Philosophy of Education: Cr. 3
 ELE 3200 or EED 6310
 -- Literature for Children: Cr. 3
 -- Young Adult Literature: Cr. 3
 ELE 3300 -- Teaching Language Arts: Preprim. -9 (Coreq: TED 3560): Cr. 3
 RLL 4431 -- Teaching Reading in Middle & Secondary Subj. Areas: Cr. 3
 SED 5010 -- Inclusive Teaching: Cr. 2
 TED 3550 -- Teaching Research, Theory & Practice (Coreq: ELE 3320): Cr. 5
 TED 5780 -- Directed Teaching and Conference: Cr. 5
 TED 5790 -- Student Teaching and Conference for Special Groups: Cr. 8

Bachelor's Degree Programs in Career and Technical Education

Career and Technical education programs are offered in four curricular areas: business education, health occupations, home economics related occupations, and trade and industry. 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 a vocationally-certifiable major, a teaching minor, and the baccalaureate degree, and have acquired two years or 4,000 clock hours of recent relevant work experience in the area of the major.

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 107.

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 EDUCATION:

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 a career and technical education adviser.)

These specializations are offered as majors in community colleges. The major in the area of specialization should be completed at a community college, prior to admission to the College of Education. For further information, consult a career and technical education adviser in the College of Education.

MINOR AREAS OF STUDY: Students seeking certification in career and technical education must complete an academic minor; see minor areas of study, page 113.

CREDIT BY EXAMINATION: Credit in some occupational areas may be earned through competency examinations. Consult a career and technical education adviser 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, and major and minor subject areas in grades six through eight. The secondary certificate authorizes an individual to teach his/her major and minor subject areas in grades seven through twelve.

Some majors such as art, kinesiology, and music cover all grades, kindergarten through twelve.

Teaching endorsements may be added to any certificate. An individual may add up to six endorsements by completing requirements for academic majors and/or minors in accordance with State regulations. An individual holding an elementary certificate may also earn an endorsement to teach at the secondary level, and vice versa. When adding an additional endorsement, the individual must also pass the Michigan Test for Teacher Certification in that subject area.

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 and the completion of a master's degree or accumulation of eighteen semester credits in a planned program of study, 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, or science, approved for teaching in grades seven 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.
3. Completion of a professional education sequence is required.

Secondary Provisional Certificate for Grades Seven 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.

3. Completion of a professional education sequence is required.

Additional Endorsements

Holders of certificates who wish to add an additional teaching endorsement must consult a counselor in the Division of Academic Services, 469 or 489 Education Building.

Application for an endorsement must be made within five years after endorsement requirements have been met. State examinations must be passed for all new endorsements.

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 and have completed eighteen credits in a planned course of study after the issue date of their provisional certificate or have a master's degree. (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 a counselor in 469 Education Building regarding an appropriate planned course of study.)

Teachers of K-12 subjects: art, dance, music and kinesiology may present experience at any grade level from kindergarten through grade 12.

Five year professional certification with vocational endorsement requires a planned program. Students should consult the appropriate area adviser regarding certification for an approved program leading to five year professional certification with a vocational endorsement.

All candidates for an elementary five year professional certificate must have completed in their undergraduate or post-graduate preparation six credits in reading instruction, three of which must be reading in the content areas, in order to qualify for a five year professional certificate. Consult a counselor in Room 469 Education Building for specific requirements.

All candidates for a secondary five year professional certificate must have completed in their undergraduate or post-graduate preparation a three-credit course in reading in the content areas, in order to qualify for this certification.

Bilingual/Bicultural Endorsement

The Bilingual/Bicultural Endorsement certifies a teacher who is qualified to teach classes of bilingual children. Students holding existing certificates may add a bilingual endorsement by completing an eighteen credit planned program. Information and referral to the appropriate adviser on requirements for this endorsement may be obtained in Room 469 or 489 Education Building.

Early Childhood Endorsement

The Early Childhood Endorsement certifies a teacher who is qualified to teach children ages birth to eight years. Students holding existing certificates may add an early childhood endorsement by completing a twenty-one-credit planned program. The endorsement is limited to those individuals holding an elementary certification. Information on requirements for this endorsement and referral to the appropriate adviser may be obtained in Room 469 or 489 Education Building.

Middle Level Endorsement

The Middle Level Endorsement is a twenty-credit planned program which adds an area of expertise for teachers who already hold a Michigan elementary or secondary teaching certificate. The endorsement extends Michigan teacher subject area certification to include grades five through nine. Information on this endorsement and referral to an adviser may be obtained in Room 469 or 489 Education Building.

English as a Second Language Endorsement

The English as a Second Language (ESL) Endorsement certifies a teacher who is qualified to teach learners with limited English proficiency. Students holding existing certificates may add an ESL endorsement by completing an 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; Speech Impaired, 563 Manoogian; Music Education, 1321 Old Main; all other programs, Room 469, Education Building. Pre-Education students are advised by University Advising, 2 East, Helen Newberry Joy Student Services 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 479.

TEACHER EDUCATION DIVISION COURSES (TED)

2250 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)

3560 Pre-Student Teaching Field Experiences. Cr. 3 (Max. 6)

Prereq: admission to College of Education. Offered for S and U grades only. Second phase of pre-student teaching field experience. Work in classrooms is assigned and evaluated by both an experienced public school teacher and a university faculty member. (T)

5150 Analysis of Elementary School Teaching. Cr. 3-6

Prereq: admission to 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. (F,W)

5160 (WI) Analysis of Middle and Secondary School Teaching. Cr. 3

Prereq: admission to College of Education; coreq: TED 5650. Overview of structure, function and purposes of middle and secondary school education. Development and analysis of instructional objectives. Organization and management of classrooms. Teaching strategies and assessment of learning. Exploration and utilization of resources in the community. (F)

5250 Teaching the Emerging Adolescent in Middle Level Education. Cr. 3

Prereq: admission to College of Education. Opportunities to examine best practices, curriculum and strategies of middle level education.(I)

5650 Pre-Student Teaching Field Experience for Secondary Majors. Cr. 3-5

Prereq: admission to College of Education; coreq: TED 5160. Offered for S and U grades only. Field experience in secondary school settings prior to full-time student teaching. (F,W)

5780 Directed Teaching and Conference. Cr. 1-10

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)

5790 Student Teaching and Conference for Special Groups. Cr. 1-10

Prereq: admission to College of Education; admission to student teaching. Offered for S and U grades only. Directed teaching in schools at level for which advanced students are preparing for certification; discussion of educational issues. For students seeking endorsements in special areas; for example: special education, early childhood, art. (F,W)

5810 (DNC 5810) Creative Dance for Children. Cr. 3

Approaches to creative dance experiences for children stressing the development of aesthetic and kinesthetic awareness. Focus on comprehensive arts and curriculum related materials. (F)

5820 (DNC 5820) Creative Movement for the Pre-School Child I. Cr. 3

Creative dance activities; manipulative, musical, imaginative and kinesthetic approaches to movement. (F,W)

5830 (DNC 5830) Field Work in Creative Dance. Cr. 2-8

Prereq: DNC 5830 or consent of instructor. Supervised professional study in field settings. (T)

6020 Computer Applications in Teaching I. Cr. 3

Variety of experiences with computer applications for K-12 instruction using Macintosh and Dos/Windows platforms. Development of skills using telecommunication, videodiscs, CD-ROMs, and other multimedia resources. (T)

6030 Computer Applications in Teaching II. Cr. 3

Prereq: TED 6020 or equiv. Use of computing resources to develop problem-solving strategies and multimedia applications for students in specific K-12 curriculum areas. (F,W)

6040 Concepts in Educational Technology. Cr. 3

Prereq: TED 6020. Opportunities to develop proficient skills relevant to effective integration of current educational technologies. (T)

6130 Developing Curriculum in the Affective Domain. Cr. 3

Philosophy and theory underlying the affective domain; the impetus and means of evaluative and analytical thinking used as a vehicle that provides teachers with instructional strategies in building K-12 curriculum. (Y)

6140 Local School Curriculum Planning. Cr. 1-6 (Max. 12)

For classroom teachers and teacher educators. Consideration of local problems in elementary and secondary school programs. Planning for better teaching and learning. (I)

ART EDUCATION COURSES (AED)

5000 Introduction to Art Education. Cr. 3

Prereq: admission to College of Education. Study and analysis of the two-dimensional art process related to individual development and response. Examination of observation and image formation, including the collection of visual information for two-dimensional production. Investigation of geometric perspective and visual illusion. Children's developmental use of symbols and related research in creativity, visual thinking and brain organization and function. Selected examples of drawings and paintings from various cultures examined in relation to learning and teaching. Material fee as indicated in the Schedule of Classes (Y)

5020 Painting: Methods and Materials. Cr. 3 (Max. 9)

Methods, materials and processes suitable for teaching painting in the schools. Subject selection, composition, surface selection and preparation, mixing and application of paint, finishing, and presentation. Students develop basic skills in painting for personal artistic expression. Material fee as indicated in the Schedule of Classes (F)

5070 Methods and Materials of Sculptural Expression. Cr. 3

Required for certification in art education and prior to student teaching. Exploration of three-dimensional forms using various media; emphasis on sculptural concepts, materials, tools and techniques related to teaching sculpture on the elementary and secondary level. Material fee as indicated in the Schedule of Classes (Y)

5100 Topics in Art Education. Cr. 1-3 (Max. 9)

Prereq: admission to College of Education. Art experiences designed for the specific needs of special groups. Topics to be announced in Schedule of Classes. Material fee as indicated in the Schedule of Classes (I)

5150 Computer Graphics in the School Art Room. Cr. 3

Instruction and laboratory experiences in the production of computer graphics, primarily using the Apple IIE and Apple GS. Explorations in HIREs, LORES, drawing, color-filling, painting, lettering, and animation. Students use basic programming, software systems, digitizers, printers, and video generation equipment. (Y)

5160 Theory and Practice in Art Education. Cr. 3 (Max. 9)

Prereq: admission to College of Education; AED 5650; prereq. or coreq: student teaching. Development and analysis of instructional objectives in art education; organization and management of art classrooms; teaching strategies and assessment practices. (W)

5170 Fibers: Methods and Materials. Cr. 3 (Max. 9)

Comprehensive exploration of fiber-fabric art forms: applique, trapunto, stitchery, dyeing, soft sculpture, weaving, wrapping, hooking, and others. Student learns basic techniques and selects several areas for in-depth study. Safety, special tools, materials, techniques and resources for teaching. For both beginning and advanced students; individual creative self-direction is essential for advanced study. Material fee as indicated in the Schedule of Classes (F)

5190 Light, Sound, Space and Motion. Cr. 3 (Max. 9)

Laboratory experiences in planning and producing animated films, instructional video, and slide/sound presentations. Students prepare storyboards, write scripts, prepare titles and credits, mark on film and slides, produce Super-8 animation, use 35mm camera on a copy stand, edit, splice film, record and synchronize sound tracks, and produce single-camera instructional video. Methods and materials for teaching film and video in schools, producing video aids, or producing film/slides/video for artistic expression. Material fee as indicated in the Schedule of Classes (W)

5230 Ceramics Education I. Cr. 3

An overview of handbuilding processes, various firing procedures including blackware and raku, decorating, glazing and equipment maintenance. Emphasis placed on the educational benefits and procedures for working with people of various ages and the management of materials for teaching. Material fee as indicated in the Schedule of Classes (Y)

5280 Printmaking: Methods and Materials Cr. 3 (Max. 9)

Studio exploration of relief, planographic, intaglio, and stencil processes as methods of reproduction for artistic expression. Examination of tools, methods and processes suitable for the classroom. Includes study in lithography, dry point, etching, calligraphy, woodcut, linocut, and photo screen processes. Material fee as indicated in the Schedule of Classes (W)

5360 Wood, Metal and Plastic: Methods and Materials. Cr. 2-3 (Max. 9)

Planning and production in wood, metal and plastic using power and hand tools. Processes suitable for production of adaptive devices or therapeutic activity. Materials and methods appropriate for schools. Work in a shop setting using power saws, torches, kiln, wood lathe, and a variety of hand tools. Material fee as indicated in the Schedule of Classes (W,S)

5650 Art Teaching Laboratory. Cr. 3

Prereq: admission to College of Education; AED 5000. Laboratory experience in teaching art to elementary, middle, and high school students. (F)

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 agenda 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; crosscultural 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
Aspects of the use of art therapy chosen to develop students' breadth or depth in art therapy practice with various groups and settings. (Y)

BILINGUAL/BICULTURAL EDUCATION COURSES (BBE)

5000 Multicultural Education in Urban America. Cr. 2
Cultural, social, political and economic realities of our complex, pluralistic society in relation to our education system. Development of analytical and evaluative abilities of teachers to deal with racism, sexism, value clarification and the parity of power. Strategies for multicultural education. (T)

5020 Effective Involvement of Parents in School and Community. Cr. 3
Concepts of parenting and parent intervention. Determination of methods to maximize parent participation in the educational process of bilingual/bicultural students. (W)

5500 Introduction to Bilingual/Bicultural Education. Cr. 3
Survey of the history and legislative background of bilingual/bicultural education in the United States. Emphasis on the foundations, methods, concepts and theories of bilingual/bicultural education. (F)

5530 The Socio-Psychological Needs of Ethnocultural Communities. Cr. 3
Assessments of issues of concern to ethnocultural communities as a background for social services delivery and intervention. (F)

5550 Urban Education. Cr. 3
Language program implementation within the urban culture of the school, community, and state. (I)

6560 Teaching Methods in Bilingual/Bicultural Education. Cr. 3
Prereq: admission to a bilingual endorsement program. Utilization of traditional and innovative materials, techniques and methods in teaching elementary and secondary school subjects in a bilingual education program. (F)

6590 Culture and Language in Bilingual/Bicultural Education. Cr. 1-3
Research and application of 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
Offered for S and U grades only. Internship in a bilingual, multicultural setting; assessment of the cultural, educational, and linguistic needs of students of limited English-speaking ability. (T)

6700 Seminar in Cultural Awareness. Cr. 3
Understanding intergroup relations and the appreciation of cultural diversity in a multicultural society such as the United States. Selected topics offered on a semester or yearly basis. (W)

6850 Applied Linguistics: Issues in Bilingual Education. Cr. 3
Current major models of applied English linguistics, contrasting linguistics with special reference to the comparison of English and linguistic minority languages. (W)

CAREER and TECHNICAL EDUCATION COURSES (CTE)

5410 Teaching Methods for the Career and Technical Education Classroom I. Cr. 3
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)

3990 Directed Study. Cr. 1-6 (Max. 6)

Prereq: written consent of adviser. Offered for S and U grades only. (T)

5998 Field Studies. Cr. 1-8 (Max. 8)

Prereq: consent of adviser or instructor. Supervised professional study in field settings. (T)

EDUCATIONAL PSYCHOLOGY COURSES (EDP)

3310 Educational Psychology. Cr. 3

Prereq: admission to College of Education. Introductory course in educational psychology. Topics include, but are not limited to: child and adolescent development, cognitive and behavioral learning theories, information processing, motivation and evaluation. Includes study of exceptional children and those with cultural differences. (Y)

5430 School Violence and Conflict Resolution. Cr. 3

Conflict resolution and school violence as they relate to child growth and development and school organization and policies. (F)

5450 Child Psychology. Cr. 2-3

Prereq: admission to College of Education. Basic concepts, research findings and problems regarding child, pre-adolescent and early adolescent developmental needs as they apply to school and home environments; includes study of exceptional children and those with cultural differences. (T)

5480 Adolescent Psychology. Cr. 2-3

Prereq: admission to College of Education. Basic concepts, research findings and problems regarding early adolescent and adolescent developmental needs as they apply to school and home environments; includes study of exceptional children and those with cultural differences. (T)

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)

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. (OT 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)

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

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. 1

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 integrating 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)

6340 Teaching Reading in Early Childhood Education. Cr. 3

Prereq: admission to College of Education. Rationale for teaching reading and various reading skills to young children. Materials and methods for initial reading instruction. (Y)

6390 Mathematics Instruction: Preprimary-9. Cr. 3

Prereq: admission to MAT degree program. Developing mathematics skills in elementary and middle schools. Students plan, implement and evaluate learning experience with children under professional guidance. (F,W)

6500 Science Curriculum: Preprimary-9. Cr. 3

Prereq: admission to teacher certification program. Role of learning in science in the curriculum. Objectives, plans of organization for learning, resources materials. Overview of balanced program. Experiences with appropriate experiments, field trips, reference materials, audio-visual resources. Material fee as indicated in the Schedule of Classes (T)

6600 Social Studies Curriculum: Preprimary-9. Cr. 3

Social studies program in elementary and middle schools emphasizing intellectual, social and affective development. Designing programs based on social priorities, modern socioeconomic, cultural, ethnic, political concepts. (T)

ENGLISH EDUCATION COURSES (EED)

5200 Methods of Teaching English: Grades 7-12. Cr. 3

Prereq: admission to College of Education. Introduction to the purposes and methods of teaching English composition and literature in grades seven through twelve. (Y)

6120 English Composition in Secondary Schools. Cr. 3

Prereq: admission to College of Education. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Analysis of modes of writing; relationship of grammar and composition; integration with literature and reading; approaches to group and indi-

vidualized 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 (FRE 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.(B)

5820 (FRE 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 (GER 5830) Technology in the Foreign Language Classroom. (CLA 5830) (CLA 7830) (FRE 5830) (FRE 7830) (GER 7830) (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 (GER 5850) Foreign Language Instruction. (CLA 5850) (CLA 7850) (FRE 5850) (FRE 7850) (GER 7850) (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 (GER 5860) Foreign Language Testing. (CLA 5860) (CLA 7860) (FRE 5860) (FRE 7860) (GER 7860) (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 objective relativistic and holistic attitude about human diversity, enabling them to relate to pupils in urban areas. (B)

MATHEMATICS EDUCATION COURSES (MAE)

5100 (MAT 5180) Geometry for Middle School Teachers. Cr. 3

Prereq: MAT 1110 and 1120 or consent of instructor. No credit toward a major or minor for secondary mathematics teaching. MAE 5100 may be taken for graduate or undergraduate credit; MAT 5180 may be taken for undergraduate credit only. Development of Euclidean geometry as a mathematical system; related historical topics; introduction to other geometries; selected topics such as transformations and tessellations. (F)

5110 (MAT 5190) Number Theory for Middle School Teachers. Cr. 3

No credit toward a major or minor for secondary mathematics teaching. MAE 5110 may be taken for graduate or undergraduate credit; MAT 5190 may be taken for undergraduate credit only. Prereq: MAT 1800, MAE 5060, or MAT 1120. Elementary functions and their applications; analytical geometry; intuitive concepts of differential and integral calculus; computer applications in middle and junior high school mathematics. (W)

5120 (MAT 5120) Number Theory and Abstract Algebra for Middle School Teachers. Cr. 3

No credit towards major in mathematics or secondary mathematics. MAE 5120 may be taken for graduate or undergraduate credit; MAT 5120 may be taken for undergraduate credit only. Prereq: MAT 1120 or MAE 5060, and MAT 1800. Topics from elementary theory of num-

bers and abstract algebra underpinning middle school mathematics curriculum. (F,W)

5130 (MAT 5130) Problem Solving for Middle School Teachers. 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)

5150 Methods and Materials of Instruction — Secondary School Mathematics. Cr. 3

Prereq: admission to College of Education; 19 credits toward secondary mathematics major or minor. To be elected before student teaching. Mathematics in secondary school; major concepts of secondary school mathematics; methods and instructional materials; classroom administration; modern trends. (Y)

6050 Teaching Mathematics in the Middle Grades. Cr. 3

Prereq: admission to College of Education. Creative use of resources and materials for improving the mathematics competencies of middle school and junior high school students; organizing the mathematics classroom for effective instruction; promising trends; related research. (Y)

6150 Special Topics. Cr. 1-6 (Max. 12)

Current issues and trends; areas of neglected content; curriculum proposals; related research. Topics to be announced in Schedule of Classes. (I)

6200 (MAT 6200) Teaching Arithmetic, Algebra and Functions from an Advanced Perspective. Cr. 3

Prereq: MAT 5120, 6170, or 6180; or consent of instructor. Students gain profound understanding of K-12 mathematics. Concepts underlying topics and procedures; their connections to higher mathematics. Teaching with Simplify; application of mathematical understanding to teaching practices. (Y)

6210 (MAT 6210) Teaching Geometry, Probability and Statistics, and Discrete Mathematics from an Advanced Perspective. Cr. 3

Prereq: completion of a major in mathematics or secondary mathematics education. Historical perspectives, common conceptions and misconceptions, applications, technology, and mathematical connections relative to teaching geometry (including trigonometry), probability and statistics, and discrete mathematics in secondary school. (Y)

6400 Elementary School: Mathematics Curriculum and Assessment. Cr. 3

Prereq: admission to M.Ed. program. Developing competence in school mathematics programs: objectives, procedures, materials, organizational patterns, evaluation. (T)

6450 Integrating Literature and Mathematics in the Elementary School. Cr. 3

Examining the potential of literature for exploration of various mathematical concepts and relationships. (S)

READING EDUCATION COURSES (RDG)

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)

6400 Practicum in Developmental Reading. Cr. 1-4

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)

6400 Practicum in Developmental Reading. Cr. 1-4

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)

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)

5060 Methods and Materials of Instruction in Secondary School Science I. Cr. 3

Prereq: admission to College of Education. Role of science in the secondary curriculum. Problems and techniques of teaching science in the secondary schools; objectives, planning laboratory experiments, demonstrations, directed study, student projects, text and reference material, audio-visual resources, evaluation. Material fee as indicated in the Schedule of Classes (F)

5070 Methods and Materials of Instruction in Secondary School Science II. Cr. 3

Prereq: admission to College of Education; SCE 5060 recommended. Problems of selecting and organizing teaching-learning materials in secondary school science. Development of illustrative

instructional units. Resources for professional growth of science teachers; professional literature and organizations. (W)

6030 Advanced Studies in Teaching Science in the Junior High and Middle School. Cr. 3

Prereq: admission to College of Education. Innovations and improvements in middle school and junior high school science teaching. Exploration of appropriate areas of study, development and selection of learning activities and materials; laboratory experiences in selected areas. (W)

6040 Advanced Studies in Teaching Science in the High School. Cr. 3

Emphasis on methods of teaching biology and the physical sciences in the high school. Recent curriculum studies, research, and current problems. Laboratory experiments, equipment, textual and reference material, audio-visual resources, and evaluation procedures. Material fee as indicated in the Schedule of Classes (S)

6080 Teaching Environmental Studies. Cr. 2-4

For teachers of all academic disciplines and from all school levels, as well as persons of other occupational interests. Environmental problems, possible solutions, and their implications for classroom teaching and curriculum. Material fee as indicated in the Schedule of Classes (S)

SOCIAL STUDIES EDUCATION COURSES (SSE)

6710 Methods and Materials of Instruction in Secondary Social Studies. Cr. 3

Prereq: admission to College of Education. Foundations of social studies instruction and curriculum; methods of teaching in middle and senior high school, including the use of state standards in the design of instruction, teaching approaches for the various social studies disciplines, their interdisciplinary application, diversity and appreciation of other cultures. (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)

5090 Special Education and Transition Services for Students with Disabilities. Cr. 3

Prereq: SED 5030; admission to College of Education. Characteristics of special education and transition services for students with dis-

abilities in secondary programs leading to the development of skills necessary for functioning as an adult within communities. (Y)

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. Pro-active 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 (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)

6040 Introduction to Early Childhood Special Education. Cr. 3

History, philosophy, legislation, and 'best practice' of early intervention and educational programs for young children, birth to eight years old, who have developmental delays or disabilities. (W)

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. (Y)

The following Divisions also offer courses available to undergraduate and post-bachelor students:

Administrative & Organizational Studies Division

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. (W,S)

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. (S)

6110 Foundations of Instructional Systems Design. (LIS 6350) Cr. 4

Alternative systems models of instructional design; basic design principles, methods and techniques of pre-design analysis; instructional strategy selection and sequencing. (S)

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. (T)

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. (S)

Theoretical & Behavioral Foundations Division

COUNSELOR EDUCATION COURSES (CED)

5030 Role of the Counselor in Substance Abuse. Cr. 2

Prereq: graduate standing. An overview of counseling principles, procedures, and methods unique to substance abuse settings. Use of specific counseling strategies and treatment models with substance abusers. (F)

5090 Family Education and Counseling: Substance Abusers. Cr. 3

Prereq: CED 5030 or graduate standing. Analysis of the structure and functioning of family systems in which there is substance abuse; effective therapeutic strategies in working with chemically-abusive families. (I)

6070 Introduction to Counseling. Cr. 3

Prereq: admission to master's program in counseling. Overview of counseling profession, including: helping process, theories of counseling and consulting, training, credentialing, ethical and legal standards, professional organizations, history and trends of basic research. (T)

6080 Theories of Counseling. Cr. 3

Prereq: admission to master's program in counseling. Major theories of counseling: client-centered, rational-emotive, Gestalt, Adlerian, reality, psychoanalytic, behavioral, cognitive. Ethical, legal, multicultural factors in conceptualization and delivery of counseling services in school, rehabilitation and community agency settings. (T)

6700 The Role of the Teacher in Guidance. Cr. 2

Prereq: admission to College of Education. Introduction to guidance principles, techniques and roles, with stress on classroom application. Experiential laboratory sessions required to sensitize educators to the basic ideas and skills involved in being a helper. Primarily for school personnel other than counselors. (T)

6710 Professional Seminar: Contemporary Issues. Cr. 1

Principles, procedures and methods specific to a critical contemporary issue, such as: child abuse, sexual abuse, bereavement, stress management, infectious diseases, self-esteem, self-efficacy, conflict management. (T)

6720 Workshop in Counseling. Cr. 2-4 (Max. 18)

For counselors, teachers, and pupil personnel workers. Consideration of counseling issues in school, agency and community settings. Counseling, consultation, and coordination dimensions of counseling in substance abuse, family groups, and human sexuality issues. (T)

6730 Counseling of Special Populations. Cr. 3-9

A study of the uniqueness of several special populations such as adults, women and minorities to provide an awareness of their special influences on the counseling process. (T)

**EDUCATIONAL HISTORY and PHILOSOPHY
COURSE (EHP)**

3600 Introduction to the Philosophy of Education. Cr. 3

Prereq: admission to College of Education. Leading philosophies of education as they bear upon education as a profession and as a discipline. (T)



COLLEGE OF ENGINEERING

DEAN: Ralph H. Kummeler

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 in 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, biochemicals, fire-resistant homes and 'eyes' for the blind. The engineer's resources include an intimate knowledge of scientific laws and their applications to engineering problems. 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 consider the societal effect of their work, including its economic, aesthetic, safety, and environmental aspects.

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 four-year collegiate program leading to 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/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 curricula 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. Curriculum accreditation is based upon careful periodic appraisal of the faculty, educational program, 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.

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 experi-

ences through full or part-time employment or through the Cooperative Education Program described on page 136.

The College is affiliated with the thirteen 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
- Electronics and Computer Control Systems
- Engineering Management
- Hazardous Waste 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

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*

* For requirements, consult the Wayne State University Graduate Bulletin.

COLLEGE OF ENGINEERING DIRECTORY

Dean: Ralph Kummner, 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: John VanHecke

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 Usmen, 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

Hazardous Waste Management: Ralph Kummner, 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: Ronald Gibson, 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: Naiem Henein, Ph.D., Director

Room 2121, Engineering Building; 313-577-3887

College-Wide Faculty

James Anderson, Adjunct Professor of Engineering Ventures

Website: <http://www.eng.wayne.edu/>

The Engineering Building is located at 5050 Anthony Wayne Drive.

The Engineering Technology Building is located at 4855 Fourth Street.

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 fraternity, was founded at the University of Illinois in 1922. The forty-eighth chapter of the fraternity 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/her Alma Mater through distinguished scholarship and exemplary character as an undergraduate or through attainment in the field of engi-

neering after graduation. The Michigan Epsilon Chapter of Tau Beta Pi was installed at Wayne State University on March 10, 1951.

Theta Tau, a national professional engineering fraternity, was established at the University of Minnesota in 1904. Epsilon Beta, the twenty-seventh student chapter, was founded on May 19, 1951, at Wayne State University.

Student branches of professional societies add much to the education of their members. Many outstanding engineers from the community come to the campus each year to address meetings of the branches. Other activities include social meetings and trips to important engineering projects. Student branches of the following professional societies have been active on the campus for many years:

- American Institute of Chemical Engineers
- American Society of Civil Engineers
- American Society of Mechanical Engineers
- Biomedical Engineering Society
- Engineering Society of Detroit, Student Chapter
- Institute of Electrical and Electronics Engineers
- Institute of Industrial Engineers
- Michigan Society of Professional Engineers
- Society of Automotive Engineers
- Society of Manufacturing Engineers



Scholarships and Financial Aid

An increasing number of scholarships are granted each year to undergraduate students in the College of Engineering. The scholarships differ greatly in their specifications: some stress high scholarship, others place emphasis on financial need or campus citizenship. Engineering students are also eligible for the general University scholarships granted each year.

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 Scholarships and Financial Aid. Information and applications can be obtained through their Website at <http://www.financialaid.wayne.edu>.

An annual competition for College of Engineering scholarships is held each winter for awards that will be available for the next academic year. Inquiries about the College scholarships listed below, as well as about other opportunities, should be directed to the Associate Dean for Student Affairs of the College of Engineering.

Timothy Alexander Scholarship: Awarded to an engineering student in the co-op program with a minimum 2.7 g.p.a., demonstrated financial need, and outstanding leadership qualities.

Murray and Helen Altman Scholarship: Awarded to a full-time undergraduate majoring in engineering with demonstrated financial need and outstanding scholastic and leadership qualities.

The American Metal Climax Foundation Scholarship—Climax Molybdenum: An award open to materials science and engineering students.

Anderson Consulting Scholarship: Awarded to a full-time engineering junior or senior who has a 3.5 g.p.a. or above, and who has demonstrated leadership in student organizations and interest in information systems and technology.

Dr. Robert Banasik, P.E., Endowed Scholarship for Mechanical Engineering: Awarded to a full-time mechanical engineering junior or senior who has desirable qualities of character and leadership, demonstrated academic merit, and financial need.

Arthur R. Carr Memorial Scholarship: Awarded to a full-time undergraduate of at least sophomore ranking, with demonstrated financial need and outstanding scholarship and leadership qualities.

Dow Engineering Scholarship for Minority Recruitment: Awarded to a full-time undergraduate student of at least junior standing with a minimum 3.0 g.p.a.

Professor Ernest B. Drake Scholarship: Awarded to a full-time students with junior or senior standing, majoring in chemical engineering, who has demonstrated financial need, outstanding leadership qualities, and a minimum 2.5 g.p.a.

Engineering Undergraduate Scholarship: Awarded to an undergraduate engineering student of at least junior standing with a minimum 3.0 g.p.a.

Fiftieth Anniversary Engineering Alumni Scholarship Fund: Awarded to a full-time junior undergraduate engineering student who is a U.S. citizens or permanent resident with a minimum 3.0 g.p.a. and demonstrated financial need. Preference is given to those demonstrating exceptional research work on an engineering project.

Wayne State University College of Engineering / Ford Motor Company / Detroit Urban League Minority Engineering Scholarship: Awarded to an incoming freshman engineering student who graduated from a public high school in the city of Detroit, Hamtramck, Highland Park, Inkster, or Pontiac. Candidates must have a minimum g.p.a. of 3.0 and be enrolled full-time in an engineering program at Wayne State University

General Motors Minority Engineering and Science Scholarship: Awarded to a full-time undergraduate minority engineering student with a minimum 3.2 g.p.a.

Jason Guzik Memorial Scholarship: Awarded to a senior level chemical engineering student with demonstrated academic leadership and a minimum 3.0 g.p.a.

The Howard M. Hess Scholarship for Engineering Technology Students: Award of \$500 open to engineering technology students with outstanding scholarship and leadership qualities.

William R. Kales Memorial Scholarship: Awarded to a full-time undergraduate engineering student with outstanding scholarship and demonstrable financial need.

Gregory Kosmowski Memorial Scholarship: Awarded to a full or part-time undergraduate engineering student who is resident of Michigan, natural born U. S. citizen or of Polish-American descent.

Charles Lewitt Memorial Scholarship: Awarded to a full-time graduating senior in civil engineering with outstanding scholarship and leadership qualities.

The Lubrizol Scholarship Program: Award of \$1,000 open to junior or senior chemical engineering majors with outstanding scholarship and leadership qualities.

James E. and Christina L. Orr Scholarship: Awarded to a full-time engineering undergraduate with demonstrated financial need, outstanding scholastic achievement, and leadership qualities.

Joseph N. Prentis Scholarship in Engineering: Awarded to a full-time undergraduate engineering student of junior or senior standing, with a minimum 3.0 g.p.a.

Jay T. Strausbaugh Memorial Scholarship: Full one-year tuition scholarship awarded to a full-time mechanical engineering undergraduate with demonstrated financial need, high qualities of character and leadership, and a minimum 3.5 g.p.a.

Werner F. Vogel Endowed Scholarship in Mechanical Engineering: Awarded to a mechanical engineering undergraduate with preference given to part-time students who have financial need, at least a 3.0 g.p.a., and desirable qualities of character and leadership.

Wilso and Blaurock Scholarship for Mechanical Engineering: Awarded to a full-time mechanical engineering junior, with preference given to qualified African-American or female students who have financial need, qualities of leadership, professional activities, and demonstrated academic promise.

Robert G. Wingerter Awards: Award of \$750 to a graduating senior demonstrating outstanding scholarship and leadership qualities. This is the most prestigious award recognized by the College.

John G. Wright Memorial Scholarship: Awarded to a full-time mechanical engineering student who demonstrates financial need and outstanding scholarship and leadership qualities.

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 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.

There are three phases in Division of Engineering undergraduate curriculum: the Bridge Program, the Preprofessional Program, and the Professional Program. All students must complete the Professional Program in order to earn their Bachelor of Science degree. The majority of students begin their accredited 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 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
- Social Science or Foreign Language: 2 units
- Electives: 3 units

An incoming freshman with this background enters the regular scheduled program if he/she earns satisfactory scores on the placement examinations in mathematics, chemistry and English (see below).

Students who are interested in pursuing a degree in engineering but who may not have the requisite background in science and mathematics, as demonstrated by their high school record, ACT or SAT scores, or placement exam results, will be admitted to the Engineering Bridge Program (see below). This program is designed to provide students with the requisite background to proceed into the preprofessional and professional programs in the engineering major of their choice.

Admission

Admission to the undergraduate programs in the Division of Engineering, College of Engineering, is dependent upon high school grade point average (g.p.a.) and ACT or SAT scores for those students entering directly from high school, and upon grade point average and level of curriculum completion for transfer students from community colleges or other universities. The following admissions criteria are used to place students in the professional, preprofessional, and Engineering Bridge programs.

Professional Program Admission: Freshmen with a 3.5 or above high school g.p.a., both cumulative and in math and science, along with a Math ACT score of at least 26 or a Math SAT score of at least 650, are eligible for admission to the professional engineering program of their choice. The final requirement for direct admission to the professional program is placement into at least MAT 2010, CHM 1225, and ENG 1020 on the required placement examinations (see below).

Students who have completed at least the equivalent of the following set of courses may apply to transfer into the Professional Program of their choice: MAT 2010, 2020, 2030; CHM 1225/1230; PHY 2175, 2185; and ENG 1020. For direct admission to the Professional Program as a transfer student, a minimum 3.0 grade point average in college-level courses (overall as well as in math and science) is required, and the listed courses must each have been completed with grades no lower than a 'C.'

Students who do not meet the minimum requirements for admission to the Professional Program may be admitted to the preprofessional program.

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 22 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 permit students who are not qualified for entry into a professional program the opportunity to enroll in a restricted set of courses that will be applied to their professional program requirements. 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 Profes-

sional 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.

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 part, of such transferred credit may be applied toward a degree at Wayne State will depend on the requirements of the curriculum chosen. No grade below a 'C' in technical courses or their prerequisites may be transferred into the College. The student should consult the Department Chairperson or the Associate Dean for Academic Affairs on this matter.

Course equivalency tables, designed to provide initial guidance, are available at <http://www.transfercredit.wayne.edu>. The decision of the Department and the College regarding the acceptance of transfer credit to be applied to the undergraduate degree in engineering is final and supersedes the published transfer tables. Any request for reconsideration of the evaluation of transfer credits accepted by the College of Engineering should be made in writing within one year of the date of the student's first enrollment in the College of Engineering, or within one year of the date of the evaluation if the latter is made subsequent to the student's enrollment in the College of Engineering.

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 transfer form is available in the Dean's office. 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 in engineering. (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 1050 -- Introduction to Engineering: Cr. 2
B E 1001 -- Engineering Bridge Mentorship: Cr. 0
MAT 1050 -- Algebra with Trigonometry PREP: Cr. 7
PHY 1020 -- (PS) Conceptual Physics: Cr. 4

Winter Semester:

CHM 1040 -- Chemistry Skills and Reasoning: Cr. 4
ENG 1010 -- Basic Writing: Cr. 4
MAT 1800 -- Elementary Functions: Cr. 4
MAT 1990 -- Precalculus Workshop: Cr. 2

In order to progress from the Bridge Program to the preprofessional program, a student must complete each of the required courses with a grade of 'C-minus' or higher and an overall grade point average of at least 3.0. Students receive close attention from the Engineering advisors so that early intervention may be arranged for students who face academic difficulties. In addition to 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 an Engineering Boot Camp program during the summer before their first year. Identified students will enroll in an eight-week course of MAT 0993 as well as a one-credit course in study skills appropriate to engineering (B E 0990). Students who successfully complete the Boot Camp courses will enter the Engineering Bridge Program in the Fall semester.

Students who enter the University in the Winter semester should meet with their academic advisor or the Associate Dean for Academic Affairs to determine how the sequence of Bridge courses will be modified to allow them to complete the coursework by the end of the following Fall semester.

Other Undergraduate Academic Programs

Preprofessional Programs: Students in the Preprofessional Programs complete 35 to 43 credits of their accredited 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 encouraged to register in one of the degree granting Departments. However, if still uncommitted as to a particular curriculum, the student may register as an 'undecided student'. If the undecided status is elected, the student is encouraged to pursue career counseling during the first year in the Preprofessional Program. When a decision is reached, the student is assigned to the appropriate Department. The planning of a program of study is carried out in conference with a Departmental advisor. Students are encouraged to meet with their advisor whenever there may be a need to do so. This contact should be sought at least once each term for registration purposes.

In order to be admitted to the professional program of their choice, a student must complete the preprofessional courses with no grade lower than a 'C-minus' and a College grade point average 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 pre-professional grade point average.

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/she will be excluded from the College of Engineering.

Professional Programs: Students must qualify for the Professional Program in order to complete their advanced engineering courses and apply for their bachelor's degrees. Only students in the Professional Program in Engineering may register for 3000- and 4000-level engineering courses and, as an undergraduate, 5000-level technical electives. Exceptional students may be granted direct admission to the professional program - the majority of students will progress through the preprofessional program first.

Students directly admitted to a professional engineering program must maintain a g.p.a. of 2.5 or above and must earn a grade of 'C-minus' or better in all course work included in the freshman and sophomore years of their program. 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 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 24 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: 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. 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 strongly encouraged to take the seven-credit PREP version of MAT 1050 in order to obtain a stronger foundation in mathematical problem solving. 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. 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 shown in the Departmental sections 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. 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 five years. 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/Summer term. Students should check with their advisors regarding the courses that can best be taken in Spring/Summer. 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. The following discussion concerns generic aspects common to all Bachelor of Science engineering programs.

— General Education Requirements: Overview

All students must satisfy the General Education Requirements of the University, as described on page 16. In some cases the College prescribes a more limited set of alternatives than permitted by the University. Students are cautioned to observe College restrictions when selecting courses to satisfy General Education Requirements.

Type: College Requirement

- AI: Any AI course (Only 3 credits count towards degree requirement)
- BC: ENG 1020 or 1050
- CL: B E 1200; *or* competency exam (See program requirements)
- CP: Any (CP) Computer Proficiency course*
- CT: Competency exam (or pass PHI 1050)
- 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 for all programs except CHE and IE; BIO 2200 for CHE; BIO 1510 or PSY 1010 for IE
- MC: Completion of math sequence
- OC: ENG 3060
- PL: PHI 1100 (Engineering designated section)
- PS: CHM 1225/1230 (plus lab) (also meets lab sci. reqts.)
- SS: ECO 2010 *or* 2020 (Only 3 credits count towards degree requirements)
- VP: Any VP course (Only 3 credits count towards degree requirements)
- WI: Program-specific capstone course (See program requirements)

*Note: Beginning Fall 2005, General Education Requirements also include one Computer Proficiency (CP) course, and three Exposure Areas courses.

— Basic Science Requirement

In order to meet accreditation requirements, all undergraduate engineering students are required to complete at least sixteen 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. Certain courses 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 16) 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, students 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/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 16 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 either BIO 1510 or BIO 2200. 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, page 132. Ideally, engineering students elect the first course in calculus in their first freshman term; however, many incoming students are not prepared to begin the mathematics program with calculus, and additional remedial coursework is necessary to strengthen the student's background. This remedial 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 academic advisor. 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/her academic advisor.

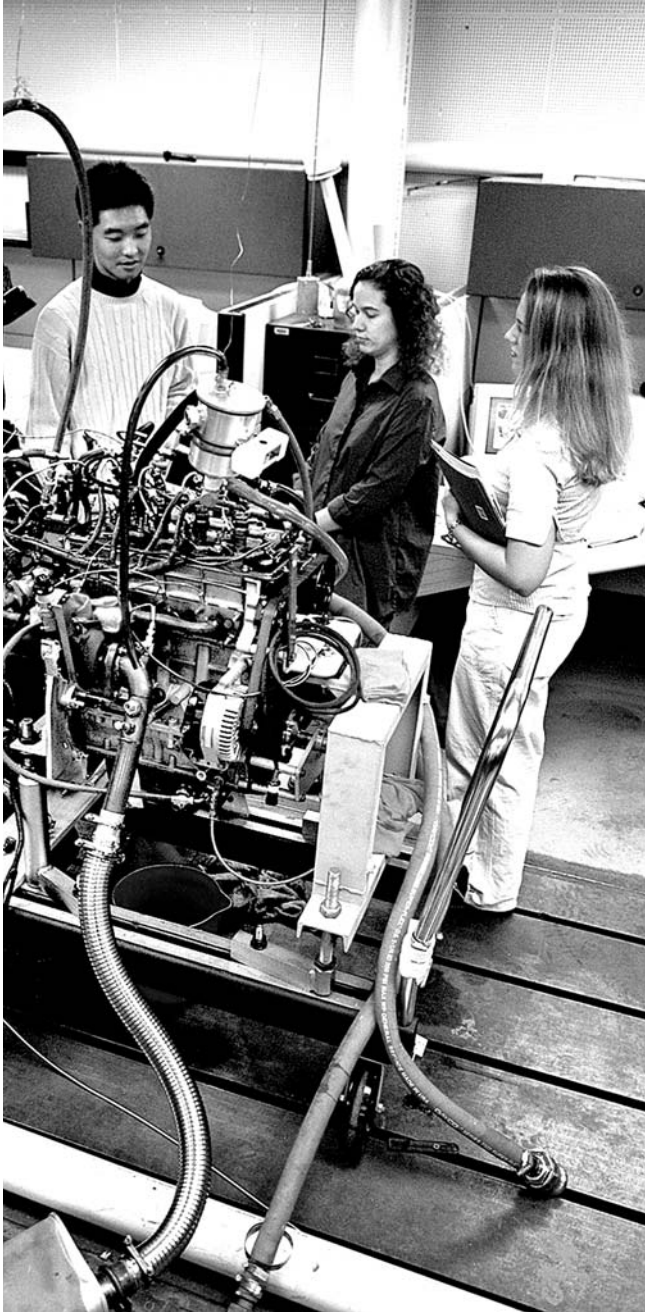
Cooperative Education Program

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 that 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.



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 46 for information relating to registration.) Special attention should be paid to course pre- and co-requisites 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 withdrawal of a student from a class. 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' — 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 100 credits of course work applied towards the engineering degree and be accepted in the professional program of their major. The minimum grade point averages for acceptance into the program are a 3.4 in engineering and not less than a 3.6 g.p.a. in their Department of specialization, as computed by the rules of the Division of Engineering. See the Departmental advisor for further details.

Conduct

Each student is subject to official regulations governing student activities and student behavior. Furthermore, it is the responsibility of each student to adhere to the principles of academic integrity. Academic integrity means that a student is honest with him/herself, fellow students, instructors, and the University in matters concerning his or her educational endeavors. Thus, a student should not falsely claim the work of another as his/her own, or misrepresent him/herself so that the measures of his/her academic performance do not reflect his/her own work or personal knowledge.

If there are reasonable grounds to believe that a student has disregarded the regulations or student responsibilities, he or she may be disciplined. Such discipline may include suspension or dismissal, but no dismissal will be directed without reasonable opportunity for an appropriate hearing. A description of the University's Student Due Process Policy and a discussion of academic integrity can be found at <http://www.doso.wayne.edu/judicial/index.htm>.

Academic Probation

A student is considered to be on academic probation whenever his/her cumulative grade point average, or his/her grade point average in the College of Engineering, falls below 2.0. A student may also be placed on probation whenever his/her academic performance is deemed unsatisfactory. For a first occurrence of academic probation, a student should meet with his/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/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/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/her status by the Academic Standards Committee (ASC) after the one-year exclusionary period. He/she should not make the request, however, unless he/she can provide evidence 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 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 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; the maximum number is 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 any engineering course or any required mathematics, science, or English course, 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.

A course in which a grade below 'C-minus' has been earned may not be subsequently passed by special examination.

Grading Options: 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 Department and 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/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.

An engineering student who repeats a required course in which he/she received a grade lower than a 'C-minus' must repeat that course at Wayne State University unless prior written approval is secured from his/her Department Chairperson and the Associate Dean for Academic Affairs to take the course at a designated institution.

Students are directed to page 44 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 47. Special note should be taken of the fact that the College of Engineering policy on withdrawal from a course or courses is not to grant permission to withdraw after the Friday of the fifth week of classes, nor to add a course after the second week. Exceptions must have the approval of the instructor, followed by the approval of the Associate Dean for Academic Affairs.

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 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 in December for Summer and Fall semester graduates and in May for Winter semester graduates.

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 curricula 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. These examinations are 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 (B E)

The following courses in basic engineering are of a general nature and are used by students in all of the Division of Engineering disciplines. For interpretation of numbering system, signs and abbreviations, see page 479.

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 student. Coreq: MAT 0993 and required of all Engineering Bridge students electing MAT 0993. Offered for S and U 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 S and U 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)

1001 Engineering Bridge Mentorship Program Participant. Cr. 0

Offered for S and U grades only. Must be elected in both Fall and Winter Semesters. Open only to Engineering Bridge students. 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 engineering, and its various disciplines. The importance of teams to the practice of engineering is demonstrated. (F)

1200 (CL) Basic Engineering I: Design in Engineering. Cr. 3

Prereq. or coreq: MAT 1800. Core principles of engineering practice: design, teamwork, professional ethics. (F,W)

1300 Basic Engineering II: Materials Science for Engineering Applications. Cr. 3

Prereq: CHM 1225 / CHM 1230; coreq: B E 1310; prereq. or coreq: B E 1010, B E 1100, or B E 1200; PHY 2170 or PHY 2175; MAT 2020. Fundamentals of materials science; emphasis on how material properties and behavior affect engineering applications. (T)

1310 Materials Science for Engineering: Laboratory. Cr. 1

Coreq: B E 1300. Laboratory component of B E 1300. (T)

2100 Basic Engineering III: Probability and Statistics in Engineering. Cr. 3

Prereq. or coreq: MAT 2020. An introduction to application of probability theory and statistical methods in engineering, including design and manufacturing. (T)

2550 Basic Engineering IV: Numerical Methods and Computer Programming. Cr. 3

Prereq: B E 1200, MAT 2030; prereq. or coreq: MAT 2150. Core principles of computer programming and applications in design and implementation of numerical methods to solve engineering problems. Material Fee As Indicated In The Schedule of Classes (T)

3000 Engineering Bridge Mentorship Program Leader. Cr. 0

Offered for S and U grades only. Open only to students enrolled in professional Engineering programs and Engineering Bridge Program mentors. Documentation of mentor participation in Engineering Bridge Program. (T)

3500 Co-Op Record. Cr. 0 (IND: 0)

Prereq: sophomore standing and consent of coordinator. Offered for S and U grades only. Open only to students enrolled in professional Engineering programs. Engineering practice under supervision in cooperative education program. (T)

3510 Co-Op Experience. Cr. 1 (Max. 4) (IND: 1)

Prereq: sophomore standing and consent of adviser. Offered for S and U grades only. Open only to students enrolled in professional Engineering programs. Engineering practice under supervision in cooperative education program. Written report required. (T)

5900 National Design Competition Projects. Cr. 1-4

Prereq: written consent of faculty adviser for the project. Primarily for engineering undergraduates who are dedicating a substantial amount of effort towards college-sponsored national design competition projects. (T)

5998 Engineering Honors Thesis. Cr. 4

Open only to Engineering Honors students. Prereq: enrollment in a professional engineering program and consent of Associate Dean for Academic Affairs or Honors Program Director. Completion of required Honors Thesis. (T)



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

E. Gulari, Y. Huang, R.H. Kummler, C.W. Manke, S. Ng, S.K. Putatunda, E. W. Rothe

Associate Professors

R. Kannan, H.W.T. Matthew, 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 Hazardous Waste Control*

**GRADUATE CERTIFICATE in Polymer Engineering*

**MASTER OF SCIENCE in Chemical Engineering*

**MASTER OF SCIENCE in Materials Science and Engineering*

**MASTER OF SCIENCE in Hazardous Waste Management*

**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.

* For specific requirements, see the Wayne State University Graduate Bulletin.

To address the diverse career interests of chemical engineering students, our program offers a choice of three integrated study plans for the B.S. degree: Product and Process Engineering option; Biological Engineering option; and Molecular Engineering and Nanotechnology option. The Product and Process Engineering option offers advanced courses and electives in design, control, chemical process safety, and other topics relating to chemical process engineering. The Biological Engineering option offers advanced courses in biology, biochemistry, and physiology, coupled with a senior research project and focused electives for chemical engineers interested in biotechnology and related fields. The Biological Engineering option is also suitable for those interested in medical school or graduate study in biomedical engineering. The Molecular Engineering and Nanotechnology option includes research and coursework in advanced science and engineering topics related to these new fields, which form the knowledge base for development of novel sensors, smart materials, molecular interfaces, medical applications, and drug delivery technologies.

In addition to the Undergraduate Program Goals listed on page 132, the specific objectives of the chemical engineering B.S. program are:

- 1) To offer a sound common chemical engineering curriculum of required courses in material and energy balances applied to chemical processes; thermodynamics of physical and chemical equilibria; heat, mass and momentum transfer; chemical reaction engineering; separation processes; process dynamics and control; process and product design; and appropriate modern experimental and computational techniques.
- 2) To offer advanced coursework options in the areas of Product and Process Engineering, Biological Engineering, and Molecular Engineering and Nanotechnology, which will prepare students for successful careers in the chemical engineering industries and related technology sectors of the 21st century. These options will also prepare interested students for continuing study in graduate programs and professional schools.
- 3) To incorporate a strong design experience throughout the curriculum that includes identification, formulation and solution of open-ended problems, scale-up concepts, use of iterative approaches, consideration of safety and environmental issues, and understanding of economic factors.
- 4) To provide laboratory experiences relevant to chemical engineering principles, covering experimental investigation of engineering problems, analysis and interpretation of data, and presentation of results.
- 5) To offer electives that extend the basic chemical engineering principles into advanced and multidisciplinary applications related to current chemical engineering practice.
- 6) To develop awareness in staying current with the changing chemical engineering profession through lifelong learning and continuing professional development, and to provide guidance in career planning and interviewing through the required seminar series.
- 7) To assist in the preparation of students for engineering practice through co-op and internship programs.
- 8) To encourage involvement of undergraduates in research so that they can experience advanced and independent study environments.

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 16 and 135), 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 page 16, 43, 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.

Chemical Engineering Bachelor of Science Options

Product and Process Engineering Option

Freshman Year

First Semester

B E 1200 -- (CL) Basic Engineering I: Design in Engineering: Cr. 3
 CHM 1225 -- (PS) General Chemistry I: Cr. 3
 CHM 1230 -- General Chemistry I Lab: Cr. 1
 ENG 1020 -- (BC) Introductory College Writing: Cr. 4
 MAT 2010 -- Calculus I: Cr. 4
 Total credits: 15

Second Semester

B E 1300 -- Basic Eng. II: Materials Sci. for Engineering Applications: Cr. 3
 B E 1310 -- Materials Science for Engineering: Lab: Cr. 1
 CHM 1240 -- Organic Chemistry I: Cr. 4
 CHM 1250 -- Organic Chemistry I Lab: Cr. 1
 MAT 2020 -- Calculus II: Cr. 4
 PHY 2175 -- (PS) General Physics: Cr. 4
 Total credits: 17

Sophomore Year

First Semester

B E 2100 -- Basic Engineering III: Probability & Statistics in Engg.: Cr. 3
 BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3
 MAT 2030 -- Calculus III: Cr. 4
 PHI 1100 -- (PL) Contemporary Moral Issues: Cr. 3
 PHY 2185 -- General Physics: Cr. 4
 Total credits: 17

Second Semester

B E 2550 -- Basic Engineering IV: Numerical Methods and Computer Programming: Cr. 3
 CHM 2220 -- Organic Chemistry II: Cr. 3
 CHE 2800 -- Material and Energy Balances: Cr. 4
 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
 Computer Literacy (CL) 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 or CHM 5600*
 -- Physical Chemistry II: Cr. 4
 -- Survey of Biochemistry: Cr. 3*
 ENG 3050 -- (IC) Technical Communication I: Report Writing: Cr. 3
 (HS) Historical Studies Elective: Cr. 3
 Total credits: 17-18

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: Cr. 0
 ENG 3060 -- (OC) Technical Communication II: Writing & Speaking: Cr. 3
 (AI) American Society and Institutions Elective: Cr. 3
 Total credits: 16

*Students may elect either CHM 5440 and 10 Technical Elective Credits, or CHM 5600 and 11 Technical Elective Credits.

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 Engineering II: Materials Sci. for Engineering Appl.: 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 Engineering III: Probability and Stat. in Engineering: Cr. 3
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3
MAT 2030 -- Calculus III: Cr. 4
PHI 1100 -- (PL) Contemporary Moral Issues: Cr. 3
PHY 2185 -- General Physics: Cr. 4
Total credits: 17

Second Semester

B E 2550 -- Basic Engg. IV: Num. Meth. and Computer Programming Cr. 3
CHE 2800 -- Material and Energy Balances: Cr. 4
CHM 2220 -- Organic Chemistry II: Cr. 3
ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 3
MAT 2150 -- Differential Equations and Matrix Algebra: Cr. 4
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 -- (IC) 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

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 Lab: Cr. 1
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
MAT 2010 -- Calculus I: Cr. 4
Total credits: 15

Second Semester

B E 1300 -- Basic Engg. II: Materials Science for Engineering Appl.: 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 Engineering III: Probability and Stat. in Engineering: Cr. 3
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3
MAT 2030 -- Calculus III: Cr. 4
PHY 2185 -- General Physics: Cr. 4
PHI 1100 -- (PL) Contemporary Moral Issues: Cr. 3
Total credits: 17

Second Semester

B E 2550 -- Basic Engg. IV: Num. Meth. and Computer Programming: Cr. 3
BIO 2600 -- Introduction to Cell Biology: Cr. 3
CHM 2220 -- Organic Chemistry II: Cr. 3
CHE 2800 -- Material and Energy Balances: Cr. 4
MAT 2150 -- Differential Equations and Matrix Algebra: Cr. 4
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 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 -- (WI) CHE Research Project: Cr. 4
Chemical Engineering Technical Electives: Cr. 2
ECO 2020 -- (SS) 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 479.

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: CHM 1240/1250; 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 2100, B E 2550; CHE 3200. Open only to students enrolled in professional Engineering programs. Laboratory course in the principles and practice of measuring chemical, physical and thermodynamic properties of importance to chemical engineering problems. Technical reports. Material fee as indicated in the Schedule of Classes (W)

3300 Thermodynamics: Chemical Equilibria. Cr. 4

Prereq: CHE 2800, MAT 2020. Open only to students enrolled in professional Engineering programs. Qualitative and quantitative treatment of homogeneous and heterogeneous phase and chemical equilibria. Use of chemical activities and activity coefficients relating ideal to actual systems. Use of reference states and excess properties of the prediction of equilibrium diagrams and the determination of feasibility of chemical reactions. Material fee as indicated in the Schedule of Classes (F)

3400 Kinetics and Reactor Design. Cr. 4

Prereq: B E 2550, CHE 3300, MAT 2150. Open only to students enrolled in professional Engineering programs. Quantitative treatment of complex homogeneous and heterogeneous chemical reactions and the design of batch, stirred and flow reactor systems. Material fee as indicated in the Schedule of Classes (W)

3510 Co-op Experience. Cr.1 (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. Quantitative treatment of separation processes in which there is simultaneous heat and mass transfer. Material fee as indicated in the Schedule of Classes (W)

3820 Chemical Engineering Laboratory. Cr. 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) Chemical Process Integration. Cr. 3

Prereq: CHE 4200. Open only to students enrolled in professional Engineering programs. Application of engineering and science background to the design of chemical processes. Comprehensive problems deal with sources of data, design principles and optimization techniques. (F)

4860 Chemical Engineering Seminar II. Cr. 1

Prereq: CHE 4260. Required for graduation. Offered for S and U grades only. Open only to students enrolled in professional Engineering programs. (F,W)

4990 Directed Study. Cr. 1-9 (Max. 9)

Prereq: consent of adviser. Open only to students enrolled in professional Engineering programs. Students select a field of chemical engineering for advanced study and instruction. (T)

5050 Statistics and Design of Experiments. Cr. 3

Prereq: B E 2100, B E 2550; CHE 3800, CHE 3400. Application of modern statistical experimental design methods to improve effectiveness and success in experimental projects, in chemical industry manufacturing, and research and design. (W)

5100 (BME 5010) Engineering Physiology. (ECE 5100) (I E 5100) (M E 5100) Cr. 4

Prereq: senior standing. 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)

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)

5530 Thermal Processing of Hazardous Waste. Cr. 2

Prereq: HWM 5510. Thermal processing technologies, such as combustion fundamentals, thermal incineration equipment and hardware, chemical reaction and recovery systems for hazardous waste control. (I)

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)

5630 Waste Treatment Technologies. Cr. 3

Prereq: CHE 3300, 3400, 3800. Characterization and analysis of waste components in gas emissions, liquid and solid streams, and suitability for treatment technologies vs. management and remediation of hazardous waste sites. (I)

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)

6590 Bioremediation of Hazardous Waste. Cr. 3

Prereq: CHE 2800, B E 2550. The movement of pollutants through underground matrices by means of transport models. Analysis, identification, assessment and selection of remedial programs. Types of microorganisms, the food chain, oxygen supply and operating conditions will be described. (W)

6610 Risk Assessment. Cr. 3

Prereq: MAT 2030, B E 2100, and CHM 1240. 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 5811, 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. 4

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

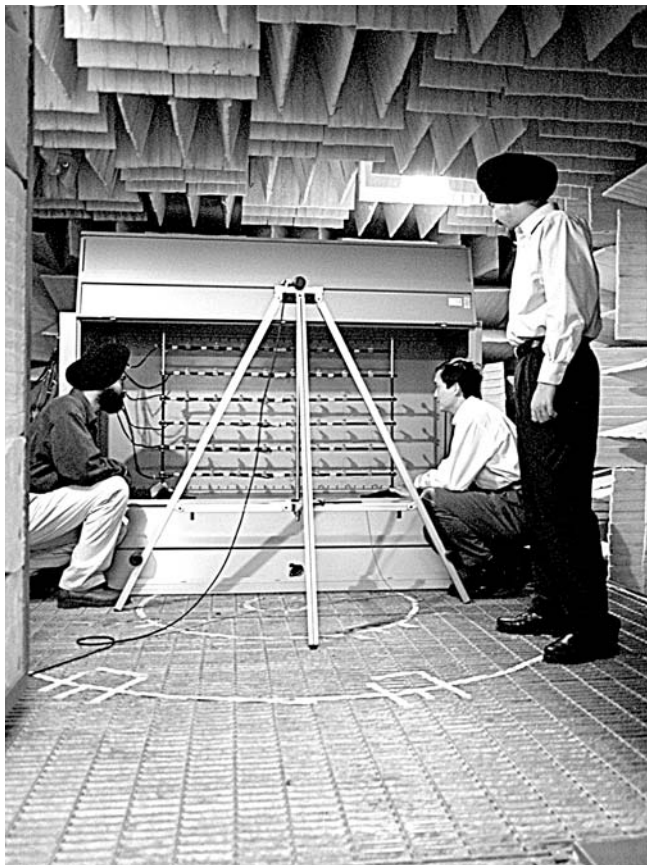
Coreq: MSE 5350. Introductory course emphasizing a physical understanding of composites: fiber and polymer matrix properties, interfacial adhesion, manufacturing, elastic and strength properties of unidirectional and random laminae. Other topics include various performance properties and plastic design applications. (F)

5650 Surface Science. Cr. 3

Prereq: B E 1300. An introduction to the science and technology of surface phenomena, including surface structure, surface energy, surface diffusion, crystal growth and selected applications of technological importance. (I)

6500 Fatigue and Fracture of Metals. Cr. 3

A detailed examination of the ways in which engineering materials fail under both static and cyclic loading conditions. Emphasis is on the metallurgical aspects of failure and the underlying mechanisms of fracture and fatigue. (I)



CIVIL and ENVIRONMENTAL ENGINEERING

Office: 2100 E. Engineering Building; 313-577-3789

Chairperson: M.A. Usmen

Website: <http://www.ce.eng.wayne.edu>

Professors

H. M. Aktan, 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, T. Kagawa, N. Yesiller, H.C. Wu

Adjunct Faculty

A. Awad, N. Biswas, U. Dutta, M. Ghabrial, D. Hibbs, C. Katsikas, P. Nannapaneni, J. Sears

Degree Programs

BACHELOR OF SCIENCE in Civil Engineering

**MASTER OF SCIENCE in Civil Engineering*

**DOCTOR OF PHILOSOPHY with a major in Civil Engineering*

Civil engineers apply the principles and techniques of engineering to the design and integration of complex systems. They have traditionally been leaders in many aspects of urban development and the urban crisis in America has brought into focus the profession of civil engineering and the responsibilities of its practitioners. The civil engineer is a leader in such diverse areas of concern as: the design and control of structural systems, including tall buildings, bridges and transportation systems necessary for urban development, commerce and industry; water resources planning and management; containment and treatment of hazardous wastes; design of collection and treatment systems for sanitary and storm sewage; water treatment and distribution systems; construction management; and the integration and management of public works projects designed to improve the urban infrastructure. Obviously, the responsibilities of the civil engineer directly involve the health, safety and welfare of the public.

The Civil and Environmental Engineering Department maintains laboratories for teaching and research in the areas of: structures/materials, transportation, hydraulics, geotechnical, geoenvironmental, infrastructure systems, and environmental engineering. Laboratories include facilities for testing structural components under static and dynamic loads; strain measurement; traffic simulation; and fluid flow. The Department and the University maintain excellent computer facilities for data acquisition and analysis, including several advanced software packages specific to civil engineering.

Bachelor of Science in Civil Engineering

Mission Statement: The mission of the Civil and Environmental Engineering Department is to provide high-quality, state-of-the-art educational and research programs. The Department strives for excellence in its academic programs, its research endeavors, and its university, community and professional service activities. The program is designed to prepare our graduates for success in their immediate, as well as long-term, professional careers as practitioners, for obtaining a professional license, and for pursuing advanced studies and lifelong learning.

* For specific requirements, see the Wayne State University Graduate Bulletin.

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 con-

tinuing 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 133 credits in course work, including satisfaction of the University General Education Requirements (see pages 16 and 135), 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, 43, 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

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 Engg. Appl.: Cr. 3
B E 1310 -- Material Science for Engineering: Lab: Cr. 1
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3
MAT 2020 -- Calculus II: Cr. 4
PHY 2175 -- (PS) General Physics: Cr. 4
Any (AI) course: Cr. 3
Total credits: 18

Sophomore Year

First Semester

B E 2100 -- Basic Engineering III: Probability and Stat. in Engg.: Cr. 3
C E 2400 -- (M E 2400) Statics & Mechanics of Materials: Cr. 4
MAT 2030 -- Calculus III: Cr. 4
PHY 2185 -- General Physics: Cr. 4
English Proficiency Exam: Cr. 0
Critical Thinking Exam: Cr. 0
Visual and Performing Arts (VP) elective¹: Cr. 3
Total credits: 18

Second Semester

ECO 2010 or ECO 2020
-- (SS) Principles of Microeconomics: Cr. 3
-- (SS) Principles of Macroeconomics: Cr. 3
ENG 3050 -- (IC) Technical Communication I: Report Writing: Cr. 3
MAT 2150 -- Differential Equations and Matrix Algebra: Cr. 4
M E 3400 -- Dynamics: Cr. 4
Civil Engg. Technical Elective: Cr. 3
Total credits: 17

Junior Year

First Semester

C E 3250 -- Applied Fluid Mechanics: Cr. 4
C E 4400 -- Structural Analysis: Cr. 4
C E 4450 -- Civil Engg. Materials: Cr. 3

1. 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) 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 4640 -- Transportation Design: Cr. 4
Design Elective: Cr. 4
Any (HS) course: Cr. 3
Total credits: 15

Second Semester

C E 4995 -- (WI) Senior Design Project: Cr. 3
C E Technical Elective: Cr. 3
Design Elective: Cr. 4
ENG 3060 -- (OC) Technical Communication II: Writing & Speaking: Cr. 4
Any (FC) course: Cr. 3
Total credits: 16

TOTAL PROGRAM CREDITS: 133

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.

Design Electives: Students are required to complete two courses from: C E 5230, C E 5510, C E 5520, C E 5610, C E 6130, C E 6150, C E 6340, C E 6370, C E 6580.

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 479.

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 1100, 1200, 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 stirred tank reactors; Stoke's Law; Streeter-Phelps oxygen sag curves; water chemistry; hydrologic cycle; population growth models; elements of soil waste management and air pollution. Material fee as indicated in the Schedule of Classes (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, C E 4450. Open only to students enrolled in professional Engineering programs. Design and analysis of reinforced concrete beams, columns, and other structural members; ACI code requirements; 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 queueing theory. Material fee as indicated in the Schedule of Classes (W)

4640 Transportation Design. Cr. 4

Prereq: C E 4600. Open only to students enrolled in professional Engineering programs. A description of design elements of various

system components of transportation; including the driver, vehicle and roadway. Traffic flow design elements including volume, density and speed; intersection design elements including delay, capacity and accident countermeasures and terminal design elements including inflow, outflow and circulation. (F)

4850 (I E 4850) Engineering Economy. Cr. 3

Open only to students enrolled in professional Engineering programs. Economic analysis of engineering projects. Selection of appropriate interest rates and methods of analysis, analysis and evaluation of alternatives, depreciation and tax considerations, and use of accounting data in comparison of investment alternatives. Material fee as indicated in the Schedule of Classes (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) Senior Design Project. Cr. 3

Prereq: senior standing in civil engineering. Open only to students enrolled in professional Engineering programs. Capstone design experience through civil engineering projects. Satisfies General Education Writing Intensive requirement. (W)

5220 Sanitary Chemistry. Cr. 3

Prereq: C E 4210. Fundamentals of chemical principles and their application to unit operations and process encountered in the treatment 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, filtration and disinfection; design of sanitary and storm sewers; primary, secondary and tertiary treatment plant design; sludge handling. Material fee as indicated in the Schedule of Classes (Y)

5350 Introduction to Structural Dynamics. Cr. 4

Prereq: M E 3400, C E 4400. Dynamic properties of structures., Modeling of dynamic loads. Structural response to dynamic loading. Structural design requirements for dynamic loads. Fundamental techniques of dynamic system analysis. (W)

5370 Finite Element Analysis Fundamentals. Cr. 4

Prereq: C E 4400 or M E 5600. Matrix structural analysis, discretization of continuous structural systems, stress analysis. Commercial finite element software preprocessing for developing finite element models; postprocessing for evaluating analysis results. (F)

5410 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 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 conventional earth-retaining walls and of reinforced earth walls, anchored sheet-pile walls and cofferdams, fundamentals of soft-ground tunneling, two- and three-dimensional slope stability analyses, and static design of earth dams. (B)

5580 (HWM 5580) Land Disposal of Hazardous Waste. Cr. 2

Prereq: HWM 5510. Industrial landfill, biological methods of disposal, land disposal techniques, ocean disposal techniques, disposal of flue gas cleaning wastes. (F)

5590 (HWM 5590) Biological Methods of Waste Disposal. Cr. 2

Prereq: HWM 5510. Biological treatment of industrial wastes, including unit operations, solids handling and activated carbon processes. (F)

5610 Highway Design. Cr. 4

Prereq: C E 4640. Application of standards, theory and practice in design of streets and highways. Design of streets and highways including cross section elements, shoulder and roadside features. Pavement design and rehabilitation work. (Y)

5810 Legal Aspects of Engineering and Construction. Cr. 3

Open only to seniors and graduate students. Business of contracting, construction, liabilities of owner, architect, engineer and contractor. Rights in land, boundaries and foundations. Case studies. Material fee as indicated in the Schedule of Classes (F)

5830 Business of Engineering. Cr. 3

Prereq: C E 4850. Defining the engineering company, creating the organization, support services, business development, project management, scheduling, budgeting and profitability, operations, financial management and risk management. (T)

5995 Special Topics in Civil Engineering I. Cr. 1-4

Prereq: consent of chairperson. Topics to be announced in Schedule of Classes. (I)

6010 Introduction to Construction Management. Cr. 3

Prereq: C E 4850 or consent of instructor. An introduction to the organization and management of design and construction firms. Organizational and managerial theories. Problems of organization management, operation and control of engineering systems, case studies. Material fee as indicated in the Schedule of Classes. (W)

6050 Construction Cost Estimating. Cr. 3

Prereq: C E 4850. Estimating construction costs of engineering projects including materials, man-hours, equipment and overhead. Emphasis on construction equipment, including productivity and planning. Bidding and bid documents. (B)

6060 Construction Techniques and Methods. Cr. 3

Prereq: C E 4450. Construction techniques and methods for excavation, foundations, concrete, wood, steel, masonry, heavy construction, wastewater treatment plants, highways and roads, high rise structures, bridges, and tunnelling projects. (B)

6060 Construction Techniques and Methods. Cr. 3

Prereq: C E 4450. Construction techniques and methods for excavation, foundations, concrete, wood, steel, masonry, heavy construction, wastewater treatment plants, highways and roads, high rise structures, bridges, and tunnelling projects. (B)

6130 Open Channel Hydraulics. Cr. 4

Prereq: C E 3250 or equiv. Theoretical development of equations governing flow in open channels. Application to real-world engineering problems involving water surface profiles, flood studies, and river. (W)

6150 Hydrologic Analysis and Design. Cr. 4

Prereq: C E 6130. Principles of surface water hydrology and their application for evaluation of floods and the design of surface runoff control system; watershed characteristics; design storms and SCS methods; unit hydrographs; hydrologic models; application of computer methods. (B)

6190 Groundwater. Cr. 4

Prereq: C E 3250. Historical background, aquifers and aquitards, saturated and unsaturated flow, sources of ground water contamination, artificial recharge of ground water, development of ground water basins and efficient use of ground water resources. (Y)

6270 Environmental Management and Sustainable Development. (HWM 6270) Cr. 3

Prereq: C E 4210. Review and application of techniques and practices. (Y)

6330 Advanced Structural Analysis. Cr. 4

Prereq: C E 4410. Effect of axial loads on stiffness of flexural members. Buckling of trusses and rigid frames. Matrix method of analysis. Complex structures. Computer applications. (F)

6340 Bridge Design and Evaluation. Cr. 4

Prereq: C E 4420. Concepts, procedures, methods of design and condition evaluation for modern highway bridges, according to current specifications. Entire system is covered, including superstructure, substructure, and their connections. (B)

6370 Advanced Reinforced Concrete Design. Cr. 4

Prereq: C E 4420. Theory and design of two-way slabs, footings, retaining walls, shear walls, and composite beams using ultimate strength design. Precast and prestressed concrete fundamentals. (W)

6410 Advanced Steel Design. Cr. 4

Prereq: C E 4420. Advanced topics of structural steel design: thin walled rolled and built-up members, beam columns, lateral torsional buckling, steel fatigue design, connection details. Steel design project. (W)

6525 (U P 6520) Transportation Policy and Planning. Cr. 3

Introduction to the role of transportation in the planning process involving both regional and urban considerations. (Y)

6580 Geoenvironmental Engineering I. Cr. 4

Prereq: C E 4510. Properties and test methods for natural and synthetic materials used in landfills; analysis of chemical interactions, flow mechanisms, stability and settlement for the design of landfill components. (Y)

6660 Pavement Management Systems: Principles and Practices Cr. 3

Prereq: C E 4640. Principles and practices used in pavement management systems, including pavement serviceability, pavement design, priority programming. (Y)

ELECTRICAL and COMPUTER ENGINEERING

Office: 3100 W. Engineering Building; 313-577-3920

Chairperson: Yang Zhao

Website: <http://www.ece.eng.wayne.edu>

Professors

R. Arrathoon (Emeritus), G. Auner, R. D. Barnard (Emeritus), R. F. Erlandson, M.H. Hassoun, F. Lin, J. Meisel (Emeritus), V. Mitin, M. B. Scherba (Emeritus), M. P. Shaw (Emeritus), D.J. Silversmith, H. Singh, P. Siy, L.Y. Wang, F. Westervelt (Emeritus), H. Ying, Y. Zhao

Associate Professors

I. Avrutsky, X. Han, S.M. Mahmud, J. R. Woodyard, C.Z. Xu

Assistant Professors

Q.J. Cheng, J. Choi, N. Sarhan, Y. Xu

Adjunct Professors

G.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.

* For requirements, see the Wayne State University Graduate Bulletin.

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 research program as graduate teaching assistants and research assistants.

The College of Engineering laboratory building contains seven instructional laboratories for experimental work in control systems, analog circuits, digital systems, microcomputers, instrumentation, optics, and communication systems; these laboratories are an integral part of the Department's 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 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 16 and 135), 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, 43, 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 electromagnetic fields are studied after prerequisite mathematics and science backgrounds are mastered. In the senior year, a choice of electrical and computer engineering electives permits the student to specialize

in one or more areas. These electives are chosen under the guidance of a faculty adviser. Alternately, the student may elect the computer option, in which a planned program of computer engineering courses replaces the electives and a few of the required courses in the regular program.

ELECTRICAL ENGINEERING CURRICULUM

Freshman Year

First Semester

B E 1200 -- (CL) Basic Engineering I: Design in Engineering: Cr. 3
CHM 1225 -- (PS) General Chemistry I: Cr. 3
CHM 1230 -- General Chemistry I Laboratory: Cr. 1
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
MAT 2010 -- Calculus I: Cr. 4
Total credits: 15

Second Semester

B E 1300 -- Basic Engg. II: Materials Science for Engineering Appl.: Cr. 3
B E 1310 -- Materials Science for Engineering Lab: Cr. 1
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3
MAT 2020 -- Calculus II: Cr. 4
PHY 2170 -- (PS) General Physics: Cr. 4
PHY 2171 -- General Physics Laboratory: Cr. 1
Any (AI) course: Cr. 3 or 4
Total credits: 19 - 20

Sophomore Year

First Semester

B E 2100 -- Basic Engineering III: Probability & Stat. in Engineering: Cr. 3
ECE 2620 -- Introduction to Microcomputers: Cr. 4
MAT 2030 -- Calculus III: Cr. 4
PHY 2185 -- General Physics: Cr. 4
English Proficiency Exam: Cr. 0
Critical Thinking (CT) Exam: Cr. 0
Visual & Performing Arts(VP) Elective: Cr. 3
Total credits: 18

Second Semester

B E 2550 -- Basic Engg. IV: Num. Meth. 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
ECO 2010 or ECO 2020
 -- (SS) Principles of Microeconomics: Cr. 3
 -- (SS) Principles of Macroeconomics: Cr. 3
MAT 2150 -- Differential Equations and Matrix Algebra: Cr. 4
Total credits: 20

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
ECE 4340 -- Microcomputer-Based Instrumentation Laboratory: Cr. 2
ECE 4570 -- Electronics II: Cr. 4
ENG 3060 -- (OC) Technical Communication II: Writing and Speaking: Cr. 3
Any (FC) course: Cr. 3
Total credits: 16

Senior Year

First Semester

ECE Programming or Laboratory Elective: Cr. 3-4
PHI 1100 -- (PL) Contemporary Moral Issues: Cr. 3

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 -- Algorithms and Data Structures: Cr. 4
ECE 4680 -- Computer Organization: Cr. 4
ECE 4700 or ECE 4800
-- Introduction to Communication Theory: Cr. 4
-- Electromagnetic Fields and Waves I: Cr. 4

Total credits: 18 - 19

Second Semester

ECE 4600 -- (WI) Capstone Design I: Cr. 4
ECE Electives: Cr. 8
Total credits: 12

TOTAL PROGRAM CREDITS: 135-136

Life Science Requirement: Choose from the Department-approved list. Substitution of a course not on this list requires approval of the Department Chairperson or delegated faculty adviser.

Laboratory and Programming Requirements: At least ten credits in laboratory courses are required. In addition, at least three credits in programming or laboratory courses are required.

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 479.

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; networks and Kirchhoff's laws; network equivalents; nodal and mesh analysis; Thevenin's theorem and other network theorems. Sinusoidal steady-state response. First- and second-order systems. Introduction to sinusoidal steady-state response. (T)

3310 Electrical Circuits: Laboratory. Cr. 1 (LAB: 4)

Coreq: ECE 3300. Open only to students enrolled in professional Engineering programs. Introduction to DC/AC circuits and electronic instrumentation with applications to measurements in simple electrical networks. Material fee as indicated in the Schedule of Classes (T)

3330 Electrical Circuits II. Cr. 4 (LCT: 4)

Prereq: ECE 3300 and ECE 3310, MAT 2150. Open only to students enrolled in professional Engineering programs. Continuation of sinusoidal steady-state concepts from ECE 3300. Three-phase systems. Complex frequency concepts. Frequency response and S-plane. Resonant and coupled circuits. Two-port networks. (T)

3570 Electronics I. Cr. 4 (LCT: 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 network or system response. Homogeneity, superposition, and time invariance properties. Convolution; Fourier analysis of periodic signals; discrete-time signals, difference equations, and z-transform methods. Formulation of equilibrium equations for electromechanical systems. Linear incremental concepts. (T)

4340 Microcomputer-Based Instrumentation Laboratory. Cr. 2 (LCT: 1;LAB: 3)

Prereq: ECE 3570, ECE 3580, ECE 3630; prereq. or coreq: ECE 4330. Open only to students enrolled in professional Engineering programs. Multipurpose personal-computer-based approach to real time instrumentation. Current interfacing and software used for data acquisition, transmission, analysis and report writing. Material fee as indicated in the Schedule of Classes (T)

4470 Control Systems I. Cr. 4 (LCT: 4)

Prereq: ECE 4330. Open only to students enrolled in professional Engineering programs. System representations; feedback characteristics; time-domain characteristics; Routh-Hurwitz; Root Locus Plots; Nyquist criteria, Bode plots and Nichols charts; series compensation. (T)

4480 Systems and Control Laboratory. Cr. 2 (LCT: 1;LAB: 3)

Prereq: ECE 4470. Open only to students enrolled in professional Engineering programs. Response of electromechanical devices and

mechanisms in open- and closed-loop systems. D.c., a.c., and digital systems with cascade and feedback compensation techniques. Material fee as indicated in the Schedule of Classes (Y)

4570 Electronics II. Cr. 4 (LCT: 4)

Prereq: ECE 3300, PHY 3300, MAT 2150 for non-ECE students. Open only to students enrolled in professional Engineering programs. Aspects of electrical properties of semiconductors, the physical electronics of P-N junction, bipolar, field effect transistors, and device fabrication technology essential to understanding semiconductor active devices and integrated circuits. Introduction to the behavior of semiconductor and electronics devices. (T)

4600 (WI) Capstone Design I. Cr. 4 (LCT: 4)

Prereq: ENG 3050, ECE 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 VLSI design. (T)

4680 Computer Organization. Cr. 4 (LCT: 4)

Prereq: ECE 3330, ECE 3610. Open only to students enrolled in professional Engineering programs. Introduction to basic concepts of digital computers including representation of information, storage mechanisms, logical circuits, I/O devices and interfaces, elementary machine, special features in computers. (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, CSC 2060 or equiv.; and B E 2550 for engineering students. Background matrix algebra; linear system sensitivity; basic transformations; Gaussian elimination; symmetric systems; positive definite systems; Householder method for least squares problems; unsymmetric eigenvalue problems; the QR algorithm. (I)

5100 (BME 5010) Engineering Physiology. (CHE 5100) (I E 5100) (M E 5100) Cr. 4 (LCT: 4)

Prereq: senior standing. 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)

5120 Artificial Neural Systems I. Cr. 4

Prereq: ECE 4330 or M E 5000. Introduction to theory, architecture and application of artificial neural systems. Supervised, unsupervised and reinforcement learning in single- and multiple-layer neural networks. Associative neural memory recording and retrieval dynamics. Self-organizing maps. Learning capacity and generalization. Hardware implementations. (Y)

5170 (BME 5570) Design of Human Rehabilitation Systems. (I E 5170) (M E 5170) Cr. 4

Prereq: senior standing. Design, fabrication and testing of customized hardware to aid handicapped patients. (F)

5310 Active Filters. Cr. 4 (LCT: 4)

Prereq: ECE 4330, 4340. Introduction to active filter design. Basic concepts in filter theory. Op. Amp. and applications. Active-RC filter synthesis. Multiloop feedback design. Computer-aided design and sensitivity optimization. (Y)

5325 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)

Prereq: ECE 4330. Transmission capacity, load characteristics, power frequency control. Energy system component analysis and modeling. Steady-state analysis, load-flow problem and algorithms, optimal dispatch. Transient stability by simulation and direct methods. (I)

5440 Computer-Controlled Systems. Cr. 4

Prereq: ECE 4470 or CHE 4600 or M E 5540. Introduction to z-transform and sampling theory. Digital controller design using both transfer function techniques and state space methods. Implementation aspects of computer-controlled systems. (Y)

5470 Control Systems II. Cr. 4 (LCT: 4)

Prereq: ECE 4470; prereq. or coreq: 4480. Continuation of cascade and feedback compensation techniques using root-locus and frequency-response methods, describing functions and phase-plane techniques; introduction to the state-space formulation, Liapunov's direct method, pole-placement using state-variable feedback. (Y)

5500 Current Electronic and Photonic Materials Technology. Cr. 4

Prereq: ECE 4570, B E 1300 and B E 1310, or consent of instructor. Introduction to new and innovative technologies for electronic and photonic materials synthesis and processing. New semiconducting materials. Growth of single crystals of semiconducting materials. Semiconducting material processing techniques. (F)

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 Advanced Microprocessors and Communication Protocols. Cr. 4 (LCT: 4)

Prereq: ECE 4050, 4600, and 4680. Application and programming of 32-bit microprocessors. Communication links for automotive and other applications. Introduction to intelligent vehicle and transportation systems. (T)

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 ethernet 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)

Prereq: ECE 4680. Threshold, symmetric functions, and iterative networks. Multivalued and fuzzy logic. Complex sequential machine realization. State equivalence and minimization. Automata and linear machines. State identification and fault detection. (T)

5690 Introduction to Digital Image Processing. Cr. 4

Prereq: B E 2500, ECE 4330, ECE 4050, or equiv. Concepts of digital image processing from an operational perspective, with good exposure to theory. Accessibility of DIP to engineering. Detailed review of current techniques. (F)

5700 Analog and Digital Communication Circuits. Cr. 4 (LCT: 4)

Prereq: ECE 4570 and 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: 5700. Analog and digital modulation techniques, pulse code modulation, delta modulation, FSK, PSK and ASK, data communication, signal processing. Material fee as indicated in the Schedule of Classes (Y)

5760 Fiber Optics Engineering Laboratory. Cr. 2

Prereq: ECE 4850. Laboratory study of basic components of fiber optic systems: fibers, semiconductor lasers and light emitting diodes, photodetectors, digital and analog receivers and transmitters, filters, and couplers. (Y)

5770 Digital Signal Processing. Cr. 4 (LCT: 4)

Prereq: ECE 4700. Analysis of discrete signals and systems. Applications to digital filtering, active filters, digital communication and encoding. (Y)

5870 Optical Communication Networks. Cr. 4 (LCT: 4)

Prereq: ECE 4700; 4850. Laser and detectors; modulation and demodulation; optical transmitters and receivers; optical filters; optical amplifiers; architecture and network control; multiaccess networks; FDDI networks, SONET/SDH, ATM, system performance. (Y)

5885 Security and Electronic Commerce. Cr. 4

Prereq: ECE 4050. Basic principles of computer security and cryptography; focus on electronic commerce applications. (W)

5990 Directed Study. Cr. 1-4 (Max. 4) (IND: 1)

Prereq: admission to M.S. program, written approval of proposed study outline by adviser and chairperson prior to registration. Supervised study and instruction in the field selected by the student. (T)

5995 Special Topics in Electrical and Computer Engineering I. Cr. 1-4 (Max. 8) (LCT: 1)

Prereq: written consent of instructor. Maximum of eight credits in Special Topics may be elected in any one degree program. Special subject matter in electrical and computer engineering. Topics to be announced in Schedule of Classes. (T)

6100 Enabling Technology. (BME 6500) (O T 6620) Cr. 4

Prereq: consent of instructor. Principles of application of enabling technology: across life stages, for differing ethnic and cultural backgrounds, for individuals with varying functional abilities. (Y)

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)

**6570 Smart Sensor Technology I: Design. (BME 6470)
(PHY 6570) Cr. 4**

Prereq: B.S. degree in engineering or science. Introduction to various types of sensors and the design of basic analog VLSI circuit building blocks. (F)

6600 Engineering Software Design. Cr. 4 (LCT: 4)

Prereq: CSC 2220 or ECE 5620. Software engineering principles developed and integrated to identify, modify, extend, and apply computational and information-processing methods in a variety of systems applications. Structural analysis, design and programming is assumed and integrated into an engineering systems design context. (Y)

6640 Database Machines. Cr. 4 (LCT: 4)

Prereq: ECE 5620. Theory, design, and applications of database machines. Hardware implementation of database functions; search, sort, relation operations, and the like. (Y)

6660 Introduction to VLSI Systems. Cr. 4 (LCT: 4)

Prereq: ECE 4680. Survey of very large scale integrated circuit components and design procedures. MOS fabrication, MOS gates, circuit architecture, device design, manufacturing and interface techniques. (T)

6690 Introduction to Fuzzy Systems. Cr. 4

Prereq: B E 2100 or consent of instructor. Introduction to fuzzy sets, fuzzy logic, fuzzy relations, fuzzy rules, fuzzy arithmetic, fuzzy implications, approximate reasoning, and fuzzy probability. Fuzzy control, fuzzy modeling, fuzzy information processing, and fuzzy pattern recognition. (Y)

6991 Industrial Internship. Cr. 1-4 (Max. 4)

Prereq: graduate standing. Internship experience that satisfies the curricular practical training requirements. (T)



INDUSTRIAL and MANUFACTURING ENGINEERING

Office: 2143 Manufacturing Engineering Building,
4815 Fourth St.; 313-577-3821

Chairperson: Kenneth R. Chelst

Website: <http://mie.eng.wayne.edu>

Professors

Kenneth R. Chelst, Donald R. Falkenburg, Frank E. Plonka, Nanua Singh, Kai Yang

Associate Professors

Ratna Babu Chinnam, R. Darin Ellis, Olugbenga Mejabi, Leslie Monplaisir, Namkyu Park, Gary Wasserman

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, however, 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 understanding of the design process, but the special expertise that is brought by the manufacturing engineer is the knowledge and understanding of the production process.

* For requirements, consult the Wayne State University Graduate Bulletin.

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

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:

Terminal Objective: The graduates of our program will be able to apply the tools and techniques of industrial engineering to prepare for careers in manufacturing, supply chain management and logistics, health care, banking, information management, and related disciplines.

Enabling Objectives:

- 1) The ability to design systems, with particular emphasis on integrating humans and process technology.
- 2) The ability to apply IE tools including statistical methods, operations research, process management, and computer simulation for systems analysis and process design.
- 3) The ability to design and implement computer code in a structured programming language.
- 4) The ability to develop a business case to justify expenditures for new or enhanced tools, equipment, or large-scale integrated systems.
- 5) The ability apply modern management tools such as Total Quality Management, Continuous Improvement, Lean Manufacturing, Six Sigma, and Team Building.

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 16 and 135), 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, 43, 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 (one credit) 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 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.

Freshman Year

First Semester

B E 1200 -- (CL) Basic Engg. I: Design in Engineering: Cr. 3
CHM 1225 -- (PS) General Chemistry I: Cr. 3
CHM 1230 -- General Chemistry I Laboratory: Cr. 1
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
MAT 2010 -- Calculus I: Cr. 4
Total credits: 15

Second Semester

B E 1300 -- Basic Engg. II: Maths. Sci. for Engg. Appl.: 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 Stat. in Engineering: Cr. 3
C E 2400 -- (M E 2400) Statics and Mechanics of Materials: Cr. 4
(or equivalent 3 credit transfer course)
MAT 2030 -- Calculus III: Cr. 4
PHY 2185 -- General Physics: Cr. 4
English Proficiency Exam: Cr. 0
Critical Thinking (CT) Exam: Cr. 0
Total credits: 14-15

Second Semester

B E 2550 -- Basic Engg. IV: Num. Meth. & Comp. Prgmng: Cr. 3
MAT 2150 -- 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
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) Contemporary Moral Issues: Cr.3
Historical Studies (HS) course: Cr. 3
Total credits: 15

Second Semester

ECE 3300 -- Introduction to Electrical Circuits: Cr. 3
ECE 3310 -- Electrical Circuits Laboratory: Cr. 1
ENG 3060 -- (OC) Technical Communication II: Writing & Speaking: Cr. 3
I E 4250 -- Engg. Data Analysis: Cr. 3
I E 4420 -- Systems and Simulation: Cr. 3
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 Project I: 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 -- Engineering Design Project 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 479.

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. (Y)

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. (Y)

4330 Facilities Design. Cr. 2

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. (Y)

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 producability. Introduction to a strategic approach to product design which integrates technical aspects of product design with basic issues of manufacturing system design. (Y)

4560 Operations Research. Cr. 4

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 Project I. Cr. 1

Prereq: written consent of instructor. Open only to students enrolled in professional Engineering programs. Project selection, team building, and methodological preparation required for Engineering Design Project II. (Y)

4850 (I E 4850) Engineering Economy. (C E 4850) Cr. 3

Open only to students enrolled in professional Engineering programs. Prereq: B E 2100. Economic analysis of engineering projects. Selection of appropriate interest rates and methods of analysis, depreciation, tax considerations, and use of accounting data in comparison of investment alternatives. Material fee as indicated in the Schedule of Classes (Y)

4880 Engineering Design Project II. Cr. 3

Prereq: I E 4800, senior standing, consent of instructor; coreq: I E 4330, I E 4310. Open only to students enrolled in professional Engineering programs. Intensive design experience defined and executed by the student. Requires synthesis and application of skills and knowledge gained in the program. (W)

4990 Directed Study. Cr. 1-6

Prereq: senior standing; consent of chairperson; outline of proposed study approved by instructor and chairperson prior to election (Y)

course. Open only to students enrolled in professional Engineering programs. Supervised study and instruction in a field selected by the student. (B)

5100 (BME 5010) Engineering Physiology. (CHE 5100) (ECE 5100) (M E 5100) Cr. 4

Prereq: senior standing. 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)

5170 (BME 5570) Design of Human Rehabilitation Systems. (ECE 5170) (M E 5170) Cr. 4

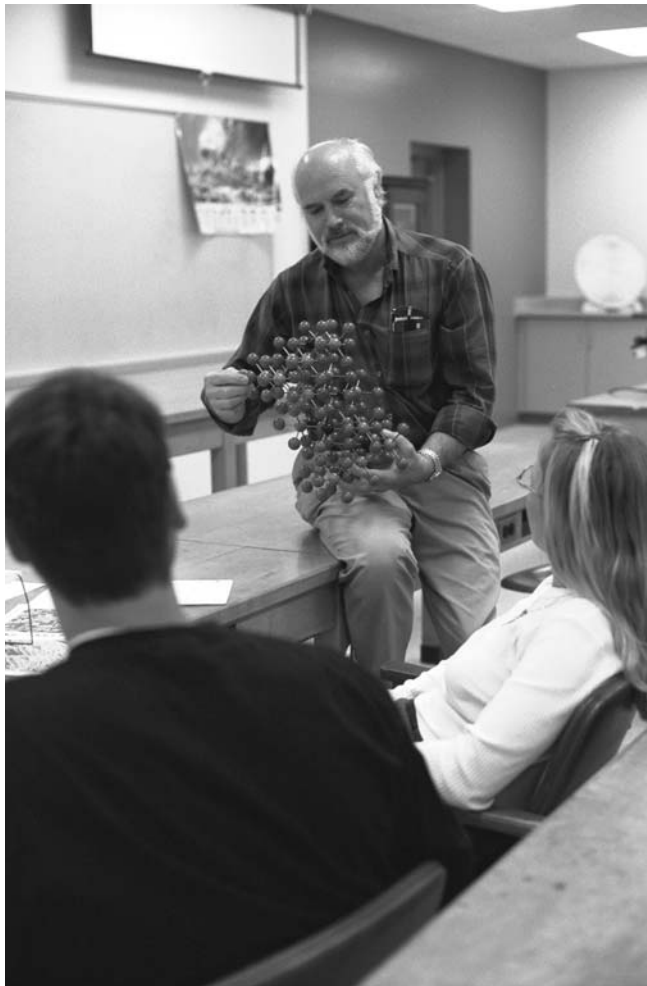
Prereq: senior standing. Design, fabrication and testing of customized hardware to aid handicapped patients. (F)

5600 (I E 5600) Fuel Cell Product Realization System: Business and Technical Integration. (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)



MECHANICAL ENGINEERING

Office: 2100 W. Engineering Building; 313-577-3845;

Fax: 313-577-8789

Interim Chairperson: R. F. Gibson, gibbon@eng.wayne.edu

Associate Chairperson: T. Singh, tsingh@wayne.edu

Director of Undergraduate Studies: J. Ku, jku@wayne.edu

Website: <http://www.eng.wayne.edu/ME/>

Professors

V.L. Berdichevsky, C. N. DeSilva (Emeritus), R. F. Gibson, N. A. Henein, R. A. Ibrahim, K. A. Kline, M.C. Lai, G.M. Newaz, R. A. Piccirelli (Emeritus), E. Rivin, H. Shapiro, T. Singh, C.A. Tan, D. Taraza, A. B. Whitman, S.F. Wu

Associate Professors

E.O. Ayorinde, N. Chalhoub, M. G. Koenig (Emeritus), J.C. Ku, S. Liu, E. C. Zobel (Emeritus), X. Wu

Assistant Professor

J. Lee

Adjunct Professors

B. Abdunnour, J. Agapiou, D.D. Ardayfio, W. Bryzik, B. Gans, J. Hassan, R. S. Levine, D. Schmueser, R. Stevenson, S. Tung, D. Viano

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.

* For requirements, consult the Wayne State University Graduate Bulletin.

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, our BSME 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.

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 encour-

ages 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 136 credits in course work, including the University General Education Requirements (see pages 16 and 135), 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 page 16, 43, 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: Matl. Sci. for Engg. 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 -- Introduction to Engineering Econ. & 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
-- (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
Total credits: 19

Second Semester

B E 2100 -- Basic Engg. III: Probability and Stat. in Engg. Appl.: Cr. 3
B E 2550 -- (CL) Basic Engg. IV: Num. Meth. & Comp. Prgmng.: Cr. 3
ECE 3300 -- Introduction to Electrical Circuits: Cr. 3
ECE 3310 -- Electrical Circuits: Laboratory: Cr. 1
ENG 3050 -- (OC) Technical Communication I: Report Writing: Cr. 3

MAT 2150 -- Differential Equations and Matrix Algebra: Cr. 4
English Proficiency Exam: Cr. 0
Critical Thinking (CT) Exam: Cr. 0
Total credits: 17

Junior Year

First Semester

ENG 3060 -- (OC) Technical Communication II: Writing & Speaking: Cr. 3
M E 3300 -- Fluid Mechanics: Theory and Lab: Cr. 4
M E 3400 -- Dynamics: Cr. 4
M E 3450 -- Manufacturing Processes I: Cr. 3
M E 3480 -- Design of Machine Elements: Cr. 4
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 4410 -- Vibrations Theory and Lab: Cr. 4
PHI 1100 -- (PL) Contemporary Moral Issues: Cr. 3
Visual and Performing Arts (VP) elective: Cr. 3
Total credits: 18

Senior Year

First Semester

*M E 4300 -- Thermal Fluid Systems Design: Cr. 4
M E 5540 -- Dynamic Modeling & Control of Engg. System: Cr. 4
Mechanical Engineering Technical Elective: Cr. 4
Any (HS) course: Cr. 3
Any (AI) course: Cr. 3
Total credits: 18

Second Semester

ANT 3150 -- (FC) Anthropology of Business: Cr. 3; or any foreign language (FC) course through 2010: Cr. 3
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 3
*M E 4500 -- (WI) Mechanical Engineering Design II: Cr. 4
M E Technical Elective: Cr. 4
Total credits: 14

TOTAL PROGRAM CREDITS: 136

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

ME 5400 -- Dynamics II: Cr. 4
ME 5410 -- Vibrations II: Cr. 4
ME 5440 -- Industrial Noise Control: Cr. 4
ME 5460 -- Fundamentals in Acoustics and Noise Control: Cr. 4

CONTROL, DYNAMICS AND ROBOTIC SYSTEMS

ME 5400 -- Dynamics II: Cr. 4
ME 5410 -- Vibrations II: Cr. 4
ME 5540 -- Dynamic Modeling & Cntrl.: Engg. System (required): Cr. 4

BIOMECHANICAL ENGINEERING

ME 5040 -- Finite Element Methods I: Cr. 4
ME 5100 -- (BME 5010) Engineering Physiology: Cr. 4
ME 5160 -- (BME 5210) Musculoskeletal Biomechanics: Cr. 4
ME 5170 -- (BME 5570) Design of Human Rehab. Systems: Cr. 4
ME 5180 -- Intro to Biomaterials (BME 5370): Cr. 4

*. M E 4300 and M E 4500 cannot be taken in the same semester.

SOLID MECHANICS

ME 5040 -- Finite Element Methods I: Cr. 4
ME 5400 -- Dynamics II: Cr. 4
ME 5410 -- Vibrations II: Cr. 4
ME 5600 -- Advanced Mechanics of Materials: Cr. 4
ME 5620 -- Fracture Mechanics in Engineering Design: Cr. 4
ME 5700 -- Fundamentals of Mechanics: Cr. 4
ME 5720 -- Mechanics of Composite Materials: Cr. 4
ME 5730 -- Tribology and Lubrication Technology: Cr. 4

DESIGN AND MANUFACTURING

ME 5170 -- (BME 5570) Design of Human Rehab. Systems: Cr. 4
ME 5440 -- Industrial Noise Control: Cr. 4
ME 5470 -- Creative Problem Solving in Design and Mfg: Cr. 4
ME 5620 -- Fracture Mechanics in Engineering Design: Cr. 4

THERMAL/FLUID SCIENCE

ME 5210 -- Convective and Radiative Heat Transfer: Cr. 4
ME 5300 -- Intermediate Fluid Mechanics: Cr. 4
ME 5800 -- Combustion Engines: Cr. 4
ME 5810 -- Combustion and Emissions: Cr. 4
ME 5820 -- Thermal Environmental Engineering: Cr. 4

ENGINEERING ANALYSIS

ME 5000 -- Engineering Analysis I: Cr. 4
ME 5010 -- Engineering Analysis II: Cr. 4

In addition, students may choose to do directed study and research in an area of mutual interest to the student and a faculty member.

MECHANICAL ENGINEERING COURSES (M E)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 479.

NOTE: All 3000- and 4000-level courses are open only to Engineering students.

2050 Introduction to Computer-Aided Mechanical Drafting. Cr. 2

Prereq: B E 1200 or consent of instructor. Introduction to CAD system using available software system at the college computer center, including AutoCAD. (F,W)

2060 Introduction to Engineering Economics and Problem Solving Using EXCEL. Cr. 2

Prereq: B E 1200; prereq. or coreq: PHY 2175 and M E 2050. Introduction to engineering design team activities and to approaches for problem solving in engineering. Development of skills to work as part of a team. 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. Transformation 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. Laboratory experiments to supplement lectures; lab arranged. Material fee as indicated in the Schedule of Classes (F,W)

2400 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-car-

rying 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: M 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 (W,S)

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, Kirchoff's law and the black body. Radiation between diffuse surfaces. Radiation from gases, vapors and flames. Introduction to heat convection; concept of heat transfer coefficient and Nusselt number. Lab experiments to supplement lectures. Material fee as indicated in the Schedule of Classes (F,W)

4250 Mechanical Engineering Design I. Cr. 4

Prereq: M E 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. 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. Fundamen-

tal 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)

4500 (WI) Mechanical Engineering Design II. Cr. 4

Prereq: M E 4250, ENG 3060, B E 2550. Open only to students enrolled in professional Engineering programs. Students work in teams on a semester-long open-ended design project in which elements and subsystems are synthesized into larger systems. Formal written report required at the end of the project. Where applicable, hardware will be fabricated and tested. Material fee as indicated in the Schedule of Classes (F,W)

5000 Engineering Analysis I. Cr. 4

Prereq: MAT 2150 and senior standing. Applications of ordinary differential equations. The method of Frobenius, Bessel functions, Legendre polynomials. Orthogonality of characteristic functions. Fourier series and Fourier integrals. Characteristics and solutions of partial differential equations. Method of separation or variations. Applications to initial and boundary value problems in engineering. Material fee as indicated in the Schedule of Classes (F)

5010 Engineering Analysis II. Cr. 4

Prereq: MAT 2150 and senior standing. Basic operations of complex numbers. Analytic functions and Cauchy-Riemann conditions. Cauchy and Goursat theorem. Residue theorem. Conformal mapping and its applications. Schwarz-Christoffel transformation. Basic properties of the Laplace transformation. Convolution integral. Applications to mechanical and electrical engineering problems. Material fee as indicated in the Schedule of Classes (W)

5040 Finite Element Methods I. Cr. 4

Prereq: M E 2400; MAT 2150 or MAT 2350. Introduction to finite element methods. Review of equations from solid mechanics, variational methods, potential energy principles. Displacement-based formulation of bar, beam, plane strain and plane stress elements. Isoparametric element formulation. Assembly of elements and solution of global stiffness equations. Detailed examples of problems from structural analysis and solid mechanics. Computer laboratory sessions using the MSC/Nastran and Altair Hypermesh computer codes. (F,W)

5100 (BME 5101) Engineering Physiology. (CHE 5100) (ECE 5100) (I E 5100) Cr. 4

Prereq: senior standing. 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)

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 2400. 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. (B)

5210 Convective and Radiative Heat Transfer. Cr. 4

Prereq: M E 4210. Radiative processes and properties of solids. Radiative heat transfer among surfaces in an enclosure. Introduction to gas radiation. Derivation of the energy equation for laminar flows. Application of semi-empirical correlation for forced and free convection of laminar and turbulent flows. Some analytical methods for convective heat transfer. Heat exchange analysis. (F)

**5250 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

Prereq: M E 3300. Introduction to continua. Integral and differential equations of motion. Ideal flow theory. Flow over blunt bodies. Introduction to boundary layer. Sound waves. Compressible flows. (F)

5330 Advanced Thermal Fluid System Design. Cr. 4

Prereq: M E 4210, ENG 3060, and senior standing in AGRADE program. Design of thermal fluid systems to meet system performance requirements, system simulation, design optimization and economics limitations. Material fee as indicated in the Schedule of Classes (F,W)

5400 Dynamics II. Cr. 4

Prereq: M E 3400. Kinematics and rigid bodies in space. Classical particle solutions: central force, motion on a surface of revolution, spherical pendulum. Energy and momentum integrals. Equations of motion in general rotating coordinate frames. Euler angles, angular momentum and kinetic energy of rigid bodies. Fixed point motion, steady solutions. Applications to spatial motions of rigid bodies. Hamilton's Principle and Lagrange's equations of motion. Material fee as indicated in the Schedule of Classes (F)

5410 Vibrations II. Cr. 4

Prereq: M E 4410. Multidegree-of-freedom systems. Eigenvectors and eigenvalues and orthogonality of normal modes. Mode-summation method. Solution to forced vibrations by Laplace transforms, numerical methods and Continuous Systems Modeling Program (CSMP). Rayleigh's principle and Dunkerley formula for approximate frequencies. Torsional geared and branched systems. Lagrange's equations. Vibration of continuous systems: longitudinal and transverse vibrations of beams; torsional vibrations, vibrating string and membranes. (F)

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**

Coreq: M E 4250 or equiv. Concepts of laws of natural development of engineering systems. Algorithm for inventive (creative) problem-solving (AIPS-85). Creative use of physical and geometrical effects in

design of mechanical and manufacturing systems. Concepts of strength, stiffness, vibratory effects, reliability in mechanical design. (W)

5500 (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)

**5540 Dynamic Modeling and Control of Engineering System.
Cr. 4**

Prereq: MAT 2350 or MAT 2150; 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)

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 softwares 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

Prereq: M E 2400. Statically indeterminate problems. Force method. Displacement methods. The three-moment equation. Euler formulas for columns. Column formulas for concentric and eccentric loadings. Energy methods and applications. Unsymmetrical bending of beams. Shear center. Bending of curved bars. Thick-walled cylinders. Torsion of non-cylinders. Rotating discs. Torsion of non-circular shafts. Membrane analogy. (W)

5610 Experimental Mechanics of Materials. Cr. 4

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. (W)

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 (F)

5720 Mechanics of Composite Materials. Cr. 4

Prereq: M E 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. (F)

5730 Tribology and Lubrication Technology. Cr. 4

Prereq: M E 2400. Friction, wear, and lubrication fundamentals: wear mechanisms, application of coatings, surface engineering fundamentals. (Y)

5800 Combustion Engines. Cr. 4

Prereq: M E 2210 or equiv. Thermodynamics and cycle analysis of spark ignition, compression ignition, and gas turbine engines. Combustion processes in actual systems, performance characteristics,

combustion abnormalities. Analysis of intake, fuel and exhaust systems. (F)

5810 Combustion and Emissions. Cr. 4

Prereq: M E 5800; or consent of instructor. Fundamentals of emission formation in combustion systems, wall quenching and imperfect combustion, unburned hydrocarbons, carbon monoxide, aldehydes, nitrogen oxides, species stratification in the combustion chamber, particulates. Effect of design parameters and engine operating variables on emission formation. Emission controls and instrumentation. (W)

5820 Thermal Environmental Engineering. Cr. 4

Prereq: M E 3200 and M E 4200. Design and analysis of heating, ventilating and air-conditioning systems. Moist air properties calculations, heat transfer and transmission coefficients, heating load, cooling load, heating equipment and cooling equipment, duct design, fans, air distribution, systems design and analysis, refrigeration principles. (S)

5900 National Design Competition Projects. Cr. 1-4 (Max. 6)

Prereq: written consent of director of undergraduate studies or graduate students' adviser. (T)

5990 Directed Study. Cr. 1-4 (Max. 6)

Prereq: senior or graduate standing; seniors: written consent of adviser and chairperson; graduates: written consent of adviser, chairperson, and Engineering Graduate Office for Master's students. Open only to seniors and graduate students. (T)

5992 Research Experiences for Undergraduates. Cr. 1-4 (Max. 6)

Prereq: written consent of instructor and director of undergraduate studies. (I)

5995 Special Topics in Mechanical Engineering I. Cr. 1-4 (Max. 8)

Prereq: consent of chairperson. Maximum of eight credits in special topics may be elected in any one degree program. Topics to be announced in Schedule of Classes. (I)

6180 (BME 6480) Biomedical Instrumentation. (ECE 6180) (I E 6180) Cr. 4

Prereq: ECE 3300, BME 5010 or BMS 5550, and BME 5020. Engineering principles of physiological measurements. Signal conditioning equipment, amplifiers, recorders and transducers. Recent advances. (F)

6450 Advanced Manufacturing Processes and Methods. (I E 6450) Cr. 4

Prereq: M E 3450, B E 2550, or consent of instructor. Review of novel manufacturing processes, methods and systems; emphasis on optimum design for manufacturability, technical, economic, and industrial limitations. Elements of computer-aided manufacturing, and numerical methods application. (W)

6550 Modeling and Control of Dynamic Systems. Cr. 4

Prereq: M E 5540. Modeling and analysis of physical systems comprised of interconnected mechanical, electrical, hydraulic and thermal devices; bond graphs; introduction to state-space equations and closed loop system dynamics. Material fee as indicated in the Schedule of Classes (W)

6991 Internship in Industry. Cr. 1-4 (Max. 4)

Offered for S and U grades only. Written report describing internship experience. (T)

DIVISION of ENGINEERING TECHNOLOGY

Office: 4855 Fourth Street; 313-577-0800

Chairperson: Chih-Ping Yeh

Website: <http://www.et.eng.wayne.edu>

Professors

Mulchand S. Rathod, Donald V. Stocker (Emeritus)

Associate Professors

Seymour Cuker (Emeritus), Vladimir Sheyman, Mukasa E. Ssemakula, Ece Yaprak, Chih-Ping Yeh

Assistant Professors

Radian Belu, Gene Liao

Part-Time Faculty

Francis Achampong, Mohammed Boussoufi, Abraham Choucair, Gary Cleary, Cedrick Dukes, Abbas Enteshari, Randy Fang, Bryce Grevemeyer, Jay Hazra, Sudhakar Inguva, Satish Ketkar, Gaoliang Lin, Charles Loehner, Ernie Luttrell, Bob Opalinski, Sandra Overway, Vinod Singh, Anthony Slo-minis, Jason Sodergren, Tommy White

Degree Programs

BACHELOR OF SCIENCE in Computer Technology

BACHELOR OF SCIENCE in Engineering Technology with major curricula in Electrical/Electronic Engineering Technology, Electromechanical Engineering Technology, Manufacturing/Industrial Engineering Technology, Mechanical Engineering Technology, and Product Design Engineering 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.

* For specific requirements, see the Wayne State University Graduate Bulletin.

Technical skills in the use of electronic equipment, machinery, tools, and drafting instruments are characteristic of this type of work. Thus, engineering technology students can find challenging employment in business and industry. Graduates of Wayne State's Engineering Technology program have been employed in areas such as manufacturing engineering, engineering production, marketing, maintenance, quality control, product testing, field engineering, consulting engineering, design, and technical supervision. Baccalaureate Engineering Technology graduates are often called technologists to distinguish them from baccalaureate graduates of engineering programs. However, the National Bureau of Labor Statistics does not have a category called 'technologist,' and consequently, many industrial job titles show little distinction between technologists and engineers. Graduates of Engineering Technology and Engineering programs complement each other in their skills and interests, and together with technicians and scientists, they form a technological team which has been able to produce an ever-increasing rate of technological advancement.

BACHELOR OF SCIENCE IN COMPUTER TECHNOLOGY

The Bachelor of Science in Computer Technology (B.S.C.T.) prepares students for professional work relating advancements in basic science to practical computer applications. This degree is an interdisciplinary program of study which provides a combination of professional courses in computer science, information systems, electronics, and information technology. The particular strengths of the program include: applied hands-on curriculum; hardware oriented laboratory experiences; scientific advancement merged with applications; and the various skills and knowledge required for the enhanced job market in this field. The computer technology program offers excellent prospects for professional positions in both business and industry where the sophistication and implementation of computers dominate a broad spectrum of employment opportunities. This region of the state has a large concentration of high technology firms which employ information system designers and application integrators. Classes are usually offered both during the day and in the evening.

Admission Requirements: The B.S.C.T. degree program is designed to admit students with an associate degree or equivalent course work in preparatory programs such as computer information systems, computer technology, data processing or closely related disciplines. A minimum grade point average (g.p.a.) of 2.5 is required for admission into the program. Students with a g.p.a. of 2.0 to 2.5 may be admitted as Pre-Engineering Technology students, and may be transferred into the B.S.C.T. program upon successful completion of pre-calculus (MAT 1800) and physical science courses, with a g.p.a. of 2.5 or above. A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus. It is recommended that this examination be taken prior to first registration at Wayne State; contact Testing, Evaluation, and Student Life Research Services (313-577-3400).

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 16).

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 pre-requisites, and proposed scheduling of courses.

Required Background: Any student deficient in any courses listed under Lower Division (Community College) Technical Transfer 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 4996 -- (WI) Frontiers of Computing: Cr. 2
 EET 2100 -- Principles of Digital Design: 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
 E T 3850 -- Reliability and Engineering Statistics: Cr. 3
 E T 3870 -- Engineering Economic Analysis: Cr. 3
 E T 4999 -- (WI) Senior Project: Cr. 3
 Total credits: 43

LOWER DIVISION TECHNICAL TRANSFER CREDIT (see page 169)

CSC 1100 -- (CL) Problem Solving and Programming: Cr. 4
 CSC 2110 -- (CL) Introduction to Data Structures and Abstractions: Cr. 4
 CSC 2200 -- Data Structures and Algorithm Analysis: Cr. 4
 Other CIS/EET technology courses: Cr. 29
 Total credits: 41

COMMUNICATION REQUIREMENTS

ENG 1020 -- (BC) Introductory College Writing: Cr. 4
 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: 10

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 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 16). 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, 43, 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 University, 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 technologist 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.

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 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 164. 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 in electrical/electronic engineering technology.

This program is designed to extend the practical and applied base of the associate degree program by means of more theoretical electrical and broad engineering technology courses together with further background courses in mathematics, science, and socio-humanities.

Required Background: Any student deficient in any courses listed under Lower Division Technical Transfer 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 (E T 3430): Cr. 4
MAT 3450 -- Applied Calculus and Differential Equations (E T 3450): Cr. 4
PHY 2130 -- (PS) General Physics: Cr. 3
PHY 2131 -- General Physics Lab: Cr. 1
PHY 2140 -- General Physics: Cr. 3
PHY 2141 -- General Physics Lab: Cr. 1
Life Sciences (LS) elective: Cr. 3
Total credits: 29

EET TECHNICAL CORE

E T 3030 -- Statics: Cr. 3
E T 3850 -- Reliability and Engineering Statistics: Cr. 3
E T 3870 -- Engineering Economic Analysis: Cr. 3
E T 4999 -- (WI) Senior Project: Cr. 3
EET 3100 -- Advanced Digital Design: Cr. 3
EET 3150 -- Network Analysis: Cr. 4
EET 3180 -- Analog Electronics: Cr. 4
EET 3300 -- Applied Signal Processing: Cr. 3
EET 3500 -- Electrical Machines & 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 169)

E T 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

ENG 1020 -- (BC) Introductory College Writing: Cr. 4
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: 10

OTHER GENERAL EDUCATION REQUIREMENTS

Historical Studies (HS): Cr. 3
American Society and Institutions (AI): Cr. 3
Critical and Analytic Thinking (CT) Competency Examination: Cr. 0
Exposure Areas (CD, EI, ST), three courses
Foreign Culture (FC): Cr. 3
Visual and Performing Arts (VP): Cr. 3
Philosophy and Letters (PL): Cr. 3
Social Sciences (SS): Cr. 3
Total credits: 18
Total minimum semester credits for the EET program: 128

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 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 (E T 3430): Cr. 4
MAT 3450 -- Applied Calculus and Differential Equations (E T 3450): Cr. 4
PHY 2130 -- (PS) General Physics: Cr. 3
PHY 2131 -- General Physics Lab: Cr. 1
PHY 2140 -- General Physics: Cr. 3
PHY 2141 -- General Physics Lab: Cr. 1
Life Sciences (LS) elective: Cr. 3
Total credits: 29

EMT TECHNICAL CORE

E T 3030 -- Statics: Cr. 3
E T 3850 -- Reliability and Engineering Statistics: Cr. 3
E T 3870 -- Engineering Economic Analysis: Cr. 3
EET 3010 -- Instrumentation: Cr. 3
EET 3720 -- Micro and Programmable Controllers: Cr. 3
MCT 3100 -- Mechanics of Materials: Cr. 3

MIT 3510 -- Manufacturing Processes: Cr. 3
EMT Upper Division Technical Electives: Cr. 18
E T 4999 -- (WI) Senior Project: Cr. 3
Total credits: 42

LOWER DIVISION TECHNICAL TRANSFER CREDIT (see page 169)

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

ENG 1020 -- (BC) Introductory College Writing: Cr. 4
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: 10

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 164. 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
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
E T 4999 -- (WI) Senior Project: Cr. 3
Total credits: 42

LOWER DIVISION TECHNICAL TRANSFER CREDIT (see page 169)

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

ENG 1020 -- (BC) Introductory College Writing: Cr. 4
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: 10

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 164.

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 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 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

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 3870 -- Engineering Economic Analysis: Cr. 3
E T 4999 -- (WI) Senior Project: Cr. 3
EET 3010 -- Instrumentation: Cr. 3
MIT 3510 -- Manufacturing Processes: Cr. 3
MCT 3100 -- 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 4400 -- Design of Machine Elements: Cr. 3
MCT Upper Division Technical Electives: Cr. 4
Total credits: 42

LOWER DIVISION TECHNICAL TRANSFER CREDIT (see page 169)

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

ENG 1020 -- (BC) Introductory College Writing: Cr. 4
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: 10

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 164. 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 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 technology leading to the Bachelor of Science in Engineering Technology degree requires 129 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

PDT TECHNICAL CORE

AID 3300 -- Introduction to Industrial Design: Cr. 3
AID 6300 -- Advanced Studio: Transportation Cr. 3
E T 3030 -- Statics: Cr. 3
E T 3850 -- Reliability and Engineering Statistics: Cr. 3
E T 3870 -- Engineering Economic Analysis: Cr. 3
E T 4999 -- (WI) Senior Project: Cr. 3
EET 3010 -- Instrumentation: Cr. 3
MIT 3350 -- Applied Human Factors: Cr. 3
MIT 3510 -- Manufacturing Processes: Cr. 3
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 169)

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

ENG 1020 -- (BC) Introductory College Writing: Cr. 4
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: 10

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 degree 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 the state 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 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 16).

The degree credit distribution for the program is as follows:

Subject Areas with Minimum Credit Requirements

Basic Science and Mathematics: 33
Manufacturing Engineering Technology Core: 38
Associate Degree Technical Transfer Courses: 33
Remaining General Education Requirements: 19
Total credits: 132

For specific curricular outlines, consult the Division of Engineering Technology.



ACADEMIC REGULATIONS

For complete information regarding academic rules and regulations of the University, students should consult the General Information section, page 32. 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 towards the degree.

If a grade '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 47. 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 479.

ENGINEERING TECHNOLOGY COURSES (E T)

1500 Engineering Technology Trades Internship. Cr. 1-6

Prereq: consent of adviser. Offered for S and U grades only. Industrial practice dealing with specific skill trades in engineering technology, under supervision in cooperative internship program. (I)

2140 Computer Graphics. Cr. 3 (LCT: 2;LAB: 2)

Coreq: CSC 1050. Solution of drafting problems and development of graphic presentations using computer-assisted drafting techniques. Use of programming techniques for direct solution of drafting/graphic

problems and available software routines. Introduction to the use of computer plotters, CRTs, digitizers. Material fee as indicated in the Schedule of Classes (F,W)

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: CSC 1050, E T 2140; coreq: E T 3430. The analytical and graphic techniques for determining the forces acting upon and within a body or structural component under static load. Centroids and center of gravity. Moments of inertia. (F,W)

3050 Dynamics. Cr. 3 (LCT: 3)

Prereq: E T 3030 and MAT 3430. Kinematics; kinetics of particles; kinetics of translation and rotation of a rigid body; relative motion; use of equations of plane motion. Application of impulse and momentum principles; work and efficiency. (Y)

3430 (MAT 3430) Applied Differential and Integral Calculus. Cr. 4 (LCT: 4)

Prereq: MAT 1800. No degree credit in Colleges of Science and Liberal Arts. Limits, derivatives, applications of derivatives, definite integrals and their applications, and trigonometric functions. (F,W)

3450 (MAT 3450) Applied Calculus and Differential Equations. Cr. 4 (LCT: 4)

Prereq: E T 3430. No degree credit in Colleges of Science and Liberal Arts. A continuation of E T 3430, including logarithmic and exponential functions, first and second order ordinary differential equations, vectors, polar coordinates, Laplace transforms, Taylor series, and Fourier series. (F,W)

3850 Reliability and Engineering Statistics. Cr. 3 (LCT: 3)

Prereq: MAT 1800. Probability, hypergeometric, binomial, Poisson, and normal probability distribution; confidence intervals; inferences concerning means; linear regression; introduction to statistical quality control and reliability; use of computers. (F,W)

3870 Engineering Economic Analysis. Cr. 3 (LCT: 3)

Prereq: MAT 1800. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Techniques to economically evaluate major technical projects, rate of return and present worth, interest formulae, federal taxes, risk, inflation, and non-economic constraints. (T)

4990 Guided Study. Cr. 1-6 (Max. 6) (IND: 1)

Prereq: consent of instructor. Supervised study and instruction in field selected by student. (I)

4999 (WI) Senior Project. Cr. 3 (LAB: 3;DSC: 2)

Prereq: successful completion of English Proficiency Examination, 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)

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 correc-

tion, 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, read-outs 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. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). System level design of digital logic circuits using hardwired and programmable logic devices. ROMs, PROMs, and PLAs. Synchronous and asynchronous circuit design and analysis. (F,W)

3150 Network Analysis. Cr. 4 (LCT: 3;LAB: 2)

Prereq: EET 2000, PHY 2140; coreq: E T 3450. Analysis of circuits with dependent sources, RL, RC, and RLC circuit transient and sinusoidal response, network functions, frequency response, and power analysis. (F,W)

3180 Analog Electronics. Cr. 4 (LCT: 3; LAB: 2)

Prereq: CHM 1020, EET 2000. Operational amplifiers, circuit and applications; summing and subtracting amplifiers; integrating and differentiating amplifiers; comparators. Design of active filters, 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)

Prereq: E T 3430, EET 2000. Energy fundamentals. Physical and operating characteristics of D.C. and A.C. generators and motors, transformers. Electric power network. Transmission line stability. Power factor correction. Load sharing by transformers and generators. Per unit notation. Environmental impact of electric power generation. (I)

3720 Micro and Programmable Controllers. Cr. 3 (LCT: 2;LAB: 2)

Prereq: EET 2720, CSC 1050. Microprocessors and Programmable logic controllers; on-chip I/O resources, interfacing; controls, instrumentation, and communication; data manipulation and sequencer instruction set; development and debugging tools. Material fee as indicated in the Schedule of Classes (F,W)

4100 Computer Hardware Design. Cr. 3 (LCT: 2; LAB: 2)

Prereq: EET 3100, EET 2720. Structural organization and hardware design of digital computers. Register transfer, microoperations, and microprogram control. Processing and control units, arithmetic algorithms, input-output systems, and memory systems. (Y)

4200 Control Systems. Cr. 4 (LCT: 3;LAB: 2)

Prereq: E T 3030, E T 3450; EET 3010 or EET 3150. Feedback control systems with topics in time response, stability criteria, system representation, frequency response, compensation. PID controller; simulation of electrical and mechanical systems. Material fee as indicated in the Schedule of Classes (F,W)

4400 Electronic Communications. Cr. 3 (LCT: 3)

Prereq: E T 3450, EET 3150. Analog and digital waveform, waveform spectra, filtering of signals. Communication theories and systems, amplitude modulation, angle modulation, and pulse modulation. Introduction of digital communication and fiber-optic communication. (I)

4600 Power Electronics. Cr. 3 (LCT: 3)

Prereq: EET 3150, E T 3450. Understanding different types of power semiconductor devices; analysis of topologies of uncontrolled and controlled converters, dc-dc converters. Simulation of power converters and application of power converter technologies in industrial and utility applications. (Y)

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)

6300 Industrial Laser Applications. Cr. 4

Prereq: E T 3450, PHY 2140. Laser technology, industrial and medical applications, lasers in electronic fabrication. Laser metrology, integrated optics, laser maintenance and safety. (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)

Prereq: CHM 1020, E T 2200, E T 2140. Study of manufacturing processes including machining, welding and forming. Manual and CNC tools. Fabrication of common materials. Manufacturing sequence and mechanization. Selection of tooling and machining parameters. Calibration and part-setup. (F,W)

3600 Process Engineering. Cr. 3 (LCT: 3)

Prereq: MIT 3510. Processing functions. Methods of manufacturing analysis. Manufacturing sequence, mechanization. Selection of tooling and equipment. Planning the process of manufacture. (Y)

4320 Production and Inventory Management. Cr. 3 (LCT: 3)

Prereq: E T 3850, MIT 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)

Prereq: PHY 2140; coreq: MAT 3450. Basic modes of heat transfer and their applications. Steady state conduction in one and two dimensions and transient conduction. Numerical and graphical methods. Heat exchanges. Condensation and boiling heat transfer. Introduction to mass transfer. (Y)

4230 Heating, Ventilation, and Air Conditioning. Cr. 3 (LCT: 3)

Prereq: MCT 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, fuel cells, future applications. (Y)

6410 Applied Vehicle Dynamics. Cr. 4

Prereq: E T 3450, E T 3050/EET 4200. Dynamic performance balance of vehicle subsystems: powertrains, brakes, steering, suspension, and tire; steady and transient motion conditions; role of structure and structural parameters to vehicle dynamics. (I)

GREENFIELD COALITION CHEMISTRY COURSES (GCC)

NOTE: All GCC courses below are open only to students in the Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program.

0900 Orientation and Teaming. Cr. 0

Open only to students in Focus:HOPE/Greenfield Coalition 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 1021. 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)

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. 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)

2411 Manufacturing Planning I. Cr. 1

Prereq: GCF 1021. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Introduction to manufacturing economics, basic concepts of direct and indirect costs, and time value of money. Basic organization tools, such as linear programming, used to model manufacturing optimization problems. Inventory control and the tradeoffs involved in holding inventory. (Y)

2421 Manufacturing Planning II. Cr. 1

Prereq: GCE 2411. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. 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. 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)

3011 Engineering Materials II. Cr. 1

Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Prereq: GCT 2012. Inspection and testing, heat treatment, and adhesives and coatings. Sample preparation techniques for microstructure examination and mechanical testing and testing procedures, the effect of heat treatment on microstructure and properties of metals, and the basics of inorganic coatings, polymeric coatings and adhesives. (Y)

3261 Advanced Control Elements in Manufacturing Systems. Cr. 1

Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Introduction to computer numerical controls and linear systems. Mathematical foundation for control systems, presentation of case studies and student projects. (Y)

3271 Control System Analysis and Design: PID Control. Cr. 1

Prereq: GCE 3261. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Feedback control: 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: GCT 2314. Implementation of advanced theories and use of authentic tools. 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)

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: GCM 1021. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Preparation for computer usage. Basic computer knowledge of systems and applications in the workplace, skills in several applications, and programming. Introduction to computer systems and their applications, operating systems, computer hardware; review and application of word processing, spreadsheet, and presentation software; introduction to programming using Visual Basic; and the Internet. (Y)

1101 Basic Graphics. Cr. 1

Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Introduction to the operation of Unigraphics for manufacturing applications software. CAD/CAM/CAE, the concurrent engineering process, vehicle design creation, and the manufacturing transition. (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: GCF 1113, GCS 2113. Fundamental 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 of motion control including cams, cam-followers, gears and gear trains. Force analysis and static as well as dynamic balance of mechanisms. (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. Steps in the writing process, strategies for setting objectives, planning, drafting, testing, revising, editing, and proofreading. Writing well-developed descriptive, narrative, compare/contrast, persuasive, and process essays. Introduction to research methods and documentation. (Y)

1214 (LS) Psychology and Sociology. Cr. 4

Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Introduction to scientific study of human behavior from individual to societal level. Topics include: nature vs. nurture debate, human growth and development, interpersonal relationships and social processes; emphasis on research- and experience-based learning. (Y)

2011 Communications in Manufacturing I: Fundamentals of Communications. Cr. 1

Prereq: GCL 1011 and GCL 1021. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Theories of communication, persuasion, organizational communication, effective

communication opportunities and obstacles, and the ethics of communication. (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, and the effective flow of ideas. Workplace communication, written and verbal, such as memos, letters, reports, instructions, and proposals. Topics include: audience and purpose analysis, visual support of texts, formatting. Introduction to effective oral presentations. (Y)

2021 Communications in Manufacturing II: Methods of Communication. Cr. 1

Prereq: GCL 2011. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Planning effective communication strategies for the written word, spoken word, and nonverbal communication as well as handling potential conflict. (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)

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. Three-module course. 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) Global Culture and Philosophy. Cr. 3

Prereq: GCL 2013, 1214. 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.

1011 Technical Mathematics: Quadratics and Functions. Cr. 1

Prereq: placement. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Methods of solving quadratic equations, factorable quadratics, roots, completing the square and the quadratic formula; discriminates; complex roots, inequalities, critical values. Definitions, domain, range, relations; operations, one-to-one, inverse functions; graphing, properties of curves, interpreting graphs. (Y)

1021 Technical Mathematics: Linear Equation Systems, Logarithms, and Exponents. Cr. 1

Prereq: GCM 1011. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Systems of 2 and 3 linear equations; Cramer's Rule, second and third order determinants; algebraic and graphical solutions. Graphing of exponential growth and decay; conversions, natural logarithms, basic laws of logarithms, change of base. (Y)

1031 Technical Mathematics: Analytical Geometry. Cr. 1

Prereq: GCM 1021. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Equations of lines; distance for-

mula, midpoint formula, angle of inclination; parallel and perpendicular lines; inequalities. Closed conic shapes, equations and properties of circles and ellipses; open conic shapes, equations and properties of parabolas and hyperbolas. (Y)

1041 Technical Mathematics: Trigonometry. Cr. 1

Prereq: GCM 1031. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Angular measure; right-angle trigonometry, definition of trigonometric functions, signs of functions in quadrants, special angles; laws of sines and cosines. Areas of sectors and segments, arc length; graphing of trigonometric functions; fundamental identities, sum and difference formulae, double-angle and half-angle formulae; trigonometric equations. (Y)

1051 Technical Mathematics: Vector Algebra. Cr. 1

Prereq: GCM 1041. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Vector definition, properties of vectors, scalar quantities; 2 D vectors, graphical addition and subtraction, rectangular components, vectors in polar coordinates; 3 D vectors, Cartesian components, vectors in spherical coordinates. Orthogonal vectors; dot and cross products; DeMoirve's theorem; unite vectors, exponential forms, complex numbers in vector form; parametric equations. (Y)

2111 Differential Calculus I: Limits, Derivatives and Derivative Rules. Cr. 1

Prereq: GCM 1011, GCM 1021, GCM 1031, GCM 1041, GCM 1051. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Limits of functions, slope of tangent to a curve, the normal to a curve, properties and meaning of the derivative, derivative as an instantaneous rate of change, derivative of polynomials. Derivative rules: derivative of products and quotients of functions, derivative of a power of a function, implicit differentiation, higher order derivatives. (Y)

2121 Differential Calculus II: Applications of the Derivatives; Curves. Cr. 1

Prereq: GCM 2111. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Tangents and normals, curvilinear motion, related rates. Minimum and maximum Curve sketching; using derivatives in curve sketching, applied maximums and minimums, problems in differential forms. (Y)

2131 Integral Calculus I: The Integral and Numerical Integration. Cr. 1

Prereq: GCM 2121. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Antiderivatives, indefinite integrals, area under a curve, definite integrals. The trapezoidal rule, Simpson's Rule, interpretation of numerical results, and the application of the indefinite integral. (Y)

2141 Calculus of Transcendental Functions. Cr. 1

Prereq: GCM 2131. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Derivative of trigonometric functions, inverse trigonometric functions, logarithmic functions, exponential functions, and applications. General power formula; integrals of trigonometric forms, basic logarithmic forms, exponential form; integration by parts; using tables of integration. (Y)

2413 Statistical Methods in Manufacturing. Cr. 3

Prereq: GCM 1041. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Frequency distributions, descriptive statistics of samples and populations. Probability distributions, discrete random variables, continuous random variables, Bayes theorem, central limit theorem, estimation and confidence intervals, hypothesis testing, hypothesis of fit, simple and multiple regression and correlation. (Y)

3151 Applied Integral Calculus. Cr. 1

Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Study of integration by parts, partial fractions,

substitution, and trigonometric identities. Sum and difference of two integrals, area between two curves, volumes of figures of revolutions, Theorem of Pappus, average value, and applications in force, pressure, and work. (Y)

3161 Applications of Infinite Series in Calculus. Cr. 1

Prereq: GCM 3151. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Study of infinite and power series and the application of these in solving engineering problems. (Y)

3171 Applied Multivariate Calculus. Cr. 1

Prereq: GCM 3161. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Study of differentiation of several variables and the integration of functions of two variables. (Y)

3181 Foundations of Differential Equations. Cr. 1

Prereq: GCM 3171. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Terminology; separable equations; linear first order differential equations, homogeneous equations; solving differential equations. Initial value problems; Newton's law, free and damped vibrations (Y)

3191 Applications of Calculus. Cr. 1

Prereq: GCM 3181. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Calculus notations of conic sections, Cartesian and polar coordinates; translation and rotation of axes; graphs of functions in two variables. Characteristics and properties of Laplace transforms, inverse Laplace transforms; Laplace transform methods of solving initial value problems; applications in electric circuits and control systems. (Y)

GREENFIELD COALITION SCIENCE COURSES (GCS)

NOTE: All GCS courses below are open only to students in the Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program.

2113 (PS) Mechanophysics I. Cr. 3

Prereq: GCM 1051. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Introduction to basic physics concepts related to study of motion and forces, and static equilibrium. Translation and rotation of a rigid body, rigid body rotation, coriolis effect, vectors and motion, velocity and mechanisms, and acceleration and mechanisms. (Y)

2141 Engineering Mechanics I. Cr. 1

Prereq: GCS 2113. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Introduction to vibrations of mechanical systems and the basic concepts of structural analysis. (Y)

2211 Thermoscience I. Cr. 1

Prereq: GCS 2141, GCM 2131. 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, conservation of mass; Bernoulli equation; temperature scales; thermal expansion of liquids and solids; heat transfer; specific heats and heats of transformation; first law of thermodynamics; kinetic theory of gasses; second law of thermodynamics. (Y)

2312 Electrosience I. Cr. 2

Prereq: GCM 1011. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Fundamental principles of electrostatics which includes Coulomb's law, electric fields, potential difference and case studies. Fundamental principles of electromagnetism and the properties of inductors and capacitors. (Y)

2331 Electromagnetism, Inductance, and Capacitance. Cr. 1

Prereq: GCS 2312 and GCM 2131. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Functioning of many devices and everyday applications employing the principles of electromagnetism and/or inductors or capacitors. Magnetic force,

sources of magnetic field, induced Emf, inductance, and capacitance. (Y)

3112 Mechanophysics II. Cr. 2

Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Prereq: GCM 2141. Properties of mechanical elements and relationship to strength, mass properties of mechanical elements, centroids, inertia and their relation to kinetics. Introduction to the concepts of power and energy, and how they relate to translating and rotating objects. (Y)

3132 Engineering Mechanics II. Cr. 2

Prereq: GCS 2141, GCM 2131. 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 and twist of circular rods, and the mechanical properties of materials. Introduction to vibrations of mechanical systems, comprising simple undamped and damped free and forced vibration; introduction to mode shapes and frequencies. (Y)

3214 Thermoscience II. Cr. 4

Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Prereq: GCS 2211, GCM 2141. 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 refrigeration cycles. Fluid properties: forces on submerged objects, buoyancy, equations of fluid statics, fluid machines, and fluid flow. Modes of heat transfer and relationships between conservation of energy and heat transfer. Applications of thermal science fundamentals to industrial processes. (Y)

3311 Electrosience III. Cr. 1

Prereq: GCM 3181. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Introduction to concepts of AC - circuit, sinusoidal waveform, complex algebra, phasors, power calculations and measurements, power factor, and transformers. Operations and applications of electronics elements like diode and operational amplifier. (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

Prereq: GCM 1031, GCF 1113, GCS 2113. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Introduction to basic machine tool operations and material removal technology, geometry of cutting tools, and technological perspective on the process technology associated with material removal. Familiarization with cutting tools mechanics, mathematical process relations, cutting fluids, and process planning. (Y)

1211 Foundations of Measurements. 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

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 1021. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Production, forms, composition,

and specifications used in metal products; structure, properties, and manufacturing of ceramics; chemistry types, properties, and manufacturing techniques of polymers; development of composite materials composed of two or more different component materials to obtain resultant properties superior to the properties of the individual materials; material selection and materials for manufacturing. (Y)

2112 Manufacturing Processes. Cr. 2

Prereq: GCT 1221 and GCT 2012. 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 1021, GCF 1113, GCT 1112, GCT 2012. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Presentation of the design process, conceptual ideas and tentative solutions, cost analysis, and tooling design and layout. Tool-work interaction, tool materials, holding principles (location, devices, clamping), and design of drill jigs and fixtures. Guide to tool design. (Y)

2212 Electrical Machines. Cr. 2

Prereq: GCS 2331. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Introduction to theoretical and practical knowledge of: industrial electric power specifications, industrial electric power specification, industrial transformers, DC and AC motors and generators, synchronous and induction machines, special purpose industrial electric machines, and solid state motor controllers. (Y)

2314 Manufacturing Systems I. Cr. 4

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 Ethics and Industry. Cr. 2

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 engineering products and society. Impact of technological systems on culture, especially in America; reactions of U.S. culture to technology. (Y)

2511 Design Project I. Cr. 1

Prereq: forty-two credits and two job rotations. 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 from the establishment of objectives and analysis of alternative solutions to a final evaluation and recommendation. Final written and oral report required; use of manufacturing facility in production of design is encouraged. (Y)

3111 Machining Processes: Production Technology. Cr. 1

Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Review of the technological basis for the production of machined parts. Preparation, selection and optimization of production processes are considered. Tool wear and life, process estimating, economics of metal cutting, non-traditional machining, and time studies. (Y)

3131 Introduction to Joining. Cr. 1

Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Introduction to methods of joining: electric arc, thermo-mechanical, and radiation welding and fasteners. (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: GCT 2012, GCT 2112. Systematic process and procedures of determining the product to be launched based on customer needs. Course consists of three one-credit modules: Product Planning and Assessment of Customer Needs; Product Specification; CAD/CAM Design and Product. (Y)

4513 Technology Design Project. Cr. 3

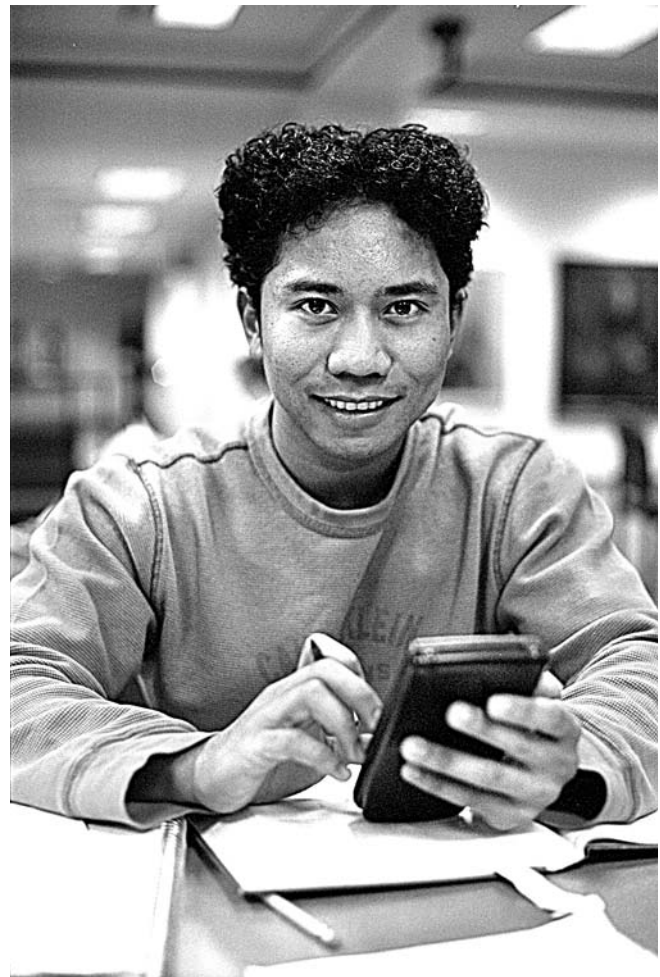
Prereq: senior standing. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Design project validation of learning and absorption of competencies learned in engineering technology. Final written and oral report required; use of manufacturing facility in production design is encouraged. (Y)

4990 Independent Study. Cr. 1-6

Prereq: approved outline of proposal prior to registration. Open only to students in Focus:HOPE/Greenfield Coalition B.S.M.F.T. Program. Supervised study and instruction in the field selected by the student. (Y)

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 quality education for practitioners, scholars, audiences and critics in art and art history, communication, dance, music and theatre. This education leads to careers, implementation of 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.

As the cultural conscience 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. Diversity, whether cultural, racial, ethnic or gender, is an important commitment of the College in public events and educational efforts.

Ultimately, the mission of the College is to focus on 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 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 and the Detroit Symphony Orchestra, 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.

DEGREE PROGRAMS

BACHELOR OF ARTS with majors in

art, art history, 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, jazz studies, music education, music management, music technology, performance

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 ORCHESTRAL STUDIES*



* For specific requirements, see the Wayne State University Graduate Bulletin.

BACHELOR'S DEGREE REQUIREMENTS

Credits

A candidate for a Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Music, or Bachelor of Science degree must complete at least 120 credits. Certain curricula may require additional credits. (See 'Restrictions on Credit,' below.)

General Education Requirements

University-wide general education requirements are designed to enhance students' basic skills and the diversity of their intellectual background. These requirements assure minimal competence in those skills needed to succeed in college and professional life and provide a selective introduction to the increasingly broad range of academic disciplines represented at the University. They serve to emphasize the fundamental means and essential knowledge required for continuing self-education and intellectual growth.

Beginning with the Fall semester of 1987, all first-semester freshmen entering the College of Fine, Performing and Communication Arts and all students who transfer twelve or fewer credits into the College are required to satisfy the University General Education Requirements (see page 16) 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 in Fall Semester 1983 or thereafter will be 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, as well as the requirements applicable to registrants at the University prior to Fall 1983, see the General Information section of this Bulletin, page 24.

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. Students planning to pursue a Bachelor of Arts degree program should select the general curriculum. 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 during 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 Adamany Library Building. At the time of formal declaration, the student must present to the Department a current transcript and a Degree Audit from University Advising, obtain the signature of the Department Chairperson or designated representative on the Declaration form, and file it in the College of Fine, Performing and Communication Arts Dean's Office, 5104 Gullen Mall. All courses elected or changed by the student after the declaration of a major must be approved by the 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.

Special Concentrations Available within Departments

Art: Ceramics, Drawing, Fibers, Graphic Design, Industrial Design, Interdisciplinary Electronic Arts, Interior Design, Metalsmithing, Painting, Photography, Printmaking, Sculpture (Bachelor of Fine Arts Degree)

Art: Apparel Design, Fashion Merchandising (Bachelor of Arts or Bachelor of Science Degree)

Dance: Choreography and Performance, Dance Education (Bachelor of Fine Arts or Bachelor of Science Degree)

Music: Composition/Theory, Jazz Studies, Music Education, Music Management, Music Technology, Performance (Bachelor of Music Degree)

Communication: Speech Communication, Journalism, Media Arts and Studies, Public Relations, Film (Bachelor of Arts Degree)

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. Students may wish to avail themselves of the services of the Speech and Language Center, 503 Manoogian Hall, if they feel that they have defects that might impair their effectiveness as teachers. 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 at 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 the Departmentally approved areas. 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 180.)

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 Urban, Labor and Metropolitan Affairs):* 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. 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 48.

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's major Department and the College of Fine, Performing and Communication Arts Dean's Office; however, when the candidate has less than the minimum thirty credits of residence in the College of Fine, Performing and Communication Arts, no such exceptions are permitted.

Scholarships and Financial Aid

Financial aid information may be found in the general information section of this bulletin (see page 41), 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 33.

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 310.

Students enrolled in the College of Fine, Performing and Communication Arts who are interested in pursuing a University Honors degree should refer to page 31 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' or 'W' or 'X' and grades of 'N' or 'U' are not eligible. (For explanation of these marks and grades, see page 46.)

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 44. 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. It cannot be released at the advising station in the Student Center during final registration.

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

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 no later than the tenth class day of 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 Class Board prior to the event.

MULTIDISCIPLINARY 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 479.

5020 Legal Environment of the Arts. Cr. 3

Prereq: junior standing. Law affecting persons in the entertainment business: artists, actors, musicians, producers, directors, writers, managers, agents, and others. Areas of contract, tort, copyright, trademark and First Amendment law that concern entertainment. (Y)

5660 Creativity: Building the New. (ISP 5660) Cr. 3-4

Prereq: junior standing or above, or consent of instructor. For any class designated as Web, contact online: (<http://www.classsschedule.wayne.edu>). Study of creativity with personal application. Investigations in artistic, scientific, social science, engineering, industrial, and other areas. Actual application and problem-solving skills. (Y)

DIRECTORY OF THE COLLEGE

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 Stivale: 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; 313-577-0294

Development Officer

Gregg Bloomfield: 5104 Gullen Mall; 313-577-1458

Development and Alumni Affairs

Darci Bryan: 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

Margaret Thomas: 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

Dennis J. Tini: 1321 Old Main; 313-577-1795

Theatre

Blair Anderson: 3225 Old Main; 313-577-3508

Website: <http://www.cfpc.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: Sarah Miller

Exhibition Curator: Sandra Dupret

Art Studio Supervisor: Matthew Blake

Website: <http://www.art.wayne.edu>

Professors

John G. Hegarty, Marion E. Jackson, Robert J. Martin, Judith Moldenhauer, James Nawara, Melvin Rosas, Joseph B. Zajac

Associate Professors

Jeffrey Abt, Sarah Bassett, Pamela DeLaura, Thomas P. Fitzgerald, Urban Jupena, Brian Madigan, James M. Raymo, John Richardson, Stanley L. Rosenthal, Marilyn Zimmerman

Assistant Professors

Tammy Evans, Margaret Franklin, Brian Kritzman, Evan Larson

Lecturers

Rayneld Johnson, Dennis Robare, Susan Widawski

W. Hawkins Ferry Endowed Chair

in Twentieth Century Art History and Criticism

Dora Apel

Emeritus/Emerita Faculty

William A. Allen, Phyllis A. Ashinger, Richard J. Bilaitis, Robert Broner, Peter J. Gilleran, Bernard M. Goldman, Joseph Gutmann, Carolyn Jane Hooper, John Mills, Thomas C. Parish, William E. Pitney, Patricia A. Quinlan, Horst Uhr, Robert J. Wilbert

Degree Programs

BACHELOR OF ARTS with a major in art, art history, or fashion design and merchandising.

BACHELOR OF FINE ARTS with a major in art and a concentration in one of the following areas: ceramics, drawing, fibers, graphic design, industrial design, interdisciplinary electronic arts, interior design, 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.

* For specific requirements see the Wayne State University Graduate Bulletin.

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 declare their majors as soon as a Wayne State University g.p.a. is accrued.

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 32.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Arts in Art must complete 120 credits including satisfaction of the University General Education Requirements (see page 16), College degree requirements (see page 184), 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. Students pursuing a bachelor of arts degree must also fulfill the foreign language requirement (see page 179). 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 -- Design I: Cr. 3

ADE 1210 -- Design II: Cr. 3

ADR 1050 -- Drawing I: Cr. 3

ADR 1060 -- Drawing II: Cr. 3

A H 1110 -- (VP) Survey of Art History: Ancient through Medieval: Cr. 3

A H 1120 --(VP) Survey of Art History: Renaissance through 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 (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

ADE 2200 -- Design III: Three Dimensional: Cr. 3

AFI 2650 or 2660

-- Beginning Weaving: Cr. 3

-- Introduction to Fabric Printing and Dyeing: Cr. 3

AME 2600 -- Introduction to Jewelry & Metalsmithing: Cr. 3

Bachelor of Arts With a Major in Art History

Admission Requirements for this program are satisfied by the general requirements for undergraduate admission to the University; see page 32.

DEGREE REQUIREMENTS: Candidates must complete 120 credits, including satisfaction of the University General Education Requirements (see page 16), College degree requirements (see page 184),

and the major requirements listed below. Students pursuing a bachelor of arts degree must also fulfill the foreign language requirement (see page 179). 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, 43, and 179.

Students may elect this major as part of an undergraduate curriculum in either the College of Liberal Arts and Sciences or the College of Fine, Performing and Communication Arts. Those electing the major in the College of Liberal Arts and Sciences must fulfill the general requirements of that College; see page 239.

Major Requirements: Students must complete a minimum of thirty-three credits in art history, which includes six credits in the basic surveys (A H 1110, 1120). A minimum of one course at the 5000 level or above must be taken in each of the following areas:

CLASSICAL -- A H 5210, 5250, 5260, 5270, 5310
MEDIEVAL -- A H 5300, 5330, 5350, 5400, 5450
RENAISSANCE/BAROQUE -- A H 5500, 5510, 5530, 5550
MODERN -- A H 5700, 5710, 5715, 5720, 5770, 5780, 5790

All students must take A H 5090 -- (WI) Theory and Methods of Art History. Each course in the major must be taken in the Department of Art and Art History and be completed with a minimum grade of 'C.' In addition to the credits in art history, students are required to complete two years (four semester courses) of study in French or German, with minimum grades of 'C.'

Bachelor of Arts or Bachelor of Science With a Major in Design and Merchandising

Curricula in this area provide a liberal education as well as the opportunity for a professional concentration in the fields of apparel design and fashion merchandising.

Admission Requirements for this program are satisfied by the general requirements for undergraduate admission to the University; see page 32.

DEGREE REQUIREMENTS: Candidates for either Bachelor's degree must complete 120 credits including satisfaction of the University General Education requirements (see page 16), College degree requirements (see page 184), and all Departmental and area requirements as indicated below. A minimum grade of 'C' must be earned in each required course in the major in order for the course credit to count toward completion of the degree. All course work must be completed in accordance with the regulations of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 16, 43, and 179.

Students pursuing the *Bachelor of Arts Degree* with a Major in Design and Merchandising must also fulfill the foreign language requirement (see page 179).

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 32.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Fine Arts degree must complete 120 credits including satisfaction of the University General Education Requirements (see page 16) and College degree requirements (see page 184). 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 page 16, 43, and 179.

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
A H 1110 -- (VP) Survey of Art History: Ancient through Medieval: Cr. 3
A H 1120 -- (VP) Survey of Art History: Renaissance through 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 (A H 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
AME 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. Curriculum outlines with suggested scheduling patterns for the following

concentrations are available in the Department of Art and Art History office or online at <http://www.art.wayne.edu>.

Ceramics; Drawing; Fibers; Graphic Design; Industrial Design; Interdisciplinary Electronic Arts; Interior Design; Metal Arts; Painting; Photography; Printmaking; Sculpture

Required courses in each B.F.A. concentration are given below; exceptions may be made with consent of adviser.

CERAMICS

ACR 2550 -- Ceramics and Pottery Design I: Cr. 3
ACR 2560 -- Ceramics and Pottery Design II: Cr. 3
ACR 3550 -- Beginning Ceramics: Cr. 3
ACR 4000 -- Ceramics: Wheel Throwing: Cr. 3
ACR 4550 -- Intermediate Ceramics: Cr. 3
ACR 5550 -- Advanced Ceramics: Cr. 12

DRAWING

ADR 2070 --Beginning Life Drawing: Cr. 3
ADR 3070 --Intermediate Life Drawing: Cr. 3
ADR 5060 --Advanced Concepts in Drawing & Painting: Cr. 3
ADR 5080 --Landscape Drawing and Painting: Cr. 3
ADR 5000-level Drawing courses: Cr. 12

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
AFI 5000-level courses (Junior year): Cr. 9
AFI 5000-level courses (Senior year): Cr. 6

GRAPHIC DESIGN

AGD 2240 -- Orientation to Graphic Design Computer Software: Cr. 3
AGD 2250 -- Typography: Cr. 3
AGD 3250 -- Graphic Design I: Cr. 3
AGD 4250 -- Graphic Design II: Cr. 3
AGD 5250 -- Graphic Design III: Cr. 3
AGD 5260 --(WI) Senior Seminar: Cr. 3
AGD 5997 -- Graphic Design IV: Cr. 3
Graphic Design Electives: Cr. 6

Suggested Graphic Design Electives:

AGD 5700 -- Special Topics: Cr.3
AGD 5890 -- Directed Study: Cr.3
AGD 5990 -- Field Study (Internship): Cr.3
AGD 6260 -- Advanced Typography: Cr.3
AGD 6280 -- Pre-press and Production: Cr.3
AIN 3220 -- Computer Art: Cr.3
AID 6320 -- History of Modern Design I: Cr.3
AID 6330 -- History of Modern Design II: Cr.3
APH 2420 -- Digital Imaging I: Cr.3

INDUSTRIAL DESIGN

Students pursuing this concentration should consult with a major advisor with regard to the Departmental Requirements

AID 3300 -- Introduction to Industrial Design: Cr. 3
AID 3310 -- Presentation: Cr. 6
AID 5300 -- Advanced Studio/Project: Cr. 9
AID 5310 -- Advanced Presentation: Cr. 6
AID 5330 -- 3-D Modeling: Cr. 6
AID 5997 -- (WI) Senior Seminar: Cr. 3
AID 6320 --History of Modern Design I: Cr. 3
AID 6330 --History of Modern Design II: Cr. 3
ET 1140 -- Engineering 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

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 I: Cr. 3
AIN 5220 -- Interactive Art: Cr. 3
AIN 6830 -- Internship: Computer/Video/Multimedia: Cr. 3
APR 2300 -- Introduction to Printmaking: Cr. 3
DNC 1010 -- Contemporary Dance I: Cr. 2
MUH 1340 -- (VP) Music Appreciation: World Music: Cr. 3
THR 1010 or THR 1030
-- (VP) Introduction to the Theatre: Cr. 3
-- (VP) Black Theatre: An Introduction: Cr. 3

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 -- Interiors 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
AIA 5640 -- Building Construction Systems in Architecture II: Cr. 3
AIA 5997 -- (WI) Senior Seminar: Cr. 3
AIA 6610 -- Interiors Design Studio IV: Cr. 3
AIA 6650 -- Business Practicum: Cr. 2
AID 6320 or AID 6330
--Hist. of Modern Design I: Cr. 3
--Hist. of Modern Design II: Cr. 3

Suggested Interior Design Electives:

AIA 3620 -- Interior Design CAD II: Cr. 3
AIA 4620 -- Interior Perspective and Illustration: Cr. 3
AIA 5660 -- Supervised Field Experience: Cr. 3
AIA 4990 -- Dir. Study: Intro: Environmental Design & Products: Cr. 3
AIA 5991 -- Directed Projects: Interior Residential Design Studio: Cr. 3
AID 3310 -- Presentation: Cr. 3

METAL ARTS

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
ACS 5997 -- (WI) Senior Seminar in Visual Arts: Cr. 3

PAINTING

APA 2110 --Beginning Painting: Water Media: Cr. 3
APA 2120 --Beginning Painting: Oil: Cr. 3
APA 3000-level Painting Elective: Cr. 3
APA 3130 or APA 3140
-- Figure Painting: Water Media: Cr. 3
-- Figure Painting: Oil and Other Media: Cr. 3

APA 5100 -- Painting Seminar: Cr. 3
APA 5000-level Painting Electives: Cr. 9

PHOTOGRAPHY

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 4000-level Photography electives: Cr. 3
APH 5000-level Photography electives: Cr. 3

PRINTMAKING

APR 2000-level Printmaking course: Cr. 3
APR 3000-level Printmaking courses: Cr. 9
APR 3000-level Printmaking courses 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 Project: Cr. 3

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.

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, 1210), one Art History course (A H 1110 or 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 181. 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.

James F. Duffy Jr. Travel Fellowship: Awarded to advanced fine arts students or recent graduates, to allow them to travel abroad to extend their awareness of art and to broaden their experience of culture outside the United States.

Brian Gahagan Memorial Endowed Scholarship: Awarded to recognize excellence as demonstrated by students in the area of painting, and to encourage the continued progress of students studying painting.

Mary Kirk Haggarty Memorial Scholarship: Awarded to an undergraduate or graduate student majoring in art history.

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.

Marji Kunz Fashion Scholarship: Awarded to a design and merchandising student (sophomore level or above) with aptitude in creative design, display work, writing, fashion retailing or modeling. (Please contact the Fashion Design and Merchandising Area of the Department of Art and Art History for dates of availability of this Scholarship.)

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 479.

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.

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. (T)

2560 (ACR 2550) Ceramics and Pottery Design II. (ACR 3550) (ACR 4550) (ACR 5550) (ACR 7550) Cr. 3

Prereq: ACR 2550. Continuation of ACR 2550. Development of personal approach is encouraged. Material fee as indicated in the Schedule of Classes (T)

3550 (ACR 2550) Beginning Ceramics. (ACR 2560) (ACR 4550) (ACR 5550) (ACR 7550) Cr. 3

Prereq: ADR 1060 and ADE 1210. Open only to upper division art majors. Basic techniques of wheel throwing, hand building, glazing and firing. Lectures, demonstrations, critiques. Material fee as indicated in the Schedule of Classes (T)

4000 Ceramics: Wheel Throwing. Cr. 3

Prereq: ACR 2550 or 3550 or consent of instructor. Open only to art majors. Development of personal, technical and aesthetic skills in using potter's wheel as tool to create utilitarian and non-utilitarian objects. Group and individual critiques. Material fee as indicated in the Schedule of Classes (Y)

4001 Handbuilding. Cr. 3 (Max. 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. Surfacing, glazing and firing processes as they apply to completing the objects. Material fee as indicated in the Schedule of Classes (Y)

4550 (ACR 2550) Intermediate Ceramics. (ACR 2560) (ACR 3550) (ACR 5550) (ACR 7550) Cr. 3

Prereq: ACR 3550. Open only to art majors. Advanced building techniques; glaze and clay body calculation, mold-making and aesthetic evaluation. Material fee as indicated in the Schedule of Classes (T)

5550 (ACR 2550) Advanced Ceramics. (ACR 2560) (ACR 3550) (ACR 4550) (ACR 7550) Cr. 3-6 (Max. 12)

Prereq: ACR 4550. Open only to art majors in B.F.A. or M.F.A. program. Election of more than 3 credits per semester requires consent of instructor. Advanced hand building and wheel throwing demonstrations. Lectures on historical and contemporary issues. Emphasis on personal growth and development. Material fee as indicated in the Schedule of Classes (T)

5570 Ceramics: Special Projects. Cr. 1 (Max. 6)

Open only to art majors in B.F.A. or M.F.A. program. Student experience with a specialized facility and faculty to complement individual growth and development. (T)

5880 Directed Projects: Ceramics. Cr. 3-6 (Undergrad. max. 15; grad. max. 30)

Prereq: consent of instructor. Open only to art majors in B.F.A. or M.F.A. program. Independent projects and study in consultation with faculty. Material fee as indicated in the Schedule of Classes (F,W)

DESIGN COURSES (ADE)

1200 Design I. Cr. 3

Foundation course for all visual communication. Two- and three-dimensional experimentation in various techniques with achromatic media. (T)

1210 Design II. Cr. 3

Prereq: ADE 1200. Continuation of ADE 1200 with concentration on color theories and phenomena. Two- and three-dimensional concepts of structure with an emphasis on color. (T)

2200 Design III: Three Dimensional. Cr. 3

Prereq: ADE 1210. 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 (F,W)

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 Schedule of Classes. (F,W)

1060 (ADR 1050) Drawing II. Cr. 3

Prereq: ADR 1050. Further development of basic drawing skills and concepts. Continued exploration of media. Drawing based on observation and imagination. Material fee as indicated in Schedule of Classes. (F,W)

2070 Beginning Life Drawing. (ADR 3070) (ADR 5070) (ADR 7070) Cr. 3

Prereq: ADR 1060. Initial exploration of human figure using limited drawing media; essential aspects of the figure: proportion, gesture, composition. Material fee as indicated in the Schedule of Classes (F,W)

3070 (ADR 2070) Intermediate Life Drawing. (ADR 5070) (ADR 7070) Cr. 3

Prereq: ADR 2070. Continued systematic study of human figure using broad range of media. Material fee as indicated in the Schedule of Classes (F,W)

5060 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 Schedule of Classes. (Y)

5070 (ADR 2070) Advanced Life Drawing. (ADR 3070) (ADR 7070) Cr. 3-6 (Max. 24)

Prereq: ADR 3070. Election of more than three credits per semester requires consent of instructor. Open only to art majors. Continued study of human figure based on observation. Composition. Expressive interpretation of the figure through broad range of media. Material fee as indicated in the Schedule of Classes (F,W)

5080 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. (S)

5090 Anatomy. Cr. 3

Prereq: ADR 2070. Superficial human anatomy including effects of muscular and skeletal systems. Drawing from both models and skeletons, lectures, demonstrations. Material fee as indicated in the Schedule of Classes (Y)

5800 Directed Projects: Drawing. Cr. 3-6 (Undergrad. max. 15; grad. max. 30)

Prereq: consent of instructor. Open only to art majors. Individual work supervised by faculty on arranged basis. (F,W)

FASHION DESIGN and MERCHANDISING COURSES (AFA)

2410 Textiles. Cr. 3

Introduction to fibers, yarns, fabric construction, design and finishes and how they relate to selection, use and care of textile products. Material fee as indicated in the Schedule of Classes (F,W)

2420 Fashion Design: Basic Construction. Cr. 3

Application of color and design principles in construction of structured and unstructured garments. Material fee as indicated in the Schedule of Classes (F,W)

3400 Clothing and Culture. Cr. 3

Functions and meanings of dress in diverse cultures and contemporary society with an interdisciplinary approach. (F)

3410 Textile Performance Analysis. Cr. 3

Prereq: AFA 2410. Open only to design majors in B.A., B.S., or M.A. program. Recent technological developments; introduction to textile testing, product analysis and industry specifications. Material fee as indicated in the Schedule of Classes (W)

3460 Introduction to Merchandising. Cr. 3

Psychological, economic considerations. Terminology and structure of the fashion industry and career opportunities. (F,W)

3470 Merchandise Information. Cr. 3

Prereq: AFA 2410, AFA 2420. Quality and value in merchandising. Manufacturing processes, government regulations and selling points in hard and soft lines. (W)

4430 Fashion Illustration. Cr. 3 (Max. 6)

Prereq: ADR 1050. Open only to design majors in B.A., B.S., or M.A. program. Basic fashion rendering techniques using a variety of media. (B)

4990 Directed Study. Cr. 2-4

Prereq: consent of instructor. Open only to upper division design majors in B.A., B.S., or M.A. program. (T)

4991 Workshop: Special Topics. Cr. 2-4 (Max. 6)

Open only to design majors in B.A., B.S., or M.A. program. Application of theoretical principles to selected areas of design and merchandising. Topics and prerequisites to be announced in Schedule of Classes. (Y)

5420 Fashion Design: Tailoring. Cr. 3

Prereq: AFA 2410 and AFA 2420. Open only to design majors in B.A., B.S., or M.A. program. Tailoring techniques applied to coats and suits. Material fee as indicated in the Schedule of Classes (F)

5430 History of Costume. Cr. 3

Prereq: one art history course or consent of instructor. Survey of historic costumes from prehistoric to present. Emphasis on influence of social factors. (F)

5440 Fashion Design: Flat Pattern. Cr. 3 (Max. 6)

Prereq: AFA 2420, AFA 5420 or consent of instructor. Open only to design majors in B.A., B.S., or M.A. program. Original designs from a basic sloper. Material fee as indicated in the Schedule of Classes (W)

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 (F)

5460 Merchandising II. Cr. 3

Prereq: AFA 3460. Open only to design majors in B.A., B.S., or M.A. program. Current trends in merchandising. Emphasis on global aspects. (F)

5470 Visual Merchandising: Display. Cr. 3

Prereq: ADE 1200, ADE 1210, 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 (W)

5490 Economics of Merchandising. Cr. 3

Prereq: completion of Math Proficiency Requirements, AFA 3460. Open only to design majors in B.A., B.S., or M.A. program. Application of merchandising principles and systematic planning to achieve profit goals. (W)

5992 Supervised Field Experience. Cr. 2-4

Prereq: senior standing. Open only to senior design majors in B.A., B.S., or M.A. program. Supervised field experience designed to correlate classroom theory with practical work. (F)

5997 (WI) Seminar. Cr. 3

Prereq: senior standing and 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 1210 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., M.A., or M.F.A. program. Designs done on four- and eight-harness looms. Pattern drafting, layer weaving, ikat, and rug techniques offered on a rotating basis. Material fee as indicated in the Schedule of Classes (T)

3660 Intermediate Fibers Printing and Dyeing. (AFI 5660) (AFI 7660) Cr. 3-6 (Max. 12)

Prereq: AFI 2660. Open only to students in the College of Fine, Performing and Communication Arts enrolled in B.S., B.A., B.F.A., M.A., or M.F.A. program. Continuation of AFI 2660. Deeper study of fiber reactive dye; beginning of development of personal style. Material fee as indicated in the Schedule of Classes (T)

**5650 (AFI 3650) Weaving: Senior Project. (AFI 7650)
Cr. 3-6 (Max. 12)**

Prereq: AFI 3650. Election of more than three credits per semester requires consent of instructor. Open only to students in the College of Fine, Performing and Communication Arts enrolled in B.S., B.A., B.F.A., M.A., or M.F.A. program. Directed project in weaving. Research and written evaluative statement required. Material fee as indicated in the Schedule of Classes (T)

5660 (AFI 3660) Fabric Printing and Dyeing: Senior Project. (AFI 7660) Cr. 3-6 (Max. 12)

Prereq: AFI 3660. Election of more than three credits per semester requires consent of instructor. Open only to students in the College of Fine, Performing and Communication Arts enrolled in B.S., B.A., B.F.A., M.A., or M.F.A. program. Extensive project or series of works determined by student; research and written statement. Material fee as indicated in the Schedule of Classes (T)

**5870 Directed Projects: Fibers.
Cr. 3-6 (Undergrad. max. 15; grad. max. 30)**

Prereq: consent of instructor. Open only to students in the College of Fine, Performing and Communication Arts enrolled in B.S., B.A., B.F.A., M.A., or M.F.A. program. Individual problems. (F,W)

GRAPHIC DESIGN COURSES (AGD)

2240 Orientation to Graphic Design Computer Software. Cr. 3

Prereq: graphic design or interdisciplinary electronic arts concentration; consent of instructor. Introduction to computer layout, drawing and photo manipulation programs used in graphic design. Demonstrations, readings and assignments for development of design computer skills and integration into design process. Material fee as indicated in the Schedule of Classes (F,W)

2250 Typography. Cr. 3

Prereq: ADR 1050, 1060; ADE 1200, 1210; 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, 1210; 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 (Max. 18)

Prereq: AGD 2240, 2250, 3250, and 4250. Open only to upper division art majors in B.A. or B.F.A. program; or M.A. program art majors. Complex design situations. Research and methodology. Project may include package design, instruction manuals, book and brochure design, publication design. Material fee as indicated in the Schedule of Classes (F,W)

5260 (WI) Senior Seminar. Cr. 3

Prereq: senior standing. Open only to upper division art majors in B.A. or B.F.A. program; or M.A. program art majors. Issues affecting the theory, history, and practice of design; impact of design on soci-

ety 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. 3-6 (Undergrad. max. 9; grad. max. 18)

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. 3-6

Prereq: AGD 4250, consent of instructor; written consent of instructor required if elected for more than three credits. Open only to senior art majors in B.A. or B.F.A. program. Supervised field experience designated to correlate classroom theory with practical work. Material fee as indicated in the Schedule of Classes (T)

5997 Graphic Design IV: Systems, Series, and Advanced Studies in Visual Communication. Cr. 3

Prereq: AGD 2240, 2250, 3250, 4250, and 5250. Open only to upper division art majors in B.A. or B.F.A. program; or M.A. program art majors. Extended student projects such as identity systems with various applications, families of package design, series of form design, or poster series. Possible collaborative projects; extensive research. Material fee as indicated in the Schedule of Classes (F,W)

6260 Advanced Typography. Cr. 3

Prereq: junior standing and completion of AGD 4250. Open only to upper division art majors in B.A. or B.F.A. program; or M.A. program art majors. Advanced and experimental typography; typography as an expressive language in 2-D and 3-D; projects in information design. Material fee as indicated in the Schedule of Classes (I)

6270 Graphic Design Practicum. Cr. 3

Prereq: senior standing, acceptance of portfolio. Open only to senior art majors in B.A. or B.F.A. program; or M.A. program art majors. Students work on actual graphic design projects with clients from non-profit organizations. Initial discussion with client through delivery of printed work. Material fee as indicated in the Schedule of Classes (I)

6280 Pre-Press and Production. Cr. 3

Prereq: AGD 4250, junior standing. Open only to upper division art majors in B.A. or B.F.A. program; or M.A. program art majors. Preparation of design work for production. How print production influences design concept, connections between pre-press preparation and finished printed work. Field trips and actual print production. Material fee as indicated in the Schedule of Classes (S)

INDUSTRIAL DESIGN COURSES (AID)

**3300 Introduction to Industrial Design. (AID 5300)
Cr. 3 (Max. 9)**

Prereq: ADR 1050; coreq: ADE 1210. Introduction to fundamental skills necessary for the practice of industrial design. Two-dimensional presentation techniques are developed in first half of semester; second portion consists of exercises in problem-solving methodology. Material fee as indicated in the Schedule of Classes (W)

3310 Presentation. (AID 5310) Cr. 3 (Max. 6)

Prereq: ADR 1050, ADE 1210. Two dimensional visualization, monochromatic and polychromatic sketch techniques using a variety of traditional media. (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. (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 solutions. Students build on their ability to communicate two-dimensionally, with introduction of digital manipulation and creation software. Material fee as indicated in the Schedule of Classes (F)

5330 3-D Modeling. Cr. 3 (Max. 6)

Prereq: AID 3300. Open only to upper division art majors in B.A. or B.F.A. program, or art M.A. students. Principles of three-dimensional modeling. Surface development, rendering, and creation of virtual environments. Material fee as indicated in the Schedule of Classes (F)

5997 (WI) Senior Seminar. Cr. 3

Prereq: senior standing in industrial design concentration. Open only to senior art majors in B.A. or B.F.A. program, or art M.A. students. Seminar on contemporary issues in industrial design including professional concerns in transportation and product design, presentation, and production. Satisfies the General Education Writing Intensive Course in the Major requirement. (B)

6300 (AID 4300) Advanced Studio: Transportation. (AID 7300) Cr. 3 (Max. 9)

Prereq: AID 3300. Open only to art majors in B.A. or B.F.A. program, or art M.A. students. Form and proportion studies. Development of sketch techniques for communicating the complex form of the automotive body. Taught by professional automotive designers. Material fee as indicated in the Schedule of Classes (W)

6310 Advanced Studio/Exhibit. Cr. 3 (Max. 9)

Prereq: AID 5300. Open only to art majors in B.A. or B.F.A. program, or art M.A. students. Advanced design concepts in exhibit design. Project planning, ideas of brand imaging, phenomenological notions of the spatial experience. Material fee as indicated in the Schedule of Classes (F)

6320 History of Modern Design I. Cr. 3

Open only to College of Fine, Performing and Communication Arts students enrolled in B.A., B.F.A. or M.A. program. Major design trends in America and Europe from mid-nineteenth century to World War I. Covers a broad spectrum of the applied arts. (F)

6330 History of Modern Design II. Cr. 3

Open only to College of Fine, Performing and Communication Arts students enrolled in B.A., B.F.A. or M.A. program. Major design trends in America and Europe from end of World War I through 1950s. Covers a broad spectrum of the applied arts. (W)

INTERDISCIPLINARY ELECTRONIC ARTS COURSES (AIN)

2220 Video Art. Cr. 3

Prereq: ADE 1210 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 indicated 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 beginning 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 Schedule 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 performing 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 multimedia 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 plan-

ning; Windows-based auto CAD. Material fee as indicated in the Schedule of Classes (F)

2610 Interior Design Studio I. Cr. 3

Prereq: AIA 1610. Open only to art majors in B.A. or B.F.A. program. Single family residential/small-scale office. Presentation techniques; introduction to media and methods used in the preparation of presentation boards: layout, selection, rendering, plan, elevation, lettering and verbal presentation. Material fee as indicated in the Schedule of Classes (F)

3610 Interior Design Studio II. Cr. 3

Prereq: AIA 2610. Open only to art majors in B.A. or B.F.A. program. Hospitality/restaurant/health care. Continuation of graphic and presentation skill development incorporating plan, elevation, section, detailing, perspective, hand and CAD drawings. Experimentation with lighting, media, board, and verbal presentation. Material fee as indicated in the Schedule of Classes (W)

3620 Interior Design: CAD II. Cr. 3

Prereq: AIA 1610, 2600, and 2610. Open only to art majors in B.A. or B.F.A. program. Intermediate-level CAD. Development and creation of construction documents, space planning of interior spaces, and systems layout, using autoCAD drafting techniques in two- and three-dimensional modes. Material fee as indicated in the Schedule of Classes (W)

4600 Environmental Design Theory. Cr. 3

Prereq: AIA 2610. Open only to art majors in B.A. or B.F.A. program. History of interiors: ergonomic, environmental elements. Introduction to building and barrier-free design codes. Acoustical, HVAC and electrical systems. Material fee as indicated in the Schedule of Classes (F)

4610 Interior Design Studio III. Cr. 3

Prereq: AIA 2600 and 3610. Open only to art majors in B.A. or B.F.A. program. Retail/contract open-office system, medium to large scale, new or adaptive reuse projects. Advanced hand and CAD graphic, presentation skill development, incorporating building and barrier-free codes, HVAC and lighting principles, furniture and equipment specification. Material fee as indicated in the Schedule of Classes (F)

4620 Interior Perspective and Illustration. Cr. 3

Prereq: AIA 1610, 2610. Open only to art majors in B.A. or B.F.A. program. Visual perspective presentation techniques, including selection, construction, illustration of interior designs. Basic mechanical perspective layout and delineation techniques: pencil, pen, color marker and color pencil to relate effects of texture, volume, and light of interior space. Material fee as indicated in the Schedule of Classes (F)

4990 Directed Study. Cr. 2-4

Prereq: consent of instructor. Open only to art majors in B.A. or B.F.A. program. (F,W)

5010 Furniture/Product Workshop. Cr. 3

Prereq: AIA 1610, 2610, 5610; consent of instructor. Open only to art majors in B.A., B.F.A., or M.A. program. History, ergonomic and design development of furniture and product design. Projects evolve from hand and CAD drawings to scaled models of furniture and product designs. Material fee as indicated in the Schedule of Classes (F)

5610 Interior Materials and Systems. Cr. 3

Open only to art majors in B.A., B.F.A., or M.A. program. Estimating, specifying, and the techniques used in the application of materials and systems used in interior design. Lectures, guest speakers, and field trips. Material fee as indicated in the Schedule of Classes (W)

5620 Building Construction Systems in Architecture I. Cr. 3

Prereq: AIA 2610, 3610. Open only to art majors in B.A., B.F.A., or M.A. program. Residential and commercial construction systems incorporating governmental and building codes; site and foundation

to roof systems; small scale hand and CAD documentation of architectural details. Material fee as indicated in the Schedule of Classes (W)

5630 Interior Lighting Design and Application. Cr. 3

Prereq: AIA 3610, 4610. Open only to art majors in B.A., B.F.A., or M.A. program. Lighting sources, fixtures, manufacturer's lighting system and application to interior spaces. Basic lighting footcandle calculations; layouts and psychology of lighting description to be applied in a final project. Material fee as indicated in the Schedule of Classes (W)

5640 Building Construction Systems in Architecture II. Cr. 3

Prereq: AIA 2600, 4600, 4610, 5620. Open only to art majors in B.A., B.F.A., or M.A. program. 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 (W) Senior Seminar. Cr. 3

Prereq: consent of instructor. Open only to senior art majors in B.A. or B.F.A. program, or art majors in M.A. program. Investigation of designers, styles, and periods of interior design through charettes and documentation. Resume and portfolio development and review; writing of intensive research paper. (W)

6610 Interior Design Studio IV. Cr. 3

Prereq: AIA 4610, 5640. Open only to art majors in B.A., B.F.A. or M.A. program. Large-scale new or adaptive re-use: office, hospitality, health-care or retail interior spaces. Professional hand and CAD graphic and skill development. Integration of codes, ADA, human factors, HVAC and lighting principles, furniture and equipment specification related to specific environment. Material fee as indicated in the Schedule of Classes (W)

6650 Business Practicum. Cr. 2

Prereq: AIA 4610. Open only to art majors in B.A., B.F.A. or M.A. program. Examination of different types of business formations and their characteristics; professional practices and procedures, professional ethics, contemporary topics in interior design practice. (F)

METALS COURSES (AME)

2600 Introduction to Jewelry and Metalsmithing. Cr. 3

Prereq: ADR 1060 and ADE 1210 for art majors. Open only to students at the sophomore level or above. Basic skills: sawing, filing, drilling, sanding, polishing, creating textures on metal, riveting, soldering, and bezel setting of stones. Creation of jewelry and small functional objects. Material fee as indicated in the Schedule of Classes (T)

3600 Intermediate Jewelry I. (AME 5600) (AME 7600) Cr. 3

Prereq: AME 2600. Open only to art or design and merchandising majors in B.A. or B.F.A. program. Lost-wax casting and mold-making. Creating, preparing and casting into metal of wax models. Vulcanized rubber mold-making. Commercial jewelry techniques. Material fee as indicated in the Schedule of Classes (T)

3601 Intermediate Jewelry II. Cr. 3

Prereq: AME 3600. Open only to art or design and merchandising majors in B.A. or B.F.A. program. Advanced metal fabrication and

surface treatment. Topics include: stone setting techniques, acid etching, granulation, keum boo, patination, hunge mechanisms and more complex soldering techniques. (F,W)

4600 Metalsmithing I. Cr. 3-6 (Max. 9)

Prereq: AME 2600. Open only to art or design and merchandising majors in B.A. or B.F.A. program. Utilizing plastic qualities of metal to generate low to middle relief forms. Introduction to hydraulic die forming, chasing and repousse and fold forming. Creation of objects with moderate level of relief and high degree of surface adornment. (F,W)

4601 Metalsmithing II. Cr. 3-6 (Max. 9)

Prereq: AME 4600. Open only to art or design and merchandising majors in B.A. or B.F.A. program. Utilizing plastic qualities of metal to generate high relief forms. Techniques include: raising and sinking, anticlastic and synclastic raising, nonferrous and ferrous forging. How metals may be stretched to create forms with a high degree of volume. (F,W)

5600 (AME 3600) Advanced Jewelry and Metalsmithing. (AME 7600) Cr. 3-6 (Max. 24)

Prereq: AME 3601. Election of more than three credits per semester requires consent of instructor. Open only to art or design and merchandising majors in B.A., B.F.A., M.A. or M.F.A. program. Intellectual and conceptual nature of student's artwork; discussion and analysis. Methods of criticism. Material fee as indicated in the Schedule of Classes (F,W)

5860 Directed Projects: 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. (F,W)

PAINTING COURSES (APA)

2100 Basic Painting. Cr. 3

Prereq: ADR 1060 and ADE 1210. 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 (T)

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. Composition based on observation and imagination. Material fee as indicated in the Schedule of Classes (Y)

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 (T)

3110 (APA 2110) 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 (Y)

3120 (APA 2120) 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 (T)

3130 Figure Painting: Water Media. (APA 5130) (APA 7130) Cr. 3

Prereq: APA 2110. Open only to art majors in B.A. or B.F.A. program. Spontaneous and sustained paintings from direct observation of the human figure. Inquiry into the effects of scale, space and emotional responses are encouraged. Material fee as indicated in the Schedule of Classes (Y)

3140 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 (T)

5060 (ADR 5060) Advanced Concepts in Drawing and Painting. 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. (Y)

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. (Y)

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 (T)

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 (T)

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 (B)

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 emul-

sion 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

Prereq: APH 2400. Photographic documentation applied to social cause, community representation, and visual/multicultural critical theory. Material fee announced in 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)

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 stone and plate lithography. Black and white prints made. Material fee as indicated in the Schedule of Classes (Y)

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 (Y)

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 (S)

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 (W)

**5480 Advanced Intaglio Printmaking. (APR 7480)
Cr. 3-6 (Max. 21)**

Prereq: APR 3480. Election of more than three credits per semester requires consent of instructor. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Advanced problems in intaglio. Multiplate and rollup color printing. Photo intaglio techniques, experimental media. Material fee as indicated in the Schedule of Classes (F,W)

**5490 (APR 3490) Advanced Lithography. (APR 7490)
Cr. 3-6 (Max. 21)**

Prereq: APR 3490. Election of more than three credits per semester requires consent of instructor. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Advanced problems in lithography. Black and white, multicolor, transfer methods. Material fee as indicated in the Schedule of Classes (F,W)

**5500 (APR 3500) Advanced Serigraphy. (APR 7500)
Cr. 3-6 (Max. 15)**

Prereq: APR 3500. Election of more than three credits per semester requires consent of instructor. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Advanced problems in screen printing. Photo transfer, multimedia approaches. Material fee as indicated in the Schedule of Classes (Y)

**5510 (APR 3510) Advanced Relief and Experimental
Printmaking. (APR 7510) Cr. 3-6 (Max. 21)**

Prereq: APR 3500 and 5490. Election of more than three credits per semester requires consent of instructor. Open only to upper division art majors 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 (S)

**5840 Directed Projects: Printmaking.
Cr. 3-6 (Undergrad. max. 15; grad. max. 30)**

Prereq: consent of instructor. Open only to art majors in B.A., B.F.A., M.A. or M.F.A. program. Individual problems. (F,W)

SCULPTURE COURSES (ASL)

2150 Beginning Sculpture. Cr. 3

Prereq: ADR 1060, ADE 1210. Open only to students with sophomore standing or above. Instruction in traditional techniques and concepts of sculpture including modeling the figure from observation using clay, moldmaking, carving, construction, and casting. Lectures, demonstrations, critiques. Material fee as indicated in the Schedule of Classes (T)

3150 Intermediate Sculpture. (ASL 5150) (ASL 7150) Cr. 3

Prereq: ASL 2150. Open only to art majors with sophomore standing or above in B.A. or B.F.A. program. Contemporary concerns in sculpture. Idea, scale, site, light, movement, and serial forms. Material fee as indicated in the Schedule of Classes (T)

3170 Figurative Sculpture I. (ASL 5170) Cr. 3

Prereq: ASL 2150. Open only to art majors with sophomore standing or above in B.A. or B.F.A. program. Instruction in traditional, representational, figurative sculpture. Historical examples, concepts and techniques. Basic anatomy, observation, modeling, gesture, proportion, plane, volume, mass, texture, portraiture; use of calipers, armatures, and moldmaking. Carving, construction, and casting are optional. Material fee as indicated in the Schedule of Classes (I)

3190 Sculpture Foundry I. Cr. 3

Prereq: ASL 2150 or consent of instructor. Open only to art majors with sophomore standing or above in B.A. or B.F.A. program. Creation of sculpture using metal. Bonded-sand and investment casting using bronze and aluminum; chasing and patinas; oxy-acetylene, stick, mig, and tig welding; plasma cutting. Material fee as indicated in the Schedule of Classes (Y)

5150 (ASL 3150) Advanced Sculpture. (ASL 7150) Cr. 3-9

Prereq: ASL 2150, 3150, 3170, 3190. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Development of personal and professional body of work. Discussions, lectures, assignments. Material fee as indicated in the Schedule of Classes (T)

5170 (ASL 3170) Figurative Sculpture II. Cr. 3-6 (Max. 18)

Prereq: ADR 3090 and ASL 3170. Election of more than three credits per semester requires consent of instructor. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Emphasis on advanced and self-directed problems in figurative sculpture. Material fee as indicated in the Schedule of Classes (Y)

5180 Sculpture: Advanced Technology. Cr. 3-6 (Max. 18)

Prereq: ASL 5160 or 5170. Election of more than three credits per semester requires consent of instructor. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. One major project which explores the application of non-traditional materials and technologies: research, industrial liaisons, equipment. Material fee as indicated in the Schedule of Classes (I)

5190 Sculpture Foundry II. Cr. 3-6

Prereq: ASL 3190. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Development of ideas and skills using either casting or fabrication or both. Material fee as indicated in the Schedule of Classes (Y)

5810 Special Topics in Sculpture. Cr. 1-6

Open only to sculpture majors. Prereq: ASL 2150, 3150, 3170, and 3190. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Topics to be announced in Schedule of Classes. Material fee as indicated in the Schedule of Classes (Y)

**5820 Directed Projects.
Cr. 3-6 (Undergrad. max. 15; grad. max. 30)**

Prereq: consent of instructor. Open only to upper division art majors in B.A. or B.F.A. program, or art majors in M.A. or M.F.A. program. Independent projects done in consultation with instructor. (F,W)

SPECIAL ART COURSE (ACS)

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

An introduction to the history and development of Egyptian artistic style in architecture, sculpture, painting and the applied arts; historical, social and religious background. (I)

3240 Mythology in Greek Art. Cr. 3

Mythology as subject matter of statues, wall paintings, temple decorations, and vase painting of ancient Greece. (I)

3410 Medieval Art and Architecture. Cr. 3

Prereq: A H 1110. Monasticism as a driving force in medieval culture; art and architecture produced by and for Christian religious communities, A.D. 300-1400. (I)

3470 Islamic Art and Architecture. Cr. 3

Survey of art and architecture of Islam from its origins in the seventh century to the Ottoman Empire. (I)

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 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. 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. 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. 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, 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. 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. 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 manuscripts, metalwork, stained glass, as well as the architectural context in which they were used. (I)

5450 Art and Architecture in the High Middle Ages. Cr. 3

Prereq: A H 1110, 1120. 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 Bellini 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. (B)

5780 Topics in Twentieth-Century Art. Cr. 3-6 (Max. 9)

Election of more than three credits requires consent of instructor. Prereq: A H 1110, 1120. 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. (I)

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)

6730 Contemporary Theory and the Visual Arts. Cr. 3

Undergrad. prereq: consent of instructor. Open only to art history or art majors in B.A., B.F.A., M.A. or M.F.A. program. Methodological application of post-structuralist critical theory to the study of art and art history. (Y)

COMMUNICATION

Office: 585 Manoogian Hall; 313-577-2943

Chairperson: Matthew W. Seeger

Academic Services Officer: Victoria Dallas

Web: <http://www.comm.wayne.edu>

Professors

Bernard L. Brock (Emeritus), Benjamin Burns, Jack Kay, Edward J. Pappas (Emeritus), Raymond S. Ross (Emeritus), Matthew W. Seeger, George W. Ziegelmueller (Distinguished)

Associate Professors

Jackie Byars, Mary M. Garrett, Terry A. Kinney, Hayg H. Oshagan, Lawrence Silverman (Emeritus), John W. Spalding (Emeritus), Carol Vernallis, Richard A. Wright

Assistant Professors

Juanita Anderson, Kimberly Campbell, William Trapani, Laura L. Winn

Lecturers

Donyale Griffin, Jack Lessenberry, Kathryn Maguire, Alicia Nails, Michele A. Najor, Ruth Seymour, Joel Silvers, Ronald J. Stevenson

Degree Programs

BACHELOR OF ARTS with a major in film

BACHELOR OF ARTS with a major in journalism

BACHELOR OF ARTS with a major in media arts and studies

BACHELOR OF ARTS with a major in public relations

BACHELOR OF ARTS with a major in speech communication

**MASTER OF ARTS with a major in communication and concentrations in: public relations and organizational communication; media arts; media studies; communication education; speech communication; or communication studies*

**DOCTOR OF PHILOSOPHY with a major in communication and concentrations in: media arts and studies; or communication studies*

The primary aim of this department is to assist students in developing the ability to communicate effectively and to understand the principles of the communication process. The variety of degree programs provides broad liberal arts education as well as specific career training. Undergraduate and graduate majors may prepare for careers in several fields: industrial relations; sales; personnel; public relations; radio, television, film; journalism; teaching; law; and the ministry.

The Department sponsors several student activities that are available to all University students. These include intercollegiate debate and speech teams. Wayne State University has undergraduate chapters of Lambda Pi Eta, Forensic Union, Delta Sigma Rho—Tau Kappa Alpha, the Radio-TV and Film Association, and the Public Relations Student Society of America. Talent scholarships are also available to students interested in forensics or debate.

* For specific requirements, see the Wayne State University Graduate Bulletin.

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 32.

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 16), College degree requirements which include completion of a foreign language through the third semester (see page 184), as well as the major requirements of one of the programs listed below. All courses in the major must be completed with a grade of 'C' or better and in accordance with the academic regulations of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 16, 43, and 179.

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 and double majors in Media Arts and Studies and Film.) At least twelve credits are required in residence within the major. A proper distribution of courses approved by the student's adviser is important.

Writing Intensive (WI) Requirement: The University General Education Program requirement of a writing intensive course in the major may be fulfilled by taking COM 3400 (speech communication), COM 4170 (public relations), COM 4100 (journalism), COM 5270 (film studies), or COM 3010 (media arts and studies). The writing intensive course should be taken during the junior year after satisfactory completion of the 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 287) 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, scriptwriters, or workers in film production. Additional work at the graduate level is required for some of these careers. Majors in Film must complete 40 credits as listed below.

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.

The core required courses for Film Majors are (Twenty-one Credits): COM 2020, 5270, 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.

Eight elective hours are required from the following list: COM 3010, 4310, 5020, 5060, 5440, 5420, and 6680.

An additional six elective credits are required 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 and HIS 2050 are required.

The core courses for journalism majors are: COM 1500, 2030, 2100, 3100, 3210, 4100, 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.

Journalism Institute for Minorities: The Journalism Institute for Minorities is a four-year Departmental program designed to recruit and train talented minority students for careers in mass communication. The Institute pools the resources of the University, the business community and Detroit area media professionals to provide scholarships and internships for its students. For additional information contact: Director, Journalism Institute for Minorities, Wayne State University, Journalism Program, 191 Manoogian, Detroit, MI 48202; telephone: 313-577-6304.

— With a Major in Media Arts and Studies

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 the Studies Track, or the Production Track.

Studies Track majors must take COM 2020, 3010 (WI), 5010, 5060, and 5510. COM 5510 is the senior assessment capstone course and should be taken in the last twenty-one credits of the student's program.

Production Track majors must take COM 3010 (WI), 4310, 4410, 5380, and 5400. COM 5400 is the senior assessment capstone course and should be taken in the last twenty-one credits of the student's program.

Nine additional elective credits in media arts and studies courses are required of both the Production and Studies Track majors. A total of forty credits in the major are required for graduation.

Students interested in additional coursework may chose to minor in Film, but students may not double major in Media Arts and Studies and Film.

— 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, 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 in one or more areas of specialization. The areas of specialization are:

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/Managerial Communication:* COM 3170, 3250, 3270, 3300, 4170, 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 Departmental Honors Program is available to students in the areas of media arts and studies, journalism, and speech communication. This program offers capable students the opportunity to pursue independent study and to work closely with Department faculty members. All honors students must write a senior honors essay under the direction of a faculty adviser. Completion of the honors major results in an honors degree designation on the diploma.

Requirements: In order to enter the Departmental program students must have achieved junior standing and an overall grade point average of at least 3.5. Students must meet all regular major requirements as well as complete the following courses: the honors section of COM 1010, 4996, 5510, and 5110 or 5120. By graduation, honors students are also required to take at least fifteen credits in Departmental courses at the 5000- and 6000-level. (Practical skills courses or internships cannot satisfy this requirement.)

In addition to the Departmental curriculum, the student must elect at least fifteen credits in honors-designated courses, from those in the Department and those given by other Departments, including at least one 4000-level seminar offered through the Liberal Arts Honors Program (see page 310). For further information about seminar topics or other honors-designated courses, consult the College of Liberal Arts

and Sciences section of the Schedule of Classes, under 'Honors Program.'

Minor 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. 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, 2100, 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, 2050, 2100, 2160, 3170, 3210, 3250.

Departmental Scholarships

See the section on Scholarships and Financial Aid on page 181. 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-Harries Endowed Memorial Scholarship in Public Relations: Award open to public relations students entering their junior or senior year who have demonstrated academic excellence and the ability to make a meaningful contribution in the area of public relations.

Jeannine Gregory Memorial Scholarship in Public Relations: Award is open to public relations students entering their junior or senior year who have demonstrated leadership abilities in public relations.

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 479.

1010 (OC) Oral Communication: Basic Speech. Cr. 3 (LCT: 2, LAB 1)

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. Majors in Department are required to take course for three credits, which includes persuasive speaking component and additional presentations. (T)

1500 Survey of Mass Communication. Cr. 3

Required of journalism and media arts and studies majors. Introductory course in understanding communication theory and effects and the communication industry in the United States. (T)

1600 Introduction to Audio-Television-Film Production. Cr. 3

Introduction to production techniques and processes; hands-on use of image and sound recording and editing equipment; creation of dramatic and non-fiction studio and location-based projects. Material fee as indicated in the Schedule of Classes (T)

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. 2

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. 3

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: completion of oral communication competency requirement. 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. (F,W)

2170 Persuasive Speaking. Cr. 3

Prereq: COM 1010 or equiv. Audience analysis and motivation; choice, arrangement, adaptation of materials. Talks to win attention, secure action, overcome prejudice and hostility. Theory and practice of social psychology as applied to persuasion. (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. (Y)

2200 Interpersonal Communication. Cr. 3

Introduction to theory and research on interpersonal communication; analysis of everyday communication situations. (T)

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 Radio and Television News Reporting. Cr. 3

Prereq: COM 1500; must have access to cassette tape recorder. Theory and practice in broadcast news writing, reporting and performing. Material fee as indicated in the Schedule of Classes (T)

2240 Forensics Practicum. Cr. 1-2 (Max. 6)

Prereq: COM 2110 or consent of instructor. Two credits only with consent of instructor. Training and participation in debate and contest speaking. (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 Intercultural Communication. Cr. 3

Culture-general instruction in intercultural communication skills and theory. Field trips, simulations and conversations between international and U.S. students provide intensive intercultural exposure and exploration. (Y)

2500 Oral Interpretation of Literature. Cr. 3

Oral performance approach to literature, fusing voice, body and meaning in the reading aloud of poetry, prose, drama; interaction of reader, listener, and literature. (T)

3010 (WI) Television Criticism. Cr. 3

Prereq: COM 1500 or consent of instructor. Open only to media arts and studies 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 governmental stories. (T)

3170 Fundamentals of Public Relations. Cr. 3

Prereq: COM 1010 or 2170 or equiv. No undergraduate credit after COM 5160. Historical background of the profession of public relations; communication variables in public relations; emphasis on presentational techniques, publicity preparation and development of special events. (F)

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. (T)

3250 Introduction to Organizational Communication. Cr. 3

Introduction to major theories and principles used to guide the effective practice of communication within organizations. (F)

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. (T)

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 (Y)

3370 Theory and Practice of Persuasion. Cr. 3

Theories of persuasion; how theories can be applied to help solve 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. (Y)

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 Gender and Communication. (W S 4030) Cr. 3

Analysis of gender communication issues within interpersonal, group, organizational, intercultural, public, and mass mediated contexts. (Y)

4040 Diversity in Interpersonal Communication. (AFS 5040) Cr. 3

Issues related to the study of interpersonal communication behaviors and patterns in different cultures. (Y)

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: backrounders, fact sheets, press releases; brochures and newsletters. (Y)

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. (B)

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)

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 Reporting Race, Sex, and Culture. Cr. 3

Prereq: COM 4100. 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 or radio-TV majors. Theory and practice in sound production techniques and experimentation with creative audio production. Material fee as indicated in the Schedule of Classes (T)

4410 Television Production. Cr. 4

Prereq: admission to radio-TV major, or COM 1600 and consent of instructor. Open only to media arts and studies or radio-TV majors. Theory and 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 Honors Seminar in Speech Communication. Cr. 3

Prereq: admission to Department honors program; written consent of adviser and Department Chairperson. Overview of theory and research in speech communication. Design of individual research topics. (Y)

4997 Senior Assessment Essay in Film Studies. Cr. 1

Open only to interdisciplinary film studies majors. Prereq: senior standing, written consent of adviser; required of film studies majors in term of graduation. Preparation of formal paper demonstrating knowledge of methods of film analysis, film history, and film theory. (T)

5010 History of Television and Radio. Cr. 4

Prereq: COM 1500 or consent of instructor. Open only to media arts and studies, radio-TV, or communication majors. History of electronic media; development of industry; rise of genres and styles; social and political impact. (Y)

5020 Studies in Film History. Cr. 4 (Max. 12)

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, or communication majors. Analysis of the development of a specific film genre, a director, or other historical aspect of film. Topics to be announced in Schedule of Classes. Material fee as indicated in the Schedule of Classes. (Y)

5030 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. (B)

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. (B)

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, 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. (Y)

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 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. (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. 3

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. (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. (I)

5380 Video Field Production and Editing. Cr. 3

Prereq: admission to media arts and studies major; or COM 1600 and consent of instructor; or COM 7400. Theory and practical application of video location production and post-production techniques. Digital non-linear editing and post-production software as used in creative development of original content. Material fee as indicated in the Schedule of Classes (W)

5400 Techniques of Film and Video Production. Cr. 4

Open only to interdisciplinary film studies, media arts and studies, radio-TV, or communication majors. Prereq: COM 5380; or COM 1600 and 5380 and consent of instructor. Capstone course for seniors in production track sequence. Experience with the preparation, shooting and editing of video projects in film-style production. Material fee as indicated in the Schedule of Classes. (T)

5410 Producer's Workshop. Cr. 4

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 announced in Schedule of Classes. (Y)

5420 Director's Workshop. Cr. 4

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 (Y)

5440 Film Production. Cr. 4

Prereq: COM 5400, senior standing or above, production-ready script, consent of instructor. All aspects of 16mm sound motion picture production from scripting and budgeting through direction and cinematography to post-production AB roll editing and sound mixing. Material fee as indicated in the Schedule of Classes (B)

5460 Magazine Writing. Cr. 3

Prereq: COM 4100. Advanced feature writing: preparation of magazine features. Students focus on limited number of in-depth articles. Research, structure and writing techniques to produce publishable magazine-length articles. (Y)

5480 Special Topics in Advanced Production. Cr. 4 (Max. 12)

Prereq: COM 1600, 2210, and consent of instructor. Topics may include: group documentary production, advanced video and film editing, studio performance, and studio drama. Material fee as indicated in the Schedule of Classes (Y)

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. (Y)

5510 Mass Communications and Society. Cr. 3

Prereq: COM 1500 or consent of instructor. Open only to media arts and studies, radio-TV, or communication majors. Capstone

course for media arts and studies majors in studies track; must elect in last 21 credits prior to graduation. Theoretical and practical research on the social functions and effects of the mass media. (Y)

5700 Political and Governmental Reporting. Cr. 4

Prereq: COM 2230, 4100. Covering politics, governmental and public affairs in the media. (Y)

5993 (WI) Writing Intensive Course. Cr. 0

Prereq: junior standing, written consent of instructor, satisfactory completion of English Proficiency Examination. Offered for S and U grades only. No degree credit. Required for all Film Studies majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a designated corequisite; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. (T)

6040 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 include: African, Asian, Native American, Latin American, Arab, and Jewish. (B)

6060 Teaching Communication at the Secondary Level. (S E 6060) Cr. 3

Prereq: fifteen credits in speech. Philosophy, pedagogical issues, and methods for teaching speech in secondary schools. (I)

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. (Y)

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. (Y)

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. (Y)

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. (Y)

6200 Theories of Small Group Processes. Cr. 3

Prereq: COM 1010 or graduate standing. Theory and research on communication in the small, task-oriented group. (Y)

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. (Y)

6270 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. (T)

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)

6680 Individual Projects in Media Arts and Studies. Cr. 1-4

Prereq: COM 5400; written consent of instructor and director of media arts and studies program. (T)



DANCE

Office: 3226 Old Main; 313-577-4273

Chairperson: Doug Risner

e-mail: drisner@wayne.edu

Associate Chairperson: Linda Cleveland Simmons

Web: <http://www.dance.wayne.edu>

Associate Professors

Eva Jablonowski Powers, Doug Risner, Ann Zirulnik (Emerita)

Assistant Professors

Georgia Reid (Emerita), Linda Cleveland Simmons

Lecturers

Kelly Gottesman, Stephen K. Stone

Degree Programs

BACHELOR OF FINE ARTS with a major in dance

BACHELOR OF SCIENCE with a major in dance

The Maggie Allesee Department of Dance prepares students for professional careers as performing artists, choreographers, dance teachers, and informed dance audience members within the urban, metropolitan context of Wayne State University. The Department offers curricular choices at the undergraduate and post-degree levels, integrating a thorough understanding of applied and theoretical principles of movement with the newest forms and ideas in contemporary dance performance, choreography, and dance education. Undergraduate studies in dance are reflected in the following major and minor designations: Major in Dance leading to the Bachelor of Science degree; Major in Dance leading to the Bachelor of Fine Arts degree; optional K-12 State of Michigan teaching certification for either the B.S. or B.F.A. Major in Dance; teaching Minor in Dance Education along with any secondary school teaching major such as music, art, special education, speech, and the like; teaching Minor or specialization in dance with a kinesiology (physical education) major; non-teaching Minor in Dance with any Wayne State major.

Bachelor of Fine Arts With a Major in Dance

The Bachelor of Fine Arts with a major in dance provides a professional degree program for talented students with prior dance experience and skills who seek professional careers as performing artists, choreographers, or dance scholars. Dance technique and the history, philosophies, and aesthetics of dance are all central to this program.

Admission to this program is contingent upon satisfaction of the general requirements for undergraduate admission to the University (see page 32) and a successful audition conducted by the Department faculty. Audition dates are scheduled each January and February in the year prior to admission, and prospective students should contact the Dance Office for audition schedule information. Entering students are required to consult the Departmental advising staff prior to their first registration for classes.

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 16) and College degree requirements (see page 184). 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 the College of Fine, Performing and Communication Arts governing undergraduate scholarship and degrees (see sections beginning on page 16, 43, and 179), 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. 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 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): 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) Music Appreciation: World Music: Cr. 3
MUH 1370 -- (VP) Music Appreciation: Beginnings to the 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 32) and a successful audition conducted by the Depart-

ment 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 16) and College degree requirements (see page 184). 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 the College of Fine, Performing and Communication Arts governing undergraduate scholarship and degrees (see sections beginning on page 16, 43, and 179), 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.

B.S. MAJOR REQUIREMENTS

DNC 1330 -- Production Practicum: Cr. 1
DNC 2300 or DNC 2310
-- History of Dance to 1800: Cr. 3
-- (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 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 2210 or 2220 or 3210 or 3220
(four semesters at two credits per semester): Cr. 8
DNC 2460 -- Dance Improvisation: Cr. 2
DNC 3010 -- Technique Laboratory II (two semesters): Cr. 4
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 5610 -- Dance Company I (two semesters): Cr. 2
DNC 5996 -- Senior Capstone Research (Choreography):² Cr. 3
Total: 30 credits

General Education Requirement

DNC 2000 -- (VP) Introduction to Dance: Cr. 4

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.

1. Capstone course to be taken in last twenty-one credits of study.

2. Capstone course to be taken in last twenty-one credits of study.

Teaching Major — B.F.A. and B.S.

Professional Education Sequence: The following courses are required for a teaching major in dance, K-12 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 3310 -- Educational Psychology: Cr. 3
HEA 2330 or H E 3300
-- First Aid and CPR: Cr. 3
-- Health of the School Child: Cr. 3
RDG 4430 -- Teaching Reading II: Comprehension Preprim. - 8: Cr. 3

Minor in Dance Education

The dance education minor requires twenty-eight credits to meet Departmental and State Certification requirements for teaching in grades K-12. Students pursuing the minor in dance education must be admitted to the College of Education and hold a secondary school teaching major such as music, art, special education, or speech (see College of Education major requirements beginning on page 110). Required Dance courses include:

DNC 2000 -- (VP) 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 to the Present: Cr. 3
DNC 2311 -- Issues and Trends in Contemporary Dance: Cr. 2
DNC 3010 -- Technique Laboratory II (two semesters): Cr. 4
DNC 2500 -- Choreography I: Cr. 2
DNC 5610 -- Dance Company I: Cr. 1
DNC 4810 -- Methods in Modern Dance and Ballet: Cr. 3
DNC 5810 -- Creative Dance for Children: Cr. 3

Total: 28 credits

Post-Degree Studies in Dance: Students who have State Teacher Certification in any secondary major may add a Dance Certification K-12 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 181. 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 Allesee Talent Scholarship, of varying amounts, normally \$500-\$1000, dependent upon funds available, is renewable for four consecutive years based on continuance in the dance program, and paid Fall and Winter semesters. This award is open to students majoring in dance who have been admitted to WSU. An audition is required. Recipients must maintain a 2.5 grade point average overall,

and a 3.0 grade point average in dance courses; contact the Department of Dance. The application deadline is early December; an audition in January or February is required.

Activity Award, of varying amounts, normally \$250-\$1400, dependent upon funds available, is renewable for four consecutive years based on continuance in the dance program, and paid Fall and Winter semesters. This award is open to students who participate and perform in the WSU dance companies and other Departmental events. Please contact the Department of Dance for further information.

Allesee Undergraduate Dancers in Residence Housing Scholarship, of varying amounts, normally \$1500-\$3000, dependent upon funds available, is renewable based on continuance in the dance program. This award is open to students majoring in dance who have been admitted to WSU. Recipients must maintain a 2.5 grade point average overall, and a 3.0 grade point average in dance courses; contact the Department of Dance for additional information.

Endowed Scholarship Awards in Dance are of varying amounts, dependent upon funds available, are limited to full-time students majoring in dance. The dance faculty selects recipients during the Winter semester for the following awards:

Portia Fields Anderson (aka Freeda Frump) Endowed Scholarship of varying amounts, normally \$500, dependent upon funds available, is limited to dance majors who are enrolled full-time. Recipients are selected by the dance faculty on the basis of scholastic achievement and talent, and a demonstrated commitment to dance at WSU. Financial need may be considered. Recipients must have completed at least 12 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 12 credits at WSU. Applicants must submit a letter of application. The application deadline is early December for a Winter semester award.

Meredith Ilene Campbell Endowed Scholarship of varying amounts, normally \$500, dependent upon funds available, is limited to dance majors who are enrolled full-time. Recipients are selected by the dance faculty on the basis of scholastic achievement and talent, and a demonstrated commitment to dance at WSU. Financial need may be considered. Recipients must have completed at least 12 credits at WSU. Applicants must submit a letter of application. The application deadline is early December for a Winter semester award.

Rose Marie Floyd Endowed Scholarship of varying amounts, normally \$500, dependent upon funds available, is limited to dance majors who are enrolled full-time. Recipients are selected by the dance faculty on the basis of scholastic achievement and talent, and a demonstrated commitment to dance at WSU. Financial need may be considered. Recipients must have completed at least 12 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 12 credits at WSU. Applicants must

submit a letter of application. The application deadline is early December for a Winter semester award.

Ruth Lovell Murray Endowed Scholarship of varying amounts, normally \$500, dependent upon funds available, is limited to dance majors who are enrolled full-time and to be used during their junior or senior year. Recipients are selected by the dance faculty on the basis of scholastic achievement (with at least a 3.25 g.p.a.), and a demonstrated commitment to dance at WSU. Financial need may be considered. Recipients must have completed at least 12 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 12 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 12 credits at WSU and maintain a 2.5 grade point average. Applicants must demonstrate financial need. Applicants must submit a letter of application, not to exceed one page. The application deadline is early December for a Winter semester award.

UNDERGRADUATE COURSES

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 479.

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 announced in 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 announced in 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. (B)

2000 (VP) 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. (F)

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. (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 repertory. 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. (B:F)

2400 (FC) Introduction to African Dance. Cr. 3

Exploration of African and African derived dance forms, together with their integrated philosophy, music, art and theatre forms. Lectures, videos, concert attendance and reading assignments to learn and perform dances from selected African societies. Material fee as indicated in the Schedule of Classes (T)

2410 Music and Dance Relationships. Cr. 3

Open only to dance majors. Study of the basic elements common to dance and music including rhythm, dynamics, and form. Examples of music especially composed for dance will be examined along with dance styles of historical periods; includes technology component. (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 nonliteral and literal thematic materials; emphasis on form and structural concepts. (W)

2610 Jazz I. Cr. 2 (Max. 8)

Introduction to jazz dance technique; emphasis on alignment, movement isolation, rhythmic awareness, basic dance vocabulary, historical development. (F,W)

3010 Technique Laboratory II. Cr. 2 (Max. 8)

Prereq: DNC 2010 or equiv. Open only to dance majors. Continuation of DNC 2010; modern dance technique at the intermediate level. (F,W)

3180 Dance Kinesiology. Cr. 3

Prereq: DNC 1020 or equiv. Open only to dance majors. Introduction to analysis of dance movement from an anatomical and mechanical point of view. Relationships between neuromuscular repatterning, alignment and technique. (B:F)

3190 Movement Analysis. Cr. 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. Exploration 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. (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. (DNE 4810) Cr. 3

Prereq: DNC 1020 and 1220 or equiv. Analysis of instructional methods 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 elementary, middle and secondary school audiences. (W)

5110 Study in Dance Styles. Cr. 1 (Max. 16)

Examination of a particular dance or movement style; i.e., historic period, technique, somatic, tap, ballroom and social dance forms; Pilates mat, reformer. (T)

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. (F)

5600 Improvisation. Cr. 2

Spontaneous movement exploration in response to a variety of stimuli: literal, visual, kinesthetic, auditory, verbal, and tactile. (F)

5610 Dance Company I. Cr. 1 (Max. 8)

Prereq: admission by audition. Coreq: DNC 2010, 3010, 4010 or 6010. Two credits required for dance majors. Performing company. Open to students interested in performing and/or choreographing. Material fee announced in Schedule of Classes. (F,W)

5710 Workshop in Modern Dance. Cr. 1-6 (Max. 12)

A concentrated period of advanced dance study in technique, composition and repertory, often with a visiting artist. (F,W)

5800 Repertory. Cr. 1-4 (Max. 12)

Prereq: DNC 2010; admission by audition. Learning, for performance, of dance repertory, dances previously choreographed by faculty, Lab-anotated 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 comprehensive arts and curriculum related materials. (F)

5820 Creative Dance Movement for the Pre-School Child. (TED 5820) Cr. 3

Creative dance activities; manipulative, musical, imaginative and kinesthetic approaches to movement. (W)

5830 Field Work in Creative Dance. (TED 5830) Cr. 2-8

Prereq: DNC 5810 or consent of instructor. Supervised professional study in field settings. (T)

5990 Independent Study in Dance. Cr. 1-4 (Max. 12)

Open only to dance majors in B.S., no-degree program. 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 Examination; consent of instructor; coreq: DNC 3110 or 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. (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

Chairperson: Dennis J. Tini

Interim 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, Matthew Michaels, Dennis J. Tini

Associate Professors

Douglas Bianchi, Frances Brockington, Christopher Collins, Norah Duncan IV, Terese Volk, John D. Vander Weg, Mary A. Wischusen

Assistant Professors

Karl Braunschweig, Abigail Butler, Robert Conway, Laura Roelofs

Lecturers

Thomas Court, Augustus O. Hill

Adjunct Professors

Brazeal Dennard, David DiChiera, Neeme Jarvi

Emeriti Faculty

Lillian J. Cassie, Carol J. Collins, Morris Hochberg, Bohdan J. Kushnir, Joseph Labuta, Doris L. Richards

Program Directors

Douglas Bianchi (brass, woodwind and percussion), Robert Conway (piano), Norah Duncan IV (organ/ voice contact), Paul Ganson (woodwinds), James Hartway (theory/composition), Thomas Court (music technology), Kypros Markou (strings), Matthew Michaels (jazz studies), Dennis Tini (choral)

Adjunct Faculty

Geoffrey Applegate (violin, DSO), Gerrie Ball (accompanist), Marcus Belgrave (jazz trumpet), George Benson (jazz saxophone), Emmanuelle Boisvert (violin, DSO), Neal Campbell (tuba), Steven Carryer (jazz guitar ensembles), Marcy Chanteaux (cello, DSO), Julia Chin (piano), Keith Claeys (percussion ensemble), Carolyn Coade (viola, DSO), Brazeal Dennard (choral), Robert de Maine (cello, DSO), Mario DiFiore (cello, DSO), Dorothy Duensing (voice), Lee Dyament (classical guitar), Gordon Finlay (voice), Paul Ganson (bassoon, DSO, retired), Ed Gooch (trombone), Lana Gore (bayan), John Guinn (musicology, theory), Julia I (piano), Max Janowsky (bass, DSO), Joyce Jaxon (music education), David Jennings (trumpet), Gale Kramer (organ), Joseph Labuta (music education), Gary Leach (jazz bass), Min-Duo Li (piano), Joseph LoDuca (film music), Don Mayberry (jazz bass), Jerry McKenzie (jazz percussion), Glen Mellow (viola, DSO), Russ Miller (jazz ensembles), Stephen Molina (bass, DSO), Ervin Monroe (flute, DSO), Susan Mutter (horn), Michael Naylor (world music), Mark Nilan (music management), Larry Nozero (jazz woodwinds), Ted Oien (clarinet, DSO), Dan Pliskow (jazz bass), Ronald Prowse (organ), Richard Rattner (business of music), Kim Renas (voice), Brian Roberts (guitar), Richard Robinson (bass), Ernest Rodgers (jazz ensemble), Pat Terry-Ross (harp), James Ryan (jazz percussion), Marcus Schoon (contrabassoon, DSO), Peter Soave (bayan), Joseph Striplin (violin, DSO), Marion Tanau (violin, DSO), David Taylor (jazz percussion), Kenneth Thompkins (trombone, DSO), April Arabian Tini (vocal jazz), John Trudell (jazz trumpet), James Van Valkenburg (viola, DSO), Brian Ventura (oboe, DSO), David Van DePitte (jazz arranging/composition), Corbin Wagner (horn),

DSO), Kevin Welling (jazz ensemble), Catherine Wilson (piano), Hai Xin Wu, (violin, DSO)

Degree Programs

BACHELOR OF ARTS with a major in music

BACHELOR OF MUSIC with a concentration in theory/composition, jazz studies, music education, music management, music technology, and performance

**MASTER OF ARTS with a major in music*

**MASTER OF MUSIC with a concentration in theory/composition, choral/orchestral conducting, performance, jazz performance, and music education*

**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 cultural center of Detroit, the University is enriched by the musical activities of other major institutions in the area such as the Detroit Institute of Arts, Orchestra Hall and the Michigan Opera Theatre. Additionally, the close relationship between this 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 numerous careers in the fields of teaching, church music, business, jazz and commercial music industry professions.

Registration: All students must meet with a Department of Music adviser before pursuing registration for courses. Enrollment in all MUP courses requires a Music Department adviser's signature.

Scholarship: All course credit applicable to any of the following degree programs 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, 43, and 179.

Music majors pursuing undergraduate degrees must earn the grade of 'C' or better in all music courses required in the music curricula 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 'W' 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 REQUIREMENTS: The Music Department encourages all musically-inclined students to join its ensembles. Participation gives music majors and non-majors alike the opportunity to improve their musical skills and perform in internationally-recognized groups. Conductors audition new students during the first week of classes; the level of skill necessary varies by ensemble; however, most require music literacy. Music majors must elect designated Major Ensembles (MUA 2800, 2810, 2820, 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, Vocal Jazz Ensembles, and Women's Chorale. Concert Chorale is the Department's most select vocal ensemble; auditions are especially competitive.

JAZZ: Though music majors are given highest priority for jazz band positions, non-music majors are welcome to audition for ensembles.

* For specific requirements, see the Wayne State University Graduate Bulletin.

ORCHESTRA: Positions in the Orchestra are assigned through the Director 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 the general requirements for admission to the University; see page 32.

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 16), College degree requirements (see page 184), as well as the Music Core, Performance Ensemble, and Bachelor of Arts curriculum requirements cited below. Students pursuing a Bachelor of Arts degree must also fulfill the foreign language requirement (see page 179). **ONLY FIFTY-SIX CREDITS IN MUSIC ARE APPLICABLE TO THIS DEGREE.**

Concert, Recital, and Lecture Attendance: All music majors must satisfactorily complete four semesters of MUA 2690, General Lectures and Concerts. These should be completed during the first four semesters in which a student is a Music Major.

General Education Requirements: The Department requires election of PSY 1020 (Elements of Psychology), and PHY 3100 (Sounds of Music), which must be used to satisfy the University General Education Requirements for a life science (LS) and physical science (PS) course, respectively. The visual and performing arts (VP) requirement must be satisfied by MUH 1340 (Music Appreciation: World Music), MUH 1350 (Music Appreciation: Popular Music to the Present), or MUH 1370 (Music Appreciation: Beginnings to the Present); if MUH 1370 is elected, it must be taken before MUH 3310 or 3320 (Music History and Literature I and II). The Writing Intensive (WI) Course In Music is MUH 5993.

MUSIC CORE REQUIREMENTS

1. MUA 1790, 2790, 3790
2. MUA 2690 (four semesters)
3. MUH 3320, 3330
4. MUT 1140, 1150, 1160, 1170, 2140, 2150, 2160, 2170, 5997

Placement examinations in music theory (MUT courses) must be taken by all students and are available from the Music Department office. These examinations must be taken prior to the student's enrollment in theory courses.

PERFORMANCE ENSEMBLE REQUIREMENTS

All undergraduate music majors must fulfill a minimum of eight semesters of a Major Performance Ensemble. Major Performance Ensembles for the Bachelor of Arts program are defined as MUA 2800, 2810, 2820, 2840, or 2850 in the student's principal instrument or voice.

All undergraduate music majors who elect eight or more credits in the Fall or Winter semesters must elect a Performance Ensemble concurrently in that semester.

Students transferring from other institutions must have their transcripts evaluated by the Departmental chairperson for possible advanced credit toward the Performance Ensemble requirement.

CURRICULUM REQUIREMENTS

1. MUA 3670 -- Conducting Techniques: Cr. 2
2. MUH 1340 -- (VP) Music Appreciation: World Music: Cr. 3
3. MUH 3310 -- Music History and Literature I: Cr. 3
4. MUT 2100 -- Counterpoint: Cr. 2

Bachelor of Music

The Bachelor of Music degree provides a program for talented students with prior musical experience and skills who seek professional training in music. A wide range of concentrations is available under the program to meet the specialized interests and career plans of serious music students. Depending on the student's qualifications, he or she may choose from seven professional areas of concentration: 1) performance; 2) theory/composition; 3) vocal music education; 4) instrumental music education; 5) music management; 6) music technology; 7) jazz studies.

Admission to this program is contingent upon satisfaction of the general requirements for undergraduate admission to the University (see page 32) as well as upon audition and approval of the divisional director for the specific curriculum of the student's major. Audition dates are scheduled throughout the year and prospective students should contact the Music Office for scheduling information. Entering students must consult the Departmental counseling staff 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 16), College degree requirements (see page 184), as well as the Music Core (see above, under Bachelor of Arts), Performance Ensemble requirements (from major ensembles MUA 2800, 2810, 2820, 2840, or 2850), and one of the major concentrations cited below.

Concert, Recital, and Lecture Attendance: All music majors must satisfactorily complete four semesters of MUA 2690, General Lectures and Concerts. These should be completed during the first four semesters in which a student is a Music Major.

General Education Requirements: The Department requires election of PSY 1020 (Elements of Psychology), and PHY 3100 (Sounds of Music), which must be used to satisfy the University General Education Requirements for a life science (LS) and physical science (PS) course, respectively. The visual and performing arts (VP) requirement may be satisfied by MUH 1340 (Music Appreciation: World Music), MUH 1350 (Music Appreciation: Popular Music to the Present), or MUH 1370 (Music Appreciation: Beginnings to the Present); if MUH 1370 is elected, it must be taken *before* MUH 3310 or 3320 (Music History and Literature I and II). The Writing Intensive (WI) Course In Music is MUH 5993.

MUSIC CORE REQUIREMENTS

1. MUA 1790, 2790, 3790
2. MUA 2690 (four semesters)
3. MUH 3320, 3330
4. MUT 1140, 1150, 1160, 1170, 2140, 2150, 2160, 2170, 5997

Placement examinations in music theory (MUT courses) must be taken by all students and are available from the Music Department office. These examinations must be taken prior to the student's enrollment in theory courses.

PERFORMANCE ENSEMBLE

For a general explanation of this requirement see above, under the Bachelor of Arts program. Major performance ensembles include MUA 2800, 2810, 2820, 2840, and 2850. Specific requirements for the various concentrations offered under the Bachelor of Music are as follows:

(a) *Bachelor of Music with a Concentration in Theory/Composition:* Eight semesters of a Major Performance Ensemble of the principal instrument;

(b) *Bachelor of Music with a Concentration in Instrumental Music Education:*

1. Winds or percussion — MUA 2800 (eight semesters), or
2. Strings — MUA 2810 (eight semesters);

(c) *Bachelor of Music with a Concentration in Vocal Music Education:* eight semesters of MUA 2840 or 2850;

(d) *Bachelor of Music with a Concentration in Performance:*

1. Organ — eight semesters of either MUA 2840 or 2850;
2. Piano — eight semesters of either MUA 2840 or 2850;
3. Voice — eight semesters of either MUA 2840 or 2850;
4. Winds or percussion — eight semesters of either MUA 2800 or 2810, as determined by the division directors;
5. Strings — eight semesters of MUA 2810;
6. Classic Guitar — eight semesters of either MUA 2840 or 2850;
7. Harp — eight semesters of a Major Performance Ensemble at the discretion of the Chairperson.

(e) *Bachelor of Music with a Concentration in Music Management:* six semesters of a Major Performance Ensemble of the principal instrument.

(f) *Jazz Studies majors must fulfill the following specific ensemble requirements:* Eight semesters of MUA 2820 (Note: Small groups such as jazztet may only fulfill the Performance Ensemble requirement by consent of the Divisional Director.)

Chamber music ensemble requirements for specific Bachelor of Music curricula:

Chamber music ensemble is defined as the appropriate section of MUA 2880. Note: MUA 2880 cannot substitute for the Performance Ensemble requirement.

1. Bachelor of Music with a Concentration in Performance —
 - (a) Organ (one semester);
 - (b) Piano (four semesters);
 - (c) Winds, percussion, strings (four semesters);
 - (d) Classic Guitar (four semesters);
2. Bachelor of Music with a Concentration in Jazz Studies (two semesters of jazz improvisation).

— Bachelor of Music Concentrations

Theory/Composition (120 Credits)

- (a) MUT 2040, 2100, 2120, 3000, 3100, 3110, 4100, 4110, 5060 (or MUA 5630), 5220 (or MUT 5240);
- (b) MUH 3310;
- (c) MUA 1730, 1740, 1750, 1760, 3670;
- (d) MUP 2210 (four semesters);
- (e) PHI 3700 (satisfies General Education PL requirement);
- (f) Senior Project — presentation of an original composition approved by the division director; and presentation of a music theory lecture approved by the Divisional Director.

Instrumental Music Education (128 Credits)

- (a) Eight semesters of the principal instrument selected from: MUP 2230, 2240, 2250 or 2260 at one credit per semester;
- (b) One semester of MUA 1730; two semesters of MUA 1740; one semester of MUA 1750 and MUA 1760, plus satisfactory proficiency on orchestra instruments as prescribed by the Music Education Division;
- (c) MUA 2720, 3670, 3680;
- (d) MED 3500, 4540, 4550, 4560, 4570, 5590;
- (e) MUT 3000;
- (f) EDP 3310, RDG 4430;
- (g) MUH 3310.

Vocal Music Education (126 Credits)

- (a) MUP 2210 — eight semesters at one credit per semester;
- (b) MUP 2220 — eight semesters at one credit per semester;
- (c) MUA 3670;
- (d) MED 2500, 3500, 4510, 4530, 4560, 4570, 5550, 5590;
- (e) Six credits selected from MUA 1700, 1730, 1740, 1750 or 1760 (NOTE: Students *must* take either MUA 1700 or MUA 1730);
- (f) MUH 3310;
- (g) EDP 3310, RDG 4430.

Performance (120 credits)

- (a) MUT 2100;
- (b) MUH 3310 and 5350;
- (c) Twenty-four credits in MUP 2200-2280 in the principal instrument (thirty credits maximum);
- (d) Two semesters of one secondary instrument (violinists elect viola);
- (e) Performance on a student recital in the sophomore year; a half recital in the junior year; and a full recital within the last two semesters;
- (f) Specific additional requirements as follows:
 - 1. Piano — MUT 2040, 3000; MUA 2880 (four semesters);
 - 2. Organ — MUT 2040; two semesters of MUA 5730; keyboard section of MUA 3790;
 - 3. Brass, woodwinds, percussion — MUT 3000; four semesters of MUA 2880 (chamber ensemble);
 - 4. Voice — proficiency in two foreign languages other than the native tongue.

(g) Additional music electives as needed and as specified by the program adviser.

Jazz Studies (122 Credits)

- (a) Eight semesters of the principal instrument selected from MUP 5200-5290;
- (b) MUT 2120, 3000, 3100, 5110, 5120, 5130;
- (c) MUH 3360;
- (d) MUA 3670, 5600, 5610, 5630, 5690;
- (e) MUA 2880 -- Jazz Improvisation (two semesters);
- (f) MUA 2820 (eight semesters);
- (g) Additional music electives, senior recital or project selected with the assistance of the Divisional Director.

Music Management (128 Credits)

Students may not elect more than twenty-nine credits in the School of Business Administration for this degree.

- (a) Four semesters of the principal instrument selected from MUP 2200-2280 or MUP 5210-5280;
- (b) MUH 1340 or 1350;
- (c) MUA 2400, 3670, 5600, 5610, 5630, 5700, 5800;
- (d) ENG 3010;
- (e) ECO 2010, 2020;
- (f) ISM 2630, 3300;
- (g) ACC 3010;
- (h) MAT 1500;
- (i) MKT 4300;
- (j) MGT 4520 or 4530;
- (k) MUA 4650 -- Internship (two semesters);
- (l) Electives selected with assistance of the Divisional Director.

Music Technology (128 Credits)

- (a) Four semesters of the principal instrument selected from: MUP 2200-2280 or MUP 5210-5290 at one credit per semester;
- (b) MUA 5600, 5610, 5630, 5640, 5650, 5660, 5661;
- (c) CSC 1050,
- (d) EET 2000, 2100, 2720, 3100, 3720
- (e) MAT 1800, 3430;
- (f) MUH 3310;
- (g) MUA 4650 -- Internship (two semesters).

Music Education Programs

Candidates in music education programs must complete the professional education requirements of the College of Education for secondary certification; see page 108.

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:

- (a) Music Theory and Ear Training — MUT 1140, 1150, 1160, 1170, 2140, and 2150;
- (b) Two Music History courses selected from: MUH 3310, 3320, 3330, and MUH 1340 or 1350;
- (c) Four semesters of a performance ensemble selected from: MUA 2800, 2810, 2820, 2840, and 2850.

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 twenty-two credits in the following courses:

- a) MUT 2120, 5110, 5120;
- b) MUA 2820 (two semesters), MUA 2880 (jazz improvisation), MUA 3790 (jazz section), MUA 5610;
- c) MUH 3360.

Departmental Financial Aid

See the section on Scholarships and Financial Aid on page 181.

Recipients of the following scholarships are chosen in May by the music faculty and awarded during the Fall semester:

ASCAP — Hubbell Scholarship: Open to an outstanding music student pursuing a degree in theory/composition, when funding exists.

Detroit Federation of Musicians / David Kaplan Award: Open to an outstanding music major; available when funding exists.

Dumesnil Scholars: Award open to any music major; amount depends on funds available. These prestigious scholarships are open to multiple outstanding music majors.

Joseph Fava Scholarship: Award to a guitar performance student when funding exists.

Robert A. Harris Excellence in Choral Music Award: Awarded for excellence in choral performance; available when funding exists.

Bernard Katz Endowed Scholarship: Open to an outstanding music major in piano or voice.

Rebecca Katzman Froman Piano Scholarship: Open to an outstanding piano student.

Mischa Kottler Scholarship: \$500 award to piano performance major when funding exists.

Lawrence LaGore Endowed Memorial Scholarship: Awarded to an outstanding piano major; minimum 3.0 g.p.a. required.

Harry M. Langsford Endowed Scholarship: Available, when funding exists, 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.

LeFevre Endowed Scholarship: Awards of \$800 open to any music major, when funding exists.

Liberace Scholarship: Two awards, open to full-time music majors in jazz or classical curriculum, when funding exists.

Loughead-Eldridge Endowed Piano Scholarship: Awarded to an outstanding piano performance major.

Christopher Mac Scholarship: Award open to outstanding member of the Men's Glee Club, when funding exists.

Frank Murch Endowed Scholarship: Awarded to a Bachelor of Arts in music or Machelor of Music in piano performance.

Music Education Scholarship: Open to an outstanding music education major, when funding exists.

Music Study Club of Detroit Endowed Graduate Scholarship: Awarded to an outstanding graduate student.

Pantaleo Scholarship: Award open to an outstanding music major, when funding exists.

President's Endowed Scholarship: Open to an outstanding music major.

Presser Foundation Scholarship: Award open to an outstanding music major completing the junior year, when funding exists.

Rossi Memorial Vocal Scholarship: Award open to any full-time music major who is an outstanding vocal performer, when funding exists.

Gill Sirotti Scholarship: Open to outstanding member of Men's Glee Club, when funding exists.

Robert Stawski Endowed Scholarship: Awarded to an outstanding male choral student when available.

Carl and Elinor Thom Harmony House Scholarship: Awarded to an outstanding music major, when funding exists.

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 479.

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 Aesthetic and Cultural Foundations of Music Education. Cr. 2

Historical, philosophical, professional, legal and ethical considerations. (W)

3990 Directed Study. Cr. 1-3 (Max. 6)

Prereq: consent of adviser. Open only to upper division or post bachelor music majors. (F,W)

4510 General Music in the Schools. Cr. 3

Prereq: MED 3500. Methods, materials and techniques for teaching general music in the schools. (F)

4530 Vocal Music in Secondary Schools. 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 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 (CL) Computer Applications in Music Teaching. Cr. 2

Prereq: MUA 5610 or equiv. 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)

Individual instruction correlated with actual administration and direction of summer youth 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)

6550 College Teaching Preparation in Music. Cr. 2 (Max. 6)

Prereq: senior or graduate standing; consent of chairperson. Observation of instruction, class assistance and supervised instruction of undergraduate classes. Preparing lectures, quizzes and instructional material. (F,W)

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)

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 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)

1790 Piano Proficiency: Level I. Cr. 2

Coreq: MUT 1140. Open only to music majors in the B.A. or BMus program. Repertoire, scales, sight reading, harmonization, simple transposition. Certification of undergraduate core piano requirement on satisfactory completion of MUA 3790. (F,W)

2400 Introduction to the Music Business. Cr. 2

Required for students in music management curriculum. General overview of the music profession; concerns of management in the music business: copyright law; licensing; publishing; songwriting and recording contracts. Research projects and/or readings. (W)

2600 Church Music and Materials I. Cr. 2

Prereq: MUA 3670 and major in organ or consent of instructor. Practical application of material used in churches of various faiths. For choir directors and organists. (B:F)

2610 Church Music and Materials II. Cr. 2

Prereq: MUA 2600. Continuation of MUA 2600. (B: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)

2790 Piano Proficiency: Level II. Cr. 2

Prereq: MUA 1790 or equiv.; MUT 1140 or equiv. Open only to music majors in the B.A. or BMus program. Continuation of MUA 1790. (W,S)

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 announced in Schedule of Classes. (F,W)

2820 Jazz Ensembles. Cr. 1

Prereq: consent of director. Material fee as indicated in the Schedule of Classes. (F,W)

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 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)

3790 Piano Proficiency: Level III. Cr. 2

Prereq: MUA 2790 or equiv.; MUT 1160 or equiv. Open only to music majors in the B.A. or BMus program. Continuation of MUA 2790. Satisfactory completion of MUA 3790 leads to fulfillment of the undergraduate core piano proficiency requirement and to certification. (F,W)

4650 Directed Study: Internships. Cr. 1-3 (Max. 6)

Open only to music majors in the B.A. or BMus program; others by consent of chairperson. Directly supervised professional experience in the music and creative arts industries and related fields (marketing, music technology, recording, publicity, public relations). (T)

5600 Business of Music I. Cr. 2

Open only to undergraduate students. Marketing of music; basic concepts of copyright law; licensing; publishing; songwriting and recording contracts. (F)

5610 (CL) Introduction to Music Technology. Cr. 3

Prereq: basic music theory. Offered for undergraduate credit only. Use of technology in the field of music: computers, software, synthesizers, MIDI, and digital recording. Students gain experience through assignments involving computer music instruments. Material fee as indicated in the Schedule of Classes. (F)

5630 Introduction to Recording Techniques. Cr. 3

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. (W)

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 Workshop I. Cr. 1

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 Workshop II. Cr. 1

Prereq: MUA 5660. Advanced studio production techniques and master editing for product release; post production and packaging of material. Material fee as indicated in the Schedule of Classes. (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 Business of Music II. Cr. 2

Prereq: MUA 5600, or equivalent with consent of instructor. The relationship of music professionals to unions and guilds; team concepts (agents, managers, attorneys, etc.); tax issues; business contracts; managing the career development of the music professional. (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 Topics in Music Management. Cr. 2

Prereq; consent of instructor. Scope and structure of the music industry on the local, national, and international levels, including artist management, live concert production and touring, recording film/video/TV, marketing, communications, publishing, and industry associations. Technology and the music industry, management projects in selected areas of the industry. Material fee as indicated in the Schedule of Classes. (W)

MUSIC HISTORY COURSES (MUH)

1340 (VP) Music Appreciation: World Music. Cr. 3

Introduction to the musical styles of Africa, Asia, South America, and the Middle East. (F,W)

1350 (VP) Music Appreciation: Popular Music to the Present. Cr. 3

Survey of popular styles in Western music. Concentration on relationships between past and contemporary popular music. Political, economic, social, and cultural influences. (W)

1370 (VP) Music Appreciation: Beginnings to the Present. Cr. 3

No credit for music majors if taken after MUH 3320. 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 and MUT 1160 or equiv. Open only to music majors in B.A. or BMus program. Antiquity to 1600. Survey of the most important developments in western music history from antiquity to the end of the Renaissance. Concentration on major composers and styles, as well as on significant historical, philosophical, artistic and cultural influences on music. (F)

3320 Music History and Literature II. Cr. 3

Prereq: MUT 1160 or equiv.; MUH 3310 or equiv. (except for jazz studies majors). 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 on music. (W)

3330 Music History and Literature III. Cr. 3

Prereq: MUT 1160 or equiv.; MUH 3310 (except for jazz studies majors) and MUH 3320, or equiv. Romantic to the present time. Survey of important developments in western music history from 1800 to the present time. Concentration on major composers and styles, as well as on significant historical, philosophical, artistic and cultural influences on music. (F)

3360 History of Jazz I. (MUH 5360) Cr. 3

Open only to undergraduate students. Survey of major developments in jazz from its beginnings to the present. (F)

3390 History of Jazz II: 1950 to the Present. (MUH 5390) Cr. 3

Open only to undergraduate students. Continuation of MUH 3360. (W)

5300 Music Research. Cr. 3

Prereq: graduate standing in music or consent of instructor. Music bibliography and research techniques. (F)

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)

5360 (MUH 3360) History of Jazz I. Cr. 3

Open only to post bachelor and graduate students. Survey of major developments in jazz from its beginnings to the present. (F)

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)

5390 (MUH 3390) History of Jazz II. Cr. 3

Prereq: MUH 5360. Open only to graduate students. Continuation of MUH 5360. (Y)

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 Examination, consent of instructor; coreq: MUH 3320 or MUT 5997. Offered for S and U grades only. No degree credit. Required for all majors. Open only to undergraduate students. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with course designated as a corequisite; see section listing in Schedule of Classes. for corequisites available each term. Satisfies University General Education Writing Intensive Course requirement. (F)

6310 Studies in African American Music. Cr. 3

Open only to graduate students. Contributions of African Americans to the development of music in the United States. (Y)

6320 Advanced History of Opera. Cr. 3

Prereq: graduate standing, MUH 5300. Survey of opera, its history, development and literature; research paper required. (B)

6330 Advanced History of Oratorio. Cr. 3

Prereq: graduate standing; MUH 5300. Survey of oratorio, its history, development and literature; research paper required. (B)

MUSIC PRIVATE INSTRUCTION COURSES (MUP)

The Department of Music offers applied lessons to non-music majors in the areas of piano, guitar, voice, woodwinds and brass.

The following courses (22xx series) are for students who wish to study voice or an instrument in a principal and/or secondary capacity. One course per semester is the usual election for the MUP 22xx series. Election of two courses concurrently in the MUP 22xx series must be a requirement of the student's curriculum to be permitted and requires consent of a music counselor and written consent of the Department Chairperson. A jury examination is required each semester for all students electing these courses.

LIMITATION: Open only to students with less than eight semesters of private performance course work including transfer credit.

ELECTION FOR THREE CREDITS: Open only to students in a performance curriculum or a combined curriculum of performance and music education, or theory, or composition, or music management. Not open to jazz studies majors.

PREREQUISITES: Major standing in a B.M. curriculum for which the MUP course is required; written consent of Department Chairperson.

COREQUISITE: Additional credits in any subject equal to eight credits, including MUP election. Performance ensembles in the MUA 28xx series are required by the student's curriculum.

FEES: Special fees payable at the time of registration are assessed for these courses and are indicated in the Schedule of Classes.

2100 Non-Music Majors Applied Lessons. Cr. 2

Open only to non-music majors. Prereq: consent of instructor. Students must supply own instruments. The Department offers applied lessons to non-music majors in the areas of piano, guitar, voice, woodwinds, and brass. Material fee announced in Schedule of Classes. (F,W)

2200 Organ. Cr. 1-3

Prereq: written consent of music adviser and Department Chair; coreq: MUA 28X performance ensemble as required by curriculum. Only open, by audition, to music majors in B.M. curriculum who elect 8 credits or more. (F,W)

2210 Piano. Cr. 1-3

Prereq: written consent of music adviser and Department Chair; coreq: MUA 28X performance ensemble as required by curriculum. Only open, by audition, to music majors in a B.M. curriculum who elect 8 credits or more. (F,W)

2220 Voice. Cr. 1-3

Prereq: written consent of music adviser and Department Chair; coreq: MUA 28X performance ensemble as required by curriculum. Only open, by audition, to music majors in a B.M. curriculum electing 8 credits or more. (F,W)

2230 Stringed Instruments. Cr. 1-3

Prereq: written consent of music adviser and Department Chair; coreq: MUA 28X performance ensemble as required by curriculum. Only open, by audition, to music majors in a B.M. curriculum electing 8 credits or more. (F,W)

2240 Woodwind Instruments. Cr. 1-3

Prereq: written consent of music adviser and Department Chair; coreq: MUA 28X performance ensemble as required by curriculum. Only open, by audition, to music majors in B.M. curriculum electing 8 credits or more. (F,W)

2250 Brasswind Instruments. Cr. 1-3

Prereq: written consent of music adviser and Department Chair; coreq: MUA 28X performance ensemble as required by curriculum.

Only open, by audition, to music majors in B.M. curriculum electing 8 credits or more. (F,W)

2260 Percussion Instruments. Cr. 1-3

Prereq: written consent of music adviser and Department Chair; coreq: MUA 28X performance ensemble as required by curriculum. Only open, by audition, to music majors in B.M. curriculum electing 8 credit hours or more. (F,W)

2270 Harp. Cr. 1-3

Prereq: written consent of music adviser and Department Chair; coreq: MUA 28X performance ensemble as required by curriculum. Only open, by audition, to music majors in B.M. curriculum electing 8 credits or more. (F,W)

2280 Classic Guitar. Cr. 1-3

Prereq: written consent of music adviser and Department Chair; coreq: MUA 28X performance ensemble as required by curriculum. Only open, by audition, to music majors in B.M. curriculum electing 8 credits or more. (F,W)

3290 Bayan. Cr. 1-3

Prereq: major standing in B.M. curriculum for which MUP course is required; audition for first election; written consent of music adviser and Department Chair. Open only to students with less than 10 semesters in private performance course work including transfer credit. (F,W)

The following courses (52xx series) are for applied study in jazz. One course per semester is the usual election for the MUP 52xx series; however, some students may elect MUP 5210 and 5220 concurrently, in which case they must be authorized for the vocal jazz curriculum by the Director of the Jazz Division, have consent of a music counselor, and have written consent of the Department Chairperson. A jury examination is required each semester for all students electing one of these courses.

LIMITATION: Open only to students with less than ten semesters of private performance course work including transfer credit. Not open to students majoring in music in any B.A., B.S., M.A., or M.S. curriculum.

PREREQUISITES: Departmental approval for the jazz curriculum, written consent of Department Chairperson, and audition for first election.

COREQUISITE: MUA 2820.

FEES: Special fees are assessed for these courses and are indicated in the Schedule of Classes.

5210 Jazz Piano. Cr. 1

Prereq: written consent of music adviser and Department Chair; coreq: MUA 2820. Only open, by audition, to music majors in jazz studies. (F,W)

5220 Jazz Voice. Cr. 1

Prereq: written consent of music adviser and Department Chair; coreq: MUA 2820. Only open, by audition, to jazz studies majors. (F,W)

5230 Jazz Strings. Cr. 1

Prereq: written consent of music adviser and Department Chair; coreq: MUA 2820. Only open, by audition, to music majors in jazz studies. (F,W)

5240 Jazz Woodwinds. Cr. 1

Prereq: written consent of music adviser and Department Chair; coreq: MUA 2820. Only open, by audition, to music majors in jazz studies. (F,W)

5250 Jazz Brasswinds. Cr. 1

Prereq: written consent of music adviser and Department Chair; coreq: MUA 2820. Only open, by audition, to music majors in jazz studies. (F,W)

5260 Jazz Percussion. Cr. 1

Prereq: written consent of music adviser and Department Chair; coreq: MUA 2820. Only open, by audition, to music majors in jazz studies. (F,W)

5280 Jazz Guitar. Cr. 1

Prereq: written consent of music adviser and Department Chair; coreq: MUA 2820. Open only, by audition, to music majors in jazz studies. (F,W)

MUSIC THEORY COURSES (MUT)**1100 Elementary Music Theory. Cr. 3**

No degree credit for music majors. Terminology and standard notation, including intervals, triads, scales, rhythm, correlated ear training, and general musicianship. (T)

1140 Theory I. Cr. 3

Prereq: MUT 1100 or satisfactory equiv. by examination. Open only to music majors. Prior knowledge of scales, clefs, and key signatures. Triads, intervals, principles of four-part writing, voice leading and melody harmonization, including all diatonic triads, dominant and super tonic seventh chords, inversions, and nonharmonic tones. (F,W)

1150 Ear Training I. Cr. 1

Open only to music majors. An introduction to sight singing, solfeggio, and the basic materials of tonal music including intervals, chords, simple melodies, and basic harmonic progressions. (F,W)

1160 Theory II. Cr. 3

Prereq: MUT 1140. All seventh chord types, altered chords (tonicizing chords, modal mixing), and modulation. Binary design and correlated analysis. (W,S)

1170 Ear Training II. Cr. 1

Prereq: MUT 1150. A continuation of MUT 1150. Sight-singing and dictation of more advanced diatonic materials. (W,S)

2040 Keyboard Harmony. Cr. 1

Prereq: MUA 3790. Harmonic progressions applied to keyboard; figured 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 organization; analysis of same. (F)

2150 Ear Training III. Cr. 1

Prereq: MUT 1170. Sight singing and dictation of chromatic materials; more advanced work with rhythm and meter. (F)

2160 Theory IV. Cr. 3

Prereq: MUT 2140. Twentieth century music; impressionistic techniques. Mainstream compositional devices of melody, harmony and rhythm; serial music, electronic music, aleatoric music, contemporary notation. (W)

2170 Ear Training IV. Cr. 1

Prereq: MUT 2150. Sight singing and dictation of more advanced chromatic material; introduction to ear training with post-tonal music. (W)

3000 Orchestration. Cr. 2

Prereq: MUT 2160. Practical course in arranging music for orchestra, including study of transposition, arrangements from a piano score; general treatment of range, relationship, timbre, balance of orchestral instruments. (F)

3100 Composition I. Cr. 2

Prereq: MUT 2160. Introduction to creative writing. Creative properties 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 creative aspects of rhythm, cadence, tonal polarity, concepts of consonance 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)

5040 History of Music Theory. Cr. 3

Prereq: junior standing. Theoretical writings from Plato to Rameau to Schenker, in historical contexts. (I)

5060 Advanced Orchestration. Cr. 3

Prereq: MUT 3000. Arranging and scoring for orchestra in all forms of ensemble structure. (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 ensembles; jazz arranging for six to eighteen pieces combining various textures 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. 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. 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)

5600 Survey of Music Theory. Cr. 3

Open only to upper division and graduate students. General overview of the development of harmony, voice-leading, and form. (F)

5997 Analytic Technique. Cr. 4

Prereq: MUT 2140, 2150; MUH 3320, MUH 3330. Capstone course for Music Department. Structural analysis of tonal music in historical perspective. (W)

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

Jerry Cleveland, Fred Florkowski, Lavinia Hart, James Luse, Anthony Rhine

Lecturers

Mary Cooney, Mary Copenhagen, Nancy Lipschultz

Theatre Support Staff

Lanny Birdsell, Michael Donohue, Matthew Gribbin, Beth Thibault

Adjunct Faculty

Pat Ansuini, Gillian Eaton, Jhana Frederickson, Jennifer George, James Hart, 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 Theatre, Director's Series, and Student Stage. Participation in these activities is available to all University students.

Bachelor of Arts With a Major in Theatre

The Bachelor of Arts with a Major in Theatre is designed to introduce students to the multiple facets of theatre scholarship and theatre practice. The Theatre major is designed to provide a flexible and extensive education in dramatic literature, theatre history, performance practice and theatrical design dynamics for students interested in careers in theatre and related entertainment arts, education, communication and television, and other professions.

Admission requirements for the program are satisfied by the general requirements for undergraduate admission to the University; see page 32.

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 16), College degree requirements (see page 184), 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' 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 179). 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, 43, and 179. 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 those sections.

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) Black Theatre: An Introduction: Cr. 3
THR 5190 -- Costume History for Theatre: Cr. 3
THR 5210 -- Theatre History II: Cr. 3

PERFORMANCE/PRODUCTION (Fifteen Credits):

THR 1040 -- Acting I (Improvisation): Cr. 3
THR 1050 -- Acting II (Technique and Process): Cr. 3
THR 2080 -- Theatre Laboratory (once each for THR 1040 & 1050): Cr. 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 Lab: Cr. 3
THR 3050 -- Principles of Makeup: Cr. 2
THR 3110 -- Principles of Theatre Management: Cr. 3
THR 5050 -- Play Direction I: Cr. 3

DRAMATIC LITERATURE (Nine Credits):

THR 5120 -- Development of Drama I: Cr. 3

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 6120 -- Development of Drama II: Cr. 3

DESIGN/TECHNICAL THEATRE (Nine Credits):

THR 2130 -- Stagecraft: Cr. 3
THR 2500 -- Introduction to Design: Cr. 3

* For specific requirements, see the Wayne State University Graduate Bulletin.

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 5080 -- Stage Design: Cr. 3
THR 5190 -- Costume History for Theatre: Cr. 3

Bachelor of Fine Arts With a Major in Theatre

The Bachelor of Fine Arts with a Major in Theatre is an intensive pre-professional 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 32), 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 16), College degree requirements (see page 184), 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' 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, 43, and 179. 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 those sections.

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 2080 -- Theatre Laboratory: Cr. 4
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
Two courses in Theatre History (THR 5100, 5210): Cr. 6 (total)

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. 4
THR 2170 -- Voice Lab II: Cr. 2
THR 3010 -- Acting V: Cr. 3

THR 3020 -- Stage Movement III: Cr. 2
THR 3040 -- Stage Movement IV: Cr. 2
THR 3080 -- Voice Lab III: Cr. 2
THR 3090 -- Voice Lab IV: Cr. 2
THR 4997 -- Theatre Capstone Experience: Cr. 3
THR 5050 -- Play Direction: Cr. 3
THR 5220 or THR 5230
 -- Black Dramatic Literature: Cr. 3
 -- Pioneers of Modern Theatre: Cr. 3
Two courses in Development of Drama (THR 5120, 6120): Cr. 6 (total)
THR 5993 -- (WI) Writing Intensive Course in Theatre: Cr. 0
Additional elective: Cr. 3

DESIGN/TECHNOLOGY B.F.A.: PREREQUISITES

ADR 1050 -- Drawing I: Cr. 3
ADR elective: Cr. 3
THR 1010 -- (VP) Introduction to Theatre: Cr. 3
THR 1020 -- Play Analysis: Cr. 3
THR 2080 -- Theatre Laboratory: Cr. 4
THR 2130 -- Stagecraft: Cr. 1-4
THR 2500 -- Introduction to Design: Cr. 3
THR 3050 -- Principles of Makeup: Cr. 2
THR 5010 or THR 5070 or THR 5080:
 -- Theatre Costuming I: Cr. 3
 -- Stage Lighting: Cr. 3
 -- Stage Design: Cr. 3
(NOTE: The two courses not elected as a Prerequisite must be elected as Requirements.)
Two courses in Theatre History (THR 5100, 5210): Cr. 6 (total)

DESIGN/TECHNOLOGY B.F.A.: REQUIREMENTS

THR 2160 -- Technical Theatre Problems: Cr. 8 (total)
THR 4997 -- Theatre Capstone Experience: Cr. 3
The two THR courses not elected from the THR 5010 / 5070 / 5080 selection in Prerequisites, above.
THR 5050 -- Play Direction: Cr. 3
THR 5220 or THR 5230
 -- Black Dramatic Literature: Cr. 3
 -- Pioneers of Modern Theatre: Cr. 3
Two courses in Development of Drama (THR 5120, 6120): Cr. 3
THR 5993 -- (WI) Writing Intensive Course in Theatre: Cr. 0
Additional electives: Cr. 12

Minor in Theatre

The minor is designed to be an overview of theatre arts and crafts for those with an avocational interest in theatre or those who may wish to develop valuable competencies for educational situations. It offers a general familiarity with various aspects of theatre and also creates an opportunity for a minor emphasis in either acting, directing, or design.

REQUIRED CORE COURSES

THR 1010 -- (VP) Introduction to the Theatre: Cr. 3
THR 1020 -- Play Analysis: Cr. 3
THR 1040 -- Acting I: Cr. 3
THR 2130 -- Stagecraft: Cr. 3
THR 5100 -- Theatre History I: Cr. 3
THR 5210 -- Theatre History II: Cr. 3

ELECTIVES

One of the following:

THR 2500 -- Introduction to Design for the Theatre: Cr. 3
THR 5010 -- Theatre Costuming I: Cr. 3
THR 5070 -- Stage Lighting: Cr. 3

One of the following:

THR 5050 -- Play Direction (Prereq: THR 5030): Cr. 3
THR 5120 -- Development of Drama I: Cr. 3

Departmental Financial Aid

See the section on Scholarships and Financial Aid on page 181. Detailed information on all Department scholarships and awards is available in the Department office.

The Blakely-Molson Scholarship Fund: Monetary award open to any senior in the theatre program.

Francis Delfo Scholarship: Awarded to any theatre major of Albanian descent.

The Tracey Lupo Memorial Scholarship: Monetary award open to any full-time undergraduate student with preference given to female entering the junior year.

Russell McLaughlin Memorial Scholarship Fund: Monetary award open to any undergraduate student in the theatre program.

National Costumes Association Memorial Endowment Fund: Monetary awards open to any student majoring in theatre with concentration in costuming.

Talent Scholarship: Awards of \$700 per academic year (Fall and Winter terms) renewable for four years based on participation in the theatre program; open to any high school senior admitted to Wayne State.

Lily Tomlin Endowment Fund: Monetary awards open to any undergraduate in the theatre program.

Leonard and Mary Zudick Theatre Endowed Scholarship Fund: Monetary awards open to any student in the theatre program.

THEATRE COURSES (THR)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 479.

1010 (VP) Introduction to the Theatre. Cr. 3

Historical, critical and cultural aspects of theatre and drama discussed relative to play attendance. (T)

1020 Play Analysis. Cr. 3

Reading and structural analysis of plays. Selected nineteenth and twentieth century plays. (W)

1030 (VP) Black Theatre: An Introduction. Cr. 3

Origins, development, and current trends with production techniques and problems related to the special area of the drama. (T)

1040 Acting I. Cr. 3

Open only to theatre majors. An introduction to the vocabulary of the stage, the process of acting, improvisation, and ensemble work. (Y)

1050 Acting II. Cr. 3

Prereq: THR 1040. Open only to theatre majors. Continuation of THR 1040; scene study, improvisation in development of actor's craft. (Y)

2010 Stage Movement I. Cr. 2

Open only to theatre majors in B.A. program. Required of B.F.A. acting majors. Recommended for all second year acting students. Introduction to the principles, practices, and exercises in body technique and stage movement. Material fee as indicated in the Schedule of Classes (F)

2020 Stage Movement II. Cr. 2

Prereq: THR 2010; sophomore student or above in B.A. program. Required of B.F.A. acting majors. Recommended for all second year acting students. Continuation of THR 2010. Emphasis on character movement. Material fee as indicated in the Schedule of Classes (W)

2030 Acting III. Cr. 3

Open only to B.F.A. acting majors. Study and exercise in the fundamentals of the actor's craft. Emphasis on the development of the actor's inner resources as applied to dramatic action, and consideration of basic stage techniques. (F)

2040 Acting IV. Cr. 3

Prereq: THR 2030. Open only to B.F.A. acting majors. Further development of the techniques covered in THR 2030 and basic principles of character building. Emphasis on the development of a role through script, exercises and scene work. (W)

2080 Theatre Laboratory.

Cr. 1-4 (Max. 8, B.F.A. technical students; max. 3, B.A. students)

Supervised laboratory in technical and managerial facets of theatre in production. (T)

2110 Voice Lab I. Cr. 2

Open only to theatre majors in the 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 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)

Prereq: sophomore standing. Open only to B.F.A. technical theatre majors with sophomore 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 students in B.F.A. program. 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. 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. 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

Prereq: THR 2020. Open only to students in B.F.A. program. Required of B.F.A. acting majors. Styles of stage movement: Commedia, Moliere, Restoration. Emphasis on period deportment, man-

ners, and dance forms. Material fee as indicated in the Schedule of Classes (F)

3030 Acting VI. Cr. 3 (Max. 6)

Prereq: THR 3010. Open only to and required of B.F.A. acting majors. 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

Prereq: THR 3020. Open only to students in B.F.A. program. Required of B.F.A. acting majors. Styles of stage movement: Shakespeare. Emphasis on Renaissance deportment, manners, and dance forms. Material fee as indicated in the Schedule of Classes (W)

3050 Principles of Makeup. Cr. 2

Open only to theatre majors in B.A. or B.F.A. program. Fundamentals of theatre makeup. Laboratory projects coordinated with University Theatre productions. Material fee as indicated in the Schedule of Classes. (T)

3070 WSU Touring Theatre. Cr. 1-2 (Max. 6)

Admission by audition only. Open only to students in B.A. or B.F.A. program. (T)

3080 Voice Lab III. Cr. 2

Prereq: THR 2170. Open only to students 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 students 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 students 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 BA and BFA 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 play-building. 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)

4997 Theatre Capstone Experience. Cr. 3

Prereq: final semester senior standing; prior consent of project adviser and undergraduate supervisor. Open only to students in B.A. or B.F.A. program. Final exit project required for graduating seniors. (W)

5010 Theatre Costuming I. Cr. 3

Prereq: THR 1010 or 1030 recommended. Open only to students 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 to upper division students or above. Advanced costume design projects concentrating on the expression of character through design principles. Further development of drawing and rendering skills. (W)

5050 Play Direction. Cr. 3

Prereq: THR 3050. Open only to upper division students or above. Principles and theories of stage movement, blocking, casting, rehearsing. Students required to direct scenes and one-act plays for class presentation. (F)

5070 Stage Lighting. Cr. 3

Open only to students 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 students 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 upper division students 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 students 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 upper division students 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. 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 upper division students 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. Advanced lecture and performance course to develop the pro-

cess 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 students at senior level or above. 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 students 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 upper division students or above. Critical study of significant black dramatists of the American stage: Willis Richardson, Marita Bonner, Randolph Edmonds, Langston Hughes, Alice Childress, Lorraine Hansberry, Ed Bullins, Amiri Baraka, Ntozake Shange, and August Wilson. (Y)

5230 Pioneers of the Modern Theatre. Cr. 3

Open only to upper division students or above. Stanislavski, Meyerholdt, Artaud, Gordon Craig, Brecht; lectures and creative projects. (B)

5250 Playwriting. Cr. 3

Open only to upper division students or above. 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; 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)

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 conducted on-site at the Moscow Art Theatre School, Moscow, Russia. (S)

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 standing, consent of instructor, satisfactory completion of English Proficiency Examination; 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 students. 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)

6000 Foundations of Graduate Design. Cr. 2

Open only to graduate M.F.A. students. Introduction to the design process and expectations for graduate-level study in theatrical design. Review of responsibilities of each portion of design team, examination of traditional and electronic methods of research, intro-

duction to specific responsibilities and opportunities within the Hilberry Repertory Theatre. (F)

6010 Studio I. Cr. 1-3

Prereq: graduate standing. Open only to members of the Hilberry Acting Company and M.F.A. students. Examination and analysis of a specific dramatic genre, style or historic period as it relates to acting, directing, or management. Correlative performance or other practical projects. Subject matter coordinated with the repertory of Hilberry Theatre. (F)

6020 Studio II. Cr. 1-3

Prereq: THR 6010. Open only to members of Hilberry Acting Company and M.F.A. students. Continuation of THR 6010. (W)

6030 Creative Dramatics for Children. Cr. 3

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. Introduction to American standard speech using Edith Skinner's technique; introduction to FitzMaurice vocal technique. (F)

6060 Professional Costume Design I. Cr. 3

Prereq: THR 6000. Advanced exploration of the principles of costume design as it relates to Western theatrical literature. (I)

6070 Theatrical Movement and Dance Styles I. Cr. 1

Open only to Hilberry company members. 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. Continuation of basic principles applied in THR 3050; emphasis on new makeup materials; experimentation with prosthesis and design for problem makeup. Material fee as indicated in the Schedule of Classes (I)

6090 Professional Lighting Design I. Cr. 3

Prereq: THR 5300 or consent of instructor. Open only to students 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. 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. Continuation of THR 6070. Advanced level. (W)

6120 Development of the Drama II: Nineteenth Century to Modern. Cr. 3

Open only to upper division students or above. Plays and theories of the theatre from the nineteenth century to modern times; relation of drama to an era and its theatre. (W)

6160 Professional Costume Design II. Cr. 3

Prereq: THR 6060. Advanced exploration of elements, genres, and styles of costume design as it relates to Western theatrical literature and conventions. Significant project work and research. (B:F)

6190 Professional Lighting Design II. Cr. 3

Prereq: THR 5300 or consent of instructor. Open only to M.F.A. students. 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)

6210 Design Studio I. Cr. 2

Prereq: THR 6000. Open only to M.F.A. design students. Studio study and application of graphics which support development and representation of the design idea. Rendering techniques, presentational styles, computer graphics. (W)

6220 Design Studio II. Cr. 2

Prereq: THR 6210. Open only to M.F.A. design students. Continuation of THR 6210. (F)

6290 Professional Scenic Design I. Cr. 3

Prereq: THR 6000. Open only to M.F.A. Design students. Development of rendering techniques and personal aesthetics of scene design. Use of tools, materials, methods and applications for professional presentation of renderings. Laboratory projects. (B:W)

6300 Advanced Studies in Theatre Management. Cr. 3

Prereq: M.F.A. theatre management student; or consent of instructor. Topics include: arts advocacy and arts in society, strategic planning and organizational strategies for producing theatres, other issues.(I)

6330 Sound Design and Technology. Cr. 3

Prereq: THR 6000. Open only to M.F.A. Design students. Aesthetics and technology which allow sound to act in support of theatrical production. Audio support of productions; research of styles of music and sources of audio effects; process of shaping materials for effective playback for performance. (I)

6350 Human Resources and Financial Management for Theatres. Cr. 3

Prereq: M.F.A. theatre management student; or consent of instructor. Topics include: leadership, group dynamics, staffing, employment and production-related contracts, accounting and budgeting for non-profit. (I)

6390 Professional Scenic Design II. Cr. 3

Prereq: THR 6290. Open only to M.F.A. Design students. Continuation of THR 6290. Advanced study for opera, ballet, children's theatre and divergent genres and styles. (B:F)

6400 Styles of Design. Cr. 3

Prereq: THR 6000. Open only to M.F.A. Design students. Survey and analysis of theatrical styles of production in European and American theatre, related to historical theory and practice. Research and comparative analysis; some laboratory project work. (W)

6500 Public Relations and the Theatre. Cr. 3

Prereq: M.F.A. theatre management student; or 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

Prereq: M.F.A. theatre management student; or consent of instructor. Marketing strategies for arts organizations. Topics include: subscription and membership sales, individual ticket sales. (I)

6600 Costume History and Design I. Cr. 3

Prereq: THR 6000. Open only to M.F.A. Design students. Historical trends in fashion from ancient Egypt to Elizabethan England, as it pertains to theatre arts and its literature. Study of various periods and genres; design of costumes for plays of these periods based on a historical approach. (B:W)

6610 Costume History and Design II. Cr. 3

Prereq: THR 6600. Open only to M.F.A. Design students. Continuation of THR 6600. Historical trends in fashion from Jacobean England through the 21st Century. (B:F)



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 quality of classroom instruction. It is the interaction of teaching and research which creates an especially stimulating environment for the law student.

The Law School takes great pride in its diversity. The full-time faculty includes individuals experienced in local, state and federal government, others who have served as judicial clerks for federal judges, a number with backgrounds in private practice, and others who are well known public interest advocates. They combine excellent academic credentials with practical experience and are committed to excellence in classroom teaching and to advancing the state of professional knowledge through scholarship. The Law School is also fortunate to be able to recruit professional part-time faculty from the Detroit metropolitan area. Respected judges and practitioners contribute valuable and specialized perspectives to the adjunct faculty.

Accreditation

Wayne State University Law School is accredited by both of the major national accrediting agencies for legal education: the American Bar Association and the Association of American Law Schools.

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 Hilberly 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 65.

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

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 classes are also offered from 4:00 to 6:00 p.m., Monday through Friday. Class size is generally smaller in evening courses than in day classes.

Combined Day/Evening Program

The combined day/evening program is designed to meet the needs of students who wish to complete law school in three years, but who prefer to take as many classes as possible in the evening. The program may be elected by any applicant.

In the combined day/evening program, first-year students must take Civil Procedure, Contracts, and Legal Writing and Research in the evening, and Property or Torts during the day. (Students who wish may take both Property and Torts and an elective during the day of the first year.) Criminal Law will be taken in the evening of the second semester of the second year.

Students in the combined program who complete all six courses open to them will have twenty-seven credits at the end of their first year, only three credits short of the thirty credits completed by full-time day students. These three credits can be readily made up during the summer or in subsequent academic years, allowing students in the combined day/evening program to complete the degree in three years if they so choose.

Legal Writing and Research

The Law School is noted for its excellent legal writing and research program, which is conducted by five full-time lecturers, one of whom serves as director of the program. The textbook and related materials, developed by current and former instructors at the Law School, are used by many other law schools around the country.

A major part of the first-year curriculum is Legal Writing and Research, taught in small sections. The two-semester course begins with a mandatory orientation program. Following orientation, students meet with their instructors in weekly class sessions and in frequent individual conferences. In the Fall term, class time is primarily devoted to the development of writing, organization, and case analysis skills. Students learn to use library materials by researching a legal problem in small groups.

In the Winter term, instructors teach oral and written appellate advocacy skills. Students draft an appellate brief relying on a comprehen-

sive 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 completed.
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 IPLI was created in 1987 by the State Bar of Michigan and the law faculties of Wayne State University, the University of Detroit Mercy, and the University of Windsor, Ontario. The IPLI offers an exceptional, rich curriculum for law students and lawyers, comprised

of courses and seminars in intellectual property law in patent, copyright, trademark, computer and related technology, communications media, and entertainment law. Law students who enroll in IPLI courses pay tuition to their home institution, and credit for courses taken at other institutions is transferred to the home institution.

International Programs

The Law School offers many courses in the area of international law. It also sponsors several international study and exchange programs: The Freeman Fellowship, for study at the Hague Academy of International Law (Netherlands); Wayne State University—Utrecht (Netherlands) law faculty and student exchange program; and the Wayne State University Law School—University of Warwick (England) Law School student exchange program.

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.

Although the curriculum of the School is not primarily designed for preparing students to pass the various state bar examinations, substantially all of the subject matter of the examinations is covered adequately in the regular courses. However, the objective of the School is the development of an understanding of the theory of the law, its application, and the techniques of practice — in other words, to prepare a student for the practice of law.

ADMISSION POLICIES and PROCEDURES

Preparation for Law Study

The Law School has no requirements with respect to the content of pre-legal education, but its Admissions Committee will take into account the nature of college work completed as well as the grades achieved. Proficiency in the English language, both written and spoken, and in analytical skills is essential to the study of law.

The suggestions for prelaw preparation in the *Official Guide to U.S. Law Schools*, published by the Law School Admission Council, are excellent. This guide contains material on the legal profession and the study of law, and information on each American Bar Association (ABA) accredited law school. It may be ordered from the Law School Admission Services, and is available in most bookstores and libraries. Prospective students are welcome to come into the Law School Admissions Office, during the regular office hours, to look at the Official Guide and other law school reference materials.

Admission Policy

An applicant for admission to the Wayne State University Law School J.D. program must have a bachelor's degree from a regionally accredited college or university. (Prior to registration, each admitted student must arrange for the Law School to receive an official transcript from the degree-granting institution, evidencing the grant of the degree.) Each applicant must also take the Law School Admission Test (LSAT) and register with the Law School Data Assembly Service (LSDAS).

It is the goal of the Law School's Admissions Committee to ensure that the entering class is composed of the most highly qualified applicants. The Committee believes that, initially, the educational process during law school and the legal profession are best served by an admissions process that results in the selection of a diverse and talented student body.

The Committee considers 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 mandatory, but day students who have child care responsibilities or significant health care concerns may be permitted to take a slightly reduced course load. The applicant must submit a written request prior to registration to the Assistant Dean for Recruitment and Admissions setting forth the personal circumstances justifying the request for admission as a reduced-load student.

Visit to the Law School: Prospective applicants are encouraged to visit and tour the Law School and University campus, attend a first-year class, participate in informal discussions with students about law school, and consult with a member of the Admissions Office staff about admission policies, procedures and other concerns.

Transfer Student

A transfer applicant must have completed all of the first-year day or evening courses required by his or her ABA-accredited law school. Applicants must have superior law school academic credentials to be offered admission. Transfer students are admitted to the Fall term only. The application deadline for transfer applicants is July 1.

A transfer applicant's file will be ready for consideration when the Admissions Office has received all of the following:

- 1) The Law School Application for Admission;
- 2) An official transcript sent directly from the applicant's law school including the final grades recorded for all law school courses completed (a photocopy will not be accepted);
- 3) A letter of good standing from the dean of the applicant's law school;
- 4) A copy of the applicant's LSDAS Report;
- 5) An official transcript sent directly from the applicant's degree-granting undergraduate school.

Application Procedure

There is a great deal of competition for the entering class of the Law School. The Law School received more than 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.

**COLLEGE OF LIBERAL ARTS
and SCIENCES**

DEAN: Robert L. Thomas

Foreword

The College of Liberal Arts and Sciences conducts instruction and research in a wide variety of disciplines and serves the academic interests of a diverse student population. Courses and degree programs are offered in mathematics and the sciences, the social sciences, humanistic studies, and foreign languages.

The bachelor's degree programs provide instruction in the basic areas of learning and offer opportunity to focus on fields of special interest. All programs emphasize communication, both written and spoken, and the use of precise and thoughtful language. Students are stimulated to think and read critically and to become familiar with the tools of research so that learning may be a lifelong process. Intellectual growth is encouraged by developing in students the necessary independence, resourcefulness and judgment in early studies so that advanced courses may be selected with confidence.

Most fields of study in the College offer students both theoretical and practical training. In fields of special interest, a solid knowledge of underlying principles may thus be strengthened by practical training and experience. The College of Liberal Arts and Sciences also serves students whose academic interests extend over several Departments. Interdisciplinary programs such as American Studies, Environmental Science, Linguistics, Religious Studies, and Women's Studies offer varied individualized curricula.

The undergraduate programs of the College of Liberal Arts and Sciences are strengthened by the graduate programs which lead to the master's and doctoral degrees in various disciplines. Professors in the College teach both graduates and undergraduates; research projects may involve both graduates and undergraduates; some specialized classes are available to both graduate students and those undergraduates enrolled in the upper division. This opportunity for association with graduate students and research personnel enriches the experience of many undergraduate students.

In the College of Liberal Arts and Sciences, students are provided with the skills, knowledge, and understanding on which to build professional and personal development in today's rapidly changing world.



DEGREE PROGRAMS

BACHELOR OF APPLIED STUDIES with a major in Sociology

BACHELOR OF ARTS with majors in:

Africana Studies	Information Systems
American Studies	Technology
Anthropology	Linguistics
Art History	Mathematics
Biological Sciences	Near Eastern Studies
Chemistry	Nutrition and Food Science
Classics	Philosophy
Computer Science	Physics
Economics	Political Science
English	Psychology
Film Studies	Romance Languages
Geography	Sociology
Geology	Speech-Language
German	Pathology
History	

BACHELOR OF ARTS HONORS with majors in:

Anthropology Honors	Near Eastern Studies Honors
Biological Sciences Honors	Nutrition and Food
Chemistry Honors	Science Honors
Classics Honors	Philosophy Honors
Economics Honors	Political Science Honors
English Honors	Psychology Honors
Geography Honors	Romance Languages Honors
Geology Honors	Sociology Honors
German Honors	Speech-Language Pathology
History Honors	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)
Physics (Bachelor of Science in Physics)
Public Affairs (Bachelor of Public Affairs)
Slavic Studies (Bachelor of Arts in Slavic Studies)

SPECIAL BACHELOR'S HONORS DEGREES

Bachelor of Science in Biological Sciences Honors
Bachelor of Science in Chemistry Honors
Bachelor of Science in Computer Science Honors
Bachelor of Science in Criminal Justice Honors
Bachelor of Public Affairs Honors
Bachelor of Arts in Slavic Studies Honors

**MASTER OF ARTS with majors in:*

Anthropology	Linguistics
Applied Mathematics	Mathematics
Biological Sciences	Mathematical Statistics
Chemistry	Multidisciplinary Science
Classics	Near Eastern Languages
Comparative Literature	Nutrition and Food Science
Computer Science	Philosophy
East European Studies	Physics
Economics	Political Science
English	Psychology
French	Sociology
German	Spanish
History	Speech-Language Pathology
Italian	

**MASTER OF ARTS IN HUMAN DEVELOPMENT*

**MASTER OF PUBLIC ADMINISTRATION with majors in:*

Criminal Justice	Public Administration
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**MASTER OF SCIENCE with a major in:*

Audiology	Geology
Biological Sciences	Molecular Biotechnology
Chemistry	Nutrition and Food Science
Computer Science	Physics
Criminal Justice	

**DOCTOR OF PHILOSOPHY with majors in:*

Anthropology	Modern Languages
Biological Sciences	Nutrition and Food Science
Chemistry	Philosophy
Computer Science	Physics
Economics	Political Science
English	Psychology
History	Sociology
Mathematics	Speech-Language Pathology

**DOCTOR OF AUDIOLOGY*

**GRADUATE CERTIFICATE IN AMERICAN STUDIES*

**GRADUATE CERTIFICATE IN SCIENTIFIC COMPUTING*

* For specific requirements, see the Wayne State University Graduate Bulletin.

COLLEGE DIRECTORY

Dean:

Robert L. Thomas2155 Old Main; 313-577-2515

Associate Deans:

Miriam Greenberg2155 Old Main; 313-577-2516
 David L. Njus2155 Old Main; 313-577-2520
 Donald Spinelli2155 Old Main; 313-577-8895

Administrative Assistant Dean:

Sheryl Lamarand2155 Old Main; 313-577-8014

Student Services Office

Office 2155 Old Main; 313-577-5188, 313-577-3117
 Andrea Harp2155 Old Main; 313-577-5188
 Susan LaLiberte2155 Old Main; 313-577-8011
 Linda Ludke2155 Old Main; 313-577-2542

Departmental Offices/Programs

Africana Studies Rm. 11002, 5057 Woodward; 313-577-2321
 American Studies Rm. 9201.1, 5057 Woodward; 313-577-8627
 Anthropology 137 Manoogian; 313-577-2935
 Audiology and Speech-Language Pathology
 581 Manoogian; 313-577-3339
 Biological Sciences 1360 Biological Sciences; 313-577-2873
 Canadian Studies Program
 3125 Faculty/Administration Bldg.; 313-577-2799
 Chemistry 123 Chemistry; 313-577-2595
 Classics, Greek and Latin 431 Manoogian; 313-577-3032
 Comparative Literature Program
 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.; 313-577-3345
 English Rm. 9408, 5057 Woodward; 313-577-2450
 English Language Institute 351 Manoogian; 313-577-2729
 Environmental Science Program 247 Life Science; 313-577-2921
 Film Studies Program Rm. 9311, 5057 Woodward; 313-577-2978
 Geography and Urban Planning 225 State Hall; 313-577-2701
 Foreign Language Laboratory 385 Manoogian; 313-577-3022
 Geology 0224 Old Main; 313-577-2506
 German and Slavic Studies 443 Manoogian; 313-577-3024
 History 3094 Faculty Administration Bldg.; 313-577-2525
 Humanities Program Rm. 11205, 5057 Woodward; 313-577-3035
 International Studies Program 355 Manoogian; 313-577-8072
 Junior Year in Germany Program 471 Manoogian; 313-577-4605
 Legal Studies Program 3081 Faculty/Admin. Bldg.; 313-577-3947
 Linguistics Program Rm. 10303.1, 5057 Woodward; 313-577-8642
 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
 Philosophy Rm. 1202, 5057 Woodward; 313-577-2474
 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
 Romance Languages & Literatures 487 Manoogian; 313-577-3002
 Sociology 2228 Faculty Administration Bldg.; 313-577-2930
 Women's Studies Program
 Rm. 12100.3, 5057 Woodward; 313-577-6331

Website: <http://www.clas.wayne.edu>

Mailing address for all offices: (Department Name), College of Liberal Arts and Sciences, Wayne State University, 4841 Cass Avenue, Detroit, Michigan 48202

BACHELOR'S DEGREE REQUIREMENTS

Credits

Candidates for the degrees Bachelor of Applied Studies, Bachelor of Arts, Bachelor of Science, or any Special Degree must complete at least 120 credits. Certain curricula may require additional credits above this minimum. At least fifteen credits must be earned in courses numbered 3000 or above. (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 48.

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 16) 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 16).

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 16). 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 lists will not

be accepted as fulfilling the requirement. The basic list for University General Education courses may be found beginning on page 28. 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, SWA, and UKR; as well as GRK 1110, 1120, and 2110. Those continuing the study of a foreign language begun in high school or at another college will be placed at the appropriate level in the sequence as determined by means of qualifying examinations or interviews administered by the various language Departments of the University. Students must complete the sequence to demonstrate proficiency. The College Foreign Language Group Requirement will be considered satisfied by those students whose test scores place them beyond the intermediate (third course) level.

Bilingual Students: The College Foreign Language Group Requirement will be considered satisfied for students who were born in and completed their secondary education in a country whose language is not English. However, no credit (through course work or by examination) will be granted 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.

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.

THIRD COURSE IN NATURAL SCIENCE (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).

SOCIAL SCIENCE (SS): The College list is the same as the University list, except that the College list does not include ISP 3480 and 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.

UNIVERSITY REQUIREMENT IN AMERICAN GOVERNMENT for students enrolled prior to Fall Term 1987: see page 24.

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 239.

Science Requirement for B.S. Degrees

Bachelor of Science degrees: Students who are candidates for Bachelor of Science degrees must successfully complete sixty credits in the natural sciences, computer science, advanced logic, statistics, and mathematics. Credits completed to satisfy the College Group Requirements in Natural Science may be applied to the sixty credits.

Combined Degrees: Students who are candidates for Bachelor of Science degrees in Combined Degree programs must complete all required science credits, but conditions vary as follows: pre-dental and pre-medical students must complete a minimum of forty credits, and pre-law students a minimum of sixty credits, in the natural sciences and mathematics before entering their respective professional schools.

Special Degrees: Students who are candidates for the Special Degrees Bachelor of Science in Biological Sciences, Bachelor of Science in Chemistry, or Bachelor of Science in Physics must fulfill the sixty-credit requirement in the natural sciences, computer science, advanced logic, statistics, and mathematics. Candidates for other Special Bachelor of Science degrees must complete the College

Group Requirement in Natural Science and any additional science and mathematics courses required by the curriculum which they are following.

Major Requirements

A major is a program of concentrated study in a Department or area within the College. Specific course requirements for majors are listed in this bulletin under each of the Departments or areas of the College. Students may declare majors at any time but generally select areas of concentration during their sophomore year and formally declare majors by the beginning of their junior year. Students must

complete all courses in their majors with an overall average of 'C' (2.0).

Declaration of Major: To declare a major, students should consult a Departmental adviser well in advance of making a formal declaration, since the acceptance of a declared major is subject to the advice and consent of the Department concerned. Declaration of Major forms are available in the University Advising Center, 1600 Adamany Library. A 2.00 cumulative g.p.a. is required to declare a major. At the time of formal declaration, the student must present to the Department a current transcript and a Degree Audit from University Advising, obtain the signature of the Department Chairperson or designated representative on the Declaration form and file it in the Liberal Arts and Sciences Student Services Office, 2155 Old Main. All courses elected or changed by the student after the declaration of a major should be approved by the Department adviser.

The major must include at least twenty credits in one subject, exclusive of introductory courses and inclusive of some advanced work. No more than forty-six credits in the major subject (including introductory courses) may be counted toward a degree. For majors which require intensive study in a particular subject, more than forty-six credits are allowed.

Within the above limits, each major program has specific requirements which may be modified from time to time; it is, therefore, each student's responsibility to keep informed of the current requirements in his/her major Department.

For interdepartmental or field majors, the rule regarding minimum credits required in one subject is waived.

The major completed is part of the degree designation on the diploma.

Double Major: Students wishing to declare double majors must obtain approval from the Chairpersons or delegated representatives of each Department or intended major program. For students to graduate with double majors, the major requirements in both areas of concentration must be fulfilled. Students must complete all courses in both majors with an over-all grade point average of 'C' (2.0). Both majors are designated on the diploma.

Students enrolled in Colleges and Schools other than the College of Liberal Arts and Sciences and who wish to graduate with a double major, one component of which is in a Liberal Arts and Sciences curriculum, must satisfy all College of Liberal Arts and Sciences Group Requirements, as well as the major requirements of the Department involved. (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 advisor to obtain an approval signature. Program approval forms are available from the University Advising Center, 1600 Adamany Library.

Co-Majors

The following subjects may be taken in conjunction with another major leading to a Bachelor's Degree: 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 Credits: Students attempting to complete majors after a protracted interruption in their education, or those attending the Uni-

versity 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: — *Two-Year Colleges:* No more than sixty-four semester credits may be applied toward graduation from two-year colleges.

Restricted Courses: Degree credit for restricted courses is given only within the approved limits specified below.

Professional Courses: Students may elect a maximum of sixteen credits as cognate work from elected courses offered for degree credit by the several professional Schools and Colleges within the University. Eight of these credits may be elected with the approval of an academic adviser prior to the declaration of a major, and eight additional credits may be chosen with the approval of the major Department. Where academic advisers have approved fewer than eight credits, the major Department may approve degree credit up to the sixteen maximum credits allowed. In curricula which specifically require professional courses in excess of the maximum, additional credits may be elected.

Specialized Courses: Unless a curriculum specifies otherwise, the maximum amount of degree credit which may be earned in certain specialized areas is limited as follows:

Dance (approved courses) — 16 credits maximum

Health — 8 credits maximum

Applied Music (including the limitation stated in the paragraph below) — 16 credits maximum

Physical Education (activity) — 4 credits maximum

A total of not more than four credits from the following list of courses may be counted toward a degree unless a curriculum specifically requires more extensive elections:

COM 2240 -- Forensics Practicum: Cr. 1-2

MUA 2800 -- University Bands: Cr. 1

MUA 2810 -- University Symphony Orchestra: Cr. 1

MUA 2820 -- Jazz 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 310.

'AGRADE' — 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; 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 48.)

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.* The hold cannot be released at the advising station in the Student Center during final registration.

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 Scholarships and Financial Aid (page 41), 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 Scholarships and Financial Aid.

Margaret Lane Finlayson Scholarship: Preference will be given to women who have a minimum g.p.a. of 3.0 and who demonstrate financial need.

Christina J. Neumann Endowed Memorial Scholarship for Women Studying Science: Awarded to full-time female undergraduate or graduate students who have at least a 3.4 g.p.a. and who demonstrate financial need. Scholarship is for tuition only.

N.V. Shah Memorial Scholarship Fund: Awarded to an undergraduate student with a minimum 3.0 g.p.a. and desirable leadership qualities. Preference given to students of Asian or Indian descent. Scholarship is for tuition only.

Elliot Dov Strom Endowed Memorial Scholarship: Awarded to a full-time student majoring in the sciences who demonstrates financial need.

The Margaret Teal Award: Awarded to full-time students in the College of Liberal Arts and Sciences who have a minimum g.p.a. of 3.0. Recipients are selected on the basis of scholastic achievement and financial need.

Arthur J. Walker Memorial Minority Annual Scholarship Fund: Award open to full-time or part-time minority undergraduate or graduate students who have at least a 2.5 g.p.a. and who demonstrate 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 71.

Pre-Dentistry

Satisfactory completion of University General Education Requirements, College Group Requirements, a major field, and the basic sciences listed below lead to the bachelor's degree and qualify students for consideration by most schools of dentistry.

Biology or Zoology with laboratory: Cr. 12-16
Chemistry: Inorganic, including qualitative analysis, & lab: Cr. 9-11
Chemistry: Organic with laboratory: Cr. 8-10
English: Cr. 8-12
Physics with laboratory: Cr. 8-10

Recommended electives include psychology, sociology, biochemistry, embryology, and statistics. Because different schools of dentistry may require credits in some or all of these subjects, students are advised to become familiar with Admission Requirements of U.S. and Canadian Dental Schools, a brochure which may be ordered from the American Association of Dental Schools, 1625 Massachusetts Avenue N.W., Washington, D.C., 20036.

Pre-Education

— See pages 106 and 240.

Pre-Engineering

— See page 132.

Pre-Law

— See page 228.

Since the requirements for admission to law schools vary from school to school, students should become familiar with the requirements of the school they plan to enter.

For admission to Wayne State University's Law School, applicants should have a bachelor's degree from an accredited college with a strong grade point average. Although no specific courses are required, the faculty of the Law School recommends a strong background in English, with emphasis on grammar and composition, and in the social sciences. Within these fields, the choice of courses should be made in consultation with an academic adviser in the University Advising Center. The following is a suggested list of courses: Classics 3100; Economics 2010, 2020; four courses in English; History 1050, 2040, 2050, 5160, 5170; Philosophy 1010, 1850; Political Science 1010, 3040, 5110; Psychology 1010; Sociology 2000, 3820. An introductory course in accounting is also recommended. For students interested in the practice of law in commercial, corporate, and tax fields, the business administration curriculum may provide a good background.

Law School Admission Test: Each applicant for admission is required to take the Law School Admission Test given by the Educational Testing Service, Princeton, New Jersey. This test is given five times a year in Detroit and at one hundred or more other examination centers located throughout the country. Application blanks and additional information may be obtained from the Testing and Evaluation Office, 698 Student Center.

Pre-Medicine and Pre-Osteopathic Medicine

Satisfactory completion of University General Education Requirements, College Group Requirements, a major field, and the basic sciences listed below lead to the bachelor's degree and qualify a student for consideration by most schools of medicine and osteopathic medicine.

Biology or Zoology with laboratory: Cr. 12-16
English: Cr. 8-12
Inorganic Chemistry (including qualitative analysis) & lab: Cr. 9-11
Organic Chemistry with laboratory: Cr. 8-10
Physics with laboratory: Cr. 8-10

Recommended electives include psychology, sociology, biochemistry, embryology, and statistics. Because different schools of medicine may require credits in some or all of these subjects, students are advised to become familiar with *Medical School Admission Requirements*, a brochure which may be ordered from the Association of American Medical Colleges, 2450 N Street, N.W., Washington, D.C., 20037-1126. The admission requirements of specific schools of osteopathic medicine are available from the American Association of Colleges of Osteopathic Medicine, 6110 Executive Blvd., Suite 405, Rockville, Maryland 20852-3991.

Wayne State University's School of Medicine encourages students to fulfill degree requirements by selecting courses which will contribute significantly to a broad cultural background and by choosing a major in which one is interested. The Committee on Admissions is influenced by the scholarly approach to education, not by the area in which one concentrates.

Pre-Clinical Laboratory Science

— See page 418.

— Cytotechnology Concentration

— See page 419.

Pre-Mortuary Science

— See page 424.

Pre-Nursing

— See page 387.

Pre-Occupational Therapy

— See page 429.

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-Pathologist Assistant

— See page 425.

Pre-Pharmacy

— See page 405.

Pre-Physical Therapy

— See page 434.

Pre-Radiation Therapy Technology

— See page 379.

Pre-Social Work

— See page 442.

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 Laboratory: 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, Matthaehi 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 16.

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 22.

Pre-secondary students should also be electing 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 116.

Elementary Teaching

— See page 107.

Pre-elementary majors should include the following requirements in their first two years' work:

University General Education Requirements: see page 16.

College of Education general 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 16.

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.

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 Institute of African Studies at the University of Ghana, at Legon, Ghana, and the University of the Western Cape, at Cape Town, South Africa.

The Institute of African Studies was established in 1961 as an interdisciplinary center for scholarship, teaching and research in African history, culture and religion. It offers both undergraduate and graduate instruction by its own faculty and collaborates with the social science departments of the University of Ghana. Located eight miles from Accra and in the shadow of the Aburi Hills, the University of Ghana is a large tranquil campus of original and striking architectural design and is justly considered one of the most beautiful university campuses in Africa. It is a residential university, organized around a hall system, and combines an active academic and social life.

The University of the Western Cape is one of the historically black universities in South Africa, located in the suburb of Constantia, just outside of Cape Town. The University has attracted prominent scholars from all over the continent, and is particularly strong in Africanist social sciences. Like Ghana, South Africa has a glorious history of indigenous culture, state formation, and resistance to European penetration; however, the country came to world attention primarily as a result of the bitter experience of apartheid. Many aspects of South Africa's segregationist history and anti-apartheid struggle evoke the civil rights struggle in the United States. Since 1994, South Africa has been involved in a unique and fragile experiment of racial equality and reconciliation, democracy and economic development.

The objectives of this travel-study program are to introduce students to broad questions of historical continuity and discontinuity, adaptation and readaptation, and syntheses that have characterized African cultures. Particular attention is given to normative values and religious views, economic and political systems, educational and health care systems, and family and community solidarities in the past and present. The program seeks to illuminate the fundamental and broad diversity in African lives as they are structured through traditional cultures, colonial impacts, nationality, gender, and socio-economic differentiation. It is designed to give students a sense of the successes and setbacks and ongoing challenges of African nationhood, and of Africa's relations with the United States and the rest of the world. On a personal basis the goals of the program are:

- 1) To provide intimate first-hand experience of African life styles and values systems.
- 2) To encourage among students an appreciation for cultural diversity through exposure to major foreign cultures.
- 3) To expose African-American students to the African roots of African-American identity, culture and tradition.
- 4) To equip students with conceptual and intellectual tools to analyze the complexity of cultural and political institutions in Africa.
- 5) To engage students in critical thinking and field observation in the social sciences.

Benin

Program Office: Department of Anthropology; 313-577-2953
Coordinator: Guerin C. Montilus

The Department of Anthropology sponsors a biennial interdisciplinary summer study program in collaboration with the National University of Benin in Cotonou, Republic of Benin, West Africa. Founded in 1984, this program provides first-hand experience of African life styles and value systems through lectures by African instructors and interviews with Benin residents. Depending on student interest, attention is paid to African realities such as geography, history, religion, economy, politics, migration, family and kinship, education and health care systems. This broad range of topics is reflected in the kinds of formal registration available for the program, that is, students may use this travel-study experience as the basis of instruction for a number of different W.S.U. courses offered by other Departments and Colleges within the University. Both graduate and undergraduate credits are optional and non-credit participants are welcome.

CARIBBEAN TRAVEL-STUDY PROGRAM

Cuba and Haiti

Program Office: Department of Anthropology; 313-577-2953
Coordinator: Guerin C. Montilus

The Caribbean study trip is an interdisciplinary study program sponsored by the Anthropology Department and hosted by the School of Preventive Medicine of the University of Santiago of Cuba and/or the Historical Ethnological Museum of the State University of Haiti, Port-au-Prince, Haiti. Both of these programs offer travel-study experiences which focus on Caribbean realities such as health care, educational systems, geography, history, religion, economy, politics, art, population, migration, family and kinship. The study trip provides first-hand experience of Caribbean life styles and value systems through lectures by Caribbean scholars and field trips guided by Caribbean instructors as well as personal interviews with Caribbean residents. Both graduate and undergraduate credits are optional and non-credit participants are welcome.

JUNIOR YEAR IN GERMANY

Munich Program

Office: 471/473 Manoogian Hall; 313-577-4605; Fax: 313-577-3266
e-mail: jym@wayne.edu
<http://www.langlab.wayne.edu/JuniorYear/JrYrHome.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 Folkstheater 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 collec-

tions 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.

INTERSHIPS and WORK OPPORTUNITIES: The Junior Year in Munich can provide opportunities for professional experience and business related internships. In the past, JYM students have held internships with local news journals, publishing houses and several major international firms. The Program also offers the JYM/ISA Consult Pratikum, an internship arrangement with the Dresden branch of ISA Consult, a consulting firm providing research and consultancy services for governmental authorities, public industries, and a wide range of businesses in the private sector throughout Germany. For students interested in Foreign Service, opportunities exist to work with several organizations such as the U.S. Consulate in Munich. Students may also be able to find part-time work in Germany.

SCHOLARSHIPS and LOANS

German-American Cultural Center Scholarship: Award of \$500-\$1,000 open to W.S.U. students accepted to the Junior Year Program.

Junior Year in Germany Scholarship: Awards of \$500-\$2,000 open to students accepted to the Junior Year in Germany Program with outstanding achievement and demonstrated financial need.

Max Kade Foundation Scholarship: Awards of \$500-\$2,000 open to students accepted in the Junior Year in Germany Program with outstanding academic achievement and demonstrated financial need.

Wayne State University students holding Presidential Scholarships or Michigan Competitive Scholarships may use these for Program tuition as well as any Federal grants and loans.

MODERN GREEK IN THESSALONIKE

Program Office: 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

Web: <http://www.cla.wayne.edu/africanastudies>

Chairperson: Perry Mars

Administrator: Raquel Branch

Professors

Melba Boyd, Eboe Hutchful, Perry Mars

Associate Professor

Beth Bates

Assistant Professors

Saheed Adejumbi, Ollie Johnson

Lecturer

Todd Duncan

Adjunct Professors

Ron Brown, 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 approaches, intellectual and practical interests, and draws upon the humanistic, social and behavioral sciences into its interdisciplinary framework.

The major in Africana Studies prepares students for a wide range of professional and career opportunities. Majors can continue to graduate (including doctoral level) studies in the humanities, social and behavioral sciences, or pursue professional programs in law, medicine, business, and journalism. Graduates who enter the job market are prepared for careers in human services and public health, education, public relations, community development, urban planning; and more generally for jobs in the public sector, in central cities and urban institutions, or jobs that involve cultural or intergroup relations as well as international affairs. In the context of metropolitan Detroit, Africana Studies graduates will be better prepared to deal with the complexity and diversity of the city's political and demographic realities as they assume important roles of leadership.

Bachelor of Arts with a Major in Africana Studies

Admission Requirements: See the general requirements for undergraduate admission to the University, page 32.

DEGREE REQUIREMENTS: Candidates must complete 120 credits in course work including satisfaction of the University General Education Requirements (see page 16) and the College of Liberal Arts and Sciences Group Requirements (see page 234), 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, 43, and 234.

Major Requirements: Majors must complete at least thirty-six credits in a prescribed course of study, including:

1. AFS 1010 and AFS 3420 (seven credits).
2. Completion of study in an approved area of concentration (twenty-four credits).
3. Field Work (AFS 5991) and/or Directed Study (AFS 6990) (three to eight credits).

Areas of Concentration

Cultural Studies and the Arts (twenty-four 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.
2. AFS (ENG) 2390, 5110, 5310.
3. Two courses from: AFS 2210, (SOC) 2600, 3160, 3180, 5130, 5320.
4. One cognate from: AFS 5480; A H (AFS) 3750; ANT (AFS) 5260; ENG (AFS) 2390, MUH 3360, 6310; COM (AFS) 5040; COM (AFS) 4240.

Development and Public Policy (twenty-four credits): This concentration emphasizes historical, political and policy dimensions of the economic and social development of Black communities.

1. AFS 3250, 3420.
2. Three courses from: AFS (HIS) 5320, (HIS) 3160, (W S) 5110; HIS (AFS) 3140 or HIS (AFS) 3150; AFS 3160, 3180, 3250, 3360; 3420 (P S 3820); 5480, 6600 (ULM 7260).
3. Two courses from: AFS 2500, 2600, 3860, (ISP) 5130, (HIS) 5320, (SOC) 5580, (PSY) 5700.
4. One cognate from: ANT 3110, 3520, 6230; GEG 6150, 6350; ISP (AFS) 3610; HIS 3996, 5730; P S (AFS) 5030, (AFS) 5740, 6050 (AFS 6100); SOC (AFS) 5570; S W 6510.

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 1010 and two of the following: AFS 2010, 2210, 3180, 3200, 3250, 3420. 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 practicums 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.

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 'Courses of Instruction' section, below.)

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 479.

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. (T)

2010 African American Culture: Historical and Aesthetic Roots. Cr. 4

Core requirement for Africana Studies majors. Examination of the historical, traditional and aesthetic bases of a variety of cultural forms -- language, literature, music -- of the Black experience. (T)

2210 (SS) Black Social and Political Thought. Cr. 4

Core requirement for Africana Studies majors. Survey of the Black intellectual and political tradition from the United States, the Caribbean and Africa. (T)

2390 (ENG 2390) (IC) Introduction to African-American Literature: Literature and Writing. Cr. 4

Prereq: 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)

2500 (GPH 2500) Geography of Africa. Cr. 4

Geography of modern Africa: regions, countries, peoples. Physical environment, resource potential, population groups, migrations, economics, development, political systems and conflicts. (I)

2600 Race and Racism in America. (SOC 2600) Cr. 3

Examination of the nature and practice of racism in America from its historical foundations to its contemporary institutional forms. (B)

3140 (HIS 3140) The Black Experience in America I: 1619-1865. Cr. 3-4

African origins of the American black; transition from freedom to slavery; status of the black under slavery. (F)

3150 (HIS 3150) The Black Experience in America II: 1865 to the Present. Cr. 3-4

The black in national life since emancipation. (W)

3160 (Black Urban History. (HIS 3160) Cr. 4

Historical experience of African Americans in urban areas; impact of their communities on urban development from 1860 to contemporary times. (B)

3170 (HIS 3170) Ethnicity and Race in American Life. (AFS 6170) (HIS 6170) Cr. 3-4

Exploration of complicated relationship between ethnic and racial diversity and the making of America. Using historical, literary, and cultural readings and sources to examine key themes: Who was the "Other"? What is an "American"? (B)

3180 (HIS 3180) 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)

3200 The African-American Film Experience Cr. 4

Historical and contemporary portrayals of African American people in narrative and documentary film. Emphasis on filmic approaches to race relations, cinematic elaboration of racial stereotypes, and legitimation functions of film. (Y)

3250 (FC) Politics and Culture in Anglophone Caribbean. Cr. 3

Survey of political, economic and cultural life of the Caribbean. Relationship of the Caribbean to U.S. and world political and cultural developments. Interdisciplinary approach: historical, comparative, thematic issues. (Y)

3360 Black Workers in American History. (HIS 3360) Cr. 4

Survey course. Slave and free workers during antebellum period; skill trades, sharecropping, menial labor, coal mining during Reconstruction; labor struggles and job discrimination in the twentieth century. (F,W)

3420 Pan Africanism: Politics of the Black Diaspora. (P S 3820) Cr. 4

Interplay of Pan Africanism as a cultural and socio-political movement in world politics from its origins as a concept to organizing practice worldwide. (Y)

3610 (ISP 3610) (FC) Interdisciplinary Perspectives on Foreign Culture: The Africans. Cr. 4

Prereq: upper division standing. Humanistic aspects, history, socio-cultural institutions of African cultures; theory and methods, comparative perspectives. (Y)

3750 (A H 3750) African American Art. Cr. 3

Prereq: one 1000-level Art History course. Introduction to African American art from the colonial period to the present, with emphasis on the U.S. and some attention to South and Central America and the Caribbean. (Y)

3860 Race, Class and the Criminal Justice System. (SOC 3860) Cr. 3

Prereq: upper division standing or criminal justice majors or minors. Survey of race and class in the criminal justice system: police, courts, jails and prisons. Socio-economic environment of offenders, and effects of criminal justice process on their ability to function positively within that environment. (T)

4240 African Americans in 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)

4750 (N E 4750) Colonization and Decolonization in North Africa: The Example of Algeria. Cr. 3

European (French) colonization in North Africa with emphasis on Algeria. Theoretical principles of nineteenth century colonization; emergence of national liberation movements. Socio-economic impact of colonization on Algeria through the 1990s. (Y)

5030 (P S 5030) African American Politics. Cr. 4

Nature and texture of black politics; various perspectives on politics by blacks; the impact of blacks on American politics. (Y)

5040 (COM 4040) Diversity in Interpersonal Communication. Cr. 3

Issues and topics related to the study of communication behaviors and patterns in gender, race, social class, and sexual orientation within the United States. (Y)

5110 Black Women in America. (W S 5110) Cr. 3

Social, cultural, artistic and economic development of Black women in America; topics include: racism, sexism, marriage, motherhood, feminism, and the welfare system. (Y)

5130 The Black Family. (ISP 5130) Cr. 4

Prereq: upper division undergraduate standing. Survey and analysis of historical and social forces relative to the study of the Black family. (Y)

5220 (THR 5220) Black Dramatic Literature. Cr. 3

Critical study of significant black dramatists of the American stage: Willis Richardson, Marita Bonner, Randolph Edmonds, Langston Hughes, Alice Childress, Lorraine Hansberry, Ed Bullins, Amiri Baraka, Ntozake Shange, and August Wilson. (Y)

5260 (ANT 5260) The African Religious Experience: A Triple Heritage. (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. (B)

5310 Special Topics in Africana Studies. Cr. 3-4

Topics to be announced in Schedule of Classes; topics may include: Caribbean politics, African development, male-female relationships, Negritude. (T)

5320 Black Labor History. (HIS 5320) Cr. 3

Prereq: upper division standing. Offered for undergraduate credit only. History of black labor from the colonial period to the present. Topics include the development of a dual racial labor system in America; black workers in the development and evolution of the American labor movement; and black responses to white working class behavior. (I)

5480 African Americans in the U.S. Political Economy. Cr. 4

Interdisciplinary and case study approach to African American social and economic development. Social stratification in Black communities; growth of Black middle class; racial discrimination in national economy, income disparities between whites and Blacks; and growth of urban Black underclass. (Y)

5570 (SOC 5570) Race Relations in Urban Society. Cr. 3

Theoretical orientations applied analytically to enhance an understanding of the patterned structures of privilege in society which are based on race. Inequality, segregation-desegregation, pluralism; social structural frameworks; some attention to social-psychological aspects of topics such as prejudice and racism. (I)

5580 Law and the African American Experience. (SOC 5580) Cr. 4

Prereq: upper division or graduate standing. In-depth examination of the African American experience with law in the U.S.; historical development of the U.S. Constitution; legal barriers to equality and the influence of race on the law; use of law as a political instrument; participation of blacks in the legal process; comparisons with other countries. (B)

5700 The Psychology of African Americans. (PSY 5700) Cr. 4

Prereq: upper division standing. Methodological approaches to and theories of Black behavior and personality development. Topics include: race and pathology, life-span and psycho-sexual development, personality formation, social and environmental stress and adaptation. (B)

5740 (P S 5740) Ethnicity: The Politics of Conflict and Cooperation. (PCS 5500) Cr. 4

Current ethnic (racial, linguistic, religious, and cultural) conflicts regionally, nationally and internationally. Introduction to concepts and analytic perspectives for understanding ethnicity as a factor in nation building and maintenance. (Y)

5991 Field Work in the Black Community. Cr. 3-8

Prereq: written consent of instructor. Open only to undergraduate majors. Field placement in community-based, human services, and civic organizations and governmental agencies. (Y)

6100 (ULM 6100) Class, Race, and Politics in America. (HIS 5110) (P S 6050) (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) (ULM 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)

6600 (ULM 7260) Urban Poverty and Racial Segregation. (ANT 7260) (P S 7260) (SOC 7350) (U P 7260) Cr. 3

Prereq: graduate standing. Review of theories of poverty from various economic/political perspectives; historical intervention policies; current literature on the interplay of racial, economic, and spatial factors on growing economic inequality among urban whites and African-Americans. Political rationale and meaning of the 'underclass' debate. (B)

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

Office: 51 West Warren, Room 2216; 313-577-8627

Web: <http://www.americanstudies.wayne.edu>

Advisory Committee

Anthropology: Thomas Killian

Art and Art History: Marian Jackson

Chicano-Boricua Studies: Jose Cuello

English: Robert Aguirre, Todd Duncan, Cynthia Erb, Henry Golemba,

Gwen Gorzelsky, William Harris, Jerry Herron, Janet Langlois,

Michael Liebler, Kathryne Lindberg, Sheila Lloyd, Ross J. Pudaloff,

Kirsten Thompson, Barrett Watten

German and Slavic Studies: Alfred Cobbs, Donald Haase

History: Marc Kruman, Alan Raucher, Sandra VanBurkleo

Philosophy: William D. Stine

Political Science: Philip R. Abbott

Urban, Labor and Metropolitan Studies: Francis Shor

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 32.

DEGREE REQUIREMENTS: Candidates must complete 120 credits in course work including satisfaction of the University General Education Requirements (see page 16) and the College of Liberal Arts and Sciences Group Requirements (see page 234), 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, 43, and 234.

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.

* For specific requirements, see the Wayne State University Graduate Bulletin.

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 479.

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

Prereq: A S 2010. Intermediate inquiry into major themes and genres of American cultural materials. Topics announced in Schedule of Classes. (Y)

5010 Topics in American Studies. Cr. 3-4 (Max. 12)

Inquiry into the 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)

ANTHROPOLOGY

Office: 137 Manoogian; 313-577-2935

Chairperson: Thomas W. Killion

Web: <http://www.anthro.wayne.edu>

Professors

Barbara C. Aswad (Emerita), Bernice A. Kaplan (Emerita), 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, Frances Trix

Assistant Professors

David A. Barondess, Sherylyn H. Briller, Barry Lyons, Jessica Price, Jacalyn Harden, Pamela Crespín

Lecturers

Beverly Fogelson, Beth Kangas

Adjunct Professors

Morris Goodman, Eugene Perrin, Mark L. Weiss

Adjunct Associate Professors

Elizabeth Briody, Dorothy Nelson

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 a specialist 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 coun-

* For specific requirements, see the Wayne State University Graduate Bulletin.

try, 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 32.

DEGREE REQUIREMENTS: Candidates must complete 120 credits in course work including satisfaction of the University General Education Requirements (see page 16) and the College of Liberal Arts and Sciences Group Requirements (see page 234), 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, 43, and 234.

Major Requirements: Students majoring in anthropology are required to elect a minimum of thirty credits in anthropology, including Anthropology 2100, 2110, 3100, 3200, 5210 (or an acceptable alternative), 5310, 5380, and 5996. In addition, at least one culture area course must be completed (e.g., 3520, 3540, 3550, 6290, or an acceptable alternative). 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 236.

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); one of the following: ANT 2110, 3100, 3200; as well as two of the following: ANT 5210, 5310, 5380, or 5996. Students must take an additional six credits in anthropology 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

The 'AGRADE' (Accelerated Graduate Enrollment) Program enables qualified seniors in the College of Liberal Arts and Sciences to enroll simultaneously in the undergraduate and graduate programs of the College. Students may apply for the 'AGRADE' Program during the term in which they will complete ninety credits; to qualify, students must have a minimum 3.6 g.p.a. in anthropology and be in the *cum laude* range in their overall g.p.a. For more details about the 'AGRADE' Program, contact the Undergraduate Director and the Graduate Director of the Department of Anthropology (313-577-2935), and the Graduate Officer of the College of Liberal Arts and Sciences.

ANTHROPOLOGY COURSES (ANT)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 479.

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. (T)

2110 (LS) Introduction to Physical Anthropology. Cr. 3

Required for majors. Role of hereditary and environmental factors, human genetics, meaning of "race" and racial classifications, fossil records, non-human primate behavior and evolution. (T)

2500 Archaeology of the Great Lakes. Cr. 4

Introduction to Native cultures and archaeology of Michigan and the Great Lakes region, from the first peopling of the region through early historic times; changing patterns of adaptation to the ecology of the Great Lakes region; focus on ancient technologies and material culture, social organization, settlement patterns, economic strategies, and political formations. (Y)

3061 (N E 3061) Oral History in Middle Eastern Tradition. Cr. 3

Methodologies, techniques and applications of oral history used as tools to investigate modern social history of Middle Eastern societies. (W)

3100 Cultures of the World. Cr. 3-4

Required for majors. Only students in Honors Program may register for four credits. Human societies exhibit tremendous variation. How and why do we differ? What do these differences mean in today's world. Explore, contrast, compare, understand cultures like those of the Amazon rain forest, China, Japan, Alaska, India, Central America, and urban America. View their lifestyles, politics, kinship, economics, religions through readings, discussion, film. (T)

3110 Detroit Area Minorities: Arabs, Hispanics, and African Americans. Cr. 3-4

Offered for four credits to Liberal Arts Honors students only. Arab, African American, and Hispanic minorities from the perspective of history, social organization, and cultural background. Topics include: family roles, community structure, migration, religious beliefs, education, health problems. (T)

3150 (FC) Anthropology of Business. Cr. 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. (T)

3200 (HS) Lost Cities and Ancient Civilizations. Cr. 3

Required for majors. Early civilizations that developed in different parts of the world in comparative perspective. Hypotheses to explain rise and fall of civilizations, in context of ancient cultures. Basics of archaeology: how facts are formed; meaning of 'civilization'. How understanding of the past shapes understanding of the present. Geared toward the non-major. (Y)

3210 Ancient Africa. Cr. 3

Prereq: ANT 2100, 3200, or consent of instructor. Survey of the archaeological and fossil record of human development in Africa, from faint traces over 300 million years old through the transition to food production, settled life, and civilizations. (B)

3220 The Inca and their Ancestors. (ANT 6510) Cr. 3

Prereq: ANT 2100, 3200, or consent of instructor. Introduction to pre-columbian civilizations of South America. Archaeological and ethno-historical data on ancient cultures; foundations of Inca civilization; major cultures from different regions and periods. (B)

3520 (FC) Understanding Africa: Past, Present and Future. Cr. 3

In-depth knowledge of Africa through the study of its physiography, prehistory and history, social institutions, and social changes within a global context. (T)

3530 Native Americans. Cr. 3

Survey of Native American cultures north of Mexico in historical and comparative perspective; contemporary Native American issues. (I)

3540 (FC) Cultures and Societies of Latin America. Cr. 3

Latin American social structures and cultural variation, history, and relationship to the United States. Themes include class, race, ethnicity, gender, religion, globalization, and immigration to the United States. (I)

3550 (FC) Arab Society in Transition. (N E 3550) Cr. 3

Distinctive social and cultural institutions and processes of change in the Arab Middle East. Regional variations: background and discussion of current political and economic systems and their relationship to international systems. (I)

3555 Sex and Gender in Prehistoric Societies. Cr. 3

Prereq: ANT 3220 or 5270 recommended. Recent developments in anthropological and archaeological research on women and gender. The engendering of archaeological, anthropological, historical, political, and methodological perspectives. (B)

3600 Topics in Anthropology. Cr. 3

Prereq: ANT 2100. Selected topics or emerging fields in any of the four anthropology subfields (cultural; physical; archaeology; linguistics). Topics to be announced in Schedule of Classes. (I)

3990 Directed Study. Cr. 2-6 (Max. 6)

Prereq: 16 credits in anthropology with grades of A or B; consent of instructor. (T)

4999 Honors Research and Thesis. Cr. 3-6

Prereq: senior standing; 3.3 h.p.a.; 3.3 h.p.a. in anthropology. Open only to majors in anthropology. Research and thesis to be completed under the direction of a faculty member whose expertise includes the student's area of interest. Adviser and a second reader will read the completed thesis. (T)

5060 Urban Anthropology. (SOC 5540) Cr. 3

Prereq: ANT 2100 or consent of instructor. Social-cultural effects of urbanization from a cross-cultural perspective with emphasis on the developing area of the world. The process of urbanization; the anthropological approach in the area of urban studies. (Y)

5140 Biology and Culture. Cr. 3

Prereq: ANT 2100 or 2110 or consent of instructor. Interrelationships between the cultural and biological aspects of humans; human genetic variability, human physiological plasticity and culture as associated mechanisms by which humans adapt to environmental stress. (I)

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 SOC 2010 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 The African Religious Experience: A Triple Heritage. (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. (B)

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 (F)

5310 Language and Culture. (LIN 5310) Cr. 3

Required for majors. Prereq: ANT 2100 or 5200 or consent of instructor. Explore the rich interconnections of language and culture in distant and local communities, in contexts where languages are declining or developing anew, and in life cycle and ordinary contexts of daily life. Students are also expected to explore their own language and cultural backgrounds and those to which they are drawn. (F)

5320 (Language and Societies. (LIN 5320) Cr. 3

Prereq: ANT 2100 or 5200 or consent of instructor. Contemporary linguistic anthropologists see language as a form of social action. How has this understanding of language in society evolved? Read classic works of linguistic anthropology and contemporary studies in this growing field. Engage in research in language in society. (W)

5370 Magic, Religion and Science. Cr. 3

Prereq: ANT 2100 or 5200 or consent of instructor. The nature and variety of religious belief and practice; theoretical interpretations. (B)

5380 History of Anthropology. Cr. 3

Prereq: ANT 2100 or 5200 or consent of instructor. Required for majors. History of ideas and explanatory theories in anthropology; continuities and disjunctions 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. (Y)

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. (Y)

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 conducting participant observation research exercises. Utilization of

field experience to learn about urban health issues and research methodology. (T)

5430 (ISP 5510) 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 basics of museums, museum work, and museum theory. Topics include: collections management, data bases, interpretive exhibit methods, current issues in museum studies, legal concerns, role of museums as educational institutions. (I)

5700 Applied Anthropology. Cr. 3

Prereq: ANT 2100 or 5200 or consent of instructor. The application of anthropological concepts and methods to contemporary issues of public concern in the United States and abroad. (I)

5991 Directed Study: W.S.U. - Salford Exchange. Cr. 3-9

Prereq: consent of undergraduate adviser. Open only to students admitted to Salford Exchange Program. Credit earned through approved upper division coursework at the University of Salford, England, as part of WSU-Salford Exchange Program. (F,W)

5993 (WI) Writing Intensive Course in Anthropology. Cr. 0

Prereq: junior standing, satisfactory completion of English Proficiency Examination, consent of instructor; coreq: ANT 5310, 5320, 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. (Y)

6360 (HIS 7860) Oral History: A Methodology for Research. (LIS 7770) Cr. 3

Oral history as a methodology for research. Interviewing procedures and techniques of indexing, transcribing, and analyzing historical content of oral history interviews. (I)

6370 Symbolic Anthropology. Cr. 3

Human ability to create symbols to communicate. Oral tradition and myth; utopia and uchronia and the imaginary construction of the world; art and the eschatological discourse. (Y)

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. (Y)

6510 The Inca and their Ancestors. Cr. 3

Prereq: ANT 2100, 3200, or consent of instructor. Study of precolumbian cultures of South America. Archaeological and ethnohistorical data beginning with the Inca; foundations of Inca civilization; major cultures from different regions and periods in South American prehistory. (B)

6550 Practicum in Archaeology. Cr. 2-4 (Max. 8)

Prereq: ANT 5270 or 5280, or consent of instructor. Emphasis on application of theory, practice, and research. Topics include: cultural resource management, ceramic analysis, settlement pattern studies, materialities, historical archaeology, archaeological data management. (Y)

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. (Y)

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)

AUDIOLOGY and SPEECH-LANGUAGE PATHOLOGY

Office: 581 Manoogian; 313-577-3339

Chairperson: Alex Johnson

Graduate Officer: Kristine V. Sbaschnig

Undergraduate Officer: Karen S. O'Leary

Coordinator of Clinical Programs: Kristine V. Sbaschnig

Web: <http://www.science.wayne.edu/~aslpl>

Professors

Alex Johnson, William Leith (Emeritus), John Panagos (Emeritus), Julie Washington

Associate Professors

Dale O. Robinson, Thomas H. Simpson

Assistant Professors

Jean Andruski, Heather Balog, Margaret Greenwald, 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, Lidia Lee, Mark Simpson, Brad Stach

Degree Programs

BACHELOR OF ARTS with a major in speech-language pathology

**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 speech-language pathology*

Bachelor of Arts with a Major in Speech-Language Pathology

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. The doctoral degree is effective in 2012 by ASHA standards. Study in this major at the undergraduate level pro-

* For degree requirements, see the Wayne State University Graduate Bulletin.

vides 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 32.

DEGREE REQUIREMENTS: Candidates for the Bachelor's degree must complete 120 credits of course work including satisfaction of the College Group Requirements (see page 234) and the University General Education Requirements (see page 16), 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, 43, and 234.

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 speech-language pathology begin their work in the Department in their sophomore year. Courses in the major should be selected in consultation with a Departmental 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; GPH 1100 or ANT 2100; and PSY 1010; or equivalents; for clinical certification.

Bachelor of Science Option: Students majoring in this discipline also have the option of working toward the Bachelor of Science in Education degree (speech-language impaired) granted by the College of Education. It is recommended that such students earn the Michigan Teaching Certificate at the undergraduate level, although teacher certification is not granted until completion of the Master's Degree, which is required before clinical or teacher certification is awarded. These students normally transfer into the College of Education at the beginning of the junior year.

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 581 Manoogian Hall (313-577-3339). For further details, consult the ASLP 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 Scholarships and Financial Aid, page 41. 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 479.

AUDIOLOGY COURSES (AUD)

5400 Introduction to Audiology. Cr. 3

Introduction to physics of sound, anatomy of the hearing mechanism, audiometry, hearing aids, habilitation and rehabilitation of the hearing handicapped. (F,W)

5420 Introduction to Aural Rehabilitation. Cr. 3

Prereq: AUD 5400. Principles and practices of aural rehabilitation including hearing aids. Material fee as indicated in the Schedule of Classes (S)

SPEECH-LANGUAGE PATHOLOGY COURSES (SLP)

1010 Elementary Sign Language [ASL]. Cr. 4

Appreciation and use of American Sign Language (ASL). Review of basic grammar coupled with classroom practice to learn to communicate in signs. Supervised observations of interactions with individuals who are deaf. (I)

1020 Advanced Sign Language [ASL]. Cr. 4

Prereq: SLP 1010. Advanced use of American Sign Language (ASL); grammar and classroom practice for sign communication and teaching. Supervised participation with individuals that are deaf. (I)

1500 (VP) Freshman Seminar. Cr. 3

Open only to freshman students. (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. (Y)

4998 Honors Seminar. Cr. 3

Prereq: admission to Departmental honors program, senior standing, consent of undergraduate adviser. Bibliographic and research experiences; review of recent literature; research project. (Y)

5080 (SLP 5080) Phonetics. (LIN 5080) Cr. 3

Multisensory study of sounds in the English language, emphasizing acoustic, physiologic, kinesiological approaches. Material fee as indicated in the Schedule of Classes (F)

5090 Anatomy and Physiology of the Speech Mechanism. Cr. 3

General science of normal speech; anatomy, physiology and mechanics of respiration, phonation, resonance, 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)

6360 Advanced Clinical Practice in Speech-Language Pathology. Cr. 3 (Max. 9)

Prereq: SLP 5360 or equiv. with grade of B or better. Open only to graduate students. 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)

6640 Language Development and Disorders: Infants and Preschool Children. Cr. 3

Prereq: SLP 5300 and 5320; graduate standing or consent of instructor. Theory, assessment and intervention with young children and their families. Emphasizes clinical problem solving, diagnosis, prevention and management in the context of cognitive, linguistic and neurological development. (F)

BIOLOGICAL SCIENCES

Office: 1360 Biological Sciences; 313-577-2873

Fax: 313-577-6981

Chairperson: James D. Tucker

Associate Chairperson: John M. Lopes

Academic Services Officer: Gayle Chlebnik, Krystyn Purvis, Linda VanThiel

Academic Adviser: Kimberly Walkowiak Hunter

Web: <http://www.biosci.wayne.edu>

Professors

Robert Arking, Walter Chavin (Emeritus), David R. Cook (Emeritus), Dominic L. DeGiusti (Emeritus), D. Carl Freeman, Stanley K. Gangwere (Emeritus), Miriam Greenberg, Garrett Heberlein, R. Anton Hough, James M. Jay (Emeritus), John M. Lopes, Lida H. Mattman (Emerita), Kazutoshi Mayeda (Emeritus), Hiroshi Mizukami (Emeritus), William S. Moore, David L. Njus, William Prychodko (Emeritus), Claude M. Rogers (Emeritus), Albert Siegel (Emeritus), P. Dennis Smith, John D. Taylor (Emeritus), William L. Thompson (Emeritus), James D. Tucker

Associate Professors

Kuo-Chun Chen, Philip R. Cunningham, Marcus Friedrich, Edward Golenberg, V. Hari, Leo S. Luckinbill, Willis W. Mathews (Emeritus), Victoria Meller, Ann Sodja, Robert S. Stephenson, Curtis J. Swanson, Mark VanBerkum

Assistant Professors

Karen Myhr, Lori Pile, Aleksandar Popadic

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 32.

* For requirements, see the Wayne State University Graduate Bulletin.

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 234) and the University General Education Requirements (see page 16), 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, 43, and 234. 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.

Biology Core 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. 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) Molecular Biology and Biotech: 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)
 -- may also use BIO 3990: Cr. 4 (max)
 -- may also use BIO 2870 (if taken prior to BIO 4120): Cr. 5

Cognate Requirements: Candidates for the Bachelor of Arts degree in biological sciences are required to take CHM 1220, 1230, 1240, 1250, and STA 1020 or MAT 2210, and MAT 1800.

NOTE: In addition to the courses outlined above, students must satisfy all General Education Requirements and elect sufficient additional credits to achieve the minimum 120 credits required for graduation.

Bachelor of Science in Biological Sciences

The Bachelor of Science degree is for those students who wish to follow a career in the sciences and/or those planning to enter post-graduate professional schools. Students contemplating a major program in biological sciences should consult with the Departmental undergraduate adviser no later than the beginning of the sophomore year. Students must declare their major after completing BIO 2600, and before electing higher-level courses. The 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 234) and the University General Education Requirements (see page 16), 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, 43, and 234. 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. 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 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 4120 -- (WI) Principles of Physiology: Cr. 4
BIO 4200 -- Evolution: Cr. 3
BIO Electives 4000 level and above: Cr. 11 (total)
 -- may also use BIO 3990: Cr. 4 (max)
 -- may also use BIO 2870 (if taken prior to BIO 4120): Cr. 5

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 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) Molecular Biology and Biotech: Cr. 4
BIO 4200 -- Evolution: Cr. 3
BIO Electives 4000 level and above: Cr. 11 (total)
 -- may also use BIO 3990: Cr. 4 (max)
 -- may also use BIO 2870 (if taken prior to BIO 4120): Cr. 5

Electives: The following courses constitute 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 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 4130 -- (WI) Ecology: Cr. 4
BIO 4200 -- Evolution: Cr. 3
BIO Electives 4000 level and above: Cr. 11 (total)
-- may also use BIO 3990: Cr. 4 (max)
-- may also use BIO 2870 (if taken prior to BIO 4120): Cr. 5

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 with Honors in Biological Sciences requires 14 honor credits in Biology and at least 10 additional honor credits, which includes an Honors Program Seminar (HON 4200-4998).

The 14 credits are comprised of: The Honors Laboratory sections of Biology 1500 and Biology 1510 (4 credits each); If a student does not have Honors in Biology 1500 and 1510 then he/she must take 8 credits of Biology courses with an honors option; Four hours 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 24 honors credits.

'AGRADE' Program

The 'AGRADE' Program is designed for outstanding seniors who wish to complete bachelor's and master's degrees in five years of full-time study. For further details and eligibility requirements regarding the 'AGRADE' Program and Biological Sciences, contact the Department Advising Office, 1360 Biological Sciences Building.

Minor in Biological Sciences

Completion of the minor in biological sciences requires twenty-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 science majors except that a minimum of twelve credits are required *in residence* in biological sciences beyond BIO 1500 and 1510.

Advanced Placement in Biological Sciences may be obtained by earning the following scores in the AP Qualifying Examination:

Score of 5: Credit is awarded for BIO 1500 and 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 479.

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 preprofessional 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, ecology, evolution, and systematics, their principles, strategies and outcomes in both structure and function. Material fee as indicated in the Schedule of Classes (T)

1510 (LS) Basic Life Mechanisms. Cr. 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 preprofessional programs. Meets General Education laboratory requirement. Material fee as indicated in the Schedule of Classes (T)

2200 (LS) Introductory Microbiology. Cr. 4 (LAB: 4;LCT: 3)

Prereq: BIO 1510; 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 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. 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; CHM 1220/1230 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) Molecular Biology and Biotechnology. Cr. 4

Prereq: BIO 3070 and BIO 3100. General principles of molecular biology of prokaryotes and eukaryotes. Emphasis on applications in 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. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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. Philosophies of evolutionary biology, paleontology, and techniques of cladism and phylogenetic reconstruction. Material fee as indicated in the Schedule of Classes. (S)

5040 Biometry. Cr. 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 Plant Pathology. (BIO 7480) Cr. 3

Prereq: BIO 1500 or 1520, and 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 or 1520. 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 2200 or 4120; PHY 2140; CHM 2260 or consent of instructor. Introduction to integrated analysis of cancer and cell biology, pathology, etiology and therapy. (F)

5680 (PSL 5680) Basic Endocrinology. Cr. 3

Prereq: 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 or 1520. Natural history, ecology and evolution of birds with emphasis on identification and field studies of Michigan birds. 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 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 Examination; consent of Department; coreq: BIO 4120 or BIO 5997 or BIO 6997. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a course designated as a corequisite. See Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. Students required to write three short papers (3-5 pages) and one long paper (15-20 pages, not including bibliography) in addition to other writing requirements in each course. (T)

5996 Senior Research. Cr. 1-2 (Max. 3)

Prereq: written consent of instructor and biology adviser; minimum 3.0 g.p.a. Original research. To be taken under direction of Biological Sciences faculty. (T)

5997 Senior Seminar. Cr. 2 (SMR: 1)

Prereq: senior standing in biological sciences; completion of biology Core Courses; consent of instructor. Must be taken in semester student is graduating. Aspects of current biological research. (F,W)

6000 Molecular Cell Biology I. Cr. 3 (LCT: 3)

Prereq: BIO 2600; PHY 2140; CHM 2260. 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. Mechanisms of human inheritance in individuals, families and populations. Sampling methods and data procurement. Statistical analysis of gene frequencies; cytogenetics and biochemical determinations of phenotypes. (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 Evolutionary Genetics. Cr. 3 (LAB: 3;LCT: 2)

Prereq: BIO 3070 and 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 physiological properties. Structural, dynamic, and physiological properties examined, including molecular and macromolecular assemblies, physical and chemical analysis of molecular motion, functional aspects including trans-membrane signalling. (Y)

6210 Ecology/Evolution. Cr. 4

Open only to middle- or high school teachers. Prereq: teaching certificate; mathematics through algebra. Ecological principles such as energy and nutrient flow demographics and populations; population genetics; genetics and phylogeny. (W)

6220 Biology of the Cell. Cr. 4

Open only to middle- or high school teachers. Prereq: teaching certificate. Prokaryotic and eukaryotic cell structure and function; basic biology and recent advances. (W)

6230 Genetics. Cr. 4

Open only to middle- or high school teachers. Prereq: teaching certificate; mathematics through algebra. Introductory prokaryotic and eukaryotic gene structures and functions of mechanisms of inheritance. (S)

6240 Introduction to Biotechnology for Teachers. Cr. 3

Prereq: BIO 2600; teaching certificate. Open only to middle or high school teachers. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Theories and technologies in the use of genomics; proteomics and bioinformatics techniques currently used for research and commercial applications. Web-based course. (Y)

6250 Biology Instruction for Teachers. Cr. 2 (Max. 10) (LCT: 2)

Prereq: consent of instructor. Offered only for graduate credit; for teachers only. Discussion of basic biological principles in light of recent advances. (Y)

6260 Laboratory Biology for Teachers. Cr. 1 (Max. 5) (LAB: 1)

Prereq: consent of instructor. Offered only for graduate credit; for teachers only. Laboratory component of BIO 6250; basic laboratory techniques in light of recent advances in the biological sciences. Material fee as indicated in the Schedule of Classes (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 2260 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)



CANADIAN STUDIES

Office: 3125 Faculty/Administration Building; 313-577-2799

Web: <http://www.cla.wayne.edu/canadianstudies/>

Director: John J. Bukowczyk

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. PS 2700 -- (FC) Introduction to Canadian Studies (GPH2700, 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). Students will find a non-exclusive list of Canadian-content courses offered at Wayne State University on the Canadian Studies Program website: <http://www.cla.wayne.edu/canadianstudies>.

CHEMISTRY

Office: 221 Chemistry Building; 313-577-2559

Chairperson: James H. Rigby; e-mail: jhr@chem.wayne.edu

Associate Chairpersons: David M. Coleman, Charles H. Winter

Academic Services Officers: Sharon Kelley, Erin Scully

Web: <http://www.chem.wayne.edu>

Professors

Ashok S. Bhagwat, Jin K. Cha, Vladimir Chernyak, Christine S. Chow, Darrell D. Ebbing (Emeritus), John F. Endicott (Emeritus), Karl H. Gayer (Emeritus), Richard B. Hahn (Emeritus), Carl R. Johnson (Emeritus), Tokuji Kimura (Emeritus), Stanley Kirschner (Emeritus), Richard L. Lintvedt, W. Martin McClain, John Montgomery, John P. Oliver, Colin F. Poole, Morton Raban, Gene P. Reck (Emeritus), James H. Rigby, Louis J. Romano, David B. Rorabacher, George H. Schenk (Emeritus), H. Bernhard Schlegel, Calvin L. Stevens (Emeritus), Arthur Suits, Charles H. Winter

Associate Professors

David M. Coleman, Mary T. Rodgers, John SantaLucia, Dana Spence

Associate Professors, Research

Regina Zibuck, Evelyn Goldfield

Assistant Professors

Alexander V. Benderskii, David E. Benson, Stephanie Brock, Mary Kay Plfum, Mark R. Spaller, Claudio N. Verani

Senior Lecturers

Maryfrances Barber, Michael Maguire

Adjunct Professors

Christopher F. Bigge, Alexander J. Bridges, Stephen C. Brown, Roscoe O. Carter III, Wayne L. Cody, John Domagala, Clifford Frieler, Paul Galatsis, Daniel Holsworth, Robert M. Kennedy, Jie Jack Li, Thomas C. Malone, Stephen A. Munk, Sean T. Murphy, Michael F. Rafferty, Bruce D. Roth, Sam Shinozaki

Adjunct Associate Professors

Hashem Akhavan-Tafti, Philip R. Cunningham, Maarten Postema

Degree Programs

BACHELOR OF ARTS with a major in Chemistry

BACHELOR OF SCIENCE in Chemistry

BACHELOR OF SCIENCE in Chemistry with concentration in Biochemistry

**MASTER OF ARTS with a major in Chemistry*

**MASTER OF SCIENCE with a major in Chemistry*

**DOCTOR OF PHILOSOPHY with a major in Chemistry and concentrations in analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, and physical chemistry*

The courses offered by this Department are designed to serve the needs of three distinct groups of students: a) those majoring in chemistry with the intention of entering the chemical profession, b) those majoring in chemistry with the intention of entering other professional fields, and c) those majoring in other subjects who desire to elect chemistry courses as part of their programs. Students intending to major in chemistry should refer to the bachelor's degree programs below.

* For requirements, see the Wayne State University Graduate Bulletin.

Students with no prior experience in chemistry may elect Chemistry 1000 (for non-science majors); Chemistry 1020 (for non-science majors and certain preprofessional students); or Chemistry 1040, which is intended for students who need higher-level chemistry work but who fail to qualify for Chemistry 1220 or 1225 or whose math/science skills are weak. Students who have had a year or more of high school chemistry or the equivalent may register for Chemistry 1220 (or 1225) or 1410 (for science and preprofessional majors) provided that they meet the other eligibility requirements outlined below. Election of any one of these courses will satisfy the University General Education Requirement for a physical science.

Terminal Chemistry Courses: Chemistry 1000 is a terminal survey course designed primarily to acquaint non-science students with the principles of chemistry in a format requiring minimal mathematical skills. When elected for four credits, this course includes a laboratory which satisfies the University General Education Requirement for a laboratory course.

Chemistry 1020 and 1030 represent a terminal sequence designed to introduce the basic principles of chemistry and survey the various fields of chemistry for non-science majors and certain preprofessional students such as pre-nursing, occupational health, engineering technicians and others.

Foundational Chemistry: Chemistry 1040 is designed as the beginning chemistry course for science majors, preprofessional students, and other students who have had little prior experience in chemistry and/or mathematics. Chemistry 1220 (or 1225) and 1230 are complementary and corequisite courses which should be taken during the same term. Chemistry 1220 is a classroom-focused course which includes only lecture and related quiz/discussion sessions. Chemistry 1230 is a laboratory-focused course which includes laboratory and related lecture sessions. This also describes the succeeding corequisite sets Chemistry 1240 and 1250, Chemistry 2220 and 2230, and Chemistry 2280 and 2290.

General Chemistry: Chemistry 1220/1230 are designed as the beginning courses for science majors and preprofessional students who have a good background in high school chemistry. (Chemistry 1225/1230 is the sequence for students in the College of Engineering.) Eligibility for Chemistry 1220/1230 must be established by passing a placement examination, covering basic high school material, which is administered by Testing, Evaluation, and Student Life Research, 698 Student Center Building. The qualifying examination is administered several times prior to and during registration.

Chemistry 1410 is the highest level beginning course in chemistry and usually is elected by chemistry majors or by students who have a strong background in high school chemistry and plan to take at least one year of college chemistry. To qualify for Chemistry 1410, a student must receive a superior score on the Chemistry 1220 Placement Examination, or receive a score of 3 or better on the National Advanced Placement Exam in Chemistry (see below), or show other evidence of superior academic potential (receipt of Wayne State Scholarship, admission to the Honors Program, etc.). The two-course sequence Chemistry 1410 and 1420 is equivalent to Chemistry 1220/1230, Chemistry 1240/1250, and Chemistry 2220/2230.

The sequence of Chemistry 1220/1230 and 1240/1250, or 1410 and 1420, are prerequisite to all higher numbered courses in chemistry.

Credit for Advanced Placement: Advanced placement college credit in chemistry shall be awarded for scores earned in the chemistry placement examination as follows:

Score of 4 or 5: Credit awarded for Chemistry 1220/1230 and 2280 (eight credits); student is eligible to enroll in Chemistry 1240 or 1420.

Score of 3: Credit awarded for Chemistry 1220/1230 (five credits); student is eligible to enroll in either Chemistry 1240 or 1410.

Bachelor of Arts with a Major in Chemistry

This curriculum allows students to major with a maximum of forty-six credits in chemistry while providing flexibility for exposure in other cognate fields. This degree is appropriate for students in science-oriented preprofessional programs such as medicine and dentistry, as well as for students entering secondary science teaching. For individuals interested in entering a graduate program in chemistry or pursuing a position in the chemical industry upon graduation, it is recommended that the additional requirements for professional certification by the American Chemical Society (outlined below) be completed.

Those interested in Phi Beta Kappa should consult with the secretary of the Wayne State University Chapter in order to determine the maximum amount of credits allowed in the major, as well as other general requirements.

Admission requirements for the College are satisfied by the general requirements for undergraduate admission to the University; page 32. Students planning to major in chemistry should consult with an adviser in the Chemistry Department not later than the beginning of their sophomore year.

DEGREE REQUIREMENTS: Candidates for the Bachelor of Arts degree must complete 120 credits in course work. This must include satisfying the University General Education Requirements (see page 16) and the College Group Requirements (see page 234), 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, 43, and 234.

Major Requirements: Those who wish to follow the general curriculum in the College of Liberal Arts and Sciences for the B.A. degree with a major in chemistry must complete the following courses:

1. Chemistry 1220/1230, 1240/1250, 2220/2230, 2280/2290, 3020, 5400 (or 5420 or 5440), 5550, 5600, and at least one of the following: 5160, 5440, 5510, 6040, 6240, 6440, 6620 or 6640. A minimum of fifteen credits in chemistry must be earned at Wayne State University. Qualified students may substitute 1410 and 1420 for 1220/1230, 1240/1250, 2220/2230.
2. Physics 2170/2171 and 2180/2181.
3. Mathematics 2010, 2020 and 2030.
4. Language requirement: three semesters of any language (German, French, or Russian preferred).

ACS Certification: B.A. candidates may receive certification by the American Chemical Society upon graduation by completing Mathematics 2150 and 2250 or 2350, as well as the following chemistry courses in addition to those required for the B.A. degree: Chemistry 5420 and 5440 (rather than 5400), 5160, and two additional advanced laboratory courses (5510, 5570, 5999).

To receive certification, students must submit an application along with a transcript to the Chemistry Department Curriculum Committee prior to the end of the final term.

Recommended Program

Note: Further changes in the chemistry curriculum are anticipated and may affect the courses included in the degree programs outlined in this bulletin. Interested students should consult a chemistry undergraduate adviser for current requirements.

First Year

Fall Semester

CHM 1220/1230 (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. 4
Total credits: 16-17

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. Minimum g.p.a.: 3.3 overall; 3.3 in chemistry courses.
3. Minimum of four credits in independent research (Chemistry 2999 or 5999). Research should commence in the junior year (or earlier).
4. Completion of one semester of an Honors Program 4200-level seminar (consult the Schedule of Classes under 'Honors Program'). This course may be used in partial fulfillment of College Group Requirements and can be elected in either the junior or senior year.
5. At least fifteen credits in honors-designated course work, including at least four credits in Chemistry 2999 and 5998; the recommended chemistry honors courses; the Honors Program HON 4200-level

seminar; and honors credits in other Departments or from the Honors Program.

6. Submission of a B.A. thesis or of a manuscript suitable for publication in a refereed chemical journal (covering the undergraduate research project) to the Honors Subcommittee in Chemistry which will act to accept or reject the thesis (or manuscript).

7. An oral examination covering the B.A. Honors Research Project, by the Honors Subcommittee in Chemistry.

8. Chemistry 1410 and 1420 are strongly recommended for students intending to earn an Honors degree in Chemistry.

Bachelor of Science in Chemistry

This degree offers a strong background for students interested in a career in chemistry or in a professional field with a strong reliance on chemistry. It is particularly recommended for students planning to do graduate work in chemistry and chemically-related fields. The degree is offered with two options: 1) Bachelor of Science in Chemistry, and 2) Bachelor of Science in Chemistry with a concentration in biochemistry. The first option is designed primarily for those planning to enter the chemical profession and other professional fields. The second option is designed primarily for students planning careers in biochemical and biomedical areas. Students may take a maximum of forty-six credits in chemistry. (Note: Those interested in Phi Beta Kappa should consult with the secretary of the Wayne State University Chapter in order to determine the maximum number of chemistry credits allowed.)

Admission requirements are satisfied by the general requirements for undergraduate admission to the University; see page 32. 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 16) and the College Group Requirements (see page 234), 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, 43, and 234.

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.

2. Physics 2170/2171 and 2180/2181.

3. Mathematics 2010, 2020, 2030, and 2150 (or 2250 or 2350).

4. Language requirement: three semesters of any language (German, French, or Russian are preferred).

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

CHM 3020: Cr. 3

Mathematics 2030: Cr. 4

Physics 2170/2171: Cr. 5

Total credits: 17

Winter Semester

CHM 2280/2290: Cr. 5

CHM 5600: Cr. 3

Physics 2180/2181: Cr. 5

Group Requirement: Cr. 3

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

1. May be taken in the Fall semester.

Substitutions in B.S. in Chemistry Curriculum (Option One only): In recognition of the diverse backgrounds required for various careers in chemistry, students may petition the Chemistry Curriculum Committee for approval to substitute advanced courses numbered 5000 or above from another discipline (such as physics, mathematics, biology, engineering) for the following B.S. requirements: (1) MAT 2150 (or 2250 or 2350); (2) CHM 5510 and 5570; (3) Chemistry elective. Such petitions for substitutions must be submitted in writing accompanied by a detailed statement of justification and a current transcript, and must be approved prior to registration in the alternative courses. Decisions regarding approval of such requests will be based on their legitimacy in terms of the student's professional goals. It is suggested that students consult the Chairperson of the Chemistry Curriculum Committee before filing such a petition.

Major Requirements for Option Two (Biochemistry): Those who wish to follow the curriculum for the B.S. in Chemistry with a concentration in biochemistry must complete the following courses (NO substitutions are allowed in the Option Two program: B.S. in Chemistry with a concentration in biochemistry):

1. CHM 1220/1230, 1240/1250, 2220/2230, 2280/2290, 3020, 5020, 5160, 5400, 5550, 5570, 6610, 6620 and 6640. In addition, students must enroll in *one* of the following: CHM 5510, MAT 2150, 2250, or 2350. By the first semester of the senior year, the student must enroll for at least two credits in Senior Research in Chemistry (CHM 5999 or 5998). The student must work under the direction of a faculty member of the Department of Chemistry. It is advised that the student consult with the faculty during the term prior to beginning work, in order to choose the area and staff member under whose direction this research will be carried out. At the conclusion of the project, the student must present a written report for approval by the Chairperson of the Department.

2. Physics 2170/2171 and 2180/2181.

3. Biology 1510, 2200, and 3070 or 6000.

4. Mathematics 2010, 2020, and 2030.

5. Language requirement: three semesters of any language (German, French, or Russian are preferred).

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 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

Biology 1510: Cr. 4

Total credits: 16-17

Second Year

Fall Semester

CHM 2220/2230: Cr. 5

Group Requirement: Cr. 3

Mathematics 2030: Cr. 4

Physics 2170/2171: Cr. 5

Total credits: 17

Winter Semester

CHM 2280/2290: Cr. 5

CHM 3020: Cr. 3

PHY 2180/2181: Cr. 5

Biology 2200: Cr. 4

Total credits: 17

Third Year

Fall Semester

CHM 6620: Cr. 3

Biology 3070 or 6000: Cr. 3-4

Group Requirements: Cr. 6

Language I: Cr. 4

Total credits: 16-17

Winter Semester

CHM 5400: Cr. 4

CHM 5550: Cr. 2

CHM or MAT option: Cr. 2-4

Language II: Cr. 4

Group Requirement: Cr. 3

Total credits: 15-17

Fourth Year

Fall Semester

CHM 5020: Cr. 3

CHM 5160: Cr. 3

CHM 5999 (or 5998): Cr. 2

Language III: Cr. 4

Group Requirements: Cr. 3

Total credits: 15

Winter Semester

CHM 5570: Cr. 3

CHM 5998 or 5999 (optional): Cr. (2)

CHM 6610: Cr. 3

CHM 6640: Cr. 3

Group Requirements: Cr. 3

Total credits: 12-14

— 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, 5998); 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 Requirements and can be elected in either the junior or senior year.

5. Submission of a B.S. thesis (covering the undergraduate independent research project), or of a manuscript suitable for publication in a refereed chemical journal, to the Honors Subcommittee in Chemistry which will act to accept or reject the thesis (or manuscript).

6. An oral examination covering the B.S. Honors Research Project, by the Honors Subcommittee in Chemistry.

7. CHM 1410 and 1420 are strongly recommended for students intending to obtain an honors degree.

Minor in Chemistry

Students majoring in other fields who desire to obtain a minor in chemistry must complete the following courses: CHM 1220/1230, 1240/1250, 2220/2230, 2280/2290, and at least nine additional credits earned at Wayne State University in Chemistry courses numbered 3000 or above, excluding seminar and research courses (CHM 2999, 4850, 5999, etc.). Typically, the latter nine credits could be satisfied by electing some combination of: CHM 3020, 5020, 5160, 5400, 5420, 5440, 5600, 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 Scholarships and Financial Aid, page 41.

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.

Jane and Frank Warchol Foundation Scholarship: Award open to full-time or part-time undergraduate or graduate students majoring in chemistry. Selection is based on scholastic achievement as well as on the basis of financial need. Applicants of Polish descent and applicants expressing strong entrepreneurial goals will be favored in the award process. 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 479.

NOTE: A minimum grade of 'C' is required in every prerequisite course.

FEES: Most laboratory courses have a non-refundable materials fee and are so indicated in the Schedule of Classes. Students are financially responsible only for the repair or replacement of University materials lost, damaged, or destroyed in classroom procedures.

1000 (PS) Chemistry and Your World. Cr. 3-4 (LCT: 3;LAB: 3)

Meets General Education Laboratory Requirement when elected for 4 credits. Facts and theories from analytical, inorganic, organic, and physical chemistry, and from biochemistry; their consequences in life processes and the environment. Material fee as indicated in the Schedule of Classes (F,W)

1020 (PS) Survey of General Chemistry. Cr. 4 (LCT: 3;QUZ: 1;LAB: 3)

Prereq: intermediate high school algebra recommended. Meets General Education Laboratory Requirement. High school chemistry not required. First course in the terminal sequence consisting of CHM 1020 and CHM 1030. Matter and energy in chemistry, chemical symbols and equations, structure and properties of atoms, introduction to

chemical bonding; periodicity in chemistry, solids, liquids, gases, solutions, acids and bases, and equilibrium. Material fee as indicated in the Schedule of Classes (F,W)

1030 Survey of Organic/Biochemistry. Cr. 4 (LCT: 3;QUZ: 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 regulation. Material fee as indicated in the Schedule of Classes (F,W)

1040 Chemistry Skills and Reasoning. Cr. 4

Prereq: placement by examination. No credit after any other chemistry course. Reasoning and mathematical skills needed for development of a scientific approach in chemistry. (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 1230. Satisfies General Education laboratory requirement upon completion of both CHM 1225 and 1230. Only one credit after CHM 1020. Introduction to principles of chemistry for students with high school background in chemistry. Chemical structure, bonding, and reactivity. (T)

1230 General Chemistry I Laboratory. Cr. 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)

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: CHM 1230 or equiv.; prereq. or coreq: CHM 1240. Integrated general/organic chemistry laboratory focusing on spectroscopy, acid-based chemistry, molecular modeling and organic reactions as well as some attention to chromatography. Material fee as indicated in the Schedule of Classes (T)

1410 (PS) Chemical Principles I: General/Organic Chemistry. Cr. 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 bioinorganic 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)

2280 General Chemistry II: Analytical Chemistry. Cr. 3

Prereq: CHM 1240 and 1250, or 1410, or equiv.; coreq: CHM 2290. Concepts and calculations regarding kinetics, equilibrium, thermodynamics for a variety of reaction types. Qualitative and quantitative examples and applications. (T)

2290 General Chemistry II: Analytical Chemistry Laboratory. Cr. 2

Prereq: CHM 1240 and 1250 or equiv.; prereq. or coreq: CHM 2280. Study and use of acid-base redox, solubility precipitation, and complex forming reactions and equilibria in qualitative and quantitative chemistry. Material fee as indicated in the Schedule of Classes (T)

2999 Honors Research Problems in Chemistry. Cr. 2-4

Prereq: CHM 1240/1250 or CHM 1410; consent of chairperson. Research projects under the direction of a senior faculty member. (T)

3020 Intermediate Inorganic Chemistry I. Cr. 3 (LCT: 3)

Prereq: CHM 1240 or equiv. Emphasizes chemistry of the main group elements and includes basic coordination chemistry of the transition metals. (W,S)

4850 Frontiers in Chemistry. (CHM 8850) Cr. 1 (Max. 2)

Prereq: junior or senior Chemistry major. Offered for S and U grades only. Fields of fundamental chemistry now under investigation, presented by invited specialists actively engaged in research. (F,W)

5020 Intermediate Inorganic Chemistry II. Cr. 3

Prereq: CHM 3020 and 5420 or 5400 or 5440 or equiv. Transition metal chemistry. Coordination compounds and organometallics. Bonding theories and reactivity. Synthesis, purification, and characterization of inorganic compounds with an emphasis on transition metal compounds. Material fee as indicated in the Schedule of Classes (F)

5160 Instrumental Analytical Chemistry. Cr. 3

Prereq: CHM 5400 or 5420 or 5440 or equiv.; PHY 2180 or equiv. Required of B.S. and ACS-approved B.A. majors. Application of modern instrumental methods to quantitative analysis. Methods that relate instrumental response to chemical concentrations or content. Calibration, data handling, and data evaluation. Emission, flame, infrared, Raman, fluorescence, and magnetic resonance spectroscopy. Mass spectrometry. Electrochemical methods. Chromatography. (W)

5400 Biological Physical Chemistry. Cr. 4

Prereq: CHM 2280 or equiv., MAT 2020 or equiv.; prereq. or coreq: MAT 2030, PHY 2170 or equiv. Presentation of physical chemistry topics: thermodynamics, solution equilibria, chemical kinetics, quantum chemistry, spectroscopy, statistical mechanics, transport processes, and structure with biological applications. (W)

5420 Physical Chemistry I. Cr. 3

Prereq: CHM 2280, MAT 2020, or equiv.; prereq. or coreq: MAT 2030, PHY 2170 or equiv. Only two credits applicable toward degree after CHM 5400. Chemical thermodynamics, phase equilibrium, solutions, surface chemistry, electrochemistry. (F,W)

5440 Physical Chemistry II. Cr. 4

Prereq: CHM 2280, MAT 2020 or equiv.; prereq. or coreq: MAT 2030, PHY 2170 or equiv. Only three credits applicable to degree after

CHM 5400. Kinetic theory, empirical and theoretical kinetics, quantum theory, atomic and molecular structure, molecular spectroscopy, statistical mechanics. (F,W)

5510 Chemical Synthesis Laboratory. Cr. 2

Prereq: CHM 1420, or 2220 and 2230 or equiv. Advanced techniques for the synthesis, purification and characterization of organic compounds. Material fee as indicated in the Schedule of Classes (F)

5550 (WI) Physical Chemistry Laboratory. Cr. 2

Prereq. or coreq: CHM 5400 or 5420 or 5440 or equiv., and PHY 2180 or equiv. Principles of measurement. Fundamental investigations of thermodynamics. Fundamental spectroscopic and kinetic measurements. Material fee as indicated in the Schedule of Classes (F,W)

5570 Instrumental Analytical Chemistry Laboratory. Cr. 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 (W)

5600 Survey of Biochemistry. Cr. 3

Prereq: CHM 1420 or 2220 or equiv. Protein structure and its relationship to function. Principles of enzyme catalysis. Allosteric regulation of protein function and enzyme catalysis. Pathways of carbohydrate, fat, and protein metabolism in eukaryotic organisms. Introduction to mechanisms of energy coupling and photosynthesis. Information transfer in living systems. Molecular biology. (W)

5740 Topics in Chemistry for High School Chemistry Teachers. Cr. 1-6 (Max. 20)

Topics include: principles of chemistry; descriptive chemistry; inorganic, organic, analytical, physical chemistry; biochemistry. Topics to be announced in Schedule of Classes. (I)

5780 Atoms, Molecules and Models. Cr. 3

Open only to middle- or high school teachers. Prereq: college chemistry and biology. Energetics, atomic theory, molecular theory, computer modeling, structure of small and large molecules. (W,S)

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 the direction of a senior staff member. Submission of B.S. thesis or manuscript in publication format. (T)

6040 Chemical Applications of Group Theory. (CHM 7040) Cr. 3

Prereq: CHM 5020 and 5440 or equiv. Symmetry in chemical systems, development and use of character tables. Application of group theory to structure, bonding, spectroscopy and reactions. (F)

6240 Organic Spectroscopy. (CHM 7240) Cr. 3

Prereq: CHM 1420 or 2220 or equiv. Application of IR, NMR, UV, and mass spectrometry to the identification of organic compounds. Emphasis on interpretation of spectra, especially NMR. Recommended for students intending to do graduate or industrial work in organic chemistry. (W)

6340 (PHC 6340) Chemical Basis of Pharmacology. (BIO 6840) Cr. 3

Prereq: CHM 1420 or 2220 and BIO 1510 or equiv. Mechanisms of action and metabolism of commonly-used drugs and toxic substances from the cellular level to whole biological systems. (Y)

6440 Computational Chemistry. (CHM 7440) Cr. 3

Prereq: CHM 5440 or equiv. Aspects of computational chemistry pertinent to effective use of molecular modeling techniques. Molecular mechanics, semi-empirical and *ab initio* calculations, molecular dynamics. Material fee as indicated in the Schedule of Classes (W)

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)

CLASSICS, GREEK, and LATIN

Office: 431 Manoogian Hall; 313-577-3032

Interim Chairperson: Kathleen McNamee

e-mail: k.mcnamee@wayne.edu

Website: <http://www.cla.wayne.edu/CGL/CGLhome.html>

Professors

Kathleen McNamee, Richard W. Minadeo (Emeritus)

Associate Professors

Ernest J. Ament (Emeritus), Joel B. Itzkowitz, Michele V. Ronnick, Jennifer A. Sheridan, Kenneth R. Walters

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 instruction in Latin and Greek (both ancient and modern) as well as the cultures and the literatures of these languages in English translation. These studies have been the basis of Western civilization and education for over two thousand years. Because of the importance of this heritage for a wide variety of academic disciplines, Classics majors receive excellent preparation for a variety of careers: business, law, medicine and the health sciences (when combined with science study), teaching at the high school or university level, library and information science, museum practice, political science; or non-academic fields such as government, publishing, tourism and business, where 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 32.

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 program is arranged to satisfy each 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 16) and the College of Liberal Arts and Sciences Group Requirements (see page 234), as well as the major requirements cited below. All course work must be completed in accordance with the academic procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on page 16, 43, and 234.

* For specific requirements, see the Wayne State University Graduate Bulletin.

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. Recommended cognates are listed below.

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. Recommended cognates are listed below.

A *concentration in both Ancient Greek and Latin*, requiring twenty credits in either Ancient Greek or Latin (exclusive of Greek or Latin 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). Recommended cognates are listed below.

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), History 5330 (History of Ancient Greece) and 5340 (History of Ancient Rome), or Philosophy 2100 (Ancient and Medieval Philosophy). In addition, two courses from the following recommended cognates are required:

Recommended Cognates

ANT 3200 -- (HS) Lost Cities and Ancient Civilizations: Cr. 3

ANT 5270 -- Introduction to Archaeology: Cr. 3

ANT 5310 -- Language and Culture: Cr. 3

A H 3070 -- Art & Archaeology of Ancient Egypt: Cr. 3

A H 5250 -- Ancient Rome: Cr. 3

A H 5260 -- Classical Greek Art: Cr. 3

A H 5300 -- Early Christian Art and Architecture: 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) Classical Origins of Western Thought: Cr. 3

CLA 2200 -- (PL) Introduction to Greek Tragedy: Cr. 3-4

CLA 3100 -- Law and Ancient Society: Cr. 3-4

CLA 3190 -- Topics in Women in Classical Antiquity: Cr. 3

CLA 3250 -- The Ancient City: Cr. 3-4

CLA 3350 -- Plutarch: Lives: Cr. 3

CLA 3600 -- Religious Exprnc. Among the Anc. Greeks & Romans: Cr. 3

CLA 3999 -- Further Studies in Mythology: Cr. 3

CLA 5200 -- Special Studies: Cr. 1-4

COM 2190 -- Rhetoric in Western Thought: Cr. 3

GRK 2600 and above: GRK 1010-2010 if Latin is major language

GRK 3710 -- (FC) Modern Greek Literature and Culture: Cr. 3

HIS 5330 -- History of Ancient Greece: Cr. 3

HIS 5340 -- History of Ancient Rome: Cr. 3

HIS 5360 -- The Early Middle Ages: 300-1000: Cr. 3

LAT 2600 and above: LAT 1010-2010 if Greek is major language

N E 2010 -- The Bible and Ancient Mythology: 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 much work as possible 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 241.

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, of both) and is encouraged to elect Classics 1010 (Classical Civilization) and 2000 (Greek Mythology).

Once the Honors candidate has been admitted to the program (normally at the end of the sophomore year) he/she shall fulfill the normal requirements for the elected major. In the senior year students should elect a minimum of eight credits in 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. For recommended cognates, see those listed above for majors in the field.

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. For recommended cognates, see those listed above for majors in the field.

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). Recommended cognates are Greek Mythology (CLA 2000) and Introduction to Greek Tragedy (CLA 2200), as well as those listed above for majors in the Department.

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 (six to eight credits).
4. Art History 5210 (Hellenistic Art) (three credits).

5. History 5330 (History of Ancient Greece or 5340 (History of Ancient Rome) (three credits).

6. Philosophy 2100 (Ancient and Medieval Philosophy) (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 1110¹, 1120¹, 2110¹, 2610, plus one course in Modern Greek language or culture at the 3000-level or above, plus one elective course in Classics selected from among CLA 1010, 2000, 2100, 2200, 3100, 3190, 3250, 6260; HIS 5330, 5350; PHI 2100, 5410, and 5420.

Foreign Language Group Requirement

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 their 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.

University General Education Requirements and College of Liberal Arts and Sciences Group Requirements

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 16). Modern Greek 3710 also satisfies the Foreign Culture Requirement. Classics 1010, 2100, and 2200 satisfy the Philosophy and Letters portion of the University General Education Program and of the College Humanities Requirement; and Classics 2000 satisfies the College of Liberal Arts and Sciences Civilizations and Societies Requirement.

Scholarships

Modern Greek Studies Scholarship: The Department or the Ministry of Culture and Science of the Hellenic Republic annually make available one scholarship to a student of Modern Greek language and literature. The purpose of the scholarship is to enable the student to acquire a firsthand knowledge of Greece, its people and their way of life, and to establish personal contacts with cultural and scientific figures in Greece. The annual summer program includes tours of archaeological sites in Greece, visits to some of the Aegean Islands and attendance at such cultural events as the Epidaurus Festival and the Athens Festival. Written applications are due in the month of March. For further information, consult with the instructor in charge of the Modern Greek Studies Program, and see page 243.

Other Study Abroad: The Department encourages students in Classics and Modern Greek to study abroad for one or two semesters or for a summer term in any of several reputable programs available. For information on financial support for such study, students should contact the Undergraduate Adviser (313-577-6227).

See also page 238, above, and the section on the Office of Scholarships and Financial Aid, page 41.

1. Students who place out of one or more of the introductory Greek courses must take a corresponding number of additional electives, including any GRK course.

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 479.

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) 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. (Y)

2000 Greek Mythology. Cr. 3-4

Typical myths related to religion, custom, ethics, philosophy, art, literature. (Y)

2100 (PL) Classical Origins of Western Thought. (HON 2100) Cr. 3

Prereq. for Honors students: 3.3 cumulative g.p.a. (3.5 g.p.a. for entering freshmen). Classical foundations of contemporary Western Thought. Topics include: relations between the sexes, democracy, slavery, war, social criticism, rationality, relations between parents and children, literature and performing arts. (I)

2200 (PL) Introduction to Greek Tragedy. Cr. 3-4

Dramatic and literary qualities of representative plays of Aeschylus, Sophocles and Euripides. The origin and development of Greek tragedy related to the enduring quality and contemporary relevance of these dramas. (I)

3010 The Book. Cr. 1

History of writing and publication in the Classical world of the Ancient Greeks and Romans, focusing on interrelated activities of authors, scribes, and readers. (B)

3030 Caesar: Writer and Soldier. Cr. 1

Prereq: CLA 1010, HIS 1100, or equiv. Life of C. Julius Caesar examined through structured reading in English of significant sources. (B)

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. (B)

3050 Cleopatra. Cr. 1

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. (B)

3190 Topics on Women in Antiquity. Cr. 3 (Max. 6)

Topics on roles of women and views of gender and sexuality in ancient Greece and Rome, drawn from fields such as literature, art, drama, and law. (I)

3250 The Ancient City. (CLA 6250) Cr. 3-4

Infrastructure, architecture, planning, and social and political forces that shaped the great cities of the ancient world, with particular attention to the growth of Rome. (B)

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. (B)

3350 Plutarch's Lives of the Noble Greeks and Romans. (CLA 5350) Cr. 3

Structured exploration of Plutarch's Parallel Lives in translation. (B)

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. (B)

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. (Y)

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. (B)

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)

5350 Plutarch's Lives of the Noble Greeks and Romans. Cr. 3

Structured exploration of Plutarch's Parallel Lives in translation. (B)

5600 Religious Experience Among the Ancient Greeks and Romans. Cr. 3

CLA 5600 offered for graduate credit only. 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. (B)

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. (B)

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 listen-

ing 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. (Y)

5993 (WI) Writing Intensive Course in Classical Civilization. Cr. 0

Prereq: junior standing, satisfactory completion of English Proficiency Examination, 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)

6250 (CLA 3250) The Ancient City. Cr. 3-4

Prereq: graduate standing. 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. (B)

6260 (CLA 3999) Further Studies in Mythology. Cr. 3 (Max. 6)

Prereq: CLA 2000 or equivalent introductory mythology course in any other Department, or consent of instructor. An in-depth study of mythology with special reference to particular classical myths or theories of myth. (I)

GREEK COURSES (GRK)

Ancient Greek

1010 Elementary Ancient Greek I. Cr. 4

Basic vocabulary, forms, grammar, and introduction to ancient Greek culture. (Y)

1020 Elementary Ancient Greek II. Cr. 4

Prereq: GRK 1010. Continuation of GRK 1010 with increasing emphasis on reading ability. (Y)

2010 (FC) Intermediate Ancient Greek. Cr. 4

Prereq: GRK 1020. Readings in Ancient Greek from representative authors such as Plato, Lysias, Euripides, and others. (Y)

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. (I)

5000 Ancient Greek for Graduate Students. Cr. 1-3 (Max. 3)

Prereq: written consent of graduate adviser. Introduction to basic vocabulary, forms and grammar of classical Greek leading to the reading of continuous Greek prose passages. Offered in conjunction with GRK 1010 or GRK 1020. (T)

5100 Greek Prose Composition. Cr. 2-4

Prereq: GRK 2010 or equiv. or consent of instructor. Practice in the essentials of writing idiomatic and stylistic Greek prose. Instruction guided by reading 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) 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) 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)

5110 Modern Greek for Graduate Students. Cr. 1-3

Prereq: written consent of graduate adviser. Vocabulary and grammar of modern Greek. Emphasis on conversation, reading and writing. (T)

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. (Y)

1020 Elementary Latin II. Cr. 4

Prereq: LAT 1010. Continuation of LAT 1010, with increasing emphasis on reading ability. (T)

2010 (FC) Intermediate Latin. Cr. 4

Prereq: LAT 1020. Representative selections of Latin prose and poetry. (T)

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)

5000 Latin for Graduate Students. Cr. 1-3 (Max. 3)

Prereq: written consent of graduate adviser. Basic vocabulary, forms and grammar of Latin leading to the reading of continuous Latin prose passages. (T)

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)

COMPUTER SCIENCE

Office: 431 State Hall; 313-577-2477

Chairperson: Farshad Fotouhi; E-mail: fotouhi@wayne.edu

Associate Chairperson: Seymour Wolfson

Administrative Assistant: Judith Lechvar

Web: <http://www.cs.wayne.edu>

Professors

Farshad Fotouhi, Narendra Goel, Vaclav Rajlich, Robert G. Reynolds

Associate Professors

Vipin Chaudhary, Sorin Draghici, Hasan Jamil, Loren Schwiebert, Frank Stomp, Seymour J. Wolfson

Assistant Professors

Monica Brockmeyer, Ming Dong, Daniel Grosu, David Hart, Jing Hua, Shiyong Lu, Weisong Shi, Sherali Zeadally

Instructor

Andrian Marcus

Lecturers

Milos Besta, Suzanne Jennings, Monika Witoslawski

Degree Programs

BACHELOR OF ARTS with a Major in Computer Science

*BACHELOR OF ARTS with a Major in Information Systems
Technology*

BACHELOR OF SCIENCE with a Major in Computer Science

POST BACHELOR CERTIFICATE in Computer Science

**GRADUATE CERTIFICATE in Scientific Computing*

**MASTER OF ARTS with a Major in Computer Science*

**MASTER OF SCIENCE with a Major in Computer Science*

**DOCTOR OF PHILOSOPHY with a Major in Computer Science*

The mission of the Department of Computer Science at Wayne State University is to provide excellence in teaching, research, and public service with leadership in the computer science profession and the community. The Department provides a high-quality, innovative, baccalaureate and graduate education that emphasizes the fundamentals of computer science but explores the ramifications of technology, preparing students for employment and advanced studies. Students are encouraged to become involved in research programs to enhance their education and their employment opportunities. Through the use of our state-of-the-art laboratory facilities, students can conduct basic and applied research of high quality, influence, visibility, and potential community impact. The Department continues to develop cooperative research relationships within and outside the computer science discipline, as well as with industry, government and alumni, and local community organizations. This interaction with professional organizations world wide will provide our students with the highest standards, goals, and professional practices.

* For requirements, see the Wayne State University Graduate Bulletin.

BACHELOR'S DEGREE PROGRAMS

Admission requirements for the College are satisfied by the general requirements for undergraduate admission to the University; see page 32. Students planning to major in computer science should consult with a Departmental adviser as soon as possible and no later than the beginning of their sophomore year. In general, the requirements in effect when a student declares a major in computer science will be those that the student must satisfy. Students should check with the Department for the latest information concerning the program and requirements. Sample recommended programs of study for each of the degree programs are provided below.

Major course sequence outlines are available in the Department for guidance in meeting degree requirements.

Admission following an interruption in enrollment: A student attempting to complete a computer science major after a prolonged interruption of his/her education may find that some of his/her course work in computer science is out of date. In this case, the student's record will be reviewed and the Department may require the student to fulfill additional computer science course requirements existing at the time of his/her return, and/or to retake some courses previously taken.

Transfer students should consult with the undergraduate Departmental adviser during the semester prior to their transfer. Determination of course equivalency will be made by the Transfer Credit Evaluation Unit in conjunction with the undergraduate faculty adviser. The Department reserves the right of final determination of course equivalency.

Introductory Course Work: The Department of Computer Science offers a number of courses introducing students to basic computer and computing concepts. Some of these courses also serve as prerequisites for more advanced study in computer science. Most of the introductory courses require mathematics preparation equivalent to MAT 0995 or MAT 1800. (See course descriptions regarding the required prerequisites, page 321.) CSC 1000, offered as computer-based instruction, is for non-majors who desire to learn basic computing concepts; this course fulfills the General Education Computer Literacy requirement. Students who intend to major or minor in computer science will not normally take this course.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete at least 120 credits in course work, including satisfaction of the University General Education Requirements (see page 16) and the College Group Requirements (see page 234). 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, 43, and 234.

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:

1. Mathematics 2010, 2020, 2210, and 2250.
2. Computer Science course work as follows:
 - a) Computer Science 1100, 1500, 2110, 2200, 3200, 4100, 4110, 4420, 4500, and 4996.
 - 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-seven credits in computer science must be earned at Wayne State University.

d) A minimum grade of 'C' is required in CSC 1100, 1500, 2110, and 2200, 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 web site:

<http://www.cs.wayne.edu/academics/ugprogram.html>.

— 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:

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 273.

DEGREE REQUIREMENTS: See page 273.

COURSE REQUIREMENTS:

1. Mathematics 2010, 2020, and 2210.
2. Computer Science course work as follows:
 - (a) Computer Science 1100, 1500, 2110, 2200, 3200, 4100, 4110, 4420, and 4996.
 - (b) Three additional Computer Science courses of at least three credits each, numbered 3000 or above, excluding CSC 4990 and 4995.
 - (c) A minimum of twenty-three credits in computer science must be earned at Wayne State University.
 - (d) A minimum grade of 'C' is required in CSC 1100, 1500, 2110, and 2200, 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 web site:

<http://www.cs.wayne.edu/academics/ugprogram.html>.

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 273.

DEGREE REQUIREMENTS: See page 273.

COURSE REQUIREMENTS:

1. Mathematics 2010 and 2210.
2. Computer Science 1100, 1500, 2110, 2200, 3750, 4100, 4110, 4420, 4710 (or ISM 5994), 4996, 5750.
3. Two additional computer science courses at the CSC 4000 level or above.
4. Economics 2020.
5. Business Administration course work to include: Accounting 3010, Finance 4290, Management 4530, and Marketing 4300.
6. A minimum of twenty-three credits in computer science must be earned at Wayne State University.

A minimum grade of 'C' is required in CSC 1100, 1500, 2110 and 2200 respectively.

Prior to declaring their major, students should consult an adviser for a written assessment of the current requirements.

Recommended Program: A recommended four-year course schedule is available on our web site:

<http://www.cs.wayne.edu/academics/ugprogram.html>.

Cooperative Work-Study Program

Students who wish to enrich their education with practical computer science experience may enroll in the Cooperative Work-Study Program. In this program, full-time study terms alternate with full-time work assignments in cooperating industries. The Co-op experience provides two benefits: industrial work experience which can be included in a resume, and the possibility of being offered a full-time

position with the co-op employer, upon graduation. The program takes place over a two-year period where students usually enter the program in their junior year, and most of the work assignments are in the metropolitan Detroit area. A student may enroll for no more than one course with the approval of the College Co-op Coordinator during those terms in which he/she is on a work assignment. Each term that a student is on a work assignment he/she must enroll the following term in Computer Science 4995, Professional Practice in Computer Science. An oral and written report covering each work assignment is required of the student and performance on the job is rated by the industrial supervisor. Salaries and other benefits are paid for by the employer based upon the time spent on each work assignment. The student must be a computer science major. For details and enrollment procedures, contact the College Co-op Coordinator at the Career Planning and Placement office.

Minor in Computer Science

The Minor Program provides a background in computer science for students who are majoring in other fields of study in the College.

COURSE REQUIREMENTS:

1. Mathematics 2010, 2020, and 2210.
2. Computer Science course work as follows:
 - a) Computer Science 1100, 1500, 2110, and 2200.
 - 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, 1500, 2110, and 2200, 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' — 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 234) will generally apply for a second bachelor's degree rather than the Certificate in Computer Science.

The Post Bachelor Certificate Program provides a certificate which verifies the completion of the technical courses required for the Bachelor of Arts with a Major in Computer Science.

Admission: Students who have received their undergraduate degree from Wayne State University should apply directly to the University Advising Center. Two copies of the student's transcript must be submitted to the university adviser as part of the admission process.

Students who have received their undergraduate degrees from another institution must complete the Application for Undergraduate Admission form and request that official transcripts from the college or university granting the degree be sent directly to the Office of Admissions.

CERTIFICATE REQUIREMENTS: Candidates for this certificate must achieve a level of competence in mathematics and computer science equivalent to completion of fifty-one credits in university course work as set forth in the following program. Prior preparation at the undergraduate level as evidenced in the transcript notation or by demonstrable proficiency may be used to satisfy any of these requirements, except that twenty-three credits in computer science, either as transfer credit to this program or as Post Bachelor Certificate credit, must be earned at Wayne State University. The content requirements for this program are as follows:

1. A bachelor's degree or its equivalent in some discipline other than computer science with a grade point average of at least 2.0 from an accredited institution.
2. Mathematics 2010, 2020, and 2210.
3. Computer Science course work as follows:
 - a) Computer Science 1100, 1500, 2110, 2200, 3200, 4100, 4110, 4420, and 4996.
 - b) Three additional Computer Science courses of at least three credits each, numbered 3000 or above, excluding CSC 4990 and 4995.
 - c) A minimum of twenty-three 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, 1500, 2110 and 2200 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. The teaching laboratories are supported by the Department and are available to all students for class work and research. Current lab descriptions may be found at: <http://www.cs.wayne.edu/labs/>

Financial Aid

Also see Office of Scholarships and Financial Aid, page 41.

DaimlerChrysler Corporation Fund Undergraduate Scholarship Award: Award of \$1000 open to any undergraduate computer science major with at least sophomore standing. Application deadline is mid-March; contact the Department for further information.

Stephen P. Hepler Award: Award of \$1000 open to any computer science major with at least sophomore standing. Application deadline is mid-March; contact the Department for further information.

John P. Stieber Endowed Scholarship Fund: Award open to any part-time or full-time undergraduate upper-division student majoring in computer science, who is a U.S. citizen and has a minimum 3.0

g.p.a.; awarded on the basis of scholastic achievement and leadership. Application deadline is mid-March; contact the Department for further information.

MichCon—Leon Atchison Scholarship: Award open to any minority student majoring in accounting, chemical engineering, mechanical engineering, or computer science from the MichCon service area; student must have a minimum 2.5 g.p.a., be a U.S. citizen, and demonstrate financial need. Application deadline is April 30; contact the Office of Scholarships and Financial Aid.

Weingarten Scholarship Award: Award of \$500, open to any part-time or full-time undergraduate majoring in computer science with sophomore standing, a minimum 3.0 g.p.a., who is a U.S. citizen and has demonstrated qualities of leadership and outstanding scholastic achievement. Application deadline is mid-March; contact the Department for further information.

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 479.

0995 Coop Work Experience. Cr. 0

Offered for S and U grades only. Open only to computer science students. No degree credit. May not be used to satisfy undergraduate computer science elective requirements. Review of computer science practical experiences resulting from participation in coop/internship program. (T)

1000 (CL) Introduction to Computer Science. Cr. 3

Prereq: placement out of MAT 0995. No credit after any other programming course. Not for computer science majors. Brief introduction to problem solving: analysis, design, implementation and testing using a general purpose structured programming language. Introduction to use of text editors, word processors, spreadsheets, databases, and telecommunications. (T)

1050 (CL) Introduction to C and Unix. Cr. 2

Prereq: MAT 1800. No credit for computer science students after CSC 1100. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Introduction to Unix, vi editor, and C Programming Language. Unix development tools and fundamentals of C language discussed. (T)

1100 (CL) Problem Solving and Programming. Cr. 4

Prereq: placement out of MAT 1800. 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 array and string. (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 MAT 2010. Introduction to fundamental control and data structures in computer science. Algorithms and complexity, recursive algorithms, program correctness using the predicate calculus, reasoning about algorithms using mathematical induction, probability theory and computing with random variables,

generation of permutations and combinations, divide and conquer algorithms, recurrence relations, set properties and their computation, computing with relations, graph properties and their computation, tree properties and their computation, boolean algebra with applications to circuit design. (T)

2000 Introduction to C++ Programming Language. Cr. 3

Prereq: placement out of MAT 1800 and CSC 1000. No credit for Computer Science majors. Elements of C++; arrays, pointers and references; operators; classes and objects. (T)

2110 (CL) Introduction to Data Structures and Abstraction. Cr. 4

Prereq: CSC 1100 and MAT 2010. Introduction to data abstraction; design of abstract data types stack, queue and list using array and dynamic linked list representations; recursive functions; searching and sorting algorithms. (T)

2200 Data Structures and Algorithm Analysis. Cr. 4

Prereq: CSC 1500, 2110, MAT 2210. Introduction to analysis of algorithms. Data structures for trees, sets, graphs; external sorting algorithms; hashing; files; advanced tree structures. (T)

3100 Computer Organization. Cr. 3

Prereq: CSC 1500, 2110 or 5050. Data representation; assembly language programming; addressing, subroutine and parameters, input/output programming, interrupts and direct memory access; linkers and loaders. (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, Newsgroups, WWW, HTML, CGI and PHP scripting and how to create an active web site. Laboratory exercises required. (F,W)

4100 Computer Architecture. Cr. 4

Prereq: CSC 2110 or 5050. Offered for undergraduate major credit only. Data representation; digital logic circuits; instruction formats and addressing modes; register transfer and microoperations; microprogrammed control; RISC architecture; memory organization; pipelined and vector processing; multiprocessors. (T)

4110 Introduction to Software Engineering. Cr. 3

Prereq: CSC 2200. 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)

4420 Computer Operating Systems. Cr. 3

Prereq: CSC 2200 and 4100. Offered for undergraduate major credit only. Operating system services; file systems; CPU scheduling; memory management; virtual memory; disk scheduling; deadlocks; concurrent processes. (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; hier-

archy 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; network model; hierarchical 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. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Topics to be announced in the Schedule of Classes. (Y)

4995 Professional Practice in Computer Science. Cr. 1 (Max. 4)

Prereq: junior or senior standing. Offered for S and U grades only. Open only to computer science co-op students. Must be taken after each full-time co-op work assignment. May not be used to satisfy undergraduate computer science elective requirements. Review of computer science practical experiences resulting from participation in the cooperative work-study program. (T)

4996 (WI) Frontiers of Computing. Cr. 2

Prereq: senior standing in computer science. Selected topics from: artificial intelligence; software engineering; databases; distributed and parallel computing; computer vision and robotics; natural computing; computer graphics. (Y)

4999 Honors Thesis. Cr. 3-6 (3 req.)

Prereq: senior standing, written consent of instructor. Offered for 6 credits with consent of thesis adviser and undergraduate committee. Independent study under supervision. (T)

5000 (SCP 7100) Scientific Systems Programming. (ECE 7225) Cr. 3

Not for CSC or ECE major credit. Prereq: working knowledge of Fortran or C or C++. Introduction to basic programming tools required for scientific computing, including advanced programming concepts, code optimizations, mathematical prototyping language, and basic system administration. (F)

5050 (ECE 4050) Algorithms and Data Structures. Cr. 4

Prereq: CSC 1050 or CSC 2000. Not for major credit. 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. (T)

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. (F,W)

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. (Y)

5750 Principles of Web Technology. Cr. 3

Prereq: CSC 3750 or senior or graduate standing. History and development of the world-wide web. Techniques for authoring static and dynamic content for the world-wide web. Web security techniques. Electronic commerce on the web. Lab exercises required. (F,W)

5800 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 functional, logical, and object-oriented programming and to various commercially available expert system environments; specific applications in areas of computer science, medicine, and engineering. (I)

5830 Computational Modeling of Complex Systems. Cr. 3

Prereq: knowledge of a programming language; MAT 2010. Introduction to computer methods useful for modeling complex systems which are refractory to traditional methods of analysis. Emphasis on problem formulation and concrete examples, especially examples drawn from biology. (W)

5860 Introduction to Pattern Recognition and Image Processing. Cr. 3

Prereq: senior standing. Model of a pattern recognition system; representation techniques for classifiers; parametric and nonparametric classification methods; clustering; fundamentals of image formation and acquisition; image enhancement methods; feature extraction for two-dimensional visual pattern recognition; document image processing and recognition. (Y)

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. (Y)

5880 Principles of Natural Computing. Cr. 3

Prereq: senior or graduate standing. Introduction to basic principles of information processing in biological systems; similarities and differences between biological systems and computing machines; implication of biological information processing principles and mechanisms for artificial intelligence. (B)

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. (I)

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-oriented development. (Y)

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 comprehension; knowledge-based approaches to software maintenance and reuse; computer-supported cooperative work. (I)

6170 Structure of Compilers I. Cr. 3

Prereq: CSC 4500 and 3200. Lexical analysis; syntactic analysis; error detection; translation into intermediate code; storage allocation; optimization techniques. (I)

6220 Parallel Computing I: Programming. (SCP 7300) Cr. 3

Prereq: CSC 2200, CSC 4100, or consent of instructor. Parallel computing concepts, examples of parallel computers, parallelism in algorithms / data / programs, experiences with state of the art parallel computers. (Y)

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. (I)

6290 Data Communication and Computer Networks. Cr. 3

Prereq: CSC 5250. Data communication fundamentals and principles governing computer communication networks. Components of networks, how they are connected; basics of design and implementation of network protocols. (Y)

6500 Theory of Languages and Automata. Cr. 3

Prereq: graduate standing. Recursive and recursively enumerable languages; decidability and computability; Rice's theorem; time complexity; space complexity. (F,W)

6550 Introduction to Formal Software Verification. Cr. 3

Prereq: CSC 4500 or 5050 or consent of instructor. Propositional logic, predicate logic, proof systems, proofs, soundness, completeness. Verification of sequential programs, Floyd's verification method, Hoare logic. Unity. Program specification. Deterministic programs, nondeterministic programs. Compositional vs. non-compositional verification techniques. (Y)

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. (F,W)

6620 Matrix Computation I. (ECE 5020) Cr. 4

Prereq: CSC 2110, or equiv.; and MAT 2250 for computer science students, 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

CSC 5830 or consent of instructor. Practical experience in the implementation and documentation of computer models. (I)

6860 Digital Image Processing and Analysis. Cr. 3

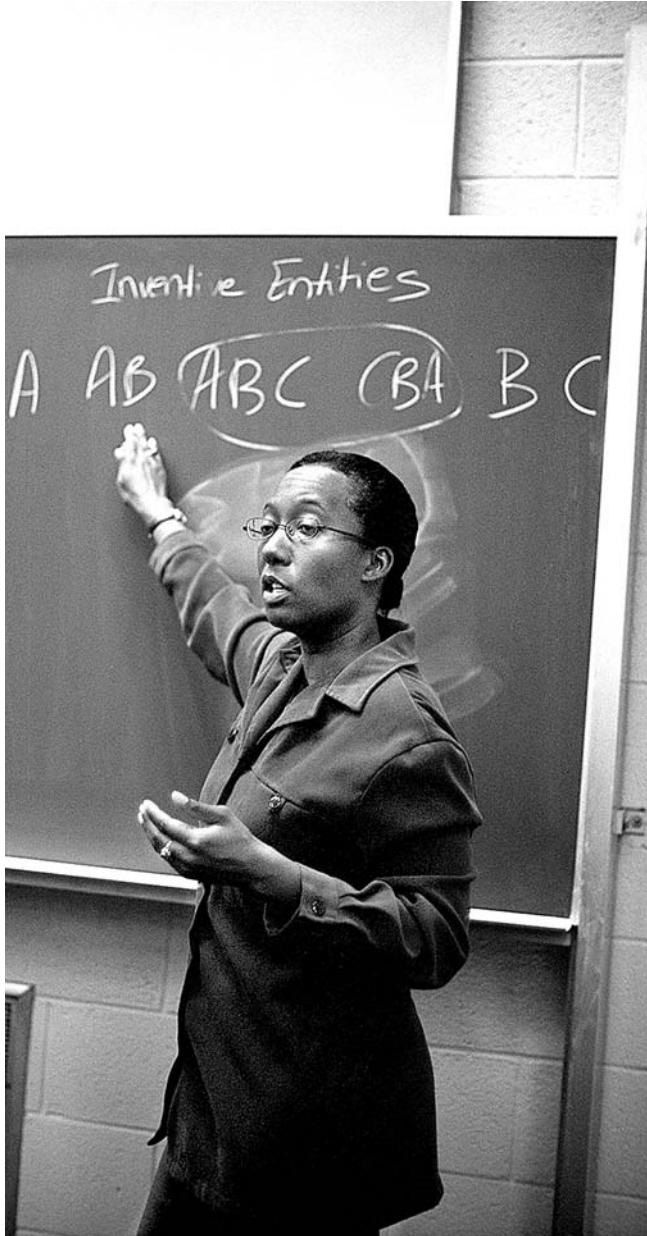
Prereq: graduate standing. Review of image formation and acquisition; image transformation; image enhancement and restoration; image compression; morphological image processing; edge detection and segmentation; architecture for image processing. (I)

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 (I)

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. (I)



CRIMINAL JUSTICE

Office: 2305 Faculty/Administration Building; 313-577-2705

Chairperson: Joseph Rankin

Academic Services Officer: Marianka Holloway

Website: <http://www.clas.wayne.edu/crimjust>

Professors

Joseph Rankin, Steven Stack, Marvin Zalman

Associate Professor

Thomas Kelley

Assistant Professor

Brad Smith

Lecturer

Michael Swope

Adjunct Faculty

Kalvin Engelberg, Micheal Falvo, Bernard Gaulier, Kerry Horton, Michael Kuslowski, Thomas Martinelli, John O'Neill, Janet Prater, 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 the administration of 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 by the criminal justice system to reduce the incidence of crime is also examined.

* For specific requirements, see the Wayne State University Graduate Bulletin.

Career opportunities in criminal justice include roles as police officers, supervisors, and executives; criminal justice investigators working for public defenders, prosecutors, fire departments, and insurance companies; 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 meet the educational standards of the Academy of Criminal Justice Sciences and 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 (28 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 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 32.

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 16) and the College of Liberal Arts and Sciences Group Requirements (see page 234), 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, 43, and 234. It is recommended that students complete most, if not all, 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)

CRJ 2000 -- Intro. to the Criminal Justice System: Cr. 4
CRJ 4000 -- Criminological Theories: Cr. 4
CRJ 4300 -- Corrections: Cr. 4
CRJ 4600 -- The Police in America: Cr. 4
CRJ 4860 -- Research Methods in Criminal Justice: Cr. 4
CRJ 5710 -- Constitutional Criminal Procedure: Cr. 4

One of the following process courses:

CRJ 4400 -- The Judicial Process: Cr. 4
CRJ 4410 -- The Juvenile Justice System: Cr. 4

II. Approved Electives (Minimum twelve credits required)

CRJ 3120 -- Politics of the Criminal Justice Process (P S 3120): Cr. 4
CRJ 3260 -- Investigation: Cr. 3
CRJ 3510 -- Introduction to Security: Cr. 4
CRJ 3710 -- Legal Writing for Criminal Justice: Cr. 4
CRJ 3750 -- Gender Issues for CRJ Professionals (W S 3750): Cr. 4
CRJ 4400 -- Judicial Process: Cr. 4
CRJ 4410 -- Juvenile Justice System: Cr. 4
CRJ 4750 -- Criminal Justice Responses to Domestic Violence: Cr. 4
CRJ 4800 -- (SOC 4800) Outsiders and Deviants: Cr. 3
CRJ 4970 -- Internship in CRJ: Cr. 3
CRJ 4990 -- Directed Study: Cr. 1-3
CRJ 4998 -- Honors Thesis: Cr. 3
CRJ 5060 -- Comparative Criminal Justice Systems: Cr. 3
CRJ 5150 -- Criminalistics: Cr. 4
CRJ 5340 -- Community Based Corrections: Cr. 3
CRJ 5430 -- Counseling Strategies for Youthful Offenders: Cr. 3
CRJ 5500 -- Social and Legal Dynamics of Child Abuse: Cr. 3
CRJ 5720 -- Criminal Law: Cr. 4
CRJ 5790 -- Topics in Justice and Law: Cr. 4
CRJ 5810 -- (SOC 5810) Law in Human Society: Cr. 3
CRJ 5910 -- Seminar in Crime, Victimization, and Society: Cr. 4
CRJ 5994 -- (PCS 5000) Dispute Resolution (PSY 5710) (P S 5890): Cr. 3
CRJ 5995 -- Special Topics: Cr. 3
CRJ 6750 -- Administrative Law in Criminal Justice: Cr. 3

MINIMUM DEGREE PROGRAM CREDITS: 40

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, 5340, 5430, 5500, 5710, 5720, 5995.

Minor and Other Study

Minor in Criminal Justice: The Department offers a minor in Criminal Justice for which the notation of a minor appears on the student's transcript. The required Criminal Justice courses are:

CRJ 2000 -- Introduction to the Criminal Justice System: Cr. 4
CRJ 4300 -- Corrections: Cr. 4
CRJ 4400 -- The Judicial Process: Cr. 4
CRJ 4600 -- The Police in America: Cr. 4
CRJ 5710 -- Constitutional Criminal Procedure: Cr. 4
Criminal Justice Elective: Cr. 3-4

TOTAL CREDITS: 23-24

Students wishing to minor in criminal justice are encouraged to visit the Departmental Offices for information and counseling. A minor must be declared prior to filing for graduation.

Pre-Law Advising and Curriculum: Students wishing to major or minor in criminal justice and who are considering legal careers 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 -- Introduction to the Criminal Justice System: 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.

'AGRADE' Program: The College of Liberal Arts and Sciences Accelerated Graduate Enrollment (AGRADE) Program allows qualified seniors to apply a maximum of fifteen credits toward both the Bachelor of Science and Master of Science in Criminal Justice degrees. Qualifications for AGRADE include Senior status and a minimum major g.p.a. of 3.6. For additional eligibility information, interested students should contact the Criminal Justice Academic Services Officer (313-577-0772).

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.

A more complete discussion of the Master of Science in Criminal Justice degree program appears in the Wayne State University Graduate Bulletin.

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 including at least one 4000-level Honors Program seminar (consult the Schedule of Classes under 'Honors Program'). The Honors student must demonstrate the ability to do 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 479.

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. (T)

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. (Y)

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 criminalistics, locating and interviewing witnesses, examining the elements of proof required in specific criminal offenses and interrogation techniques (pre- and post-Miranda). (Y)

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. (T)

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. (T)

3750 Diversity in Criminal Justice. (W S 3750) Cr. 4

Critical examination of gender, race, class and ethnicity issues in criminal justice; impact on defendants, inmates, victims, and criminal justice personnel; relation to policy issues. (F,W)

4000 Criminological Theories. Cr. 4

Delineation, review, and critical analysis of major explanations of criminality including biological, psychological, deterrence, rational choice, learning and integrated theories. (T)

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. (T)

4400 The Judicial Process. Cr. 4

Prereq: CRJ 2000 or former 1010. No credit after former CRJ 2400. Structure, powers, doctrines and judicial processes including origin, nature and functions of judicial review in the criminal justice system. (T)

4410 Juvenile Justice. Cr. 4

Prereq: CRJ 2000 or former 1010. No credit after former CRJ 2410 or CRJ 2991. Overview of theoretical background, structure and pro-

cesses of contemporary juvenile justice; 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. Topics include theories of violence, law and the justice system's response. (F,W)

4800 (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

Prereq: CRJ 2000; junior or senior criminal justice major; minimum 2.5 g.p.a.; consent of instructor. Program of participation and study designed to give students an 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. (Y)

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)

5340 Community Based Corrections. Cr. 3

Prereq: CRJ 4300 or former 2300. History, theory and practice of community based corrections. Probation and parole; halfway houses and other residential correctional facilities. Jails as community correctional centers. Legal issues. International perspectives. The future of community corrections. (B)

5430 Correctional Counseling Methods. Cr. 3

Prereq: CRJ 4410 or former 2410. No credit after former CRJ 6991. Application of causal theories to counseling strategies. Models for offender classification and treatment. Counselor attitudes and styles. Special issues in the treatment of delinquents. Individual and group models for counseling. Evaluation models to assess counseling effectiveness. (W)

5500 Child Abuse and Neglect. Cr. 3

Prereq: CRJ 4410 or former 2410. Dynamics and psychopathology of child abuse: its incidence and impact on the family, society, and the numerous social and legal agencies involved in the detection, processing, and treatment of both child abusers and the abused. (F)

5710 Constitutional Criminal Procedure. Cr. 4

Prereq: minimum of twelve credits in criminal justice; CRJ 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 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 the 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. (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 Examination, consent of instructor; coreq: CRJ 3120, 3260, 3510, 3710, 3750, 4000, 4300, 4400, 4410, 4600, 4750, 4860, 4990, 4998, 5060, 5150, 5340, 5430, 5500, 5720, 5995, 6000, 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. (Y)

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. (Y)

ECONOMICS

Office: 2074 Faculty/Administration Building; 313-577-3345

Chairperson: Jay H. Levin

Administrative Assistant: Delores G. Tennille

Website: <http://www.econ.wayne.edu>

Professors

Ralph M. Braid, David I. Fand (Emeritus), Thomas J. Finn, Jr. (Emeritus), Allen C. Goodman, I. Bernard Goodman (Emeritus), Mark L. Kahn (Emeritus), Li Way Lee, Jay H. Levin, John M. Mattila (Emeritus), John D. Owen (Emeritus), Karl Roskamp (Emeritus), Robert J. Rossana, Stephen J. Spurr

Associate Professors

R. King Adamson (Emeritus), Kevin D. Cotter

Assistant Professors

Sheng-Kai Chang, Tomomi Kumagai, Jee-Hyeong Park, Emiko Usui

Adjunct Professors

Timothy M. Bates, Gail A. Jensen

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*)

Economists frequently describe their work as the study of how individuals and societies allocate limited resources to try to satisfy unlimited wants. Economics is a science of choices. Households and business firms must decide what and how much to consume or produce and how much to pay for products and for the use of labor, land and capital. The federal government makes 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 courses and 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. Undergraduates who want to do graduate work in economics need a good mathematics background. 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 in Economics

Admission requirements for the College are satisfied by the general requirements for undergraduate admission to the University; see page 32, as well as the instructions for declaring a major (page 235). The Economics Department presumes as prerequisite to all economics courses at least two years of high school-level algebra and one year of geometry.

* For specific requirements, see the *Wayne State University Graduate Bulletin*.

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 234) and the University General Education Requirements (see page 16), 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, 43, and 234.

Major Requirements: Students considering an economics major should take ECO 2010 and 2020 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 thirty-two credits in economics. These must include Economics 2010 and 2020 (Principles of Microeconomics and Macroeconomics), Economics 5000 and 5050 (Intermediate Microeconomics and Macroeconomics), and Economics 5100 (Introductory Statistics and Econometrics). The Department recommends that majors complete all of these courses by the end of their junior year.

Majors must elect at least three courses in two or more of these fields: health economics, industrial organization, international economics, labor and human resources economics, monetary economics, and urban and regional economics. Each student should consult his/her major adviser to choose the economics electives best suited to his/her intellectual and professional aims.

Majors must satisfy the following residency requirement: at least sixteen credits of the thirty-two credits required for the major must be earned at Wayne State University.

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, in conjunction with one of its stipulated corequisites. All economics majors must satisfy this requirement, even if they are not subject to the University General Education Requirements. Papers written for economics courses may satisfy the requirement, when certified by the assigning faculty member as satisfying the writing proficiency requirement.

Cognate Courses: Economics majors should consult with their adviser about cognate courses. Majors may earn as many as sixteen cognate credits in business courses. Courses in other social sciences and in computer science are also useful complements to economics. Majors who plan graduate study in economics are encouraged to take the Mathematics 2010 sequence as early as possible. Cognate credits contribute to the 120 credits required for graduation, but they do not count toward the required thirty-two credits in economics.

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 Program

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 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 on other honors-designated course work 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 (313-577-3030).

Minor in Economics

A minor consists of ECO 2010, ECO 2020, and any three elective courses at the 4000-level or above. At least three courses must be taken in residency. Students must have a cumulative grade point average of 2.0 or better in economics courses.

'AGRADE' Program

The Economics Department actively participates in the 'AGRADE' (Accelerated Graduate Enrollment) Program, which enables qualified seniors in the College of Liberal Arts and Sciences to enroll simultaneously in the undergraduate and graduate programs of the College, and to apply a maximum of fifteen credits toward both an undergraduate and graduate degree in economics. Students interested in 'AGRADE' should contact the Director of Undergraduate Studies: 313-577-3345.

ECONOMICS COURSES (ECO)

The following courses, numbered 0900-6999, 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 479.

Introductory Economics

1000 (SS) Survey of Economics. Cr. 4

Not for major credit. Scope of economics and the task of the economist in modern society; the market economy - its evolution and development; non-market economies; economic problems and prospects in the contemporary world. (T)

2010 (SS) Principles of Microeconomics. Cr. 3-4

(Note: ECO 2010 is not a prerequisite for ECO 2020.) Supply, demand, price at the level of the firm and industry; business institutions and their operation; determinants of wage and salary levels, interest rates, rent, profits, income distribution; public policy in relation to business and labor. (T)

2020 (SS) Principles of Macroeconomics. Cr. 3-4

(Note: ECO 2010 is not a prerequisite for ECO 2020.) Determination of national income, consumption and saving, and investment; money, banking and the Federal Reserve; inflation and unemployment; monetary and fiscal policy; economic growth and productivity; the international sector. (T)

Field A: Economic Theory

5000 Intermediate Microeconomics. Cr. 4

Prereq: ECO 2010, MAT 1500 or MAT 1800 or equiv. based on satisfactory score on mathematics placement examination. 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 2010 or 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 examination. 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 examination. 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)

6100 Introduction to Econometrics. Cr. 4

Prereq: MAT 2010 and ECO 5100 or consent of instructor. Basic statistics, basic probability, hypothesis testing, and bivariate and multivariate regression analysis. Estimators studied are least squares, maximum likelihood and generalized least squares. Various model specification issues addressed: omitted variables, extraneous variables, category variables, multicollinearity, heteroscedasticity, and autocorrelation. (F)

6120 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. Cr. 4

Prereq: ECO 2010. 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 Market Power and Economic Welfare. Cr. 4

Prereq: ECO 2010. 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. Cr. 4

Prereq: ECO 2010. 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. Cr. 4

Prereq: ECO 2010. Theories and patterns of international trade; impact of trade on earnings of production factors; economic analysis of various trade policy instruments; political economy of trade policy; strategic trade policy; trade policy for developing countries. (F)

5310 International Finance. Cr. 4

Prereq: ECO 2020. Major policy issues in the field of international finance with emphasis on open economy macroeconomics. Topics include the balance of payments and the foreign exchange market; monetary and fiscal policies in open economies; the floating exchange rate system; international financial markets; and European monetary integration. (W)

Field E: Labor and Human Resources

5400 Labor Economics. Cr. 4

Prereq: ECO 2010. 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 Economics of Race and Gender. Cr. 4

Prereq: ECO 2010. 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)

6410 Labor Markets. Cr. 4

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)

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)

Field F: Public Finance

5500 Public Finance: Taxation and Expenditure Theory. Cr. 4

Prereq: ECO 2010. 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)

5550 Economics of Health Care. Cr. 4

Prereq: ECO 2010. 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)

6650 (ULM 6210) Regional, State, and Urban Economic Development: Policy and Administration. (P S 6440) (U P 6550) Cr. 3

Prereq: graduate standing. Examination of regional, state, and local economic development theory, analysis, policy and administration. (Y)

Field G: Money and Banking

5700 Money and Banking. Cr. 4

Prereq: ECO 2020. 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. Cr. 4

Prereq: ECO 2010, ECO 2020, MAT 1500 or equiv. 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. (U P 5820) Cr. 4

Prereq: ECO 2010 or consent of instructor. Introduction to the economic foundations of urban problems; land use, housing, poverty, transportation, local public finance; regional industry mix, income, growth and development; the national system of cities and location of firms. (Y)

6455 (U P 6455) Discrimination and Fair Housing. (AFS 6455) (P S 6455) (SOC 6455) (U S 6455) (ULM 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)

6500 Public/Urban Economics. Cr. 4

Prereq: ECO 6000 or ECO 7000. Theory of public goods; externalities; taxation from the standpoint of efficiency and income distribution; effects of taxation on labor supply and saving; local public finance; tax competition; transportation economics; housing economics. (B)

6810 (ULM 6150) 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 Department prior to registration; senior standing with 16 or more credits in economics; all credits with grade A or B, or consent of Director of Undergraduate Studies. 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: 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: ECO 3990, 5200, 5210, 5490, 5600, 5700, or 5800. 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)

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: Royanne R. Smith

Website: <http://www.english.wayne.edu>

Professors

Ellen Barton, Lesley Brill, Robert Burgoyne, Walter F. Edwards, Henry L. Golemba, Richard Grusin, William A. Harris, Jerry Herron, Donna Landry, Christopher Leland, Kathryn Lindberg, Gerald MacLean, Arthur F. Marotti, Ruth E. Ray, John R. Reed, Michael H. Scrivener, Steven Shaviro, Elizabeth S. Sklar, Anca Vlasopolos, Renata M. Wasserman, Barrett Watten

Associate Professors

Robert Aguirre, Anthony Aristar, Cynthia Erb, Janet C. Langlois, Bernard Levine, Richard C. Marback, Geoffrey Nathan, Ljiljana Progovac, Ross J. Pudaloff, Frances Ranney, Martha Ratliff, Emmet Schmitt

Assistant Professors

Sarika Chandra, Jonathan Flatley, Gwendolen Gorzelsky, Kenneth Jackson, Sheila Lloyd, Bruce S. Morgan, Jeff Rice, Dana Seitler, Kirsten Thompson

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

Samuel Astrachan, Alvin B. Aubert, Esther M. Broner, Samuel A. Golden, Arnold L. Goldsmith, Yates Hafner, Orville F. Linck, Ralph L. Nash, Alfred Schwarz, Robert M. Strozier II, Marilyn L. Williamson, Beongcheon Yu

Emeritus / Emerita Associate Professors

Bradford S. Field, Jeanne A. Flood, Isabel Graham, David S. Herreshoff, William E. Mockler, Amy K. Richards, Edward Sharples, Paul Sporn, Travis E. Tritschuh

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*

* For specific requirements, see the Wayne State University Graduate Bulletin.

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 32.

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. E-mail advising is available at: advise@lists.wayne.edu

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 234) and the University General Education Requirements (see page 16), 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, 43, and 234.

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 21), and Liberal Arts Group Requirements (see page 234). 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, 5480, 5580, 5590, 5650, 5670, 5870, 5880, or 5890).

5. English 5992, Senior Seminar, Cr. 4. This course with co-registration in English 5993 fulfills the General Education Writing Intensive requirement. With the consent of the Associate Chairperson and the appropriate instructor, students are occasionally permitted to substitute a 5000-level course, with English 5993 co-registration, for the Senior Seminar and to fulfill the Writing Intensive requirement.

6. In addition to the above requirements, majors must take at least five other English courses for a minimum of 36 credits (46 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. Students are free to select courses in any of the fields of English studies and to emphasize any one of the areas covered by the Department's course offerings.

Honors in English

The English Department participates in the Liberal Arts 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, twelve credits of which must be in Honors courses. The required English courses are:

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 (English 5030, 5050, 5060, 5070, 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. At least one 4200-level interdepartmental Honors Seminar, Honors 4200-4280

8. 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

The English Department invites academically superior majors to petition for admission to the 'AGRADE' (Accelerated Graduate Enrollment) 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 240.

Combined Curriculum with Dentistry, Law, or Medicine: (See page 236.) Students who wish to major in English and receive the Bachelor of Arts degree by the end of their first professional year of study must complete six courses in English beyond the General Education and Liberal Arts and Sciences Group Requirements. At least four of these must be above the 2000 level.

Cognate Study in English

College and University Requirements: All students in the University must pass English 1020 (Introductory College Writing), and an intermediate composition course. Those students whose scores on the English Qualifying Examination, taken prior to matriculation, indicate need for instruction and practice in composition will be placed in English 1010 (Basic Writing) before they take English 1020. (To take the English Qualifying Examination, students must apply upon admission to: Testing and Evaluation Services.)

In addition, designated English courses may be used toward fulfillment of the College and University Philosophy and Letters requirement (see page 24).

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 undergraduates' admission to all 6000-level courses. Only graduate students may register for 7000- and 8000-level courses.

Students should note that some English courses have general titles which are constant while specific sub-titles change each semester. Students may elect such courses more than once, up to the maximum number of credits allowed.

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 198), 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 32.

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 234) and the University General Education Requirements (see page 16), 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, 43, and 234.

Major Requirements: Students majoring in film studies must complete a minimum of thirty-five credits, distributed as follows:

CORE COURSES (*Fifteen Credits*)

COM 1600 -- Intro: Audio-TV-Film Production: Cr. 3
COM 2020 -- (VP) History of Film (ENG 2460): Cr. 3
COM 4997 -- Senior Assessment Essay in Film Studies: Cr. 1
COM 5993 or ENG 5993
 -- (WI) Writing Intensive Course: Cr. 0
 -- (WI) Writing Intensive Course in English: Cr. 0
ENG 2450 -- (VP) Introduction to Film (COM 2010): Cr. 4
ENG 5040 -- Film Criticism and Theory: Cr. 4

ELECTIVE COURSES (*Twenty Credits*)

Students should consult with their advisor 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 3990 -- Directed Study: Cr. 1-4 (Max. 6)
COM 5020 -- Studies in Film History: Cr. 4 (Max. 12)
COM 5060 -- Documentary and Non-Fiction Film and Television: 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 Projects 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)
ITA 5150 -- Italian Cinema Since 1942: Cr. 3 (Max. 9)
SLA 3710 -- (VP) Russian & East Europn. Film (ARM/POL/RUS 3710): 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 238, above, and the section on the Office of Scholarships and Financial Aid, page 41. For further information, contact the Department Office.

Gilbert R. and Patricia K. Davis Endowed Scholarship for English Majors: Award open to part-time students majoring in English in the College of Liberal Arts and Sciences, with a g.p.a. of 3.0 or above and a minimum of fifteen credits in residence at Wayne State University. Recipients must be Michigan residents. Contact the English Department for details.

Loughead-Eldredge Endowed Scholarships in Creative Writing: 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 Scholarships and Financial Aid.

Doretta Burke Sheill 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 Scholarships and 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 demonstrate high achievement in creative writing. Contact the English Department for details.

Pearl Applebaum Warn Endowed Scholarship in English: Award open to returning full- or part-time female students age 27 years and older, with high scholastic achievement and demonstrated financial need. Contact the English Department for details.

Joseph J. and Mary E. Yelda Endowed Scholarship for English: Award open to full-time students who graduated from a metropolitan Detroit area high school, are majoring in English in the College of Liberal Arts and Sciences, and have a g.p.a. of 3.0 or above. Awarded on the basis of academic merit and financial need. Contact the English Department for details.

ENGLISH COURSES (ENG)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 479.

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 Examination. 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 108 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. (Y)

2530 Literature and Identity. Cr. 3

Prereq: ENG 1020 or equiv. Study of literary texts with emphasis on how identity is shaped by ethnicity, religion, gender, sexual orientation, and other factors. (Y)

2540 Literatures of the World. Cr. 3

Prereq: ENG 1020 or equiv. Comparative approach to national or regional literatures throughout the world: Asian, Pacific, African, North and South American, and European. (Y)

2570 (IC) Literature By and About Women: Literature and Writing. Cr. 3

Prereq: 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. (T)

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 or COM 2010 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. (B)

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. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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. (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. Required of English majors. Topics to be announced in the Schedule of Classes. (Y)

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. (B)

3700 Structure of English. (LIN 3700) Cr. 3

Prereq: ENG 1020 or equiv. 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

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 advisor. 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 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 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 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. Required of English majors, but one may substitute another course in cross-disciplinary or comparative studies. (Y)

5090 Topics in Literary and Cultural Theory. Cr. 3 (Max. 9)

Prereq: 12 credits in ENG above the 1000 level. Study of literary and cultural theory in various contexts -- urban, metropolitan, ethnic, global -- with reference to primary texts. Topics to be announced in Schedule of Classes. Required of English majors; another theory course may be substituted. (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. (Y)

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. (B)

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. Selected writers, themes, or genres, movements: Eliot, Auden, Shaw, Lawrence; the modern novel, Bloomsbury, The Great War, the 'Thirties. Topics to be announced in Schedule of Classes. (B)

5400 American Literature to 1800. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. A survey of American literature from the beginnings through the early national period, emphasizing the constructions of crucial cultural phenomena like nation-building, colonialism, liberty and union, assimilation. (B)

5410 American Literature: 1800-1865. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. Survey of writers, themes and movements which have had dramatic influence in defining American culture. Writers such as Dickinson, Douglass and Emerson, and literary movements like Transcendentalism and Romanticism are studied as well as the forces that produced them, especially race, class and gender. (B)

5420 American Literature: 1865-1914. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. Survey of important literary texts that arose from cultural phenomena like post-reconstruction, urbanization, immigration, the suffrage movement, and native rights. Literary movements like Realism and Naturalism will be studied as well as influential writers like Cahan, Chopin, Dreiser and Dunbar. (Y)

5450 Modern American Literature. Cr. 3

Prereq: 12 credits in ENG above the 1000 level. Survey of culturally-significant writers, themes and movements since 1914, such as: the Harlem Renaissance, Modernism, Postmodernism; authors like Ellison, Hemingway, Morrison, Stein. (Y)

5460 Topics in American Literature of the Twentieth Century. Cr. 3 (Max. 9)

Prereq: 12 credits in ENG above the 1000 level. Twentieth century literature from specific perspectives, such as generic, historical, thematic. Topics to be announced in 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. (T)

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. (B)

5720 Linguistics and Education. (LIN 5720) Cr. 3

Introduction to linguistics with emphasis on applications to education. (T)

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. (T)

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. (B)

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: acquisition of phonology, lexicon, semantics, syntax, discourse, and pragmatics. (B)

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; this course may be used to fulfill the General Education Writing Intensive requirement. (Y: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 any approved 5000-level English 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. (Y)

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. (F,W)

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*

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 both geological and biological perspectives with a focus on the urban environment. This program will prepare students for graduate study or careers in various areas of environmental science such as environmental impact assessment, wetlands, water quality, regulatory compliance and remediation.

Admission Requirements for this program are satisfied by the requirements for general undergraduate admission to the University; see page 32.

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; BIO 1500, 1510, 2200, 4120, 5040, and four science or engineering electives including at least one field course (consult program adviser).

Cognate Requirements: B.S. candidates in Environmental Science must take MAT 1800, 2010; PHY 2130 (or 2170), PHY 2131 (or 2171), 2140 (or 2180), 2141 (or 2181); CHM 1220, 1230, 1240 and 1250. Majors should take the Placement Examination of the Department of Mathematics as soon as possible upon entry into the freshman year.

Sample Program (Specific sequences may vary):

First Year

Fall Semester

GEL 1000 with lab: Cr. 4

CHM 1220 (PS): Cr. 4

CHM 1230: Cr. 1

MAT 1800: Cr. 4

Total: Cr. 13

Winter Semester

BIO 1500: Cr. 4(L)

CHM 1240: Cr. 4

CHM 1250: Cr. 1

MAT 2010: Cr. 4

ENG 1020 (BC): Cr. 4

Total: Cr. 17

Second Year

Fall Semester

BIO 1510 (LS): Cr. 4(L)

GEL 2130: Cr. 4

COM 1010 (OC): Cr. 3

ENG 3010, 3050 (IC): Cr. 3

Total: Cr. 14

Winter Semester

BIO 2200 (LS): Cr. 4(L)

GEL 5150: Cr. 4

PHI 1050 (CT): Cr. 3

(HS) course: Cr. 3

(CL) or other Gen. Ed: Cr. 3

Total: Cr. 17

Third Year

Fall Semester

Science or Engineering elective: Cr. 3-4

PHY 2130/2131 (PS): Cr. 4

Language I: Cr. 4

(VP) course: Cr. 3-4

Total: Cr. 14-16

Winter Semester

GEL 5000-level elective: Cr. 4

PHY 2140/2141: Cr. 4

Science or Engineering elective: Cr. 3-4

Language II: Cr. 4

Total: Cr. 15-16

Fourth Year

Fall Semester

BIO 4120: 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: Cr. 4

Science or Engineering Elective: Cr. 4

(AI) course: Cr. 3-4

(SS) course: Cr. 3

Total: Cr. 14-15

GEOGRAPHY

Office: 225 State Hall; 313-577-2701; Fax: 313-577-0022
Web: <http://www.science.wayne.edu/~gup>

Interim Chairperson: Gary Sands

Professors

Robert M. Boyle, Fred E. Dohrs (Emeritus), Robert J. Goodman (Emeritus), George J. Honzatko (Emeritus), Laura Reese, Robert Sinclair, Brian Thompson (Emeritus)

Associate Professors

Gary Sands, Bryan Thompson (Emeritus)

Assistant Professors

P. Anthony Brinkman, S. Rayman Mohamad, Kami Potukuchi

Lecturers

Richard Sauerzopf, Paul Vigeant

Planner In Residence

Douglas Caruso

Adjunct Faculty

Doug Caruso, Sii-Monni Chabi, Jeffrey Horner, Darryl LaFlamme, Ernando Minghine, William James, Portia Reuben, Robert Turner, Benjamin Tallero

Degree Programs

BACHELOR OF ARTS with a major in geography

**MASTER OF ARTS with a major in geography*

**MASTER OF URBAN PLANNING*

The discipline of geography is concerned with the analysis of environmental and social systems, their variations over the earth's surface and their interactions in different regions. The undergraduate program has three major goals: 1) to provide students with a geographic framework for understanding global, regional and local issues and problems; 2) to prepare students for many occupations in which geographic understanding is essential, including retail location analysis, community and regional development, resource conservation and management, cartography, urban and environmental planning, and numerous government positions; and 3) to train students for advanced geographic research. Students are invited to consult with geography faculty members concerning the content of the discipline, as well as employment opportunities available for geographers.

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 32.

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 234) and the University General Education Requirements (see page 16), 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, 43, and 234.

* For requirements, consult the College of Urban, Labor and Metropolitan Affairs section of the Wayne State University Graduate Bulletin.

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 minoring 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.

GEOGRAPHY COURSES (GPH)

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 479.

1100 (SS) World Regional Patterns. Cr. 4

Concepts and theory in analyzing area relationships and distinguishing regional patterns of human activity; cultural factors and physical conditions (climate, landforms) as factors in regional delineations; comparisons and contrasts in regional economic development; analysis of concentrations/dispersals of human activity; local, national and regional phenomena in the interpretation of global patterns. (T)

2000 (U S 2000) (SS) Introduction to Urban Studies. (HIS 2000) (P S 2000) (SOC 2500) Cr. 4

Urban phenomena both past and present, including the quality and nature of urban life; major concerns of urban areas; perspectives and techniques of various urban-related disciplines. (T)

2200 Geography of Michigan. Cr. 3

The spatial physical, social, environmental, settlement and developmental patterns and problems of the State of Michigan. (I)

2500 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

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 (GEG 5650) Metropolitan Detroit. Cr. 4

Comprehensive geographic analysis of metropolitan Detroit: city, suburbs and surrounding region. Historical development, physical foundations, economic and political expansion, ethnic and cultural areas, geopolitical infrastructure, social change, present-day problems and current events shaping the area's spatial structure. (Y)

5750 (GEG 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 (GEG 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 (GEG 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 (GEG 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. (I)

6280 (GEG 6280) Marketing Geography. (U P 5620) Cr. 4

Factors underlying retail location and shopping center development; evaluation of population, income levels, access and competition for location decisions; techniques applicable to sales potential/rent-up/sell-out estimates for retail units, housing developments, recreation facilities, office buildings; retail impact on urban land use; crime and commercial location; considerations for the elderly in commercial locations. (I)

6420 (U P 6320) Quantitative Techniques I. (GEG 6420) Cr. 4

Statistical inference with emphasis on applications including central tendency, dispersion, hypothesis testing, and correlation. (Y)

6510 (U P 6510) Urban and Regional Systems. (GEG 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 (GEG 6520) Independent Field Study. (U S 6050) Cr. 2-4

Prereq: consent of instructor. Observation and interpretation of data in the field. (Y)

GEOLOGY

Office: 0224 Old Main; 313-577-2506
Interim Chairperson: James Tucker

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 32.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits in course work including satisfaction of the College Group Requirements (see page 234) and the University General Education Requirements (see page 16), 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, 43, and 234.

* For specific requirements, see the Wayne State University Graduate Bulletin.

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 32.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits in course work including satisfaction of the College Group Requirements (see page 234) and the University General Education Requirements (see page 16), 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, 43, and 234.

Major Requirements: Students must complete twenty-six credits in geology beyond Geology 1020. These must include Geology 2130, 3160, 3300, 3400, 5993, and at least two credits in a geology field course.

Cognate Requirements: At least one college course in each of two of the following fields is required: biology, chemistry, or physics. Mathematics 1800 and satisfaction of the Foreign Language Group Requirement are also required.

Geology majors should consult their adviser regarding additional recommended cognate courses. Depending on interest and future goals, supplementary courses in mathematics, physics and chemistry, as well as courses in biology, computer science, engineering, and 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 479.

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. (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 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 (W)

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 (W)

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. (HWM 5000) Cr. 4

Prereq: GEL 1010; 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. (HWM 5080) Cr. 3

Prereq: CHM 1070 and CHM 1080 or equiv.; PHY 2130 and PHY 2140, or PHY2170 and PHY 2180, or equivs. Introduction to fundamentals of radiochemistry measurement techniques; survey of vari-

ous applications of radionuclides in environmental science; brief discussion of the use of stable isotopes (O, C and H). (Y)

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 (W)

5150 Soils and Soil Pollution. Cr. 4

Prereq: GEL 1010, CHM 1220 and 1230, CHM 2280 and 2290, or consent of instructor. Physical, chemical and mineralogical properties and classification of soils. Behavior of pollutants in soils and methods for reclamation. (Y)

5200 Oceanography for Educators. Cr. 4

Open only to middle- or high school teachers. Origin of the ocean basins; ocean currents, waves and tides; life in the oceans and marine ecology; marine resources and pollution. (S)

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. (B:F)

5993 (WI) Writing Intensive Course in Geology. Cr. 0

Prereq: junior standing; satisfactory completion of English Proficiency Examination; 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. (F)

6500 Economic Geology. Cr. 4

Prereq: GEL 2130, 3160, 3300, 3400. Geology of metallic and non-metallic 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://www.worldbridge.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 Lecturer

Mark Ferguson

Lecturers

Alina Klin, Laura Kline

Adjunct Faculty

Hans-Peter Soeder, Dickran Toumajan

Degree Programs

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*

Bachelor of Arts Degrees

Admission Requirements for these programs are satisfied by the general requirements for undergraduate admission to the University; see page 32. 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 234) and the University General Education Requirements (see page 16), 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, 43, and 234.

— 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.

* For specific requirements, see the Wayne State University Graduate Bulletin.

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 5490, 5500, 2320, 5440; P S 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 234.

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).

Dual 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; 313-577-4605; (jym@wayne.edu). For a more detailed description of the program see 'Study Abroad,' page 242.

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) two letters of recommendation from teachers or professors; 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 238, above, and the section on the Office of Scholarships and Financial Aid, page 41. 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 479.

OFFERED IN ENGLISH

No knowledge of a foreign language is presumed or required for the following courses, which are conducted in English with all readings in English. (For foreign language courses, see the section 'Foreign Language Instruction,' below.)

Armenian Cultural Studies in English (ARM)

3410 (SLA 3410) (FC) New Soil, Old Roots: The Immigrant Experience. (GER 3410) (POL 3410) (RUS 3410) (UKR 3410) Cr. 3

Armenian, German, Jewish, Polish, Russian and Ukrainian immigration to the United States, 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) Survey of Germanic Culture I. Cr. 3

Development of Germanic people from their origin to 1835; their major contributions of cultural significance to the Western world. (F)

2720 (FC) Survey of Germanic Culture II. Cr. 3

Development of Germanic people from 1835 to the present; the Nazi period; and World War II. (W)

2991 (PL) Understanding the Fairy Tale. Cr. 3

Fairy tale's meaning and role in Western society from the Brothers Grimm to Walt Disney. Methods of fairy-tale interpretation. All lectures and reading in English. (B)

3410 (SLA 3410) (FC) New Soil, Old Roots: The Immigrant Experience. (ARM 3410) (POL 3410) (RUS 3410) (UKR 3410) Cr. 3

Armenian, German, Jewish, Polish, Russian and Ukrainian immigration to the United States, its effects on the cultures (language, literature, religion, politics, music, art and theatre) of these ethnic groups and its influence upon American culture. (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) Survey of Polish Culture. Cr. 3

Introductory cultural survey from beginnings of Polish state to present. Polish society and cultural developments analyzed in comparative contexts. (Y)

3410 (SLA 3410) (FC) New Soil, Old Roots: The Immigrant Experience. (ARM 3410) (GER 3410) (RUS 3410) (UKR 3410) Cr. 3

Armenian, German, Jewish, Polish, Russian and Ukrainian immigration to the United States, its effects on the cultures (language, literature, religion, politics, music, art and theatre) of these ethnic groups and its influence upon American culture. (F)

3750 Polish and Yugoslavian Cinema Auteur. (SLA 3750) Cr. 3

Significant films of: Wajda, Polanski, Makavejev, Kieslowski and Kusturica. (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) 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) 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. (F)

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) 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 Cinema Auteur. Cr. 3

Significant films of: Wajda, Polanski, Makavejev, Kieslowski and Kusturica. (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)

5830 (MKT 5830) Business in Transition in the Emerging Republics. Cr. 3

Prereq: upper division standing, 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 (MKT 5840) Special Topics on Economic Transition in Emerging Republics. Cr. 3

Issues in Eastern Europe's transition from a centrally-controlled command economy to a free-market economy. Topics include: infrastructure reform, decentralization and privatization, the banking system, reforms and changes in social structures. (Y)

5880 (FIN 5880) International Money and Banking in Transition Economies. Cr. 3

Prereq: consent of instructor, upper division standing. The Communist model of investment through state-owned monopoly banks compared to new role of former monopoly banks. Financial system models of United States, Japan and Germany, and their evolution. (Y)

Ukrainian Cultural Studies in English (UKR)

3410 (SLA 3410) (FC) New Soil, Old Roots: The Immigrant Experience. (ARM 3410) (GER 3410) (POL 3410) (RUS 3410) Cr. 3

Armenian, German, Jewish, Polish, Russian and Ukrainian immigration to the United States, its effects on the cultures (language, literature, religion, politics, music, art and theatre) of these ethnic groups and its influence upon American culture. (F)

5860 (MKT 5860) The Cultural Environment of Ukrainian Business. Cr. 3

Prereq: upper division standing, 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)

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 (F)

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 (W)

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 (F)

GERMAN COURSES (GER)

1010 Elementary German I. Cr. 4

Development of ability to speak and read German. Material fee as indicated in the Schedule of Classes (T)

1020 Elementary German II. Cr. 4

Prereq: GER 1010 or placement. Continuation of GER 1010. Material fee as indicated in the Schedule of Classes (T)

1060 Intensive German. Cr. 6

Prereq: previous knowledge or study of German or consent of instructor. Accelerated, intensive treatment of material normally treated in GER 1010 with a gradual slowing to treat the material in GER 1020. GER 1060 will accommodate learners with previous knowledge of the language while still providing them with review and practice, encouraging them to build on the knowledge of German they have. (F,S)

2010 (FC) Intermediate German I. Cr. 4

Prereq: GER 1020 or placement. Continuation of GER 1020. Reading of graded German literature and grammar review. Material fee as indicated in the Schedule of Classes (T)

2020 Intermediate German II. Cr. 4

Prereq: GER 2010 or equiv. Continuation of GER 2010. (T)

2500 Speaking German. Cr. 1 (Max. 2)

Prereq. or coreq: GER 2010. Offered for S and U grades only. Students meet once weekly to participate in variety of speaking activities, such as presentations, role-playing and simulations, pair work exchanges, small or whole group discussions. (T)

3100 Intermediate Composition and Conversation I. Cr. 3

Prereq: GER 2020 or equiv. German of common usage. Practical approach to contemporary idioms. (Y)

3200 Intermediate Composition and Conversation II. Cr. 3

Prereq: GER 2020 or equiv. German of common usage. Practical approach to contemporary idioms. (Y)

4600 Proseminar: Modern German Literature. Cr. 3

Prereq: GER 3100 and GER 3200; or consent of instructor. Introductory seminar in German Studies; building skills in critical reading, research and writing. Focus is on a selected literary or cultural topic. (I)

5000 German Practicum. Cr. 3 (Max. 9)

Prereq: consent of graduate adviser. Offered for S and U grades only. No Ph.D. degree credit. Controlled application of active language skills for students electing a Ph.D. minor in German, or German as a graduate reading language. (T)

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)

5500 (Pre-Modern Germany. (GER 7500) Cr. 3-4

Medieval period, Northern Renaissance, Reformation, and Baroque. Literary and nonliterary forms of representation, literary traditions and intellectual currents are examined within social, political and historical contexts. (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)

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. 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 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 7830) (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 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 Foreign Language Testing. (CLA 5860) (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

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)

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 Examination, consent of instructor; coreq: GER 4600 or any 5000-level German literature course. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a course designated as a corequisite; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. (F,W)

6100 Critical Approaches to German Studies. Cr. 3-4

Prereq: consent of major adviser required for undergraduates. Major critical approaches to German literature and cultural texts, and the questions and problems that drive contemporary German studies. (B)

POLISH COURSES (POL)

1010 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) 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 Examination, 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 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) 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)

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 program of work not included in regularly scheduled courses, either in language or in literature. Knowledge of Russian required. (T)

5993 (WI) Writing Intensive Course in Russian. Cr. 0

Prereq: junior standing, satisfactory completion of English Proficiency Examination, 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 Elementary Ukrainian. Cr. 4

Sounds, spelling, vocabulary, forms, syntax as a basis for reading and conversation. Material fee as indicated in the Schedule of Classes (F)

1020 Elementary Ukrainian. Cr. 4

Prereq: UKR 1010 or equiv. Continuation of UKR 1010. Material fee as indicated in the Schedule of Classes (W)

2010 (FC) Intermediate Ukrainian. Cr. 4

Prereq: UKR 1020 or equiv. Study in-depth of structure and syntax based on reading. Oral and written practice. Material fee as indicated in the Schedule of Classes (F)

3990 Directed Study. Cr. 1-3 (Max. 6)

Prereq: UKR 2010 or equiv.; written consent of chairperson. For students desiring additional work in the language at the intermediate level; for programs of work not included in scheduled courses, either language or literature. (T)

5990 Directed Study. Cr. 1-3 (Max. 12)

Prereq: UKR 3020 or equiv; written consent of chairperson. No graduate credit. For students who wish credit for program of work not included in regularly scheduled courses, either in language or in literature. (T)



HISTORY

Office: 3094 Faculty/Administration Building; 313-577-2525;
Fax: 313-577-6987; e-mail: ab3697@wayne.edu

Website: <http://www.clas.wayne.edu/history>

Chairperson: Marc W. Kruman

Professors

John J. Bukowczyk, Marc Cogan, Elizabeth Faue, Charles K. Hyde, Marc W. Kruman, Philip P. Mason, Melvin Small, David Weinberg

Associate Professors

Jorge Chinae, José Cuello, Osumaka Likaka, Sandra VanBurkleo

Assistant Professors

Eric H. Ash, Catherine M. Bogosian, Denver Brunsman, Elizabeth Dorn, Hans Hummer, Janine Lanza, Aaron Retish, Andrew Port

Emeritus / Emerita Professors

William J. Brazill, Jr., Tilden G. Edelstein, Edwin C. Hall, Christopher H. Johnson, Harry J. Magoulias, Alan Raucher, Monica Schuler, Samuel F. Scott, Richard Studing

Emeritus / Emerita Associate Professors

Effie Ambler, Stanley Shapiro, Stanley D. Solvick

Degree Programs

BACHELOR OF ARTS with a major in history

**MASTER OF ARTS with a major in history*

**DOCTOR OF PHILOSOPHY with concentrations in America and Europe*

**GRADUATE CERTIFICATE in Archival Administration*

Historical studies have long been one of the cornerstones of a liberal education. Through the record of our own past and that of other cultures, we learn who we are and how our institutions developed. We study history to learn about the past, to understand the present, and perhaps, to discover clues as to what the future may hold. A broad discipline, history deals with all of humankind's activities, including war and peace, regions, nations, communities and individuals, technology, science, culture, the arts, and religions. With its emphasis on reading in the primary sources and good writing, the study of history in the undergraduate years is good preparation for careers in business or government, and for law and other graduate schools.

Bachelor of Arts with a Major in History

Admission requirements for this program are satisfied by the requirements for undergraduate admission to the University; see page 32.

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 234) and the University General Education Requirements (see page 16), 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, 43, and 234. The minimum requirement for a major in history is thirty-three credits, distributed according to the following five requirements:

* For specific requirements, see the Wayne State University Graduate Bulletin.

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 - 2040 - 2050

HIS 1000 - 1300 - 1400 - 1710

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, and 5993).

3) Diversity of regional content reflected by selection of two courses in European history, two courses in American history, and one additional course in any of the following areas: Africa, Asia, Latin America, the Near or Middle East.

4) Distribution of chronological content reflected by selection of two courses in the pre-1789 period and two courses in the post-1789 period. Any course with both pre- and post 1789 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.

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 239).

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 Johannesen Memorial Scholarship: Annual award worth up to \$500 to undergraduate and graduate students in history, whose research is in either classical civilization or, more broadly, the effects of the classical period on later eras.

HISTORY COURSES (HIS)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 479.

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 European empires; bipolar division of the world between the United States and the Soviet Union; the international order and relations between the industrial nations (First World) and the developing nations (Third World). (T)

1600 (HS) African Civilizations to 1800. Cr. 3-4

No credit after former HIS 2400. Africa from ancient Egypt to the Atlantic slave trade. Emphasis on state-building; regional and international commercial network and their role in economic, political, and socio-cultural change. (T)

1610 (HS) African Civilizations Since 1800. Cr. 3-4

No credit after former HIS 2410. The origins of contemporary Africa, nineteenth century state-building, spread of Islamic religion, establishment of European empires, independence struggles, problems of independence. (T)

1700 East Asian Civilizations to 1840. Cr. 3

Traditional East Asian culture and civilization; introduction to origins, growth, and development of the traditional societies of China, Korea, and Japan from remote antiquity until about 1840. (I)

1710 History of Modern East Asia. (N E 2110) Cr. 3

From beginning of nineteenth century to the present; emphasis on political, social, economic developments in China, Japan and Korea. (I)

1800 (N E 2030) (HS) The Age of Islamic Empires: 600-1600. Cr. 3

Historical evolution of the Islamic world from birth of Islam to height of Ottoman Empire. Islamic history and civilization in a world-historical context; developments indigenous to specific regions, such as Islamic Spain. (Y)

1810 (N E 2040) (HS) The Modern Middle East. Cr. 3

Survey of Middle East history in modern era, focusing on the nineteenth and twentieth centuries. Ottoman history from 1600: impact of European imperialism and nationalist movements, resulting in development of modern state systems, regional/national conflicts, Islamic response to modernization. (Y)

1995 (HS) Society and the Economic Transition. Cr. 3

Historical survey of the interaction between technological change, socio-economic systems, and culture. Multi-disciplinary studies of hunting, agrarian, and industrial societies. (F)

2000 (U S 2000) (SS) Introduction to Urban Studies. (GPH 2000) (P S 2000) (SOC 2500) Cr. 4

Urban phenomena, past and present, quality and nature of urban life, major concerns of urban areas; perspectives and techniques of various urban-related disciplines. (T)

2040 United States to 1877. Cr. 3-4

American experience with colonialism, revolution and nation building. (T)

2050 United States Since 1877. Cr. 3-4

Industrialization, urbanization, and emergence of the United States as a world power. (T)

2240 History of Michigan. Cr. 3-4

Social, economic development of the state, from French explorations to the present. (B)

2320 (N E 2020) Survey of Jewish History and Civilization. Cr. 3

History of the Jewish people from their origins to the contemporary period. Development of the Jewish community and the Jewish religion in relation to the hegemonic cultures of those regions in which there was major Jewish settlement. (I)

2430 (CBS 2430) History of Latinos in the United States. Cr. 3

Historical development of people of Hispanic descent in the United States from the early nineteenth century to the present. Cultural conflict, interaction of political, social, and economic forces. (F)

2440 (CBS 2410) (FC) History of Mexico. Cr. 3

Historical development of Mexico and the Mexican people from the Spanish conquest to the present. Interaction of political, social, economic and cultural influences. (F)

2500 (PCS 2000) Introduction to Peace and Conflict Studies. (P S 2820) Cr. 3

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. (T)

2510 (PHY 2020) Science, Technology, and War. (P S 2440) (PCS 2020) Cr. 4

May not be used to fulfill natural science group requirement. Not open to students who took this topic in HIS 3995. 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. (W)

2520 (PCS 2010) Topics in Peace and Conflict Studies. (P S 2830) Cr. 1-4

Special topics relating to peace and conflict studies. (Y)

2530 (PCS 2050) The Study of Non-Violence. (P S 2550) (SOC 2050) Cr. 3

Intellectual and social roots of non-violence and the practice of non-violence in different people's life styles. (Y)

2700 (P S 2700) (FC) Introduction to Canadian Studies. (ENG 2670) (GPH 2700) Cr. 3

Survey of Canada in its cultural, literary, historical, geographical and political aspects; key concepts and social patterns that define the Canadian experience. (Y)

3050 United States and the Vietnam Experience. Cr. 4

The United States' involvement in Vietnam; military, domestic and diplomatic impact. (Y)

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. (F)

3150 The Black Experience in America II: 1865 to the Present. (AFS 3150) Cr. 3-4

The black in national life since emancipation. (W)

3160 (AFS 3160) Black Urban History. Cr. 4

Historical experience of African Americans in urban areas; impact of their communities on urban development from 1860 to contemporary times. (F,W)

3170 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 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. (F)

- 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) Detroit Politics: Continuity and Change in City and Suburbs. (ULM 3250) Cr. 4**
Detroit area political systems and processes, historical, economic, and social influences on local politics. Traditions, changes, and future challenges in Detroit and metropolitan area. (B)
- 3250 The Family in History. Cr. 3-4**
Only Honors Program students may elect for four credits. Comparative survey emphasizing the transformation from traditional patterns of family life to family and kin in modern industrial society; students research their own family histories. (B)
- 3300 Technology in America. Cr. 3-4**
Technological change in the United States from European settlements to the present; impact of technology in American society; meaning of technology in American culture; history of technologies used in agriculture, manufacturing, transportation, communication, and warfare. (B)
- 3320 (N E 3040) Twentieth Century Middle East. Cr. 3**
The contemporary Middle East; emphasis on social and economic development. Investigation of issues that identify the region, such as oil, gender issues, fundamentalism, and regional conflicts. (Y)
- 3330 Civilizations of the Nile Valley: Egypt and Nubia. Cr. 4**
From Neolithic era to the seventh century of our era. (B)
- 3360 (AFS 3360) Black Workers in American History. Cr. 4**
Survey course. Slave and free workers during antebellum period; skill trades, sharecropping, menial labor, coal mining during Reconstruction; labor struggles and job discrimination in the twentieth century. (F,W)
- 3400 The Automobile and Society: Europe, America, and Japan. Cr. 4**
History of the design, production, and use of the automobile in Europe, the United States, and Japan, from 1885 to the present; impact of automobile on society and culture. (B)
- 3825 History of Modern China. (HIS 5825) (N E 3825) (N E 5825) Cr. 4**
From the rise of the last dynasty in the early seventeenth century to the present. (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; focus on changes in definitions of womanhood and roles and rights women have had. (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**
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 (ULM 6100) Class, Race, and Politics in America. (AFS 6100) (P S 6050) (SOC 7330) (U P 7030) Cr. 3**
Prereq: senior standing or consent of instructor. Historical and analytic investigation into the role of class and race in American politics. (I)
- 5120 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 1860. (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 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 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 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. (I)

5290 (ECO 5490) American Labor History. (HIS 7290) Cr. 4

Analysis of American workers and unions in the nineteenth and twentieth centuries. (B)

5320 (AFS 5320) Black Labor History. Cr. 3

Prereq: upper division standing. Offered for undergraduate credit only. History of black labor from the colonial period to the present. Topics include the development of a dual racial labor system in America; black workers in the development and evolution of the American

labor movement; and black responses to white working class behavior. (B)

5330 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)

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 juncture 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. Cr. 3-4

The history of modern Germany against the background of its tradition and culture. Concentration on the Prussian-Austrian conflict, the emergence of German intellectual life, unification and modernization, and the crises and wars of the twentieth century. (I)

5480 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 attention 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 during sixteenth, seventeenth, and early eighteenth centuries. (I)

5620 The Rise of the European Working Class: 1750-1850. (HIS 7620) Cr. 3

The impact of capitalism on peasant society; the transformation of handicraft industry; the emergence of the factory proletariat; class conflict and the working class movement in Europe's revolutionary age. (B)

5660 France Since 1815. (HIS 7660) Cr. 4

Struggle between old and new political forces, impact of industrialization, search for freedom with order, effect of total war, problems of decolonialization and European integration, cultural transformations. (Y)

5730 The History of West Africa. (HIS 7730) Cr. 4

West African states; Islam and socio-political change; the termination of the Atlantic slave trade; European conquest; West African resistance and the Colonial experience; nationalism and independence. (B)

5740 History of South Africa. (HIS 7740) Cr. 4

Historical origins of Apartheid with emphasis on nineteenth and twentieth century, including Dutch and British settlement, African state building, the mineral revolution, European racism, African resistance and nationalism. (B)

5825 (HIS 3825) Readings in History of Modern China. (N E 3825) (N E 5825) Cr. 4

From the rise of the last dynasty in the early seventeenth century to the present. (B)

5865 (HIS 3865) Readings in the History of Modern Japan. (N E 3865) (N E 5865) Cr. 4

(Y)

5875 (HIS 3875) Readings in Women in Japanese History. (N E 3875) (N E 5875) Cr. 4

(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 University of Salford, England. (F,W)

5993 (WI) Writing Intensive Course in History. Cr. 0

Prereq: junior standing, consent of chairperson and instructor, satisfactory completion of English Proficiency Examination; coreq: any 5000-level History course. Offered for S and U grades only. Open only to majors. Required for all majors. Students write term paper of approximately twenty typed pages, including footnotes and anno-

tated bibliography. 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)

5995 Honors Seminar. Cr. 3

Prereq: consent of chairperson; honors standing in history. (T)

5996 Capstone Course for Majors. Cr. 3

Prereq: consent of chairperson. Open only to majors. (I)

6000 Studies in Comparative History. Cr. 2-4

Topics to be announced in Schedule of Classes. (B)

6010 Studies in American History. Cr. 2-4 (Max. 9)

Topics to be announced in Schedule of Classes. (Y)

6170 (HIS 3170) Studies in Ethnicity and Race in American Life. (AFS 3170) (AFS 6170) Cr. 3-4

Exploration of complicated relationship between ethnic and racial diversity and the making of America. Using historical, literary, and cultural readings and sources to examine key themes: Who was the "Other"? What is an "American"? (B)

6190 History of American Business. Cr. 3

Major innovators and leaders as entrepreneurs, corporate managers, and business statesmen from colonial era to present. Special attention to relationship, American values, and government policies. (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 Advisor: Liza Lagman Sperl: 313-577-9075

Marketing Coordinator: Carol Baldwin: 313-577-4621

Initiatives/MedStart Coordinator: Nancy Galster: 313-577-8523

Live and Learn @ Wayne Coordinator: Liz Cook: 313-577-5198

Service Clerk: Antonio Austin: 313-577-2440

Peer Advisor: Ty Stevenson: 313-577-9872

Web: <http://www.honors.wayne.edu>

Honors curricula and course work 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, i.e., BIO for Biology, HIS for History, MAT for Mathematics, etc. (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 16) 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:

College of Engineering

Chemical Engineering: BS

Civil Engineering: BS

Electrical Engineering: BS

Industrial Engineering: BS

Mechanical Engineering: BS

College of Fine, Performing and Communication Arts

Dance: B.A., B.S., B.F.A.

Music: B.A., B.M.

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.

Political Science: B.A.

Psychology: B.A., B.S.

Public Affairs: B.P.A.

Romance Languages: B.A.

Sociology: B.A., B.A.S.

Additional Benefits of the Honors Program

Benefits of the Honors Program include special faculty advising, guest lectures, participation in regional and national meetings of the National Collegiate Honors Council, research/presentation opportunities, access to Honors Living and Learning Communities in the residence halls, an Honors Student Association, Peer Advisors, early Honors priority registration, and more. Honors students may also receive research awards to support their senior theses or projects. Typically, Honors classes are small and are taught by members of the regular faculty.

Honors 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 Program in the University Schedule of Classes; they will also appear 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 -- Detroit Minorities: Arabs, Hispanics, African Americans: Cr. 3-4
ANT 4999 -- Honors Research and Thesis: Cr. 3-6
A H 1120 -- (VP) Art 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 Thesis 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. 2-3
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 & Commitment: European Existentialist Lit: Cr. 3-4
GER 2700 -- (PL) Anguish & Commitment: European Existentialist Lit: Cr. 3-4
GPH 4990 -- Directed Study: Honors Program: Cr. 2-12
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) Anguish & Commitment: European Existentialist Lit: 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 Introduction to Philosophical Systems: Cr. 3-4
PHI 1040 -- (PL) Honors Introduction to Philosophical Problems: Cr. 3-4
PHI 1860 -- Honors Introductory Symbolic Logic: Cr. 3
PHI 2320 -- (PL) Introduction to Ethics: Cr. 3-4
PHI 3550 -- (PL) Metaphysics: Cr. 3
PHI 3600 -- Space, Time and the Philosophy of Physics: Cr. 3

PHI 4870 -- Honors Directed Reading: Cr. 4
PHI 4890 -- Honors Proseminar: Cr. 4
PHY 1040 -- (PS) 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 -- 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 & Commitment: European Existentialist Lit: Cr. 3-4
SOC 2000 -- (SS) Understanding Human Society: Cr. 3
SOC 5870 -- Violence in the Family: Cr. 3-4
SPA 2700 -- (PL) Anguish & Commitment: European Existentialist Lit: 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 grade form must then be returned 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 479.

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. (Y)

2000 (AI) City II. Cr. 3

Prereq: freshman honors standing. Recent American urban ideas, institutions and social movements within broader context of global change and conflict; strategies for city-related research. (Y)

2100 (CLA 2100) (PL) Classical Origins of Western Thought. Cr. 3

Prereq. for HON students: minimum 3.3 cumulative g.p.a. (3.5 g.p.a. for entering freshmen). Classical foundations of contemporary Western Thought. Topics include: relations between the sexes, democracy, slavery, war, social criticism, rationality, relations between parents and children, literature and the performing arts. (Y)

4200 (PL) Seminar in Philosophy and Letters. Cr. 3 (Max. 9)

Prereq: junior or senior standing; minimum 3.3 cumulative g.p.a. Analysis of meanings given to human experience through study of philosophy or letters. Honors variant of an approved PL course in General Education Program. (Y)

4220 (LS) Seminar in Life Science. Cr. 3

Prereq: junior or senior standing; minimum 3.3 cumulative g.p.a. Analysis of aspects, methods, and important issues in various areas of the life sciences. Honors variant of an approved LS course in General Education Program. (Y)

4230 (PS) Seminar in Physical Science. Cr. 3

Prereq: junior or senior standing; minimum 3.3 cumulative g.p.a. Analysis of modern theory and data, implications and possibilities in the physical sciences. Honors variant of an approved PS course in the General Education Program. (Y)

4240 (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)

4250 (HS) Seminar in Historical Studies. Cr. 3 (Max. 9)

Prereq: junior or senior standing; minimum 3.3 cumulative g.p.a. Studies of periods of history in which there has been major transition or change. Honors variant of an approved HS course in General Education Program. (Y)

4260 (FC) Seminar in Foreign Culture. Cr. 3 (Max. 9)

Prereq: junior or senior standing; minimum 3.3 cumulative g.p.a. Humanistic or social science investigation of peoples and institutions in other cultures. Honors variant of an approved FC course in General Education Program. (Y)

4280 General Honors Seminar. Cr. 3

Prereq: junior or senior standing; minimum 3.3 cumulative g.p.a. In-depth exploration of important concepts and approaches in liberal studies. Topics to be announced in Schedule of Classes. (Y)

4990 Directed Study. Cr. 1-4 (Max. 16)

Prereq: 3.3 g.p.a. and written consent of director. May be offered for regular letter grades or S and U grades. (Y)

4998 University Honors Thesis. Cr. 3-6

Prereq: junior or senior standing and consent of University Honors Program Director. Open only to University honors students. For students not concurrently in Departmental/College Honors program. (T)



HUMANITIES

Office: Room 11205, 5057 Woodward; 313-577-3035

Director: Richard P. Studing

Professors

Marc Cogan, Bernard M. Goldman (Emeritus), Martin M. Herman (Emeritus), Sara E. Leopold (Emerita), Richard P. Studing

Associate Professor

Nola H. Tutag (Emerita)

Senior Lecturer

Linda J. Speck

The Humanities Program focuses on the symbolic ways in which human beings represent their experience. By means of a multidisciplinary, interdisciplinary and comparative approach, it examines relationships among such diverse humanistic disciplines as art, music, literature, history, language and philosophy from both topical/theoretical and historical perspectives. Courses are designed to serve two curricular needs:

1. Those so designated and approved may be taken to fulfill portions of the University General Education Program (see page 16), and the College of Liberal Arts and Sciences Group Requirements (see page 234).
2. Some may serve as electives or cognates for students majoring in other disciplines.

HUMANITIES COURSES (HUM)

The following courses, numbered 0900-6999, are offered for undergraduate credit. For interpretation of numbering system, signs and abbreviations, see page 479.

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 program. 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 juniors and seniors. Advanced study in a particular area of the humanities. (T)



INTERNATIONAL STUDIES

Office: 355 Manoogian Hall; 313-577-8072; Fax: 313-577-2738

Program Director: Bruce S. Morgan

Advisory Committee

Anthropology: Mark L. Weiss

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.

LEGAL STUDIES

Office: 3369 Law School; 313-577-3947

Director: Steven L. Winter

e-mail: cls@wayne.edu

Center Faculty: Brad R. Roth

Academic Services Officer: Enoch Baker

Web: <http://www.law.wayne.edu/organization/cls/>

Associated Faculty

Sheldon Alexander, *Psychology*

James Chalmers, *Political Science*

John Corvino, *Philosophy*

Susan Fino, *Political Science*

Anne Rawls, *Sociology*

Stephen Spurr, *Economics*

Sandra VanBurkleo, *History*

Robert Yanal, *Philosophy*

Marvin Zalman, *Criminal Justice*

Interdisciplinary Minor in Legal Studies

The College of Liberal Arts and Sciences offers a Minor in Legal Studies for undergraduate students majoring in other disciplines. The Minor in Legal Studies program consists of twenty-one credits, typically six or seven courses. Students must also complete any prerequisite courses required to enroll in a course satisfying the minor requirements. This minor is intended to provide a broad understanding of law as a fundamental component of human societies. The notation of the minor will appear on the student's transcript but not the diploma. Declaration of the minor will be made by the student only when filing for graduation. Students planning to minor in legal studies are strongly encouraged to consult with the Program Director not later than the beginning of their senior year.

MINOR REQUIREMENTS: Successful completion of a minimum of twenty-one credits, including: 1) at least seventeen credits outside the student's major; 2) LGS 2010 -- Introduction to Legal Studies; 3) at least three courses from Group I consistent with the requirements listed below; 4) not more than one course from Group III; 5) courses from at least three different Departments.

Substitution of courses not listed below may be made with prior written consent of the Director.

Group I (three courses must be elected)

The three courses required from Group I must be from more than one sub-group and more than one Department. Additional courses from Group I may also be counted toward the twenty-one credits required for the minor.

Sub-Group A — Substantive Law

CRIMINAL JUSTICE

CRJ 5710 -- Constitutional Criminal Procedure: Cr. 4

CRJ 5720 -- Criminal Law: Cr. 4

AMERICAN CONSTITUTIONAL LAW

P S 5110 -- Constitutional Law: Cr. 4

P S 5120 -- Constitutional Rights and Liberties: Cr. 4

INTERNATIONAL LAW

P S 5820 -- International Law: Cr. 4

P S 5850 -- Human Rights: Cr. 4

Sub-Group B — Historical Approaches

AMERICAN LEGAL HISTORY

HIS 5280 -- American Legal History: Cr. 4

AMERICAN CONSTITUTIONAL HISTORY

HIS 5090 -- Constitutional History of the U. S.: 1937 to Present: Cr. 3

HIS 5160 -- Constitutional History of the U.S. to 1860: Cr. 4

HIS 5170 -- Constitutional History of the U.S.: 1860-1940: Cr. 4

ANCIENT LEGAL HISTORY

CLA 3100 -- Law and Ancient Society: Cr. 3-4

Sub-Group C — Theoretical Aspects

LEGAL PHILOSOPHY

PHI 3270 -- Foundations of Law: Cr. 3

PHI 5270 -- Philosophy of Law: Cr. 4

MORAL PHILOSOPHY

PHI 1100 -- (PL) Contemporary Moral Issues: Cr. 3

PHI 2320 -- (PL) Introduction to Ethics: Cr. 3-4

PHI 5280 -- History of Ethics: Cr. 4

PHI 5300 -- Twentieth Century Analytic Ethics: Cr. 4

NORMATIVE POLITICAL THEORY

PHI 2330 -- Intro. to Social and Political Philosophy: Cr. 3

PHI 5240 -- Special Topics in Social and Political Philosophy: Cr. 4

P S 3510 -- (PL) Law, Authority, and Rebellion: Cr. 4

P S 3520 -- (PL) Justice: Cr. 4

Sub-Group D — Social Science Approaches

SOCIOLOGY OF LAW

SOC 5810 -- Law in Human Society (CRJ 5810): Cr. 3

SOC 3820 -- Criminology: Cr. 3

SOCIOLOGY OF RACE AND THE LAW

AFS 3860 -- Race, Class, & the Criminal Justice System (SOC 3860): Cr. 3

AFS 5580 -- Law and the African American Experience (SOC 5580): Cr. 4

LAW AND POLITICS

P S 3100 -- American Legal Systems and Processes: Cr. 4

LAW AND ECONOMICS

ECO 5250 -- Economic Analysis of the Law: Cr. 4

Sub-Group E — Capstone

LGS 5999 -- Interdisciplinary Seminar in Legal Studies: Cr. 3

Group II

COM 5110 -- Studies of Argument: Cr. 3

CRJ 3120 -- Politics of the Criminal Justice Process (P S 3120): Cr. 4

CRJ 4300 -- Corrections (SOC 3840): Cr. 4

CRJ 4400 -- Introduction to the Judicial Process: Cr. 4

CRJ 5060 -- Comparative Criminal Justice Systems: Cr. 3

ECO 5210 -- Market Power and Economic Welfare: Cr. 4

ECO 5500 -- Public Finance: Taxation and Expenditure Theory: Cr. 4

PCS 2000 -- Intro. to Peace & Conflict Studies (HIS 2500) (P S 2820): Cr. 3

PCS 5000 -- Dispute Resolution (CRJ 5994) (P S 5890) (PSY 5710): Cr. 3

PHI 1110 -- Ethical Issues in Health Care: Cr. 3

P S 6120 -- Administrative Law and Regulatory Politics: Cr. 4

SOC 4800 -- Outsiders and Deviants (CRJ 4800): Cr. 3

Group III (not more than one course may be elected)

ACC 3510 -- Business Law I: Cr. 3

ACC 5170 -- Taxes on Income: Cr. 3

ACC 5190 -- Business Law II: Cr. 3

C E 5810 -- Legal Aspects of Engineering and Construction: Cr. 3

COM 5080 -- History and Law of American Journalism: Cr. 4

CRJ 4410 -- The Juvenile Justice System: Cr. 4

CRJ 6750 -- Administrative Law in Criminal Justice: Cr. 3

FPC 5020 -- Legal Environment of the Arts: Cr. 3

HWM 5540 -- Law & Administration Issues in Hazardous Waste Mgt. I: Cr. 2

KIN 6640 -- Legal Issues in Health, Phys. Ed. & Recreation: Cr. 3

LBS 4500 -- Applied Labor Studies: Labor Law: Cr. 3

LGS 5000 -- Legal Studies Internship: Cr. 1-3
LGS 5991 -- Directed Study: Cr. 1-4
MGT 5740 -- Collective Bargaining: Cr. 3
PPR 3120 -- Pharmacy Jurisprudence: Cr. 2
P S 3170 -- The Living Constitution: Cr. 4
U P 5110 -- Urban Planning Process: Cr. 3
U P 6650 -- Planning and Development Law: Cr. 3

LEGAL STUDIES COURSES (LGS)

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 479.

2010 Introduction to Legal Studies. Cr. 3

Nature of legal systems and functions of law in society. Elements of American legal system and basic concepts in American law. Legal theory and its application to contemporary issues (e.g., crime, free speech, civil rights). (Y)

5000 Legal Studies Internship. Cr. 1-3

Prereq: LGS 2010 and consent of program director. May not be used to satisfy Group I or II requirements for Minor in Legal Studies. Offered for S and U grades only. Students work up to twelve hours per week in internship placement with a legal studies component, such as City of Detroit Law Department or other government agency including local area courts, or with a private agency. Students meet once per week with faculty member; final project synthesizing legal studies course work. Students may not be paid for internship work. (T)

5991 Directed Study. Cr. 1-4

Prereq: consent of instructor. May not be used to satisfy the Group I requirement for the minor in Legal Studies. Advanced reading and research in legal studies. (T)

5999 Interdisciplinary Seminar in Legal Studies. Cr. 3

Prereq: LGS 2010 or consent of instructor. Primarily for juniors and seniors pursuing the Minor in Legal Studies. Application of methods from the social sciences and humanities as applied to study of contemporary legal controversies. (Y)

LINGUISTICS

Office: Room 10303, 5057 Woodward; 313-577-8642
e-mail: linguistics@wayne.edu

Director: Patricia Siple

Participating Faculty

Jean Andruski, *Assistant Professor, Audiology and Speech-Language Pathology*
Anthony Aristar, *Associate Professor, English*
Catherine Barrette, *Assistant Professor, Romance Languages and Literatures*
Ellen Barton, *Professor, English*
Eugenia Casielles-Suarez, *Associate Professor, Romance Languages and Literatures*
Walter Edwards, *Professor, English*
Joel Itzkowitz, *Associate Professor, Greek and Latin*
Haiyong 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*
Frances Trix, *Associate Professor, Anthropology*
Margaret E. Winters, *Professor, Romance Languages and Literatures*
Lee Wurm, *Assistant 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 5700), Phonology (LIN 5290), 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 32.

* For specific requirements, see the Wayne State University Graduate Bulletin.

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 16), the College Group Requirements (see page 234), 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, 43, and 234. 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
-- Introductory Symbolic Logic: Cr. 3
-- Honors Symbolic Logic: Cr. 3
LIN 5730 -- English Grammar: Cr. 3
LIN 6720 -- Topics in Language: Semantics: Cr. 3
LIN 6720 -- Topics in Language: Morphology: Cr. 3
LIN 6720 -- Topics in Language: Typology: Cr. 3
LIN 6710 -- Psycholinguistics: 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 5230 -- Structure of Arabic: Cr. 3
LIN 5570 -- Philosophy of Language: Cr. 4

(c) *Language Variation and Change*

Students must elect at least nine credits from the following, in consultation with the adviser:

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:

LIN 5220 -- Introduction to Chinese Linguistics: Cr. 3
LIN 5310 -- Language and Culture: Cr. 3
LIN 5320 -- Language and Societies: Cr. 3
LIN 6720 -- Topics in Language: Morphology: Cr. 3
LIN 6720 -- Topics in Language: Field Methods: Cr. 3

(d) *Language Acquisition and Processing*

Students must elect at least nine credits from the following, in consultation with the adviser:

LIN 3080 -- Cognitive Psychology: Cr. 3
LIN 5080 -- Phonetics: Cr. 3
LIN 5360 -- Normal Language Acquisition and Usage: Cr. 3
LIN 5750 -- Theories of Second Language Acquisition: Cr. 3
LIN 6710 -- Psycholinguistics: Cr. 3

Students may select from the following electives:

LIN 2750 -- African American English: Cr. 3
LIN 5310 -- Language and Culture: Cr. 3
LIN 5760 -- American Dialects: Cr. 3
PSY 3010 -- Statistical Methods in Psychology: Cr. 4
PSY 3090 -- Cognitive Psychology Laboratory: Cr. 2
PSY 3120 -- Brain and Behavior: Cr. 3
SLP 5300 -- Intro. to Speech-Language Pathology: Cr. 3-4
SLP 7010 -- Acoustics of Speech: Cr. 3

(e) *Sociolinguistics and Discourse/Pragmatics*

Students must elect at least nine credits from the following, in consultation with the adviser:

LIN 2750 -- African American English: Cr. 3
LIN 5310 -- Language and Culture: Cr. 3
LIN 5320 -- Language and Societies: Cr. 3
LIN 5760 -- American Dialects: Cr. 3
LIN 5770 -- Sociolinguistics: Cr. 3
LIN 6720 -- Topics in Language: Pragmatics: Cr. 3
LIN 6720 -- Topics in Language: Language Variation: Cr. 3
LIN 6720 -- Topics in Language: Language and Gender: Cr. 3

Students may select from the following electives:

ANT 5210 -- Anthropological Methods: Cr. 4
LIN 2730 -- Languages of the World: Cr. 3
LIN 5210 -- Arabic Sociolinguistics: Cr. 3
LIN 5730 -- English Grammar: Cr. 3
LIN 6720 -- Topics in Language: Historical Linguistics: Cr. 3
PSY 3010 -- Statistical Methods in Psychology: Cr. 4

(f) *Individualized Program*

A student may design a concentration to meet an individualized program. The special concentration must be approved by the adviser before the student has completed a maximum of nine credits in the major.

'AGRADE' Program

The Linguistics Program invites academically superior majors to petition for admission to the 'AGRADE' (Accelerated Graduate Enrollment) Program. 'AGRADE' procedures enable qualified seniors to enroll simultaneously in the undergraduate and graduate programs in Linguistics and to apply a maximum of fifteen credits toward both a bachelor's and a master's degree. Students admitted to the 'AGRADE' Program may be able to complete both degrees in five years of full-time study.

An 'AGRADE' applicant should petition for admission to the Student Adviser for the Linguistics Program. Applications will be accepted no earlier than the semester in which ninety credits are completed. Applicants must have an overall grade point average at the *cum laude* level (approximately 3.4) and not less than a 3.6 g.p.a. in the major courses already completed. If a student's petition is accepted, a designated faculty adviser will develop a graduate Plan of Work, specifying the 'AGRADE' courses to be included in subsequent semesters.

For more details about the 'AGRADE' Program, contact the Linguistics Program office: 313-577-8642; or by e-mail at: linguistics@wayne.edu

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 479.

1850 (PHI 1850) Introductory Symbolic Logic. Cr. 3

The logic of propositions; the general logic of predicates and relations. (T)

1860 (PHI 1860) Honors Symbolic Logic. Cr. 3

Open only to Honors students. See LIN 1850. (T)

2720 (ENG 2720) (PL) Basic Concepts in Linguistics. Cr. 3

Prereq: ENG 1020 or equiv. Analysis of the structure and use of language, focusing on English, from the standpoint of current linguistic practice. Topics include: phonetics and sound structure, word structure, syntax, semantics, language origin and history, dialects, language learning and animal communication, and language in social interaction. (T)

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. (Y)

2750 (SLP 2750) African American English. Cr. 3

Structure, content, use, and history of African American English (also known as Ebonics) from its origins to the present. (W)

3080 (PSY 3080) Cognitive Psychology: Fundamental Processes. Cr. 3

Prereq: PSY 1010 or equiv. Fundamental theories, concepts, and empirical findings in study of human cognition. Topics include: thinking, problem solving, language comprehension and production, memory and attention. (Y)

3700 (ENG 3700) Structure of English. Cr. 3

Prereq: ENG 1020 or equiv. 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)

5050 (PHI 5050) Advanced Symbolic Logic. Cr. 4

Prereq: junior, senior, or graduate standing. Formal, extensive treatment of first-order predicate logic with emphasis on the notions of a formal logical language and truth in a model; the logic of identity; definite descriptions; brief introductions to set theory and the metatheory of propositional and first-order logic; some additional advanced topics to be selected by the instructor. (Y)

5080 (SLP 5080) Phonetics. Cr. 3

Multisensory study of sounds in the English language, emphasizing acoustic, physiologic, kinesiologic approaches. Material fee as indicated in the Schedule of Classes (F)

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

Prereq: ENG 2120 or equiv. 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. (B)

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. (B)

5310 (ANT 5310) 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 cycle and ordinary contexts of daily life. Students explore their own language and cultural backgrounds and those to which they are drawn. (F)

5320 (ANT 5320) Language and Societies. Cr. 3

Contemporary linguistic anthropologists see language as a form of social action. How this understanding of language in society has evolved: classic works in linguistic anthropology and contemporary studies. Research in language in society. (W)

5360 (SLP 5320) Normal Language Acquisition and Usage. Cr. 3

Language development in children and the associated areas of emotional and motor development; language stimulation techniques and programs. (Y)

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. (T)

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 Examination, 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

Web: <http://www.math.wayne.edu>

Professors

Gregory F. Bachelis, Robert D. Berman, Lawrence J. Brenton, Robert R. Bruner, Pao-Liu Chow, William S. Cohn, Daniel S. Drucker, Daniel E. Frohardt, David H. Gluck, David Handel, Lowell J. Hansen, Chong-Shi Houh (Emeritus), John M. Irwin (Emeritus), Steven M. Kahn, Rafail Z. Khasminskii, John Klein, Alexander Korostelev, Tachen Liang, Guozhen Lu, Kay Magaard, Leonid Makar-Limanov, Peter Malcolmson, Jose-Luis Menaldi, Boris Mordukhovich, D. Clarence Morrow (Emeritus), Togo Nishiura (Emeritus), Frank Okoh, Jingyal Pak (Emeritus), Choon-Jai Rhee, Claude L. Schochet, Bertram M. Schreiber, Tze-Chien Sun, Martin T. Wechsler (Emeritus), Gang George Yin, Zhimin Zhang

Associate Professors

John C. Breckenridge, David W. Jonah, Stephen A. Williams

Assistant Professors

Po Hu, Sheng Zhang

Lecturers

Leonard Boehm, Patricia Bonesteel, Rebecca Morgan, Christopher Nazelli, Donald Sherry

Visiting Professor

Ziqing Xie

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 latest information: <http://www.math.wayne.edu>

* For specific requirements, see the Wayne State University Graduate Bulletin.

Mathematics Placement Exam

All students, including transfer and guest students, who plan to take MAT 0995, 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. Students intending to take MAT 0993 need not take the examination.

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 or 1050. Passing at the second level allows entry into MAT 1110, 1120, 1500, or 1800. Passing at the third level allows entry into MAT 2010.

Mathematics 0995 and 1050: Students qualify by having achieved one of the following within the previous two semesters: a) satisfactory score on the Mathematics Placement Exam, or b) a grade of 'S' in MAT 0993. For placement at this level, students should have a command of numerical and beginning algebra concepts and techniques corresponding approximately to one year of high school algebra.

Mathematics 1000: Students enrolling in this course should have a command of arithmetic and beginning algebra corresponding to at least one year of high school algebra. Students can qualify for MAT 1000 by qualifying for either MAT 0995 or one of the following courses, MAT 1050, MAT 1110, MAT 1500, MAT 1800, or MAT 2010.

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, or c) a grade of 'S' in MAT 0995. 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) satisfactory score on the Mathematics Placement Examination, or b) a grade of at least 'C-minus' in MAT 1050. 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 32. 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 234) and the University General Education Requirements (see page 16), 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, 43, and 234.

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 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 240), it is possible to earn a bachelor's degree in mathematics concurrent with a secondary teaching certificate. Students in CCST may satisfy the mathematics part of their degree requirements by any of the degree options specified below, though Option C is specifically designed and recommended for future teachers. It is recommended but not required that CCST students who do not choose Option C take MAT 2860, 5000, and 6140.

Computer Science Concentration (Option D, below): Mathematics and computer science are so closely related that a great many students who major in mathematics pursue careers or graduate study in computer science. A mathematics degree, being more than just welcome in the field, is highly regarded. For students who would like to complete a double major in mathematics and computer science or a major in mathematics with a minor in computer science, the Department offers a specially designed program described under Option D. Under this option, students can take certain courses that satisfy both mathematics and computer science requirements simultaneously. Specifically, MAT 5100 can be used as a computer sci-

ence 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 this profession. Option E provides the course work covered by the first several 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 Calculus and Linear Algebra 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).
3. Algebra I/Writing Intensive Course in Mathematics, (MAT 5420/MAT 5993).
4. Analysis I (MAT 5600).
5. Probability (MAT 5700).
6. Algebra II or Analysis II (MAT 5430 or 5610).
7. One course elected from the following: MAT 5230, 5430, 5520, 5530, 5610, and 5800.
8. One additional course elected from a) mathematics courses numbered above 5000, excluding MAT 5005, 5120, 5130, 5180, 5190, 6170, 6180, and 6200; or from 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 — Concentration in Secondary Teaching

This option is recommended for students in the Combined Curriculum for Secondary Teaching.

1. MAT 2010, 2020, 2030, and 2250.
2. MAT 2210 and 2860.
3. MAT 5000.
4. MAT 5070.
5. MAT 6140.
6. MAT 6170/5993 or MAT 5420/5993.
7. MAT 6200.
8. (MAT 5600 is required for the B. S. degree. It is not required for the B. A. degree.)
9. One additional mathematics course from among MAT 5400, 5520, 5600, and 6180.

Option D — Concentration in Computer Science

This option is available only to students who complete a second major or a minor in computer science. Students should consult the Computer Science Department for their major and minor requirements.

1. MAT 2010, 2020, 2030, and 2250.
2. MAT 2210 and 2860.
3. MAT 5070.
4. MAT 5100.
5. MAT 5420/5993.
6. (MAT 5600 is required for the B. S. degree for students completing a minor in computer science. It is not required for students completing a double major in mathematics and computer science, nor is it required for the B. A. degree.)
7. Two additional mathematics courses numbered above 5000, excluding MAT 5005, 5120, 5130, 5180, 5190, 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 — Concentration in Actuarial Science

This Option is for students interested in a career as an actuary.

1. MAT 2010, 2020, 2030, and 2250.
2. MAT 5070.
3. MAT 5100.
4. MAT 5420/5993.
5. MAT 5700.
6. MAT 5770.
7. MAT 5800.
8. (MAT 5600 is required for the B. S. degree. It is not required for the B. A. degree.)
9. MAT 2350 or one additional mathematics course numbered above 5000, excluding MAT 5005, 5120, 5130, 5180, 5190, 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, including at least one 4000-level Honors Program seminar (see Honors Program, page 310).
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), the Department Chairperson, 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
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
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

Beginning students 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, several specialized advanced 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 -- Elementary Probability and Statistics: 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 479.

NOTE: A minimum grade of 'C-minus' is required in every prerequisite course.

MATHEMATICS COURSES (MAT)

Courses Open Only to Undergraduates

0991 (MC) Basic Concepts in Mathematics. Cr. 3

Prereq: ENG 1020; failure in mathematics proficiency test. Offered for S and U grades only. No degree credit. Introduction to the study of algebra, geometry, probability and statistics. (Former MAT 1080.)

(T)

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 five hours per week in Math Computer Lab (for Lab hours, see Schedule of Classes). Review of arithmetic, integers, fractions, decimals, percents, ratios. The Real number system: the basic operations and their properties. Geometry: basic objects and terminology. Material fee as indicated in Schedule of Classes

(T)

0995 Intermediate Algebra. Cr. 3

No degree credit. Offered only as computer-based instruction. If Main Campus section is elected, student must complete minimum of five hours per week in Math Computer Lab (for Lab hours, see Schedule of Classes). Prereq: within previous two semesters successful completion of MAT 0993, taken at WSU; or satisfactory score on math

placement exam. Exponents and radicals, solving polynomial and other types of equations and inequalities, graphs and systems of linear equations, introduction to functions, elementary geometry. (T)

1000 (MC) Mathematics in Today's World. Cr. 3

Prereq: placement into MAT 0995 or higher level MAT course or satisfactory completion of MAT 0993 or equiv. 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. 2-7

Prereq: one of the following within previous two semesters: satisfactory score on 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, solving right triangles. Engineering, mathematics, mathematics education, or science majors should elect the seven-credit version of this course, MAT 1050 PREP, which includes problem solving and elements of precalculus and Calculus. (T)

1800 Elementary Functions. Cr. 4

Prereq: within previous two semesters a grade of C-minus or better in MAT 1050, taken at WSU; or satisfactory score on math 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)

1870 Discrete Mathematics for Computer Science II. Cr. 4

Prereq: MAT 1860 or consent of instructor. Analysis of algorithms, recurrence relations, combinatorics, graphs, Boolean algebra, application to computer science. (T)

1990 Precalculus Workshop. Cr. 2

Coreq: designated section of MAT 1800. Offered for S and U grades only. Open only to students in Emerging Scholars Program. Students work cooperatively in groups to solve challenging problems related to precalculus. Learning is through discovery rather than by lecture. (T)

2010 Calculus I. Cr. 4

Prereq: within previous two semesters a grade of C-minus or better in MAT 1800, taken at WSU; or satisfactory score on math placement exam. No credit after MAT 1510. Calculus as the study of change. Definitions, concepts, and interpretations of the derivative and the definite and indefinite integrals; differentiation, integration, applications. (T)

2020 Calculus II. Cr. 4

Prereq: MAT 2010. Review definition of definite integral and fundamental theorem of calculus. Techniques of integration; approximate integration; improper integrals; applications of integration. Sequences and series. Approximating functions by polynomials and Taylor series. (T)

2030 Calculus III. Cr. 4

Prereq: MAT 2020. Multivariable calculus with applications. Vectors and vector functions in two and three dimensions; functions of several variables; differentiation; integration; vector calculus. (T)

2110 Calculus Workshop I. Cr. 2

Coreq: designated sections of MAT 2010. Offered for S and U grades only. Open only to students in Emerging Scholars Program. Students work cooperatively in groups to solve challenging problems based on MAT 2010. 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 based on MAT 2020. 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

Prereq: MAT 2010. No credit after former MAT 1860 or 1870. Foundations of mathematics: logic, sets, functions, sequences. The integers. Matrices. Mathematical reasoning: induction, recursive definitions and recurrence relations. Combinatorics. Graph theory. Boolean algebra. (Y)

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, consent of instructor. Special topics in a branch of pure or applied mathematics, explored in depth. (Y)

Courses Open to Undergraduates and Graduates

4990 Directed Study: Honors Program. Cr. 1-4 (Max. 8)

Prereq: admission to Honors Program by Undergraduate Committee. (I)

5000 Fundamental Concepts of Mathematics and Proof Writing. Cr. 3

Prereq: MAT 2250 or 2860 or consent of instructor. Not considered a 5000+ level course for undergrad. degree requirements in mathematics; no credit towards graduate degree in mathematics. Fundamental concepts: basic logic, basic set theory, functions, equivalence relations. Proof: methods of proof, structures of proofs, proof-writing in a variety of mathematical subjects. (F,W)

5005 Proof-Writing Workshop. Cr. 1

Coreq: MAT 5000 or consent of instructor. Not considered a 5000+ level course for undergrad. degree requirements in mathematics; no credit towards graduate degree in mathematics. Students work in groups, writing proofs in a variety of mathematical subjects. (S)

5030 Statistical Computing and Data Analysis. Cr. 3

Prereq: MAT 2210 or equiv., 2250 or equiv. Computational aspect of statistics for advanced undergraduate and beginning graduate stu-

dents. 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)

5110 Numerical Methods II. Cr. 3

Prereq: MAT 2250, MAT 2350; or equiv. Numerical linear algebra topics, including eigenvalue problems, and numerical solutions of differential equations. (W)

5220 Partial Differential Equations and Boundary Value Problems. Cr. 4

Prereq: MAT 5070. Boundary value problems of mathematical physics; Sturm-Liouville problems; eigenvalues and eigenfunctions; Green's functions; variational principles; the Rayleigh-Ritz method. (B)

5230 Complex Variables and Applications. Cr. 4

Prereq: MAT 5070. No credit after MAT 6600. Cauchy-Riemann equations; elementary functions; mappings by elementary functions; the Cauchy integral formula; Morera's theorem; Taylor series; Laurent series; residues and poles; conformal mappings; the Schwarz-Christoffel transformations; potential theory; Fourier and Laplace transforms and applications in differential and integral equations. (B)

5280 Methods of Differential Equations. Cr. 3

Prereq: MAT 2350. Linear nth order differential equations; linear systems of differential equations (constant and periodic coefficients); oscillation and comparison theorems for second order differential equations; boundary value problems; stability theory (Liapunov's direct method and frequency domain stability criteria); asymptotic solutions; autonomous non-linear systems; classification of singularities. (B)

5350 (PHI 5350) Logical Systems I. Cr. 4

Prereq: PHI 1850 or 1860 or 5050 or MAT 5600 or MAT 5420 or consent of instructor; for philosophy graduate students: satisfaction of elementary logic requirement. Metaresults concerning formal systems of sentential and first-order logics; soundness, completeness; independence of axioms; introduction to recursive functions; formalization of elementary arithmetic; discussion of Godel's incompleteness theorem and Church's Theorem. (B)

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; Euler'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 con-

cepts: 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 transformations. (T)

5430 Algebra II. Cr. 4

Prereq: MAT 5420. Group theory continued: Sylow Theorems, finite abelian groups. Ring theory: rings, integral domains, fields of quotients, homomorphisms, ideals, quotient rings, P.I.D.s, U.F.D.s, polynomial rings. Advanced topics in linear algebra: canonical forms. Field theory: extensions, splitting fields, finite fields, geometric constructions. (T)

5520 Introduction to Topology. Cr. 3

Prereq: MAT 2030 and MAT 5000 (or former 4010) or consent of instructor. No credit toward graduate degree in mathematics or statistics. An introduction to topology, mostly through an intuitive approach. Topics chosen from among: topological equivalence and topological properties, complexes, Euler characteristic, connectedness, compactness, continuity, Brouwer's Fixed Point Theorem, vector fields, Hairy Ball Theorem, n-dimensional spaces, classification of surfaces, cut and paste techniques, the 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 spaces, 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 and integral calculus. (T)

5610 Introduction to Analysis II. Cr. 3

Prereq: MAT 5600. 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; limit theorems. (Y)

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. Mathematical models (deterministic and/or probabilistic) applied to dynamic programming; games; queues and inventories. (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 statistics and calculus, or consent of instructor. Time series models; statistical analysis in the time domain and examples; statistical analysis in the frequency domain and examples. (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 Examination, consent of instructor, MAT 2030 and 2250; coreq: MAT 5420 or 6170. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a course designated as a corequisite. See section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing-Intensive Course in the Major requirement. (T)

6130 (MAT 6130) Discrete Mathematics. (MAT 2860) Cr. 3

Prereq: MAT 2010. No credit after former MAT 1860 or 1870. Foundations of mathematics: logic, sets, functions, sequences. The integers. Matrices. Mathematical reasoning: induction, recursive definitions and recurrence relations. Combinatorics. Graph theory. Boolean algebra. (Y)

6140 Geometry: An Axiomatic Approach. Cr. 3

Prereq: MAT 5000 or consent of instructor. Foundations: logic, axiom systems, models; Hilbert's axioms; the parallel postulate; Euclidean geometry; non-Euclidean geometries; hyperbolic geometry; philosophical questions. (Y)

6150 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. Con-

nections 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; traversability; planarity; colorability. Further topics from among factorization, line-graph, coverings and independence, graphs and matrices, automorphism groups, enumeration, Ramsey theory, hypergraphs, packing theory, network flows. (B)

6410 Combinatorics. Cr. 4

Prereq: MAT 5420 or consent of instructor. Enumeration: the classical theory, principle of inclusion and exclusion, generating functions, the Mobius function; combinatorial designs including Latin squares, difference sets, projective geometries, Hadamard matrices, construction problems; transversal theory; Ramsey's theorem; coding theory; partial orders; lattices. (B)

6500 Topology I. Cr. 4

Prereq: MAT 5610 or consent of instructor. Topological spaces and continuous functions; connectedness; compactness; product and quotient spaces; metric spaces; Urysohn's lemma; Tietze extension theorem; homotopy; covering spaces and path lifting; the fundamental group and examples; Brouwer fixed point theorem and applications. (Y)

6600 Complex Analysis. Cr. 2-4

Prereq: MAT 5610 or consent of instructor. Offered for two credits only if student has taken MAT 5230. Complex differentiation; elementary functions; Cauchy's integral theorem; power series; Laurent expansions; singularities; residue theorem; entire and meromorphic functions; Riemann mapping theorem. (Y)

6830 Design of Experiments. Cr. 3

Prereq: MAT 5800. Randomized blocks; Latin and Graeco-Latin squares; factorial designs; confounding; split plot; fractional replication; balanced incomplete blocks. (I)

6840 Linear Statistical Models. Cr. 3

Prereq: MAT 5800 or equiv. Introduction to theory of linear statistical models; for advanced undergraduate or beginning graduate students. (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 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 Colleges of Science or Liberal Arts. Open only to students in teacher preparation curricula. Whole numbers, integers, geometry. (T)

1120 Mathematics for Elementary School Teachers II. Cr. 3

Undergrad. prereq: one of the following within previous two semesters: at least a C-minus in MAT 1110 taken at WSU or a satisfactory score on WSU placement exam. Post-baccalaureate prereq: satisfy the undergrad. placement or satisfactory completion of college math course at level of pre-Calculus or above. No degree credit in Colleges of Science or Liberal Arts. Open only to students in teacher preparation curricula. Rational numbers, geometry, probability, statistics, number theory. (T)

1500 Finite Mathematics for the Social and Management Sciences. Cr. 3

Prereq: one of following within previous two semesters: satisfactory score on placement exam; or at least C-minus in MAT 1050; or grade of S in MAT 0995. Only one degree credit after MAT 1800. Finite mathematical methods for model building in the social and management sciences. Polynomial, exponential, and logarithmic functions, matrices, and linear programming. (T)

3430 Applied Differential and Integral Calculus. (E T 3430) Cr. 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. (T)

3450 Applied Calculus and Differential Equations. (E T 3450) Cr. 4

Prereq: MAT 3430. No degree credit in Colleges of Science and Liberal Arts. 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 Euclid-

ean geometry as a mathematical system; related historical topics; introduction to other geometries; selected topics such as transformations and tessellations. (Y)

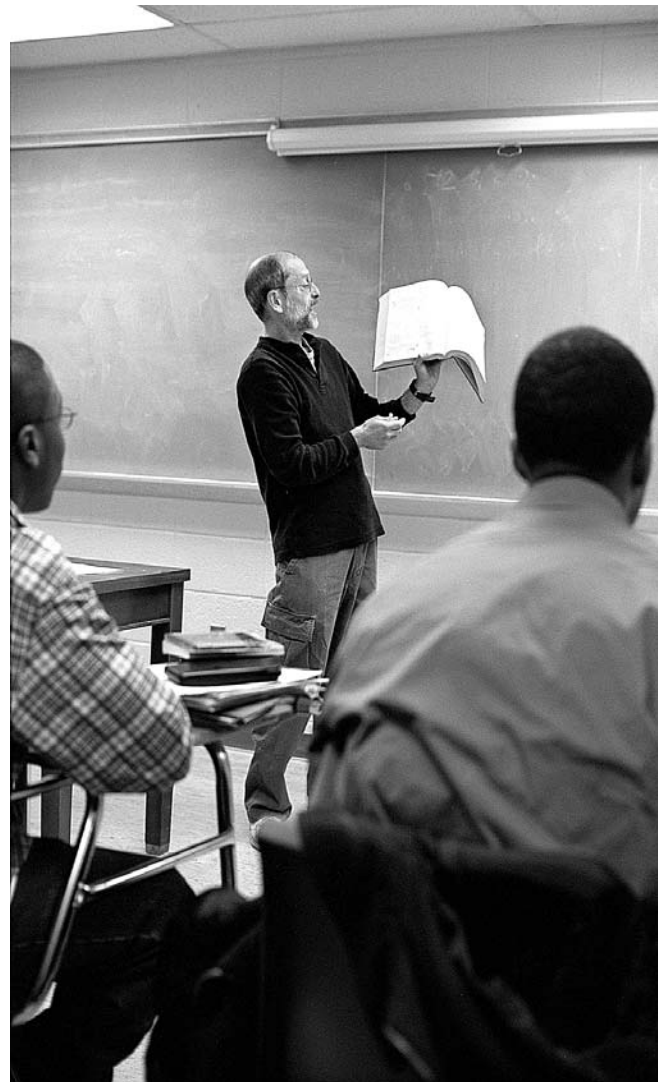
5190 Number Theory for Middle School Teachers. (MAE 5110) Cr. 3

No credit toward a major or minor for secondary mathematics teaching. MAE 5110 may be taken for graduate or undergraduate credit; MAT 5190 may be taken for undergraduate credit only. Prereq: 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 by mathematics majors. Descriptive statistics, correlation and regression, notions in probability, binomial and normal distributions, testing hypothesis. (T)



NEAR EASTERN and ASIAN STUDIES

Office: 437 Manoogian; 313-577-3015

Chairperson: May Seikaly

Website: <http://www.langlab.wayne.edu/NearEast/NearEast.html>

Associate Professors

Muncer Fareed, May Seikaly

Assistant Professors

Mahmoud Abdalla, Haiyong Liu

Senior Lecturer

Isamu Fukushi

Lecturers

Edith Covensky, Rie Masuda, Yue Ming, Maha Saker, Hani Barwardi

Adjunct Faculty

Dallas Kenny

Emeritus Professors

Aleya A. Rouchdy, Ivan Starr

Degree Programs

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 as well as the classical traditions of that locale. 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 32.

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 234) and the University General Education Requirements (see page 16), 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, 43, and 234.

* For specific requirements, see the Wayne State University Graduate Bulletin.

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, Judaic, 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, Judaic, or Arab/Islamic culture/civilization, or Islamic and modern Middle Eastern 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; Judaic culture/civilization; Arab/Islamic culture/civilization; Islamic and modern Middle East history.

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 2010, or 2020.

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, Judaic, or Arab/Islamic and Middle Eastern history, anthropology, or civilization.

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 Khaldieh Memorial Scholarship: Dr. Salim Khaldieh, 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. Khaldieh the Department has established the Salim Khaldieh Memorial Scholarship for students studying Arabic language and culture.

Rouchdy-Fakhoury Endowed Scholarship: The Rouchdy-Fakhouri Endowed Scholarship provides financial support for students studying Arabic in the Department of Near Eastern and Asian Studies. It also aims to provide meritorious undergraduate or graduate students with financial support to enroll in the Department of Near Eastern and Asian Studies (NEAS) and pursue their education in the field of Arabic Language. The number and amount of awards will be determined by the funds available in the scholarship's beneficiary account.

Asmaa Jamil - DaimlerChrysler Endowed Scholarship: Provides financial assistance to undergraduate and graduate students in the field of Near Eastern Studies. The number and amount of awards will be determined by the funds available in the scholarship's beneficiary account.

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 479.

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)

3210 Spoken Arabic. Cr. 4

Introduction to authentic spoken Arabic; language of everyday life; phonology and script. Communication for immediate use. (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. (Y)

5020 Media Arabic. Cr. 3

Prereq: two years of Arabic study through ARB 2020. Language pertinent to media communications: written, visual and audio material. Background in origin and development of journalism in the Arab world. Current major newspapers and magazines used as basic reading materials. (W)

5100 Teaching of Arabic as a Foreign/Second Language (TAFL). (N E 5100) Cr. 3

Theoretical and conceptual framework of second language learning. Proper training in pedagogy as related to learning Arabic as a foreign/second language. (Y)

5130 Advanced Arabic. Cr. 3

Prereq: ARB 2020 or equiv. Introduction to reading material related to language and literature: short story, poetry. (W)

5140 Readings in Modern Arabic Literature. Cr. 3

Prereq: knowledge of Arabic above ARB 2020. Advanced readings in modern Standard Arabic. (Y)

5210 (Arabic Sociolinguistics. (LIN 5210) (N E 5210) Cr. 3

No knowledge of Arabic required. Arabic dialectology; Arabic as a minority language in contact. Theories and techniques developed outside Arabic, and their applicability to Arabic situations. (F)

5230 Structure of Arabic. (LIN 5230) (N E 5230) Cr. 3

No knowledge of Arabic required. Survey of historical constitution and theoretical structure of Arabic. (Y)

5990 Directed Study. Cr. 3-6 (Max. 9)

Prereq: Undergrad., consent of chairperson; grad., consent of chairperson or instructor. Readings; consultations and reports. (T)

ASIAN STUDIES COURSES (ASN)

3010 Contemporary Chinese Pop Culture. (CHI 3010) Cr. 3

Contemporary Chinese culture: historical, political, economical, and global perspectives. (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)

CHINESE COURSES (CHI)

1005 Introduction to Chinese Culture and Language. Cr. 4

Does not satisfy any University language requirement. Conversational Chinese, Chinese culture and customs, everyday Chinese street signs and symbols essential to travel 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. (W)

2050 Gateway to Chinese Civilizations. Cr. 3

Introduction to Chinese culture, society, and politics. (T)

3010 (ASN 3010) Pop Culture. Cr. 4

Introduction to Chinese pop culture: values, functions, and changes. (Y)

3020 Languages of Asia. Cr. 3

Prereq: ENG 2120 / LIN 2120, or equiv. Introduction to major language families in Asia; grammar, sounds, language contacts. (W)

3022 Introduction to Chinese Literature. Cr. 3

Genres and traditions of Chinese literature; influence on China of today. (T)

3100 Advanced Chinese I. Cr. 4

Prereq: CHI 2020 or equiv. Continuation of CHI 2020.

3200 Advanced Chinese II. Cr. 4

Prereq: CHI 3100 or equiv. Continuation of CHI 3100.

3990 Directed Study. Cr. 1-6

Prereq: consent of chairperson. Directed study tailored to student and faculty interests and specializations. (Y)

5210 Introduction to Chinese Linguistics. (LIN 5220) Cr. 3

Basic elements of Chinese linguistics: sounds, grammar, dialects, language changes. (F)

5230 Grammar of Chinese. (LIN 5240) Cr. 3

Prereq: LIN/ENG 2120 or equiv. Basic elements of Chinese grammar; includes question formation, negation, time references, and the like. (F)

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. 1-4

Prereq: consent of chairperson. Readings; consultations and reports. (T)

5240 Survey of Modern Hebrew Literature in English. (N E 5240) Cr. 3

From nineteenth century to present; authors include: Bialik, Tchernichovsky, Schlonsky, Alterman, Zach, Amichai, Appelfeld, Agnon, S. Yizhar, A.B. Joshua, Anton Shammas. (Y)

5990 Directed Study. Cr. 3-6 (Max. 9)

Prereq: undergrad., consent of chairperson; grad., consent of chairperson and graduate officer. Readings; consultations, reports. (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)

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 for media communication, using written, visual, and/or audio materials. (Y)

3030 Japanese Reading and Writing. Cr. 4

Prereq: JPN 1010, 1020, 2010, 2020, 3010. Various writing styles. Emphasis on expanding the vocabulary and Kanji characters. (W)

3990 Directed Study. Cr. 1-6 (Max. 6)

Directed study tailored to student and faculty interests and specializations. (F)

4010 Business Japanese I. Cr. 4

Prereq: JPN 1010, 1020, 2010, 2020, 3010, 3020, or proficiency examination. Expansion of vocabulary and grammar knowledge especially used for business settings. Acquisition of business language and etiquette, role-playing of conversation patterns, reading business memos and documents. Classes are all task-oriented for business. (Basic.) (F)

4030 Modernity in Japanese Literature. Cr. 3

Japanese modernity explored through readings in Japanese literature in English translation. No knowledge of Japanese 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)

NEAR EASTERN STUDIES COURSES (N E)

1900 Comparative Religion. Cr. 3

Origins of religion: its social importance, its structure (fetish, totemism, myth, ritual). Pre-historic religion and the major religious traditions. (W)

2000 (FC) Introduction to Islamic Civilization of the Near East. Cr. 3

The origin of Islam; growth of Islamic institutions. (Y)

2010 The Bible and Ancient Mythology. Cr. 3

The Bible and Biblical religion in the context of its antecedents in the ancient world. (Y)

2020 Survey of Jewish History and Civilization. (HIS 2320) Cr. 3

History of the Jewish people from their origins to the contemporary period. Development of the Jewish community and the Jewish religion in relation to the hegemonic cultures of those regions in which there was major Jewish settlement. (I)

2030 (HS) The Age of Islamic Empires: 600-1600. (HIS 1800) Cr. 3

Historical evolution of the Islamic world from birth of Islam to height of Ottoman Empire. Islamic history and civilization in a world-historical context; developments indigenous to specific regions, such as Islamic Spain. (Y)

2040 (HS) The Modern Middle East. (HIS 1810) Cr. 3

Survey of Middle East history in modern era, focusing on the nineteenth and twentieth centuries. Ottoman history from 1600: impact of European imperialism and nationalist movements, resulting in development of modern state systems, regional/national conflicts, Islamic response to modernization. (Y)

2050 East Meets West: Intercultural Skills for Engineers. Cr. 3

Open only to students in College of Engineering. Task-based intercultural communication course to facilitate global team project work for undergraduate engineering students. Primary focus on Near Eastern and Asian cultures: Islamic, Hindu, Chinese, Japanese; geography, language, culture. (F)

2060 Israeli Film: Trends and Themes in Israeli Cinema. Cr. 3

Evolution of Hebrew/Israeli cinema from the beginning of the twentieth century to the present. Collectivism to individual concerns, as rooted in domestic and regional conflicts. (F)

2110 (HIS 1710) History of Modern East Asia. Cr. 3

From beginning of nineteenth century to the present; emphasis on political, social, economic developments in China, Japan and Korea. (I)

2700 Topics in Middle Eastern Studies. Cr. 1-8 (Max. 8)

Specialized topics related to the Middle East: language, literature, etc. (Y)

3040 Twentieth Century Middle East. (HIS 3320) Cr. 3

The contemporary Middle East; emphasis on social and economic development. Investigation of issues that identify the region, such as oil, gender issues, fundamentalism, and regional conflicts. (Y)

3050 (HEB 3050) Survey of Modern Hebrew Literature in English. Cr. 3

From Bialik to Amichai; traditions and Enlightenment, pioneerism, local color literature, urban malice, holocaust. (Y)

3060 Ancient Near East Literature. Cr. 3

Concentration on wisdom literature and the wisdom teacher. (F)

3061 Oral History in Middle Eastern Tradition. (ANT 3061) Cr. 3

Methodologies and practices of oral history. Study of the culture, history and shared experiences of Diaspora communities originating from the Middle East. (W)

3120 Biblical Narratives in English Translation. Cr. 3

Class taught in English; texts are available in both Hebrew and English. Emergence of Israel's United Monarchy starting with King Saul. Emphasis on text interpretations (in English) from historical and literary perspectives. (F)

3225 Modern Israeli Culture: A Pluralistic Perspective. Cr. 3

Israeli society and culture in the 20th century: education, archaeology and science; sacred texts; modern literature, visual arts, theatre, music and dance; Israeli cinema, radio and television. (W)

3320 Muhammad: Life of the Prophet. Cr. 3

Introduction to the historical Muhammad in context of religious, political, social and economic life of seventh century Arabia. Aspects of his career, from religious to secular, including his relationship with other religious communities. (B)

3520 Women and Gender in Middle East History. (W S 3520) Cr. 3

Women's role in Middle East history; impact of religion, culture, social and economic change on construction of gender in the Middle East. (Y)

3550 (ANT 3550) (FC) Arab Society in Transition. Cr. 3

Distinctive social and cultural institutions and processes of change in the Arab Middle East. Regional variations; background and discussion of current political and economic systems and their relations to international systems. (I)

3825 (HIS 3825) History of Modern China. (HIS 5825) (N E 5825) Cr. 4

From the rise of the last dynasty in the early seventeenth century to the present. (B)

3865 (HIS 3865) History of Modern Japan. (N E 5865) (HIS 5865) Cr. 4

Japanese history from the early nineteenth century to the present; emphasis on political, economic, and social developments. (Y)

3875 (HIS 3875) Women in Japanese History. (HIS 5875) (N E 5875) Cr. 4

From ancient times to the present; focus on changes in definitions of womanhood and roles and rights women have had. (B)

3990 Directed Study. Cr. 3-6 (Max. 9)

Prereq: consent of chairperson. Readings; consultations and reports. (T)

4750 Colonization and Decolonization in North Africa: The Example of Algeria. (AFS 4750) Cr. 3

European (French) colonization in North Africa with emphasis on Algeria. Theoretical principles of nineteenth century colonization; emergence of national liberation movements. Socio-economic impact of colonization on Algeria through the 1990s. (Y)

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)

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. Possibilities of transforming these laws. (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 nineteenth century to present; authors include: Bialik, Tchernichovsky, Schlonsky, Alterman, Zach, Amichai, Appelfeld, Agnon, S. Yizhar, A.B. Joshua, Anton Shammas. (Y)

5700 Topics in Middle Eastern Studies. Cr. 1-4 (Max. 8)

Specialized and topical studies in Middle East events, 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: 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 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) Readings in 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 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 tech-

nologies; 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 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 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. (Y)

5865 (HIS 3865) Readings in History of Modern Japan. (N E 3865) (HIS 5865) Cr. 4

Japanese history from the early nineteenth century to the present; emphasis on political, economic, and social developments. (Y)

5875 (HIS 3875) Readings in Women in Japanese History. (HIS 5875) (N E 3875) Cr. 4

From ancient times to the present; focus on changes in definitions of womanhood and roles and rights women have had. (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 Examination, consent of instructor; coreq: any 3000-level or higher course in the Department. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with a designated corequisite; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. (T)

6030 Poetry of Yehuda Amichai in English Translation. Cr. 3

Reading and analysis of characteristics, themes and forms in the poetry of Yehuda Amichai from 1956 to the present. Class is taught in English. (W)

6031 Methodologies and Research in Oral History. Cr. 3

Methodologies and practices of oral history. Culture, history and shared experiences of Middle Eastern and Asian diaspora in the United States. (W)

6120 Arab Women Through Literature. Cr. 3

Prereq: N E 2040 or N E 3040 or consent of instructor. Arabic literature by women, expressing gender vision of society, history, and women's role in Arab world and North Africa. (B)

6500 Religion and Society. Cr. 3

Religion as a social phenomenon. How religions shape and are shaped by human culture; positive and negative consequences of this interaction. (W)

NUTRITION and FOOD SCIENCE

Office: 3009 Science Hall; 313-577-2500

Web: <http://www.science.wayne.edu/~nfs>

Chairperson: Leora A. Shelef

Academic Services Officer: Lorin D. Wright

Professors

Mary Jane Bostick (Emerita), K.-L. Catherine Jen, Leora A. Shelef

Associate Professor

Ahmad R. Heydari

Assistant Professors

Nikhil V. Dhurandhar, Pramod Khosla

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 undergraduate admission to the University, page 32. Students contemplating a major program in Nutrition and Food Science should consult with the assigned undergraduate Departmental adviser as soon as possible, and no later than the beginning of the sophomore year. Transfer students should consult with the assigned 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 234) and the University General Education Requirements (see page 16), 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, 43, and 234.

* For specific requirements, see the Wayne State University Graduate Bulletin.

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, 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 4530

Statistics 1020

COMMUNITY COLLEGE COURSES

Candidates for the degree may complete one course in each of the following areas: sanitation, food management, quantity food purchasing, and quantity food production. As many as twelve credits from these courses can be applied to the degree either by transfer from previous community college work or by concurrent enrollment with a local community college. For an approved list of courses from area institutions, consult the Department.

Bachelor of Science with a Major in Nutrition and Food Science

This program is designed for science-oriented students who are interested in the various food and nutrition professions. Students are prepared for these professions by the integration of chemistry and the biological sciences with courses in food science and nutrition. Employment opportunities may be found in various phases of food processing, research and development, public health, and community education, as well as in positions in state and federal regulatory agencies dealing with food products. The program provides good preparation for medical school application. Students should consult an adviser for program planning.

Admission Requirements: See above under Bachelor's Degrees.

DEGREE REQUIREMENTS: See above under Bachelor's Degrees.

Major Requirements: Students must complete seventy-six credits in science courses of which at least thirty-one must be in the major subject, nutrition and food science:

CORE COURSES

Nutrition and Food Science 2130, 2140, 2210, 2220, 5130, 5140, 5230, 5250, 6160, 6850 and an additional three credits of upper division course work in Nutrition and Food Science.

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. Students apply the knowledge gained in supervised practice settings in food service, community and clinical dietetics. Graduates of the program receive a Bachelor of Science in Dietetics degree and are eligible to write the national registration examination for professional certification without the need for a separate internship. The dietetics program is currently granted accreditation status by the American Dietetic Association Commission on Accreditation for Dietetics Education (CADE), a specialized accrediting body recognized by The Council on Post-secondary Accreditation and the United States Department of Education. Students may contact CADE via their webpage or by calling (312) 899-0040 to find out the accreditation status of any dietetic program.

Admission Requirements: Admission to this program is competitive and open only to students with at least junior standing in the College after completion of the core courses indicated below by an asterisk (*). Program application should be made by February 15 of the Winter semester preceding the Fall semester of anticipated entry into the program. Transfer and post-baccalaureate students must meet the preprofessional science requirements (see core courses, below) before acceptance into the program. Transferability of credit must be verified by the College advisers and dietetics faculty. Additional costs relating to the professional component of the program (uniform, liability insurance, physical examination, transportation) are the responsibility of the student.

CORE COURSES:

Nutrition and Food Science: 2130*, 2140*, 2210*, 2220*, 5130, 5140, 5220, 5230, 5250, 5350, 6850

Anthropology 2100* or Sociology 2000*

Biological Sciences 1510,* 2200,* 2870 *

Chemistry 1220*, 1230*, 1240*, 1250*, 2220*

Economics 2010*

Psychology 1020*

Statistics 1020*

Management 4530 *

DEGREE REQUIREMENTS: Candidates for this degree must complete at least 120 credits including the above core courses, the following sequence in dietetics, as well as any remaining courses necessary to satisfy the College Group Requirements and the University General Education Requirements (see page 234 and page 16).

DIETETICS SEQUENCE

Nutrition and Food Science 4100, 4120, 4205, 4210, 4220, 5200, 5360

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' —Accelerated Graduate Enrollment

Qualified seniors in Nutrition and Food Science having not less than a 3.5 g.p.a. may enroll simultaneously in the undergraduate and graduate program and apply a maximum of fifteen credits towards both the bachelor's and master's degrees in nutrition and food science. Students may apply for the Program as soon as they complete ninety credits towards the undergraduate degree. Graduate courses taken as part of the 'AGRADE' Program are assessed undergraduate rate tuition. Contact the Department for further information.

Post Bachelor Certificate in Dietetics

This program is available to students admitted to the Coordinated Program in Dietetics (CPD) who already have an undergraduate degree. Completion of the CPD makes graduates of the program eligible to take the National Registration Examination for Dietitians, which, when successfully completed, confers the legal designation of Registered Dietitian.

Admission Requirements: Students who have received an undergraduate degree from Wayne State University should contact the Department for application procedures. Students who have received an undergraduate degree from another institution must complete the Application for Undergraduate Admission and have transcripts of previous work sent directly to the Office of Admissions. Application to the CPD is separate from that to the University (CPD applications should be obtained from the Department office), and applications are accepted only once yearly; deadline is February 15 for program entry the following Fall semester.

CERTIFICATE REQUIREMENTS: Students with a dietetics degree generally will have fulfilled all prerequisite course requirements; see Core Courses for the Bachelor of Science in Dietetics degree, above. Any courses in which the student had received a grade of 'D' or below must be repeated; any dietetics courses in which the student has received a grade of 'C-plus' or below must be repeated. Dietetics courses include Foodservice 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, 4205, 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 479.

2030 (LS) Nutrition and Health. Cr. 3

Meets General Education Laboratory Requirement only when taken concurrently with coreq: NFS 2220. Food as a carrier of nutrients; food availability; nutrient utilization including digestion, metabolism and excretion. Patterns of food consumption based on biological, psychological and social needs; and anthropological findings. (T)

2130 Introductory Food Science. Cr. 3

Prereq: one college-level chemistry course. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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. (T)

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 over-eating, from biological, psychological, and social perspectives. (W)

4100 Nutrition Care Process I. Cr. 1

Prereq: NFS 2210; coreq: NFS 5220, 5350. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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)

4205 Nutritional Assessment. Cr. 2

Open only to students in coordinated dietetics program. Introduction to practice of dietetics including coordinated education, role components, the nutrition care process, and medical terminology. Practice in basic skills in dietetics: interviewing, diet analysis including use of computers, and anthropometric measurement and analysis. (Y)

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)

4990 Directed Study. Cr. 1-4

Prereq: consent of instructor. (T)

5130 Food Chemistry. Cr. 3

Prereq: NFS 2130 or equiv., CHM 2220. Study of the chemical constituents of foods, their relationship to the biological and physical properties, and overall food quality. (W)

5140 Laboratory Techniques in Nutrition and Food Science. Cr. 4

Prereq: NFS 2130 and 2210 or equiv.; CHM 2220 or equiv. Basic modern and classical analytical techniques and instruments in nutrition and food science. Background theory to principles of instrumental assays. Procedures for evaluation of macro and micro food components analysis. Physiological functions relevant to nutrition. Material fee as indicated in the Schedule of Classes (W)

5200 Advanced Dietetics. Cr. 3

Prereq: NFS 4205, 5230, 5250. Recommended for students in coordinated dietetics program. Development and refinement of dietetic practitioner skills through applications in critical care and specialty practice areas and in community agencies; theoretical basis for individual counseling and group process. (F)

5220 Community Nutrition. Cr. 3

Prereq: NFS 2130, 2140, 2210, 5230, 5250. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Introduction to management of nutritional care in healthy and at-risk persons throughout the lifespan. Identifying problems and planning interventions to meet population nutritional problems and to reduce nutrition-related health risks in community settings. Community assessment; organization and function of community agencies; interventions appropriate to small and large groups, including nutrition education. (F)

5230 Nutrition and Metabolism. Cr. 4

Prereq: NFS 2210, BIO 2870 or equiv. The physio-biochemical properties of nutrients and their bionutritional interrelationships at the cellular and sub-cellular level. Carbohydrate, protein, and lipid metabolism and the role of vitamins and minerals in these metabolic processes. (F)

5250 Nutrition and Disease. Cr. 4

Prereq: NFS 5230. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Application of the principles of biochemistry and physiology in the study of nutrient metabolism as altered by disease. The physio-biochemical basis for diet in the treatment of disease. May include some field experiences or clinical assignments. Units on team approach to patient care also included. (W)

5350 Organization and Management of Food Service Systems. Cr. 4

Prereq: NFS 2130, 2140, 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)

6000 Nutritional Biochemistry. Cr. 3

Open only to graduate students. Prereq: one undergraduate biochemistry/metabolism course. Biochemical effects of nutrients at cellular and organ levels. (W)

6020 Nutrient Gene Interaction. Cr. 3

Prereq: NFS 5230, 5130, 5140, or equiv. Introduction to molecular genetics concepts, terminology and molecular methodologies, with emphasis on nutrition and food science. Overview of nutrition and gene interaction in onset and progression of disease, cancer, and aging. (B)

6030 Microbiological Safety of Foods. Cr. 3

Prereq: NFS 2130 and BIO 2200 or equiv. Foodborne microorganisms as causes of human illnesses. Microbial toxins and their mode of action. Antimicrobial agents in foods. Means of prevention and protection. (W)

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 (B)

6160 Food Laws and Regulations. Cr. 3

Prereq: NFS 2210. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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. (B)

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 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. (B)

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. (B)

6280 Physiology and Nutrition. Cr. 4

Open only to middle- or high-school teachers. Prereq: teaching certificate; mathematics through algebra. Physiological processes and nutritional bases for health and disease. (F)

6850 (WI) Controversial Issues. Cr. 2

Prereq: consent of instructor; senior standing. Topics to be announced in Schedule of Classes. (F,W)



PHILOSOPHY

Office: 51 West Warren; 313-577-4583; 313-577-2474

Web: <http://www.cla.wayne.edu/Philosophy/Index.html>

Chairperson: Bruce Russell

Professors

Richard B. Angell (Emeritus), Herbert Granger, Lawrence B. Lombard, T. Michael McKinsey, Bruce Russell, Robert J. Yanal

Associate Professors

Lawrence Powers, William D. Stine, Robert J. Titiev, Susan Vineberg

Assistant Professor

John Corvino

Lecturer

Sean Stidd

Degree Programs

BACHELOR OF ARTS with a major in philosophy

**MASTER OF ARTS with a major in philosophy*

**DOCTOR OF PHILOSOPHY with a major in philosophy*

Courses in this Department are designed for four types of service:

1. They contribute to the liberal education of any student, whatever his/her predominant interest, by their emphasis on clear and cogent thought, by consideration of the interrelations of fact and value, by training in logic and the methodology of inquiry, and by a study and analysis of major philosophical outlooks.
2. They supply a minor and cognate courses to students majoring in other Departments who wish to study their major subject in its wider philosophical implications.
3. They give Departmental majors a wide and intensive training in philosophy. The major appeals to those who wish to take graduate work in philosophy and to those who wish a broad background from which to study and understand the emergence and conflict of ideas in relation to contemporary problems.
4. They supply a relevant major and minor for students who plan a career in such fields as the law or the ministry.

Bachelor of Arts

With a Major in Philosophy

Admission Requirements for the College of Liberal Arts and Sciences are satisfied by the general requirements for undergraduate admission to the University; see page 32. Students who are planning to major in philosophy or who simply wish advice or consultation concerning course offerings and programs should see the Director of Undergraduate Studies in Philosophy. The Department offers a regular major and an honors major.

DEGREE REQUIREMENTS: Candidates for the bachelor's degree must complete 120 credits in course work including satisfaction of the College of Liberal Arts and Sciences Group Requirements (see page 234) and the University General Education Requirements (see page 16), 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, 43, and 234.

* For specific requirements, see the Wayne State University Graduate Bulletin.

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 or above (other than PHI 5993); and
6. PHI 5993 (Writing Intensive Course in Philosophy).

NOTE: Rather than taking a 2000- or 3000-level course in satisfying any of requirements (2) or (3), one may take a 5000-level course from the same group instead; however, the student should consult the instructor before doing so. Courses taken at the 5000-level which are used to satisfy any of requirements (1) through (4) may also be used to satisfy requirement (5), though the nine-course minimum must be met.

Honors Program

Admission to the honors program in philosophy is determined on the basis of the student's overall record. The student will normally be required to have a) a minimum grade point average of 3.3, b) credit in at least three philosophy courses, and c) a 'B' or better average in philosophy courses. To remain in the philosophy honors program, the student must maintain a 'B' or better average in philosophy courses.

Honors Requirements: To receive an Honors Degree, the candidate must

- a) complete the course requirements for the regular major, plus PHI 4870 and 4890 (to be taken during the candidate's senior year),
- b) pass comprehensive examinations in philosophy,
- c) write an Honors Essay of sufficiently high quality on a topic to be chosen by the candidate in consultation with his/her instructor in PHI 4870,
- d) complete a 4000-level seminar offered through the College Honors Program, and
- e) accumulate at least fifteen credits in honors-designated course work, including PHI 4870 and 4890 and the 4000-level Honors Program Seminar.

At graduation, the overall grade point average must be at least 3.3. If at any point the student fails to maintain Honors standards, his or her credits will automatically be counted towards the regular major. Students interested in becoming candidates for the Honors Degree in philosophy should consult the Director of Undergraduate Studies in Philosophy as soon as possible.

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 5000 level or above 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 479.

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. 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) 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 Ethical Issues in Health Care. Cr. 3

Survey of moral issues that arise in the practice of medicine and in pursuit of medical knowledge: abortion, euthanasia, experimentation on human subjects, informed consent, rights to health care, genetic engineering, the concepts of death, health and disease. (Y)

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) 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 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 History of Ethics. Cr. 4

Prereq: one philosophy course at the 2000 level or above or consent of instructor. A survey and discussion of historically important moral philosophers from Plato to Mill. (B)

5300 Twentieth Century Analytic Ethics. Cr. 4

Prereq: any philosophy course at the 2000 level or above or consent of instructor. Important twentieth century moral philosophers in the analytic tradition, such as G.E. Moore, W.D. Ross, Hare, Stevenson, Rawls, Harman, Williams, McDowell, Gibbard, Blackburn, and Korsgaard. (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)

3500 (PL) Theory of Knowledge. Cr. 3

The distinction between knowledge and belief is germane to every field of inquiry. What is the difference between knowledge and belief? Do we know anything at all? If so, how? Are we ever in a position of being certain about beliefs pertaining to an objective world? Is our belief in an objective world based on our subjective experiences? (T)

3550 (PL) Metaphysics. Cr. 3

Survey and examination of some of the enduring questions of metaphysics concerning the nature of reality. Topics include: the nature of physical objects, abstract entities, the concepts of time and change, the relation between mind and body, causation, the nature of metaphysics. (Y)

3600 Space, Time, and the Philosophy of Physics. Cr. 3

Prereq: one course in philosophy or in a physical science or consent of instructor. Survey of some principal problems concerning the concepts of space and time and their relation to physical theories. Topics include: our knowledge of the geometric features of the world, the existence of space and time, time without change, the passage of time, the philosophical foundations and implications of Einstein's Special Theory of Relativity, and the explanation of motion and the General Theory of Relativity. No prior knowledge of modern physics will be presupposed. (B)

5230 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)

5530 Topics in Epistemology. Cr. 4

Prereq: any course from the Philosophical Problems group or consent of instructor. Intensive investigation and discussion of special topics or particular authors in the theory of knowledge. Topics and authors to be announced in Schedule of Classes. (I)

5550 Philosophy of Mind. Cr. 4

Prereq: any course from the Philosophical Problems group or consent of instructor. Intensive investigation and discussion of special topics or particular authors concerned with the nature and status of the mental and theories about the mental. Topics and authors to be announced in Schedule of Classes. (B)

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. (MAT 5350) Cr. 4

Prereq: PHI 1850 or 1860 or 5050 or MAT 5600 or MAT 5420 or consent of instructor; for philosophy graduate students: satisfaction of elementary logic requirement. Metaresults concerning formal systems of sentential and first-order logics; soundness, completeness; independence of axioms; introduction to recursive functions; formalization of elementary arithmetic; discussion of Godel's incompleteness theorem and Church's Theorem. (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)

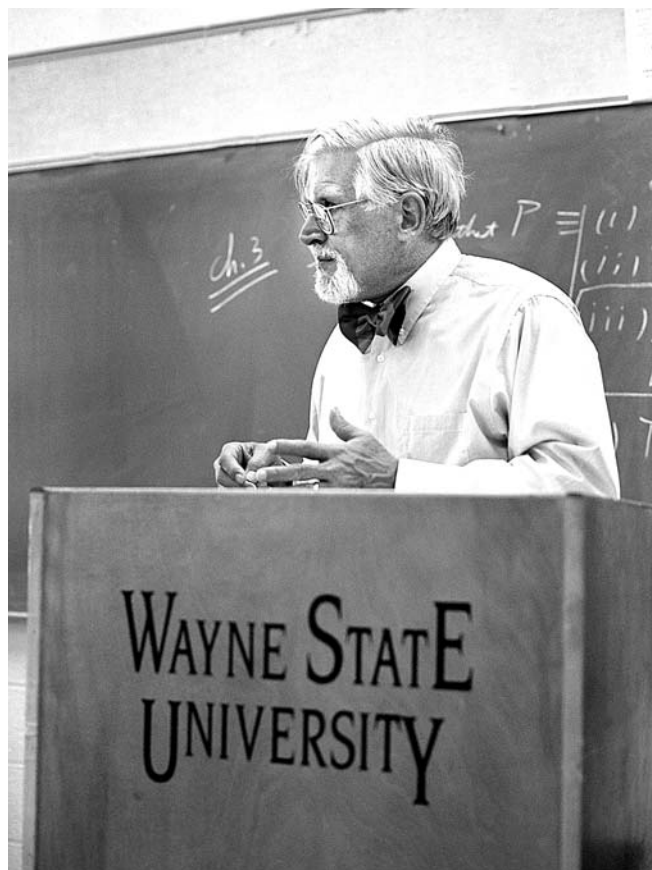
Topics and prerequisites to be announced in Schedule of Classes. (I)

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 Examination; consent of instructor and Departmental undergraduate adviser; coreq: any 3000- or 5000-level philosophy course except PHI 5050, 5200, 5350, and 5390. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under direction of faculty member. Must be selected in conjunction with a course designated as a corequisite; see section listing in Schedule of Classes for corequisites available each term. Satisfies the University General Education Writing Intensive Course in the Major requirement. Directed practice in rewriting assignments for the concurrently-elected course, for the purpose of perfecting skills in philosophical writing. (T)



PHYSICS and ASTRONOMY

Office: 135 Physics Research Building; 313-577-2721

Interim Chairperson: Juei-Teng Chen

Associate Chairperson: Jogindra M. Wadehra

Academic Services Officer: J. Scott Payson

Web: <http://www.physics.wayne.edu>

Professors

George B. Beard (Emeritus), Rene Bellwied, William P. Beres (Emeritus), Henry V. Bohm (Emeritus), Jhy-Jiun Chang, Juei-Teng Chen, Thomas M. Cormier, Harry H. Denman (Emeritus), Gerald L. Dunifer, Lawrence D. Favro (Emeritus), David M. Fradkin (Emeritus), Suraj N. Gupta (Distinguished Emeritus), Paul E. Karchin, Walter E. Kauppila, Paul H. Keyes, Yeong Wook Kim (Emeritus), Pao-Kuang Kuo, Caroline G. Morgan, Ratna Naik, Claude Pruneau, William B. Rolnick, Alvin M. Saperstein, Talbert S. Stein (Emeritus), Melbourne G. Stewart (Emeritus), Robert L. Thomas, Sergei Voloshin, Jogindra M. Wadehra

University Professor

John D.G. Rather

Associate Professors

Giovanni Bonvicini, David A. Cinabro, Sean Gavin, Robert F. Harr, Karur R. Padmanabhan

Assistant Professors

Peter M. Hoffmann, Gavin Lawes, Ashis Mukhopadhyay, Boris Nadgorny, Alexey A. Petrov

Adjunct Professors

Gregory W. Auner, Xiaoyan Han, Lowell E. Wenger

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.

* For specific requirements, see the Wayne State University Graduate Bulletin.

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 32.

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 234) and the University General Education Requirements (see page 16), 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 16, 43, and 234.

The University requirement for a writing intensive (WI) course in the major field is satisfied by: 1) for the general physics and applied physics options of the Bachelor of Science in Physics degree, through PHY 6850; and 2) for the Bachelor of Arts degree and the pre-medical physics option of the Bachelor of Science in Physics degree, through PHY 5600. 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, 5200, 5600 (total 21 credits).
2. Elementary mathematics sequence: MAT 2010, 2020, 2030, 2350 (total 15 credits).
3. Chemistry 1220 and 1230 (five credits).
4. Satisfaction of all University and College group and competency requirements.

— General Physics Option

This option is primarily for students who intend to go on to graduate study in physics. It also satisfies the requirements of industrial and governmental employers who demand a traditional education in physics.

Additional requirements beyond the basic ones listed above:

1. PHY 6200, 6300, 6500, 6600, 6800, and the Modern Physics laboratory course PHY 6850 (*total eighteen credits*).
2. MAT 5070 and 5220 (*total eight credits*).

*Typical General Physics Sequence*¹

— *including University and College Group Requirements*

Freshman Year

Fall Semester

Chemistry 1220/1230: Cr. 5
Mathematics 2010: Cr. 4
University Group Req.: Cr. 3-4
English (BC): Cr. 4
Total credits: 16-17

Winter Semester

Physics 2170/2171: Cr. 5
Mathematics 2020: Cr. 4
University Group Req.: Cr. 3-4
English (IC): Cr. 3-4
Total credits: 15-17

Sophomore Year

Fall Semester

Physics 2180/2181: Cr.5
Mathematics 2030: Cr.4
(LS) elective: Cr.4
University Group Req.: Cr.3-4
Total credits: 16-17

Winter Semester

Physics 3300/3310: Cr.4
Physics 5200: Cr.3
Mathematics 2350: Cr.3
College Group Req.: Cr.3-4
University Group Req.: Cr.3-4
Total credits: 16-18

Junior Year

Fall Semester

Physics 6200: Cr.3
Physics 5600: Cr.4
Mathematics 5070: Cr.4
College Group Req: Cr.3-4
Total credits: 14-15

Winter Semester

Physics 6850: Cr.2
Physics 6300: Cr.3
Physics 6600: Cr.3
Mathematics 5220: Cr.4
College Foreign Lang. I: Cr.4
Total credits: 16

Senior Year

Fall Semester

Physics 6500: Cr.4
Physics 6800: Cr.3
College Foreign Lang. II: Cr.4
Total credits: 11

1. Not including the required oral communication (OC) course and/or a critical thinking (CT) course.

Winter Semester

Elective: Cr.3

Elective: Cr.3

College Foreign Lang. III: Cr.4

University Group Req.: Cr.3-4

Total credits: 13-14

— 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 6300, 6500, and the laboratory courses PHY 5620 and 6850 (*total 14 credits*).
2. A total of *at least twenty-four additional credits* in physics, mathematics, or other science/technical courses.
3. MAT 5070 is not required but is recommended for those interested in graduate study in physics (*four credits*).

Typical Applied Physics Sequence ¹

— including University and College Group Requirements

Freshman Year

Fall Semester

Chemistry 1220/1230: Cr.5

Mathematics 2010: Cr.4

English (BC): Cr.4

University Group Req.: Cr.3-4

Total credits: 16-17

Winter Semester

Physics 2170/2171: Cr.5

Mathematics 2020: Cr.4

English (IC): Cr.3-4

Applied Elective: Cr.4

Total credits: 16-17

Sophomore Year

Fall Semester

Physics 2180/2181: Cr.5

Mathematics 2030: Cr.4

(LS) Elective: Cr.4

University Group Req.: Cr.3-4

Total credits: 16-17

Winter Semester

Physics 3300/3310: Cr.4

Physics 5200: Cr.3

Mathematics 2350: Cr.3

College Group Req.: Cr.4-5

Total credits: 14-15

1. Not including the required oral communication (OC) course and/or a critical thinking (CT) course.

Junior Year

Fall Semester

Physics 5600: Cr.4

Applied Elective: Cr.4

Foreign Lang. I: Cr.4

Univ. Group Req.: Cr.3-4

Total credits: 15-16

Winter Semester

Physics 5620: Cr.5

Applied Electives: Cr.5

Foreign Lang. II: Cr.4

Univ. Group Req.: Cr.3-4

Total credits: 17-18

Senior Year

Fall Semester

Physics 6500: Cr.4

Applied Elective: Cr.4

College Group Req.: Cr.4

Foreign Lang. III: Cr.4

Total credits: 16

Winter Semester

Physics 6300: Cr.3

Physics 6850: Cr.2

Applied Electives: Cr.5

Univ. Group Req.: Cr.3-4

Total credits: 13-14

Suggested Applied Electives for Various Options

Semiconductor / Materials Physics: Twenty-three credits

B E 1300/1310; ECE 4570, 4600, 5500 (or MSE 5010); PHY 6450 (or PHY 5350), 6600.

Optics and Laser Physics: Twenty-six credits

B E 1300/1310; ECE 4570, 4600, 5870; PHY 5350, 6350, 6600.

Biophysics: Twenty-nine credits

BIO 1500, 1510, 4120, 6020, 6160; PHY 5350, 6600.

Computational Physics: Twenty-five credits

CSC 2000, 2110, 2200, 4110; PHY 6860; MAT 5070.

— 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, 3070 and one additional course in biology; CHM 1240, 1250, 2220, 2230, 2280, and 2290 (which fulfill current medical school requirements); PHY 5620 and at least six additional credits in physics at the 5000-level or above. Students should consult the University Advising Center for possible changes in premedical requirements outlined in the following suggested curriculum.

Typical Pre-Medical Physics Sequence of Science and Mathematics Courses

University and College Group Requirements must also be satisfied; consult with the Undergraduate Adviser, Physics Research Building.

Freshman Year

Fall Semester

Chemistry 1220/1230: Cr.5
Mathematics 2010: Cr.4

Winter Semester

Chemistry 1240/1250: Cr.5
Mathematics 2020: Cr.4
Physics 2170/2171: Cr.5

Sophomore Year

Fall Semester

Physics 2180/2181: Cr.5
Biology 1500: Cr.4
Mathematics 2030: Cr.4

Winter Semester

Physics 3300/3310: Cr.4
Physics 5200: Cr.3
Biology 1510: Cr.4
Mathematics 2350: Cr.3

Junior Year

Fall Semester

Physics 5600: Cr.4
Chemistry 2220/2230: Cr.5
Biology 3070: Cr.4

Winter Semester

Physics 5620: Cr.5
Chemistry 2280/2290: Cr.5

Senior Year

Fall Semester

Physics Elective: Cr.3-4
Biology Elective: Cr.4

Winter Semester

Physics Elective: Cr.3-4

Bachelor of Arts

With a Major in Physics

This program is intended to meet the needs of several kinds of students:

- 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;
- 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;
- 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:

- 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.
- At least seventeen additional credits in physics at the 5000 or 6000 level including 5200 and 5600.
- (a) Elementary Mathematics Sequence: MAT 2010, 2020, 2030, 2350.
(b) Intermediate Mathematics Course: MAT 5070.
- Chemistry 1220 and 1230 (five credits).
- Satisfy all University and College Group and Competency Requirements as well as the University General Education Requirements (see page 16)

Advanced Placement

Advanced placement college credit in physics may be obtained by earning a score of 5 in the calculus-based Advanced Placement (AP) physics 'C' qualifying examination. Credit is awarded for PHY 2170 and 2171 if a score of 5 is received in the mechanics portion of the AP physics exam. Also, credit is awarded for PHY 2180 and 2181 if a score of 5 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.

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 two 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 479.

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)

6180 (PHY 6180) Astronomy and Planetary Geology for Secondary-School Educators. Cr. 3-4

Open only to middle- or high school teachers. Prereq: PHY 2130, 2140. Material fee applies when taken for four credits (optional laboratory). Quantitative description of constituents of solar system. Required math: algebra and trigonometry. Material fee as indicated in the Schedule of Classes (B:F)

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 (F,W)

1040 (PS) Einstein, Relativity and Quanta: A Conceptual Introduction. Cr. 3-4

Open for four credits only to Honors students. Einstein and the origin of the special theory of relativity; the curvature of space; the uncertainty principle; the quantum theory; the interaction of observer and measurement; fission and fusion; the influence of modern physical theories on society and philosophy. Honors students have one additional hour per week of recitation and are required to write a major paper. (I)

1070 (PS) Energy and the Environment. Cr. 4 (LCT: 3;LAB:2)

Prereq: high school algebra. Introduction to energy production and usage, and environmental impact. Topics include: fossil fuels, electricity, pollution, nuclear power, solar power. Meets General Educa-

tion Laboratory requirement. Material fee as indicated in the Schedule of Classes (T)

2020 Science, Technology, and War. (HIS 2510) (P S 2440) (PCS 2020) Cr. 4

May not be used to fulfill natural science group requirement. Modern weapons, nuclear and otherwise, are becoming increasingly available and dangerous; people with grievances seem eager to use them. Science and technology, as well as constraints of bureaucracy and society underpin weapons development and use, as technologies affect prospects and results of war and peace. History of humanity and its tools of war. (W)

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 2010; coreq: MAT 2020. Open only to College of Engineering students; others by written consent of instructor. No credit after PHY 2170. For students specializing in engineering. Statics, kinematics, dynamics, energy and linear momentum, rotational kinematics and dynamics, angular momentum, solids and fluids, vibrations and wave motion, thermodynamics. (T)

2180 General Physics. Cr. 4

Prereq: PHY 2170, MAT 2020; coreq: PHY 2181. No credit after PHY 2185. Electric forces and electric fields, electrical energy, capacitance, current, resistance, direct current circuits, magnetism, induced voltage and inductance, AC circuits, electromagnetic waves, geometric and wave optics. (T)

2181 General Physics Laboratory. Cr. 1 (LAB: 2)

Coreq: PHY 2180. Laboratory experiments in electrostatics, currents and circuit elements, magnetic fields, magnetic induction, AC circuits,

electromagnetic waves, interference of waves. Material fee as indicated in the Schedule of Classes (T)

2185 General Physics. Cr. 4

Prereq: PHY 2175, MAT 2020. Open only to College of Engineering students; others by written consent of instructor. No credit after PHY 2180. Electric forces and electric fields, electrical energy, capacitance, current, resistance, direct current circuits, magnetism, induced voltage and inductance, AC circuits, electromagnetic waves, geometric and wave optics. (T)

2210 General Physics Laboratory. Cr. 1-2 (Max. 2)

Prereq: PHY 2175 or 2185 if taken for four credits or consent of instructor. No credit after PHY 2170 or PHY 2180 if taken for five credits; register for one credit per section. Laboratory for PHY 2170 and PHY 2180. Material fee as indicated in the Schedule of Classes (T)

3100 (PS) The Sounds of Music. Cr. 4

Prereq: sophomore standing. Meets General Education Laboratory Requirement. For music majors and other students interested in the physical foundations of the production, perception, and reproduction of musical sounds. Makes only limited use of simple mathematics. Includes topics such as wave properties, loudness levels and the human ear, hearing loss, tone quality, frequency and pitch, musical intervals and tuning, room acoustics, the production of sound by various musical instruments, and electronic reproduction of music. Material fee as indicated in the Schedule of Classes (F)

3300 Introductory Modern Physics. Cr. 3

Prereq: PHY 2180 or consent of instructor; coreq. for physics majors only: PHY 3310. For physics, chemistry, engineering, mathematics majors and other interested students. Introduction to relativity, quantum phenomena, atomic structure, quantum mechanics, condensed matter physics, quantum optics, nuclear physics, elementary particles, and anti-particles. (F,W)

3310 Modern Physics Laboratory. Cr. 1

Prereq: PHY 2140 or 2180; coreq: PHY 3300. 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 (W)

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. (T)

5010 (AST 5010) Astrophysics and Stellar Astronomy. Cr. 3

Prereq: PHY 2140 or 2180, MAT 2010 or consent of instructor. Electromagnetic radiation and matter; solar characteristics; stellar distances; magnitudes; spectral classification; celestial mechanics; binary stars; stellar motions, structure and evolution; compact and variable stars; Milky Way Galaxy and interstellar medium; galaxies and clusters of galaxies; quasars; Hubble's Law; cosmology. (B:W)

5030 Plasma Physics. Cr. 3

Prereq: PHY 5600, or 2180 and consent of instructor and MAT 2020. Introduction to plasma physics for students in science and engineering. Motion of charged particles in electromagnetic fields; magnetohydrodynamic theory including electron conductivity and mobility; wave propagation in a plasma; plasma kinetic theory with emphasis on Boltzmann, Vlasov and Fokker-Planck equations; plasma sheaths. (B:W)

5200 Mechanical Phenomena. Cr. 3

Prereq: PHY 2180, or 2140 with consent of instructor; MAT 2030. Dynamics of particles and systems including central force motion, coupled oscillations and waves in elastic media. (W)

5350 Optics. Cr. 3-5

Prereq: PHY 2180 or 2140, MAT 2030. Only non-physics majors may take THIS course without laboratory. Geometrical and physical optics: wave motion, interference, diffraction, refraction, dispersion, polarization. Material fee as indicated in the Schedule of Classes (F)

5550 Basic Electronics. Cr. 4

Prereq: PHY 2140. Not open to physics majors. Basic electronics for biologists, chemists, high school science teachers and other interested students. D.C. and A.C. circuits, transistor circuits, solid state devices, amplifiers, oscillators, basic logic, and applications to measurement and instrumentation. Material fee as indicated in the Schedule of Classes (F)

5600 (WI) Electricity and Magnetism I. Cr. 4

Prereq: PHY 2180, or 2140 with consent of instructor; PHY 5200; MAT 2350. Electric forces, fields, potentials, Gauss' law, electrostatics, currents, Ampere's and Faraday's Laws, vector potential, Maxwell's equations. (F)

5620 Electronics and Electrical Measurements. Cr. 5

Prereq: PHY 2180 or consent of instructor. Amplifier circuits, operational amplifiers, oscillators, digital electronics, analog and digital measurements. Material fee as indicated in the Schedule of Classes (W)

5990 Directed Study. Cr. 1-3

Prereq: junior standing and consent of adviser and instructor. Primarily for students who wish to continue in a field beyond material covered in regular courses, or who wish to study material not covered in regular courses, including certain research participation. (T)

6050 Special Topics in Physics for Secondary-School Educators. Cr. 3

Prereq: introductory physics courses in mechanics, and in electricity and magnetism; or consent of instructor. Open only to pre-college or community college teachers. Special topics in physics designed for secondary teachers. Topics offered as needed; may include: astronomy and cosmology, meteorology, relativity, quantum theory, atomic and nuclear physics, optics. (Y)

6100 Classical Physics for Secondary School Educators. Cr. 3

Open only to middle- or high school teachers. Prereq: PHY 2130, 2140. Mechanics, electricity, magnetism: fundamentals. Applications to problem solving. Selected special topics. Required math: algebra and trigonometry. (F,S)

6120 Energy Generation and Consumption for Secondary-School Educators. Cr. 3-4

Open only to middle- or high school teachers. Prereq: PHY 2130, 2140. Material fee applies when elected for four credits (optional laboratory). Different sources of energy and how their use impacts the environment. Required math: algebra and trigonometry. Material fee as indicated in the Schedule of Classes (W,S)

6160 Meteorology for Secondary-School Educators. Cr. 3-4

Open only to middle- or high school teachers. Prereq: PHY 2130, 2140. Material fee applies when elected for four credits (optional laboratory). Earth's atmosphere and various weather processes. Required math: algebra and trigonometry. Material fee as indicated in the Schedule of Classes (W,S)

6180 Astronomy and Planetary Geology for Secondary-School Educators. (AST 6180) Cr. 3-4

Open only to middle- or high school teachers. Prereq: PHY 2130, 2140. Material fee applies when taken for four credits (optional laboratory). Quantitative description of constituents of solar system. Required math: algebra and trigonometry. Material fee as indicated in the Schedule of Classes (B:F)

6200 Theoretical Mechanics. Cr. 3

Prereq: PHY 5200 and MAT 2350. Accelerated reference frames, centrifugal and Coriolis forces, rigid body dynamics, motion of tops and gyroscopes, Lagrange's equations, constraints, Lagrange multipliers, general central force problem, stability of orbits, relativistic mechanics. (W)

6300 Quantum Theory. Cr. 3

Prereq: PHY 3300; MAT 5070 and MAT 5220. Presentation of quantum mechanics in a self-consistent manner in which basic principles are introduced directly. The concepts of quantum-mechanical states and amplitudes are clearly established before the introduction of wave functions. (W)

6350 Applied Modern Optics. Cr. 3

Prereq: PHY 5350. Coherent radiation, laser physics and optical devices, optical techniques in experimental science, topics in modern optics. (B:W)

6450 Introduction to Material and Device Characterizations. Cr. 4

Coreq: PHY 7050 or ECE 5500 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,S)

6500 Thermodynamics and Statistical Physics. Cr. 4

Prereq: PHY 3300, MAT 2030. Laws of thermodynamics, thermodynamic equilibrium, applications of kinetic theory of gases, basic introduction to classical and quantum statistical description of physical systems with large numbers of particles. (F)

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 Electricity and Magnetism II. Cr. 3

Prereq: PHY 5600 and MAT 5070. Electromagnetic radiation, electromagnetic waves, magnetic materials, superconductivity, special relativity, 4-vectors, fields in bounded regions, wave guides, resonant cavities. (W)

6800 Atoms, Molecules and Solids. Cr. 3

Prereq: PHY 3300, PHY 5600, MAT 2350. Study of one-electron atoms using solutions of three-dimensional Schroedinger Equation, magnetic moments, transition rates, multielectron atoms, x-ray excitations, LS coupling, Zeeman and Paschen-Bach effects, molecules, bonds, various types of spectra, solids, conductors, semiconductors, band theory, superconductivity. (F)

6810 Nuclei and Elementary Particles. Cr. 3

Prereq: PHY 6800. Basic understanding of subatomic physics. Modern ideas in nuclear and elementary particle physics; emphasis on common concepts and features. Relationships to experimental results. (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

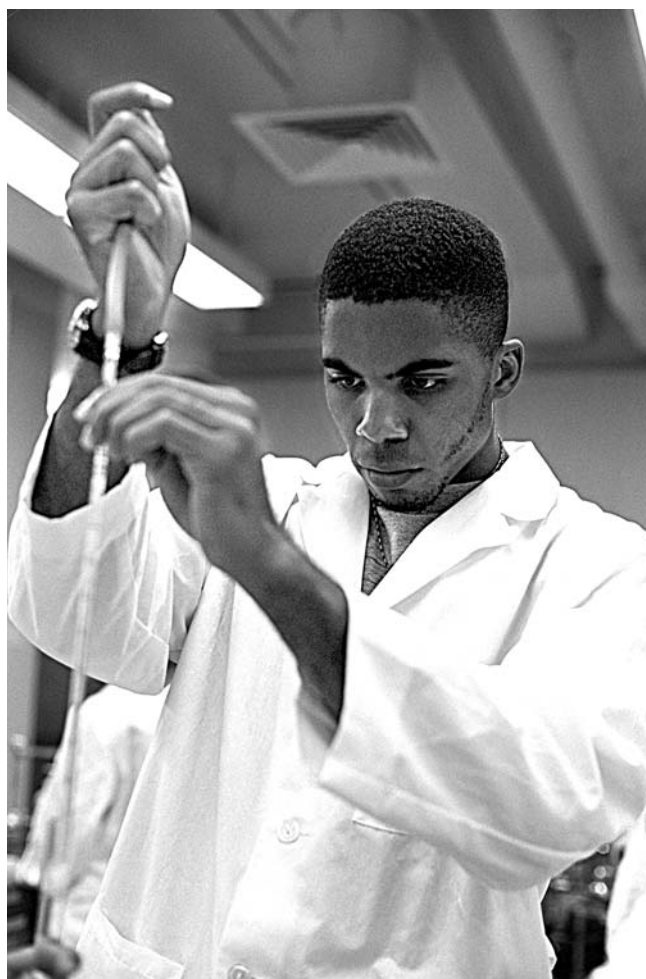
Introduction to computational languages and local computational environment; description of techniques in numerical analysis including linear algebra, integration, algebraic and differential equations, data analysis and symbolic algebra; optimization and parallel computing. (B:W)

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)

6992 Physics Graduate Teaching Assistant Training. Cr. 1

Prereq: graduate standing or consent of instructor. Offered for S and U grades only. Students solve and discuss problems from calculus-based general physics courses in front of their peers and instructor, enhancing their ability to analyze, interpret and present the material in a clear, informative way. (Y)



POLITICAL SCIENCE

Office: 2040 Faculty/Administration Building; 313-577-2630

Chairperson: Daniel S. Geller

Website: <http://www.cla.wayne.edu/polisci/>

Professors

Philip R. Abbott, Timothy Bledsoe, Rondal G. Downing, Charles D. Elder, Richard C. Elling, Susan P. Fino, Michael Goldfield, Charles J. Parrish, Frederick S. Pearson, Lawrence Scaff, Murray B. Seidler (Emeritus), T. Lyke Thompson, Maurice Waters (Emeritus)

Associate Professors

Ronald E. Brown, James T. Chalmers, Ewa Golebiowska, Mary Herring, Brad Roth, Marjorie E. Sarbaugh-Thompson, John M. Strate

Assistant Professors

Jered Carr, Kevin Deegan-Krause

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.

* For specific requirements, see the Wayne State University Graduate Bulletin.

6. Positions associated with mass communications, such as radio, television and newspapers, where basic understanding of public affairs and governmental policies and organization is required for accurate reporting and analysis.

7. Positions in private enterprise where knowledge of governmental processes is essential, such as in industrial relations, legislative liaison and public relations.

Bachelor of Arts

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 32. 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 235).

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 234) and the University General Education Requirements (see page 16), 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, 43, and 234.

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 (P S 1010 or 1030).
2. At least one course from the following: P S 2510, 2710, 2810, 2820.
3. At least four courses at the 3000 level or higher. (P S 5993 does not count toward fulfillment of this requirement.)
4. Course work in at least two of the following fields: American Government/Public Law (courses numbered with a second digit of 0 or 1), Urban Politics (second digit of 2), Public Policy/Public Administration (second digit of 3 or 4), Political Philosophy (second digit of 5), Research Methods (second digit of 6), and World Politics/Comparative Politics (second digit of 7 or 8). P S 1010, 1030, 2510, 2710, 2810, and 2820 do not count toward fulfilling this requirement.
5. A Writing Intensive course in political science with co-registration in P S 5993, in order to satisfy the Writing Intensive Course in the Major requirement. Any political science course at the 3000-level or higher, except P S 5630 and 6640, may be used to fulfill this requirement. To satisfy the requirement, the student must demonstrate proficiency in writing on the subject of political science in a form and style consistent with the standards of this discipline. 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.

Recommended Course: It is recommended that majors include P S 3600, Methods of Political Inquiry, in their programs of study.

— Fields of Study

In developing their specific programs of study, students should consult with the political science undergraduate adviser. They may pursue a general program or choose to concentrate in a particular field or subfield. The following are fields in which a student may choose to concentrate. Other areas of concentration and more specialized programs may be developed in consultation with the undergraduate adviser.

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): P S 3010, 3020, 3025, 3030, 3040, 3050, 3060, 3070, 3080, 3430, 5030, 5040, 5050, 6010, 6020, 6050, and 6070.

Public Law/Legal Studies: Judicial interpretation of the Constitution; civil liberties and constitutional rights; law enforcement and the operations of the judicial system; international dimensions of law. Relevant courses include: P S 3100, 5110, 5120, 5850, and 6120.

Urban Politics and Policy: Governing cities in a federal system; economic conditions and urban problems; local policy-making and the constraints under which policy is made. Relevant courses include: P S 2000, 2240, 3250, 6020, 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: P S 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: P S 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: P S 2420, 2510, 3510, 3515, 3520, 3530, 5560, and 5850.

Quantitative Political Analysis: Methods of analysis used to assess alternatives and evaluate the impact of government policy; methods of empirical political research including data collection, statistical description and inference, and the use of computers to organize and interpret data. Relevant courses include: P S 2460, 3600, 4460, 5630, and 6640.

Comparative Politics: The study of government and politics of western, non-western, and third world countries in their historical, cultural, and economic settings; problems of comparison across cultural and national boundaries. Relevant courses include: P S 2710, 3710, 3715, 3735, 4710, and 4799.

World Politics: Conflict and cooperation among nations; causes of war and the pursuit of peace; international 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: P S 2810, 2820, 3811, 3830, 3840, 4810, 5740, 5820, 5830, and 5850.

— Pre-Law Curriculum

Political science provides a useful major for students who anticipate applying to law school. For students choosing the Bachelor of Arts program, a Public Law/Legal Studies concentration drawing upon courses such as P S 3100, 5110, 5120, 5850, 5890, and 6120 is recommended along with courses in American Government and public

policy (numbered with second digits of 0 and 4, respectively). Specific programs of study under either degree option should be developed in consultation with the Department's pre-law adviser.

Bachelor of Public Affairs

The Bachelor of Public Affairs (B.P.A.) 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 32. 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 235).

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 234), excepting that the College's foreign language requirement need not be satisfied.
- 3) Satisfy the University General Education Requirements (see page 16).
- 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, 43, and 234.

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 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:

ECO 2010 -- (SS) Principles of Microeconomics: Cr. 3-4
ECO 2020 -- (SS) Principles of Macroeconomics: Cr. 3-4
P S 1010 or P S 1030
-- (AI) American Government: Cr. 4
-- (AI) American Governmental System: Cr. 3
P S 2410 -- Introduction to Public Policy: Cr. 4
P S 2420 or P S 2460
-- Ethics and Politics of Public Policy: Cr. 4
-- Policy and Rationality: Dilemmas of Choice: Cr. 4
P S 3600 or P S 5630
-- Methods of Political Inquiry: Cr. 4
-- Statistics and Data Analysis I: Cr. 4
P S 4460 -- Techniques of Policy Analysis: Cr. 4
P S 5993 -- (WI) Writing Intensive Course in P S: Cr. 0
(Taken in conjunction with P S 4460 or a 3000-level or higher concentration course)

B.P.A. Concentration Requirement: In addition to completion of required core work, students must select an area of concentration. Depending on the number of credits taken in core work, the minimum number of credits in concentration work will vary between ten and twelve. A minimum of three courses must be taken to constitute a concentration.

Governance: National, State, and Local — Ten to thirteen credits and at least three courses selected from: P S 2240, 2310, 3040, 3050, 3060, 3070, 3100, 4710, 5110, 6020.

Governmental Relations, Lobbying, and Electoral Politics — Ten to thirteen credits and at least three courses selected from: P S 3010, 3020, 3025, 3030, 3040, 3050, 3060, 3070, 3080, 5030, 5040, 5050, 6010, 6050, 6070.

Public Management — Ten to thirteen credits and at least three courses selected from: P S 2310, 3430, 5830, 5890, 6020, 6120, 6340, 6700.

Public Policy and Analysis — Ten to thirteen credits and at least three courses selected from: P S 2310, 3060, 3070, 3430, 3450, 3840, 4810, 6020, 6430, 6440, 6455.

Urban Policy and Management — Ten to thirteen credits and at least three courses selected from: P S 2000 or 2240; 2310, 3060, 3070, 3250, 3430, 5030, 6020, 6440, 6455.

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 and Sciences 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).

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' — 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 237); 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 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 the Dean, College of Urban, Labor and

Metropolitan Affairs. Interested majors or prospective majors should also consult with the Department's undergraduate adviser.

Scholarships, Awards and Honorary Societies

Also see page 238, above, and the section on the Office of Scholarships and Financial Aid, page 41. For further information, contact the Department Office.

The Stephen B. Sarasohn Award is given annually to the outstanding graduating senior majoring in political science.

Pi Sigma Alpha is the Wayne State chapter of the National Political Science Honorary Society for outstanding political science students.

Pi Alpha Alpha is the Wayne State chapter of the National Public Administration Honorary Society for outstanding public affairs/administration students.

POLITICAL SCIENCE COURSES (P S)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 479.

1000 (SS) Introduction to Political Science. Cr. 3

Introduction to the scope and method of political science. Overview of politics, political systems, nature and role of political institutions. Empirical political theory; practice 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)

2000 (U S 2000) (SS) Introduction to Urban Studies. (GPH 2000) (HIS 2000) (SOC 2500) Cr. 4

Urban phenomena, past and present; quality and nature of urban life; major concerns of urban areas; perspectives and techniques of various urban-related disciplines. (Y)

2240 (SS) Introduction to Urban Politics and Policy. Cr. 4

Influences on politics and problems of cities, forms of local political involvement, role of local public officials, impact of state and federal policies. Overview of current issues 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 Ethics and Politics of Public Policy. Cr. 4

Moral and political standards for policy-making, relation of major political and social theorists to policy issues such as economic inequality, racial and sexual discrimination, the enforcement of morals, and violence and social change. (Y)

2440 (PHY 2020) Science, Technology, and War. (HIS 2510) (PCS 2020) Cr. 4

Prereq: P S 1010 or 1030. 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. (W)

2460 Policy and Rationality: Dilemmas of Choice. Cr. 4

Individual decision-making and limitations on human cognition; collective choice; implications for policy development. (Y)

2510 Introduction to Political Ideologies. Cr. 4

Comparison of ideologies, political institutions, and economic systems. Democracy and authoritarianism, capitalism, socialism and communism contrasted. (Y)

2550 (PCS 2050) The Study of Non-Violence. (HIS 2530) (SOC 2050) Cr. 3

Intellectual and social roots of non-violence and the practice of non-violence in different people's life styles. (Y)

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. (T)

2830 (PCS 2010) Topics in Peace and Conflict Studies. (HIS 2520) Cr. 1-4

Special topics relating to peace and conflict studies. (Y)

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 political participation and electoral politics. Impact of public opinion and popular participation on the political system. (Y)

3020 Political Parties and Elections. Cr. 4

Prereq: P S 1010 or 1030. Development, structure, functions and operations of American political parties; their electoral and governmental roles; comparison with other systems; possible reforms. (B)

3025 Political Campaigns in America. Cr. 4

Nature and dynamics of campaigns for public office in the U.S. Campaign techniques and strategies in 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 (ULM 3070) Michigan Politics. Cr. 4

History and overview of Michigan politics: structure, process, current issues. (B)

3080 Gender and Politics. Cr. 4

Genesis and perpetuation of gender roles; feminist movements to modify these roles; impact of gender on public policy; gender-differentiated impact of public policy. (Y)

3100 American Legal Systems and Processes. Cr. 4

Analysis of the institutional structure, processes and policy-making of the American judicial system, including the recruitment of lawyers and judges, the influence of legal rules on policy-making, and selected areas of judicial policy-making. Emphasis on federal and state appellate courts. (Y)

3120 (CRJ 3120) Politics of the Criminal Justice Process. Cr. 4

Prereq: sophomore standing. Political aspects of criminal justice; politics of crime legislation, police function, prosecution, adjudication, and corrections; Federal role in criminal justice. (Y)

3250 Detroit Politics: Continuity and Change in City and Suburbs. (HIS 3240) (ULM 3250) 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. Cr. 4

Great political thinkers including Plato, Machiavelli, Wollstonecraft, Marx and Arendt. Focus on themes of class, gender, violence and power. (B)

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)

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)

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)

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)

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

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)

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)

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 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 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)

5820 International Law. Cr. 4

Sources of international law (treaty and custom); institutions of the international system and relationship to domestic law and the courts; state sovereignty; role of United Nations and other international organizations. Application of legal norms to contemporary armed conflicts and human rights catastrophes. (I)

5830 International Conflict and Management. Cr. 4

Types of international conflict and such methods of resolution as negotiation, mediation and other third-party procedures. (B)

5850 Human Rights. Cr. 4

Theoretical traditions that have inspired the human rights movement; critiques from liberal and conservative perspectives; international human rights treaties and efforts to implement their terms; controversies over cultural relativism, economic and social rights, treatment of women, and the question of non-intervention. (Y)

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 Examination, 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 Political Psychology. (PSY 6020) Cr. 3

Prereq: P S 1010 or equiv. Political attitudes and behavior of both ordinary citizens and political elites using theory and research that adopt a psychological perspective. Topics include: political socialization, ideological belief systems, role of mass media in shaping beliefs and attitudes, race and gender stereotypes and their psychological

and political consequences, personality and the dynamics of political leadership. (Y)

6020 Intergovernmental Relations and American Federalism. Cr. 3

Legal, fiscal, political and administrative relationships among governments in the American federal system. Current issues and public policies which affect or are affected by intergovernmental relationships. (B)

6050 (ULM 6100) Class, Race, and Politics in America. (AFS 6100) (HIS 5110) (SOC 7330) (U P 7030) Cr. 3

Prereq: senior standing or consent of instructor. Historical and analytic investigation into the role of class and race in American politics. (I)

6070 (P S 6070) Labor and American Politics. (I R 7420) Cr. 3

Role of organized labor in American politics. Historical background, including rise of the UAW and its role in Detroit and Michigan politics. Recent declines; future of organized labor as a force in American politics. (B)

6120 Administrative Law and Regulatory Politics. Cr. 3

For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Constitutional and statutory status of bureaucratic agencies; administrative powers and procedures; judicial review of administrative decisions; Congressional oversight of bureaucracies. (B)

6430 Social Welfare: Politics and Policy. Cr. 3

National government policy related to old-age assistance, income maintenance, food stamps, health care, and other entitlement programs. (B)

6455 (U P 6455) Discrimination and Fair Housing. (AFS 6455) (ECO 6455) (SOC 6455) (U S 6455) (ULM 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)

6799 (P S 4799) Topics in Comparative Politics. 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)

PSYCHOLOGY

Office: 7th floor, 5057 Woodward; 313-577-2800

Interim Chairperson: R. Douglas Whitman

Associate Chairperson: Melissa Kaplan-Estrin

Website: <http://www.psych.wayne.edu>

Professors

Antonia Abbey, Ernest L. Abel, Sheldon Alexander, David Asdourian (Emeritus), Alan R. Bass (Emeritus), Donald V. Coscina, Donald N. Elliott (Emeritus), Ira J. Firestone, Joseph M. Fitzgerald, John Hannigan, Joseph L. Jacobson, Chris-Ellyn Johanson, Kalman J. Kaplan, M. Marlyne Kilbey, Gisela Labouvie-Vief, Sheldon G. Levy, Hilary Ratner, Naftali Raz, Annette U. Rickel (Emerita), Gerald Rosenbaum (Emeritus), Glenn E. Weisfeld, R. Douglas Whitman

Associate Professors

Boris Baltes, Douglas Barnett, George Borszcz, Rita Casey, Rodney Clark, Kenneth Davidson (Emeritus), Marcus Dickson, Sebastiano Fiscaro, Winifred R. Fraser (Emeritus), Melissa G. Kaplan-Estrin, Brian Lakey, Cary M. Lichtman, Mark Lumley, Lisa Rapport, Sarah Raz, Michael M. Reece (Emeritus), Patricia Siple, Paul Toro

Assistant Professors

Marla Bartoi, Scott Bowen, Margaret Brooks, Thomas Fischer, Jeffrey G. Kuentzel, James Lebreton, Scott Moffat, Robert T. Partridge, Ava J. Senkfor, Annmarie C. Wurm, Lee Wurm

Research Scientists

Ali Naqvi

Adjunct Professors

Kenneth Adams, Naomi Breslau, Peter Lichtenberg

Adjunct Associate Professors

Mark Ketterer, Helene Lycaki, Timothy Roehrs

Adjunct Assistant Professors

Linda Angell, Rinat Armony-Sivan, Bradley Axelrod, Rebecca Baird, Jesse Bell, Allan Dehorn, Grenae Dudley, Lisa Fruchtman, Robin Hanks, Brynda Holton, Pamela Keenan, Mark Kelland, Joan Lessen-Firestone, Ronald Lewis, Ira Lourie, Michael Marsiske, Scott Millis, Lynn Pantano, Steven Putnam, Kenneth Reeder, Joseph Ricker, Robert Rothermel, William Schaffer, Richard Smith, Barry Tanner

Degree Programs

BACHELOR OF SCIENCE with a major in psychology

BACHELOR OF ARTS with a major in psychology

**MASTER OF ARTS with a major in psychology*

**MASTER OF ARTS in Human Development*

**Also see: MASTER OF ARTS in Industrial Relations*

**DOCTOR OF PHILOSOPHY with a major in psychology and concentrations in biopsychology, clinical, cognitive, developmental, industrial/organizational, or social psychology*

* For specific requirements, see the Wayne State University Graduate Bulletin.

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 and experimental design.

Bachelor of Science or Bachelor of Arts

Admission Requirements for the College are satisfied by the general requirements for undergraduate admission to the University; see page 32.

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 a psychology 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 234) and the University General Education Requirements (see page 16), 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, 43, and 234.

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:

PSY 2400 -- Developmental Psychology: Cr. 4
PSY 2600 -- Psychology of Social Behavior: Cr. 4
PSY 3120 -- Brain and Behavior: Cr. 3
PSY 3350 -- Psychology of Personality: Cr. 3
PSY 3500 -- Psychology and the Workplace: Cr. 3
PSY 4020 -- Research in Psychology: Cr. 3
PSY 5050 -- Physiological Psychology: Cr. 3

OR

Another (second) laboratory course from the selection listed above:
PSY 3040/3050, 3060/3070, 3080/3090

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.

The Bachelor of Arts degree incorporates all of the College Group Requirements; see page 234.

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 Honors in Psychology' 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.

Financial Aid

See Office of Scholarships and Financial Aid, page 41.

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 479.

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. (Y)

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. (Y)

2300 Psychology of Everyday Living. Cr. 4

Prereq: PSY 1010 or 1020. Applications of psychological principles to everyday life. How research can be used to guide positive self-change in various contexts (e.g., stress, psychological problems, personality, persuasion, attitudes). (T)

2400 Developmental Psychology. Cr. 4

Prereq: PSY 1010 or 1020. Facts, principles, theories of psychological development. Development of intellectual, emotional, perceptual, linguistic, and social behavior. Developmental trends. (T)

2410 Health Psychology. Cr. 4

Prereq: PSY 1010 or 1020. Clinical, social, developmental, and biopsychosociological theory and research on relationship of psychological and behavioral factors to physical health and well-being. Positive and negative health behaviors, stress and coping, social relations

and social support, psychoneuroimmunology, patient-practitioner interaction and health utilization, management of chronic illness. (Y)

2500 Psychology of Racism. Cr. 3

Dynamics and attendant problems of racism directed toward African Americans. Lectures, class discussions, film presentations. (I)

2600 Psychology of Social Behavior. Cr. 4

Prereq: PSY 1010 or 1020. Social behavior of the individual as influenced by the group. Particular attention given to social perception, motivation, and learning; attitudes and values; dynamics of social groups. (T)

3010 Statistical Methods in Psychology. Cr. 4

Prereq: PSY 1010 or 1020 or consent of instructor for non-psychology majors. 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 (F,W)

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 (F,W)

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 (F,W)

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. (Y)

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 (PSY 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 over-eating, from biological, psychological, and social perspectives. (W)

3310 Abnormal Psychology. Cr. 4

Prereq: PSY 1010 or 1020. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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. (Y)

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. (T)

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. (F,W)

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. (I)

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. (T)

4991 Honors Directed Study. Cr. 2-4 (Max. 9)

Prereq: written consent of instructor. Open only to honors majors in psychology. Honors library or laboratory study of advanced problem in psychology under guidance of a faculty member. (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. (Y)

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 design in psychology: reliability and validity of measurement of psychological constructs, experimental design, control for confounding in correlation studies, multivariate analysis. (W)

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. (W)

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. (I)

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. (Y)

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. (Y)

5680 Social Psychology of Personality. Cr. 3

Prereq: PSY 1010 or 1020. Consideration of social, structural and interpersonal determinants of personality formation, functioning and change; social learning, role theory, and cognitive approaches to personality in children and adults. (I)

5700 (AFS 5700) The Psychology of African Americans. Cr. 4

Prereq: upper division standing. Methodological approaches to and theories of Black behavior and personality development. Topics include: race and pathology, life-span and psycho-sexual development, personality formation, social and environmental stress and adaptation. (B)

5710 (PCS 5000) Dispute Resolution. (CRJ 5994) (P S 5890) Cr. 3

Overview of the processes and actors in the field of dispute resolution including negotiation, mediation, arbitration, and conciliation. (Y)

5993 (WI) Writing Intensive Course in Psychology. Cr. 0

Prereq: junior standing, satisfactory completion of English Proficiency Examination, 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. (B)

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. (Y)

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. (I)

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. (Y)

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. (Y)

6570 Applied 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. (Y)

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. (Y)

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. (Y)

ROMANCE LANGUAGES and LITERATURES

Office: 487 Manoogian Hall; 313-577-3002

Acting Chairperson: Donald E. Schurknight

Academic Services Officer: Terrie Pickering

Website: <http://www.langlab.wayne.edu/Romance/Romance.html>

Professors

Vincent C. Almazan (Emeritus), Fernande Bassan (Emerita), Jorgelina Corbatta, Andrea di Tommaso, 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, Michael J. Giordano, Louise M. Jefferson (Emerita), Louis Kibler, Sol Rossman (Emeritus), Lisa Vollendorf, A. Monica Wagner (Emerita), Helene Weldt-Basson

Assistant Professors

Sergio Rivera-Ayala, Anne E. Duggan, Victor Figueroa, Sandra Hobbs, Kate Paesani

Lecturers

Raffaele DeBenedictis, Connie Green, Marilyn Rashid, Carole Verhelle

Adjunct Professor

Robert Holley

Interim 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 32. 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 234) and the University General Education Requirements (see page 16), 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, 43, and 234.

* For specific requirements, see the Wayne State University Graduate Bulletin.

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 credit hours 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 240.

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; 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 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 234.

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' — 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 479.

— 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. (B)

2710 (FC) Introduction to French Civilization I. Cr. 3

An overview of France's great contributions to world culture, from the time of the Gauls to the French Revolution. French history, thought, art, architecture, society, geography, and institutions; illustrated with slides and films; includes visits to Detroit Institute of Arts. (B)

2720 (FC) Introduction to French Civilization II. Cr. 3

From the French Revolution to contemporary times. French way of life, its moral and intellectual foundations, its culture and institutions; their transformation under the stress of the twentieth century. (B)

2990 Topics in Romance Studies: in English Translation. (ITA 2990) (SPA 2990) Cr. 3

Individual themes, critical issues, special problems, or trends in interdisciplinary studies. Course is team-taught. (F,W)

6991 Contemporary French Criticism and Literary Theory. Cr. 3

Theory and practice of contemporary French criticism; structuralist and post-structuralist writers: Barthes, Greimas, Derrida, and Lyotard. French majors required to do readings in French. (I)

ITALIAN IN ENGLISH TRANSLATION COURSES (ITA)

2700 (GER 2700) (PL) Anguish and Commitment: European Existentialist Literature. (FRE 2700) (RUS 2700) (SPA 2700) Cr. 3-4

Only students in Honors Program may register for four credits. A team-taught interdisciplinary study in English of representative works by European existentialist writers: Dostoevsky, Hesse, Kafka, Pirandello, Sartre, Camus, and Unamuno. (B)

2710 (FC) Italian Culture and Civilization I. Cr. 3

Overview of development of Italian culture and civilization from their origins to 1500; emphasis on those aspects that prepared the political, social, cultural and intellectual groundwork of Humanism and the Renaissance. Taught in English. (Y)

2720 (FC) Italian Culture and Civilization II. Cr. 3

Prereq: ITA 2710 recommended. Overview of Italian culture and civilization from 1500 to 1947: the Renaissance, Italian contributions to science, Unification of Italy, the Fascist era, the new republic. Taught in English. (Y)

2990 (FRE 2990) Topics in Romance Studies: in English Translation. (SPA 2990) Cr. 3

Individual themes, critical issues, special problems, or trends in interdisciplinary studies. Course is team-taught. (F,W)

5150 Italian Cinema since 1942. Cr. 3 (Max. 9)

Concentrated study of specific trends or the development of individual directors. Topics to be announced in Schedule of Classes. Material fee as indicated in the Schedule of Classes (B)

6500 Introduction to Literary Criticism. Cr. 3

Overview of various currents of critical theory, focusing on literary and cinematographic texts. The two-fold pedagogical approach, theoretical and empirical, will use semiotics as a disciplinary tool of analysis and apply it to the textual material studies in this course. (I)

SPANISH IN ENGLISH TRANSLATION COURSES (SPA)

2400 (CBS 2100) Chicano Literature and Culture. Cr. 3

Examination of Chicano literature. Themes and figures in a social and historical context. (B)

2500 (CBS 2110) Puerto Rican Literature and Culture. Cr. 3

Examination of Puerto Rican literature. Themes and figures in a social and historical context. (B)

2700 (GER 2700) (PL) Anguish and Commitment: European Existentialist Literature. (FRE 2700) (ITA 2700) (RUS 2700) Cr. 3-4

Only students in Honors Program may register for four credits. A team-taught interdisciplinary study in English of representative works by European existentialist writers: Dostoevsky, Hesse, Kafka, Pirandello, Sartre, Camus, and Unamuno. (B)

2990 (FRE 2990) Topics in Romance Studies: in English Translation. (ITA 2990) Cr. 3

Individual themes, critical issues, special problems, or trends in interdisciplinary studies. Course is team-taught. (F,W)

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 2010. Special attention to development of language skills. Conducted entirely in French; discussion based on reading from contemporary materials. (T)

2110 Intermediate Grammar, Conversation and Composition II. Cr. 3

Prereq: FRE 2100. Continuation of FRE 2100. (Y)

3200 Conversation and Composition. Cr. 3

Prereq: FRE 2100 or 2110. Discussion and composition based on readings in contemporary French social and cultural topics. (Y)

3300 Readings in French and Francophone Literature and Culture. Cr. 3

Prereq: FRE 2010. An initiation into the reading of various literary genres. Methods and vocabulary to discuss and analyze the essays, poems, short novels, and plays under consideration. (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)

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 5810) (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 7830) (ITA 5830) (ITA 7830) (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 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 5860) (CLA 7860) (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: 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 listening 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 The Structure of French. 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. French political and social institutions and practices since World War II. Comparative study of examples from American institutions and practices. (B)

6510 French Sixteenth Century Literature. Cr. 3

Prereq: FRE 4610 or 4620 or consent of instructor. Study of the principal genres represented by: Marot, Sceve, Labe, Du Bellay, Ronsard, D'Aubigne, Montaigne and others. Topics to be announced in Schedule of Classes. (B)

6630 French Seventeenth Century Literature. Cr. 3

Prereq: FRE 4610 or 4620 or consent of instructor. Historical background, religious and literary movements. Development of the Classical ideal in literature, salons, and academies. Representative authors of non-dramatic literature and the theatre (Corneille, Moliere and Racine). Topics to be announced in Schedule of Classes. (B)

6650 French Eighteenth Century Literature. Cr. 3

Prereq: FRE 4610 or 4620 or consent of instructor. The four major philosophes: Montesquieu, Diderot, Voltaire and Rousseau; precursors such as Cyrano, Fontenelle and Bayle. Developments in prose fiction and theatre; representative works of these genres. Content varies to cover a genre, literary movement, school or period. Topics to be announced in Schedule of Classes. (B)

6770 Studies in French Literature. Cr. 3

Prereq: FRE 4610 or 4620 or consent of instructor. Study of one of the major literary genres: prose, poetry or drama; its development from origins to present time. Emphasis on textual analysis. Topics to be announced in Schedule of Classes. (B)

6810 French Nineteenth Century Literature. Cr. 3

Prereq: FRE 4610 or 4620 or consent of instructor. Romanticism, Realism, Naturalism, Parnassian poetry, and the theatre of the second half of the nineteenth century. Chateaubriand, Hugo, Flaubert, Zola, Leconte de Lisle, Becque, and others. Course content will vary to cover a genre, or literary movement, school or period. Topics will be announced in the Schedule of Classes. (B)

6840 French Twentieth Century Literature. Cr. 3

Prereq: FRE 4610 or 4620 or consent of instructor. Literary movements and representative authors from the turn of the century to the present. Topics to be announced in Schedule of Classes. (B)

6860 Francophone Literatures. Cr. 3 (Max. 6)

Prereq: FRE 4610 or 4620 or consent of instructor. Studies in literature of French expression as represented in the distinct traditions of Africa and the West Indies, Canada and Switzerland. Topics to be announced in Schedule of Classes. (B)

Special Courses (FRE)

5000 Minor Language Practicum. Cr. 3 (Max. 9)

Prereq: consent of graduate adviser. Offered for S and U grades only. No degree credit toward Ph.D. Controlled application of active language skills for students electing a Ph.D. minor in French. (T)

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. (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. 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)

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)

3040 Italian for Business. Cr. 3

Prereq: ITA 2010. Italian for basic business, legal and banking transactions and correspondence. Vocabulary and structures of business, training in preparing business documents, C.V.'s, invoices, complaints. Familiarization with Italian businesses, as well as with cultural practices and differences. (B)

3100 Italian Conversation. Cr. 3

Prereq: ITA 2020 or placement. Conversation based on current topics and reading materials. (T)

3200 Italian Grammar and Composition. Cr. 3

Prereq: ITA 2020 or placement. Advanced study of Italian grammar, phonetics, and syntax. Practice in writing themes and translations. (T)

4610 Text and Context I: Origins to 1700. Cr. 3

Prereq: ITA 2020 or consent of instructor. Representative works or selections from the writings of the major authors from the thirteenth through the seventeenth centuries, studied in their cultural context. (F)

4620 Text and Context II: 1700 to the Present. Cr. 3

Prereq: ITA 2020 or consent of Department. Representative works or selections from the writings of the major authors from the eighteenth through twentieth centuries, studied in their cultural context. (W)

5100 Advanced Composition. Cr. 3

Prereq: ITA 3200 or consent of instructor. Variety of forms and styles of writing (fiction, literary essay, journalistic writing, etc.), formal and informal usage, colloquial usage, regional variations. (W)

5200 Italian Phonetics and Diction. Cr. 3

Prereq: ITA 3100 or consent of instructor. Systematic study of Italian phonetics, with practical exercises. Diction, proper breathing, dialectical variations, and some linguistic theory. (Y)

5570 Topics in Italian Studies. Cr. 3 (Max. 9)

Prereq: ITA 4610, ITA 4620, or consent of instructor. In-depth study of author or group of authors, genre, historic period, or particular literary or cultural movement. Topics to be announced in Schedule of Classes. (B)

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. 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 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 7830) (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 7850) (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 7860) (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. (F,W)

6400 History of 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

Prereq: ITA 4610 or consent of instructor. A close reading of Dante's *Commedia*, with attention to sources, background, and interpretation. (B)

6680 Studies in Renaissance Literature and Culture. Cr. 3 (Max. 9)

Prereq: ITA 4610 or consent of instructor. The major contributions of the Italian Renaissance, including lyric poetry from Petrarch to Marino; Boccaccio and the Novella Tradition; Humanism; the epic poetry of Boiardo, Ariosto and Tasso; Machiavelli and the political essayists. Topics to be announced in Schedule of Classes. (Y)

6690 Studies in Baroque Literature and Culture. Cr. 3

Prereq: ITA 4610 or consent of instructor. Poetry of Tasso, Marino, Marinisti and Anti-Marinisti. Prose writings of Galileo, Bruno, Campanella, and Tesauro. Topics to be announced in Schedule of Classes. (B)

6700 Studies in Eighteenth-Century Literature and Culture. Cr. 3 (Max. 9)

Prereq: ITA 4620 or consent of instructor. Particular author, genre or literary movement in the historical and cultural context of eighteenth-century Italy. Topics to be announced in Schedule of Classes. (B)

6800 Studies in Nineteenth-Century Literature and Culture. Cr. 3 (Max. 9)

Prereq: ITA 4620 or consent of instructor. Particular author, genre or literary movement in the historical and cultural context of nineteenth-century Italy. Topics to be announced in Schedule of Classes. (B)

6870 Studies in Modern Italian Fiction. Cr. 3 (Max. 9)

Prereq: ITA 3610 or consent of instructor. Study of a genre, movement, theme, or period. Topics to be 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 Courses (ITA)

5000 Minor Language Practicum. Cr. 3 (Max. 9)

Prereq: consent of graduate adviser. Offered for S and U grades only. No degree credit toward the Ph.D. Controlled application of active language skills for students electing a Ph.D. minor in Italian. (T)

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)

2025 Intermediate Spanish II. Cr. 3

Prereq: SPA 2010. Continuation of SPA 2010. More intensive review of Spanish grammar; linguistic preparation for reading of literature; oral practice in the language. (T)

3040 Commercial Spanish. Cr. 3

Prereq: SPA 2025. Commercial Spanish for basic business, legal and banking transactions and correspondence; terminology used in banking, commerce, accounting and marketing; emphasis on translation and format of commercial documents and letters. (I)

3050 Medical Spanish. Cr. 3

Prereq: SPA 2020. 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 placement. Study and utilization of Spanish in written form: colloquial usage, literary Spanish, commercial Spanish, idiomatic expressions. Brief compositions and translation exercises. Conducted entirely in Spanish. (Y)

5200 Spanish Phonetics. Cr. 3

Prereq: SPA 3100 or consent of instructor. A systematic study of Spanish sounds; conducted in Spanish. (B)

5300 Advanced Grammar and Stylistics. Cr. 3

Prereq: SPA 5100 or placement. Intensive study of grammar and syntax. Free composition and conversation. Conducted in Spanish. (B)

5400 Technical and Literary Translation. Cr. 3

Prereq: SPA 3100. English-Spanish and Spanish-English translations, literary and technical. Idioms in technical, business and legal contexts. Computerized translation technology. (B)

5550 Spanish Culture and Its Tradition. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 3300. Spain's cultural history: painting, sculpture, architecture and music, through films, records, newspapers, and other texts. (B)

5560 Spanish American Cultures and their Traditions. (CBS 5560) Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Spanish America before and after the discovery of the New World. Art, music, customs, contemporary institutions, through films, records, newspapers, gallery visit to Detroit Institute of Art, and the text. (B)

5570 Topics in Hispanic Culture or Language. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Specific themes, genres, movements or periods. Topics to be announced in Schedule of Classes. (Y)

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. 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 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 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 7850) (ITA 5850) (ITA 7850) (LED 5850) (LED 7850) (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 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 The Structure of Spanish. Cr. 3

Prereq: SPA 5200 or consent of instructor. Principles of linguistics and their application to Spanish. (B)

6410 Spanish Medieval Literature: Origins to 1500. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Main currents and masterworks of Spanish literature from its origins to 1500. (Formerly SPA 6500.) (B)

6420 Spanish Literature of the Renaissance. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Literary genres of the sixteenth century (poetry and narrative: picaresque, pastoral, morisco, and chivalric). (Formerly SPA 6510.) (B)

6430 Spanish Literature of the Baroque Period. Cr. 3

Prereq: SPA 4610, 4620, 4630, or 4640. Great poets of the Spanish seventeenth century: Lope de Vega, Gongora, Quevedo; as well as the prose of Quevedo and Gracian. 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 Courses (SPA)

5000 Minor Language Practicum. Cr. 3 (Max. 9)

Prereq: consent of graduate adviser. Offered for S and U grades only. No degree credit toward Ph.D. Controlled application of active language skills for students electing a Ph.D. minor in Spanish. (T)

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), Donald E. Gelfand, Janet R. Hankin, Mel J. Ravitz (Emeritus), Raye A. Rosen (Emeritus), Mary C. Sengstock, Leon H. Warshay

Associate Professors

Clifford J. Clarke, Thomas Duggan (Emeritus), Mary J. Van Meter (Emerita), Leon C. Wilson

Assistant Professors

Peter R. Bahr, Heather E. Dillaway

Adjunct Faculty

Elizabeth Chapleski, Institute of Gerontology; David Fasenfest, Center for Urban Studies; Heidi Gottfried, Center for Urban 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 32.

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 234) and the University General Education Requirements (see page 16), as well as the major requirements of one of the following programs. All course work must be completed in accordance with the academic

* For specific requirements, see the Wayne State University Graduate Bulletin.

procedures of the University and the College governing undergraduate scholarship and degrees; see sections beginning on pages 16, 43, and 234. 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, 4100, 4200. 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, with a minimum of thirty credits with a grade of 'C' or better.

Model Plan for Majors

Junior Year: Sociology 3300, 4200, 4050, 4100; elective courses. Students are urged to take Sociology 4200 and 4050, in particular, in the junior year.

Senior Year: 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' — 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 -- (WI) Methods of Social Research: Cr. 4

All core courses must be completed with a grade of 'C' or better, with a minimum of twenty credits with a grade of 'C' 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 3400 (Exploring Marriage and Other Intimate Relationships), 4460 (Women in Society), 5400 (The Family), 5410 (Marriage and Family Problems), 5870 (Violence in the Family).

2. Business: Students who are preparing for a career in business might consider electing Sociology 3300 (Social Institutions and Social Structure).

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 5570 (Race Relations in Urban Society).

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), 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 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.

SOCIOLOGY COURSES (SOC)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 479.

2000 (SS) Understanding Human Society. Cr. 3

Analysis of basic sociological concepts and principles to give the student an understanding of the perspective that sociology brings to the study of human society. (T)

2020 (SS) Social Problems. Cr. 3

Consideration of major contemporary social problems which reveal structural strains, value conflicts, deviations and changes in society. Analysis of socio-cultural factors creating problems and of possible solutions. (T)

2050 (PCS 2050) The Study of Non-Violence. (HIS 2530) (P S 2550) Cr. 3

Intellectual and social roots of non-violence and the practice of non-violence in different people's life styles. (Y)

2100 Topics in Sociology. Cr. 3 (Max. 9)

Specialized and topical studies of sociological themes. Topics to be announced in Schedule of Classes. (T)

2500 (U S 2000) (SS) Introduction to Urban Studies. (GPH 2000) (HIS 2000) (P S 2000) Cr. 4

Urban phenomena both past and present, including the quality and nature of urban life; major concerns of urban areas; perspectives and techniques of various urban related disciplines. (Y)

2600 (AFS 2600) Race and Racism in America. Cr. 3

Examination of the nature and practice of racism in American society from its historical foundations to its contemporary institutional forms. (B)

3030 AIDS and Society. Cr. 3

Survey of social, epidemiological, physiological, legal and preventive issues surrounding AIDS. (Y)

3300 (SS) Social Institutions and Social Structure. 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. (Y)

3350 Cults, Myths, and Religions in Society. Cr. 3

Objective analysis of the interrelations between religious phenomena and social institutions, social structure and behavior. (B)

3400 Exploring Marriage and Other Intimate Relationships. Cr. 3

Students examine, from a sociological perspective, issues concerning intimate relationships. Major emphasis on description and analysis of changes in monogamous marriage. Non-traditional marital forms also examined. Focus upon the intimate relationships as they relate to personal, functional concerns of the student. (B)

3510 (SS) The Nature and Impact of Population on Society. Cr. 3

Birth, death and migration investigated with respect to their social causes and consequences for society and human behavior. The population explosion and its implication for government policy. Recommended for students interested in urban studies, medicine, nursing, political science and history. (B)

3820 Criminology. Cr. 3

Review and critique of explanations of criminal behavior. Criminal behavior patterns, sources of crime statistics, social structure of criminality, crime typologies, and other theoretical issues regarding crime and delinquency. (T)

3840 (CRJ 4300) Corrections. Cr. 4

No credit after former SOC 5840. Description and analysis of legal, social and political issues affecting contemporary correctional theory and practice. Topics include: history of corrections, function and social structure of correctional institutions, institutional alternatives including diversion, probation and parole. Field trips to institutions and community correctional settings normally required. (T)

3860 (AFS 3860) Race, Class and the Criminal Justice System. Cr. 3

Prereq: upper division standing or criminal justice majors or minors. Survey of race and class in the criminal justice system: police, courts, jails and prisons. Socio-economic environment of offenders, and effects of criminal justice process on their ability to function positively within that environment. (T)

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 University of Salford, England. (F,W)

3993 (HIS 3993) Topics in Canadian History, Society, Politics, and Culture. (ENG 3993) (GPH 3993) (P S 3993) Cr. 3-4

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 individually; influence of music in everyday living. (F,S)

4050 Basic Sociological Theory. Cr. 4

Introduction to sociological theory from a general conceptual framework. Major concepts, theoretical positions and recent trends in theoretical sociology will be considered. (Y)

4100 (SS) Social Psychology. Cr. 4

An introduction to the major issues in social psychology. Topics such as socialization, social perception, self-conceptions and social definitions of selves and situations. (T)

4200 (WI) Methods of Social Research. Cr. 4

An elementary research methods course that covers the process of doing social research, including research design, data collection techniques, processing and analysis of data, as well as the interpretation of data. (Y)

4220 Computing Applications for the Social Sciences. Cr. 4

Open only to sociology majors. Prereq: SOC 4200. 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 mental disorder, alcoholism, drug abuse, gender roles and the professions of physicians and nurses. (T)

4460 Women in Society. Cr. 3
 In-depth investigation of the living and working conditions of women in the world today, with a particular emphasis on the impact of socio-economic changes on the lives of women (including their relationships with men). (Y)

4800 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. Interdisciplinary theories introduced to facilitate understanding of those behaviors, their diagnosis, management, control, and prevention. (T)

4999 Honors Thesis in Sociology. Cr. 3 (Max. 6)
 Prereq: sociology major; cumulative h.p.a. 3.0, 3.3 in sociology; written 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) 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)

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. Descriptive statistics, correlation and regression, notions in probability, binomial and normal distributions, testing hypothesis. (T)

5360 Introduction to Medical Sociology. Cr. 3
 Sociological and social psychological examination of health and illness behavior, health care providers, patient-provider-hospital relations, and health policy both in the United States and cross-culturally. Detroit area data and sex roles in medicine are discussed. This course is appropriate for non-sociology students with an interest in health issues (nursing, pre-medicine, and others), as well as for sociology and psychology students. (Y)

5400 The Family. Cr. 3
 An introduction to the sociology of the family: forms of organization, interaction patterns throughout the life cycle, ethnic and cultural differences, conflict and change. Especially useful for students in social work, counseling, family and consumer resources, nursing and education, as well as the other social sciences. (T)

5410 Marriage and Family Problems. Cr. 3
 Social and historical context of marriage and family problems. Power, conflict, communication and crisis as they relate to the nature and dynamics of the family. Problem solving techniques; specific family problems: divorce or child abuse. (T)

5500 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 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) 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 Inequality and Social Class. Cr. 3
 Analysis of the inequalities in societies, the United States and others. Causes of social class differences; varying structures of stratification; consequences for the individual, ethnic groups, political power; the conditions under which mobility occurs. (I)

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. 1-2
 Prereq. or coreq: SOC 5870. Open to PACT students; others by consent of instructor. 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) 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) (ULM 6455) Cr. 3

Prereq: senior or graduate standing. Multidisciplinary investigation into the nature, motivations, consequences, and legal/public policy implications of racial/ethnic discrimination in housing and related markets in U.S. metropolitan areas. (B)

6580 Applied Sociology I: Research and Theory in Applied and Clinical Settings. Cr. 4

Prereq: graduate students or advanced social science undergraduates. The logic of applied sociological theory and research design. Ethical issues in applied and clinical social science projects, and of contributions of related social science disciplines. Development of writing skills in applied and clinical research and theory. (Y)

6590 Applied Sociology II: Strategies for Changing Social Behavior. Cr. 3

Prereq: graduate students or advanced social science undergraduates. Analysis of theoretical and practical strategies for promoting the change of social behavior. Focus on behavior of the individual, small group, and community structural levels. Means of evaluating effectiveness of change strategies. Materials drawn from theory and practice in sociology and related social sciences. (Y)

6750 (ULM 6350) Sociology of Urban Health. Cr. 3

Prereq: graduate standing; undergraduates by consent of instructor. Review of theories and research on health status and health care delivery issues in urban communities. (Y)

6850 (ULM 6150) Political Economy of the Urban Ghetto. (ECO 6810) (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)

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 Herring (Political Science), Lisabeth Hock (German and Slavic), Marlyne Kilbey (Psychology), Laura Kline (German and Slavic), Gisela Labouvie-Vief (Psychology), Donna Landry (English), Kathyne Lindberg (English), Jennifer Sheridan Moss (Classics, Greek and Latin), Ruth Ray (English), Michael Scrivener (English), May 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.

W S 2700 -- Interdisciplinary Topics in Women's Studies (Cr. 3): Cr. 6

W S 3010 -- (SS) Interdisciplinary Introduction to Women's Studies: Cr. 3-4

W S 5010 -- Women's Studies Theories: Cr. 3

W S 5990 -- Senior Project Seminar: Cr. 4

Group One Electives (see below) -- at least eight credits: Cr. 8

Additional electives from Group One or Group Two (see below): Cr. 3-8

Group One Electives

These courses are informed by current debates in feminist theory regarding the nature of feminism as perceived by women from different races and ethnicities — an issue central to women's studies programs, departments, and organizations throughout the United States. The courses make use of feminist scholarship, interrogate the construction of gender, and address issues of concern to women.

AFS 5110 -- Black Women in America: 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 3250 -- 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 4460 -- Women in Society: Cr. 3
 SOC 5410 -- Marriage and Family Problems: Cr. 3

Group Two Electives

These courses raise questions about their particular discipline from a feminist perspective and have a substantial component devoted to gender issues. Many of these entries are variable topics courses in which different specific contents are offered either in different sections or in different terms as reflected in the Schedule of Classes. For use as Women's Studies co-major or minor credit all such courses are cited below as applicable only when approved by the Program Director.

A H 6730 -- Contemporary Theory and the Visual Arts (when approved): Cr. 3
 CLA 3190 -- Topics on Women in Antiquity: Cr. 3
 COM 3010 -- 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 consist of eighteen credits distributed as follows:

W S 2700 -- Interdisciplinary Topics in Women's Studies: Cr. 3
 W S 3010 -- (SS) Interdisciplinary Introduction to Women's Studies: Cr. 3-4
 W S 5010 -- Women's Studies Theories: Cr. 3
 Electives from Group One or Two (see below): 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 479.

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 (N E 3520) Women and Gender in Middle East History. Cr. 4

Women's role in Middle East history; impact of religion, culture, social and economic change on construction of gender in the Middle East. (Y)

3750 (CRJ 3750) Diversity in Criminal Justice. Cr. 4

Critical examination of gender, race, class and ethnicity issues in criminal justice; impact on defendants, inmates, victims, and criminal justice personnel; relation to policy issues. (F,W)

3990 Directed Studies. Cr. 1-3

Prereq: W S 3010, consent of program director. Individually-designed research projects, developed with a supervising professor and approved by program director. (T)

4030 (COM 4030) 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) Topics in Women's Studies. Cr. 3 (Max. 9)

Prereq: 12 credits in ENG above the 1000 level. Thematic, critical or generic study of women and literature. Topics to be announced in Schedule of Classes. (Y)

5110 (AFS 5110) Black Women in America. Cr. 3

Social, cultural, artistic and economic development of Black women in America; topics include: racism, sexism, marriage, motherhood, feminism, and the welfare system. (Y)

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 (MLIS) degree. The MLIS 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 50 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 20 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.
 - Faculty will encourage students to conduct research.
 - Faculty will seek opportunities to share with and engage students in research.
 - Students will utilize relevant research studies in their course work.
 - Students 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.
 - Students will identify, evaluate, and apply current and emerging technologies of relevance to information organizations and services.

Students will 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.

Students will articulate the importance of intellectual freedom in providing information access.

Students will recognize intellectual property, security, and privacy issues.

Students will 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.

Students will recognize the necessity for involvement in professional organizations.

Students will demonstrate a committed professional attitude, including a concern for ethical issues, individual professional development, and continuing education.

Students will 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.

The Program will seek diversity among the student body.

The Program will facilitate student experience in multicultural and multiethnic information environments.

The Program will 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 three million books and eighteen thousand current subscriptions to periodicals, plus a wide selection of electronic resources. *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 growing print collection that supports the undergraduate curriculum, and a twenty-four hour 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 Shiffman 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, and the Charles H. Wright Museum of African American History.

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 common 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. Library and information science students also have access to the computing facilities located in the Instructional Computing Lab of the Purdy Library and in the David Adamany Undergraduate Library.

UNDERGRADUATE PROGRAM

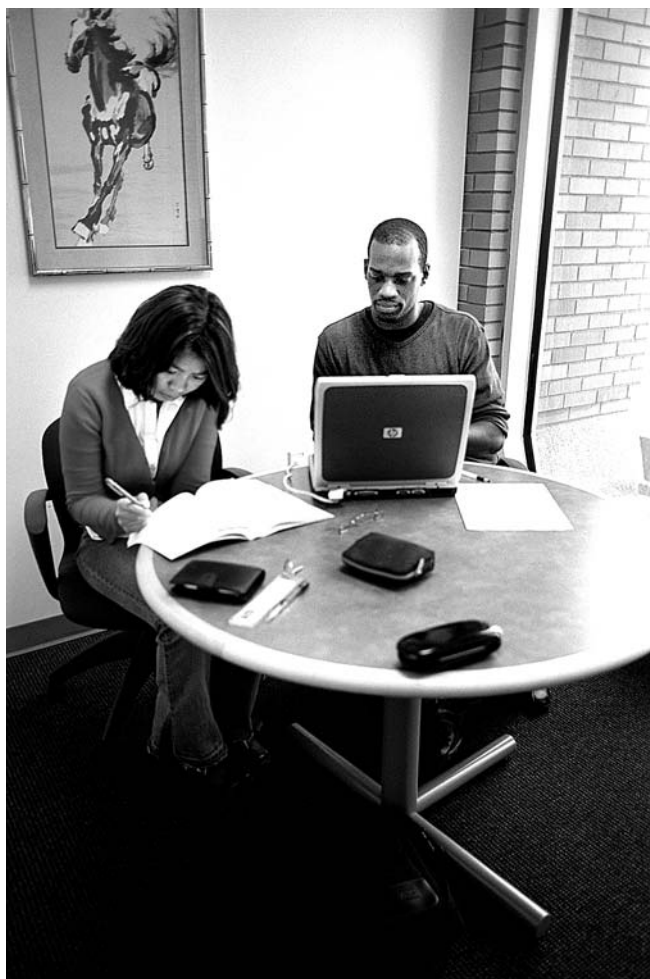
Undergraduates interested in enrolling in library and information science courses should consult with the Director of the Library and Information Science Program regarding admission requirements, sequence of courses, the curriculum, career planning, professional development, job opportunities, and Senior Rule requirements.

Graduate Degrees and Certificates

**MASTER OF LIBRARY AND INFORMATION SCIENCE*

**SPECIALIST CERTIFICATE in Library and Information Science*

**GRADUATE CERTIFICATE in Archival Administration*



* For specific requirements, see the Wayne State University Graduate Bulletin.

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 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:

Joseph J. Mika; 106 Kresge Library; 313-577-6196

Web: <http://www.lisp.wayne.edu>

FACULTY

Professors

Genevieve M. Casey (Emerita), Robert P. Holley, Michael Keresztesi (Emeritus), Philip Mason, 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

Assistant Professors

Hermína Anghelescu, Ronald Day, Yunfei Du, John Heinrichs

Senior Lecturer

Judith J. Field

Interdisciplinary Faculty and Staff

Monique Andrews, Library Information Services, University Library System; Veronica Bielat, Library Information Services, University Library System; Duryea Callaway, Library Information Services, University Library System; Anaclare F. Evans, DALNET, University Library System; Gina Deblase, Teacher Education, College of Education; Donald Gelfand, Sociology, College of Liberal Arts; Frances Krempasky, Resource Acquisitions and Metadata Services, University Library System; Cynthia H. Krolkowski, Library Resources Development & Management, University Library System; William LeFevre, Walter P. Reuther Library of Labor and Urban Affairs, CULMA; 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, Library Information Services, University Library System; Howard S. McMinn, Library Resources Development & Management, University Library System; Vanessa Middleton, Library Information Services, University Library System; Lynn Miller-Wietecha, Administrative & Organizational Studies, College of Education; Gary Morrison, Instructional Technology, College of Education; Deborah Rice, Walter P. Reuther Library of Labor and Urban Affairs, CULMA; Rita Richey, Instructional Technology, College of Education; R. Craig Roney, Teacher Education, College of Education; Kathleen Schmeling, Walter P. Reuther Library of Labor and Urban Affairs, CULMA; Michael Smith, Walter P. Reuther Library of Labor and Urban Affairs, CULMA; Lothar Spang, Library Information Services, University Library

System; Jacqueline Tilles, Teacher Education, 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; Julia Williford-Sosnowsky, Walter P. Reuther Library of Labor and Urban Affairs, CULMA

Adjunct Faculty and Part-Time Faculty

Leslie Behm, Michigan State University Libraries; George Bishop, Ovid-Elsie Area Schools; Janet Bobak, Harper Woods Secondary School; Morell Boone, Halle Library, Eastern Michigan University; Carole Callard, Library of Michigan; Julia Daniel, University of Michigan Transportation Research Institute; Jeanne Drewes, Michigan State University Libraries; Karen Frade, Instructional Resources Consultant; Todd Gilman, Yale University Sterling Memorial Library; Paulette Groen, Visteon; Pamela Grudzien, Park Library, Central Michigan University; Cliff Haka, Michigan State University Libraries; Annette Haley, Wyandotte Public Schools; Hildur Hanna, Michigan State University DCL College of Law; Charles D. Hanson, Kettering University; Clark Heath, Southfield Lathrup High School; William Hill, Grand Rapids Public Library; Colleen Hyslop, Michigan State University Libraries; Phyllis Jose, LIS Consultant; Douglas Koschik, Baldwin Public Library; Daniel Klyn, QLTD; Daniel Kramer, Adjunct Faculty; WSU College of Education; Holly Lamb, Howell Public Library; Eileen Lane, Delphi Automotive Systems; Rhea Lawson, Detroit Public Library; David Maier, Adjunct Faculty; WSU College of Education; Laura Mancini, Oakland County Library; Sylvia Marabate, East Lansing Public Library; James Matarazzo, Simmons College; Martha McKee, Library of Michigan; 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; William Pritchard, Blue Cross/Blue Shield of Michigan; Susan Pritts, LIS Consultant; Margaret Roytek, University of Detroit Mercy; Cathleen Russ, Center Line Public Library; Kimberly Schroeder, Archive Media Partners; Laurie St. Laurent, East Lansing Public Library



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 Scholarships and 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 assist 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 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 479.

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

For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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 (I T 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 (I T 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. (W,S)

6370 (I T 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. (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

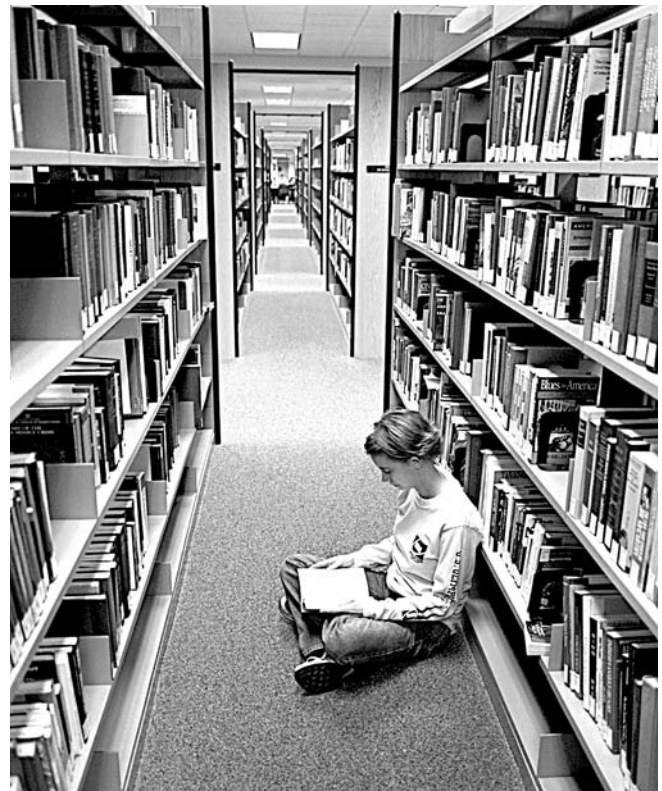
Standards for evaluating adolescent literature. Selection of literature for individual pupils in relation to interest and reading ability. Use of classroom collections. Techniques for helping pupils read poetry, drama, and fiction. (W)

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. Cr. 3

For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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

INTERIM DEAN: Robert R. Frank

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, Master of Arts, and Bachelor of Science. Graduate education in clinical fields, post-doctoral study and continuing medical education programs are also offered within the School. Two hundred fifty-six students are admitted annually to the M.D. program and approximately three hundred fifty students are enrolled in Ph.D. or Master's degree study in twenty 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 single baccalaureate degree in radiation therapy technology is offered in the Department of Radiation Oncology.

Continuing education programs, seminars and colloquiums serve the faculty and students of the School as well as professionals throughout the community as a resource for current and ongoing developments in the health sciences. In addition to degree programs, the School offers courses in many basic medical science disciplines which are appropriate for students in other Colleges and Schools of the University. Non-degree enrollment in basic science courses at the graduate level is permitted on a limited basis for qualified students.

Research focusing on human health is the foundation of the activities in the School of Medicine. Fundamental and applied research in biomedical sciences, clinical specialties, and health care systems is directed by faculty of the School. Research programs at the School are supported by over 100 million dollars annually through research grants, contracts and gifts. Members of the faculty serve on scientific boards, panels, study groups and in professional leadership roles in health care regionally, nationally and internationally. The research facilities of the School are modern, well-equipped and continually growing with the pace of current technological advances.

The clinical services provided by the faculty, post-graduates and students in the School are rendered predominantly through the Detroit Medical Center institutions. Through a master affiliation between the Detroit Medical Center (DMC) and Wayne State University, the DMC serves as the University's academic health center. The DMC owns and operates seven hospitals, two nursing centers, and more than 100 outpatient facilities throughout southeastern Michigan, and is affiliated with the Barbara Ann Karmanos Cancer 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, making the Wayne State University School of Medicine the largest single campus medical school in the country, and the fourth largest overall.

Wayne State University Medical School Facilities

Gordon H. Scott Hall is the main education building for the School of Medicine. It provides facilities for pre-clinical and basic science education, basic science Departments, research laboratories for basic and clinical programs and the administrative offices of the School.

The Helen Vera Prentis Lande Medical Research Building houses research laboratories for clinical and basic science faculty.

The Vera P. Shiffman Medical Library, located adjacent to Scott Hall, houses a full medical reference library, as well as computer instruction facilities.

The Louis M. Elliman Clinical Research Building provides research laboratories, experimental surgical suites and specialized research facilities for the Departments of Internal Medicine, Surgery, Pediatrics, and Neurology.

The C. S. Mott Center for Human Growth and Development provides research space for programs in human reproduction, growth and development.

The Hudson-Webber Cancer Research Center is the translational facility research flagship for WSU 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;

Huron Valley-Sinai Hospital, located in a northern suburb, is also operated by the DMC, and provides community hospital inpatient and outpatient services;

Hutzel Hospital, which includes among its areas of excellence: obstetrics, gynecology, gynecologic oncology, ophthalmology, neonatology, perinatology, and orthopedic surgery;

Rehabilitation Institute of Michigan, which uses an interdisciplinary approach to help physically disabled persons reach their maximum level of independence;

Kresge Eye Institute of Wayne State University, housed in Hutzel Hospital, which is a major center for research and treatment of eye diseases;

Barbara Ann Karmanos Cancer Institute, which provides comprehensive cancer prevention, screening, diagnostics, treatment and supportive care to more than 10,000 new patients annually, and is one of only thirty-two federally-designated comprehensive cancer centers in the country.

Gershenson Radiation Oncology Center, which provides technologically advanced radiation oncology services for all Medical Center facilities. Unique services include neutron therapy, Gamma Knife procedures, and total body irradiation.

Shiffman Medical Library — School of Medicine 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 WSU 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 WSU OneCard can be used to enter the library automatically. All persons are welcome to use the library for library research, health information seeking, or educational purposes. Online and off-site access to the digital information resources of the Medical Library and all University libraries require the University AccessID. Call the Library Help Desk (313-577-1094) or consult the School Web page for instructions for accessing electronic biomedical information.

The School of Medicine and the Shiffman Medical Library offer the Medical Students' Study, which provides a twenty-four-hour, seven day per week quiet study location. Two learning resource centers with sixty-five networked computers and an array of computer-based instructional software are available in support of School curricula. A student advisory group solicits ideas and advice. Faculty place course material on reserve at the Library's circulation desk, which also maintains copies of textbooks, software manuals, and media.

Office of Student Affairs

Assistant Dean for Student Affairs: Kertia Black, M.D.

This office provides academic, career, and personal counseling services; financial aid counseling; tutorial services; a special study skills consultation service; and support for student government and organization activities. The staff is committed to assisting students in every way possible as they work toward M.D. degrees. These programs are part of the School's commitment to provide each matriculant with support services so that the rigorous educational program can be presented within as comfortable an environment as possible.

SERVICES

Health Services: Acute health care for medical students is available in the Primary Care Center of the University Health Center.

Counseling: Appointments for academic, personal and career counseling can be arranged through the Office of Student Affairs.

Academic Resources Counseling: A specialist in techniques designed for the medical curriculum is available to all students seeking to improve and/or enhance their academic performance. Individual tutoring services are available as well as group review sessions.

Development and Alumni Affairs

Office: 101 E. Alexandrine

Telephone: 313-577-1495; *Alumni Telephone:* 313-577-3587

Executive Director of Development and Alumni Affairs: David Lepper
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: 101 E. Alexandrine

Director: Kathleen Fitzgerald

The Office of Public Affairs and Publications is responsible for the communications and public relations programs for the School. The Office publishes alumni and faculty newsletters, a research magazine, an annual report and a variety of collateral publications. In addition, the Office conducts media relations and promotional activities and serves as an information resource regarding faculty, student and alumni achievement related to research, clinical care, and medical education.

Undergraduate-level Service Courses in Physiology (PSL)

3220 Fundamentals of Human Physiology. Cr. 4

Prereq: high school physics, chemistry, or physical science elective; BIO 1030. Survey of fundamental physiological processes designed for upper-class undergraduate students. (Y)

3230 Discussions in Physiology. Cr. 1

Prereq. or coreq: PSL 3220. Discussion and questions about lecture material presented in PSL 3220. (Y)

DEGREE AND CERTIFICATES

Undergraduate

BACHELOR OF SCIENCE in Radiation Therapy Technology

Graduate

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.

**DOCTOR OF MEDICINE*

**DOCTOR OF PHILOSOPHY with major in:*

- Anatomy and Cell Biology
- Biochemistry and Molecular Biology
- Cancer Biology
- Cellular and Clinical Neurobiology
- 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
- Rehabilitation Sciences

**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 DIRECTORY

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

External Affairs: 1128 Scott Hall; 313-577-1495

Develp. & Alumni Affairs: 101 E. Alexandrine; 313-577-1495

Public Affairs: 101 E. Alexandrine, Suite 101; 313-577-1429

Information: 1102 Scott Hall; 313-577-1460

M.D. Programs

Admissions: 1310 Scott Hall; 313-577-1466

Academic and Student Prgms.: 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

Medical Center Affairs: 9C University Health Ctr.; (313) 745-5194

Personnel Office: 154 Lande Bldg; 313-577-1163

Ph.D. and M.S. Programs: 3270 Scott Hall; 313-577-1455

Radiation Therapy Technology: 1st Level, Univ. Health Center, Detroit Medical Center; 313-577-1137

Research Administration: 1261 Scott Hall; 313-577-9553

Residency:

Grad. Med. Education: 9C Univ. Health Center; 313-745-5146

Sponsored Programs Admin.: 1128 Scott Hall; 313-577-1455

Website: <http://www.med.wayne.edu/>

Mailing address for all offices: School of Medicine, Wayne State University, 540 East Canfield, Detroit, Michigan 48201



* For specific requirements, see the Wayne State University Graduate Bulletin.

RADIATION THERAPY TECHNOLOGY

Office: First Level, University Health Center, Detroit Medical Center;
313-577-1137

Program Director: Diane K. Chadwell

Chairperson, Radiation Oncology Department: Andrew T. Turrisi, III

Assistant Professor

Diane K. Chadwell

Senior Lecturer

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 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 32. Application forms are available from the Office of Admissions, University Welcome Center. Students should consult with the University Advising Center, 1600 Adamany Library, regarding course selection. Students are urged to seek additional career advisement from the Radiation Therapy Technology faculty early in their preprofessional program.

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, typing, 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).

First and Second Years

BIO 1500 -- Basic Life Diversity: Cr. 4
BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
BIO 2870 -- Anatomy and Physiology: Cr. 5
CHM 1020 -- (PS) Survey of General Chemistry: Cr. 4
COM 1010 -- (OC) Oral Communication: Basic Speech: Cr. 3
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
ENG 3010 -- (IC) Intermediate Writing: Cr. 3
MAT 1800 -- Elementary Functions: Cr. 4
PHY 2130 -- (PS) General Physics: Cr. 3
PHY 2131 -- General Physics Laboratory: Cr. 1
PHY 2140 -- General Physics: Cr. 3
PHY 2141 -- General Physics Laboratory: Cr. 1
PSY 1010 -- (LS) Introductory Psychology: Cr. 4
PSY 2300 -- Psychology of Everyday Living: Cr. 4
UGE 1000 -- (GE) Information Power: Cr. (1)
American Society & Institutions (AI) Elective¹: Cr. 3
Foreign Culture (FC) Elective¹ (by Competency Exam or course): Cr. (3)
Historical Studies (HS) Elective¹: Cr. 3
Humanities (VP,PL) Electives¹: Cr. 6
Computer Literacy (CL) Competency¹ by Competency Exam or course: Cr. (3)
Critical Thinking (CT) Competency¹ by Competency Exam or course: Cr. (3)
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.

1. General Education Group Requirements.

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 and a meeting with a faculty member is an admission requirement. Prospective students are urged to contact the program as early as possible in their University studies (313-577-1137).

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 wishing to apply to the professional program must comply with 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 form with a copy of the student's Wayne State transcript attached. *Mail completed form and Wayne State transcript to:* Program Director, Radiation Therapy Technology, Department of Radiation Oncology, First Level, University Health Center, Detroit Medical Center, Wayne State University, Detroit MI 48201.
4. Submission of *official* transcripts from all college institutions attended (other than Wayne State).
5. Meeting with a program faculty member to discuss the career of radiation therapy technology. This visit should be completed as early in the preprofessional program as possible. Call 313-577-1137 to make an appointment.
6. Completion of two clinical visits to affiliate institutions for the program. Call 313-577-5711 to make an appointment. Submission of two reference forms (included in the application packet available from University Advising Center or from the Program): one from an employer/supervisor and one from a college professor/adviser.
7. Submission of two reference forms (included in the application packet available from University Advising Center or from the Program): 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 information 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.

Application packets, including an application form, reference forms, and current procedural guidelines, are available from University Advising or the Radiation Therapy Technology Program.

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 indicated on the respective forms.

Application Review: All applications will be reviewed for completeness. The Admissions Committee will interview all qualified applicants with completed applications submitted by the deadline date. A number of criteria will be evaluated, including academic achievement

and personal qualities. Admission interviews are typically conducted in May of each year. 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 Technology Therapy must complete a minimum of 124 credits, plus sufficient credits to fulfill the University General Education Requirements (see page 16) not satisfied by either required courses or the student's choice of electives. The total course work will be distributed between two years of preprofessional courses (see above) and the two-year professional program as outlined below. Courses in the professional program are taken in the School of Medicine. 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 Radiation Oncology, Wayne State University; telephone: 313-577-1137; Fax: 313-577-0908.

PROFESSIONAL PROGRAM

Third Year

- NUR 2030 -- Pathophysiology Related to Nursing Practice: Cr. 2
- 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: 31

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 pre-professional 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. For interpretation of numbering system, signs and abbreviations, see page 479.

3000 Concepts of Clinical Care. Cr. 3

Procedures and ethics related to the care and examination of the radiation oncology patient. Topics include: basic pharmacology, drug administration, pain management, treatment side effects and their management. Material Fee As Indicated In The Schedule of Classes (F)

3010 Introductory Radiation Physics. Cr. 3

Basic introduction of radiation physics, including the x-ray machine, physical principles and circuitry; principles of mathematics. (F)

3020 Clinical Radiation Physics. Cr. 3

Prereq: R T 3010. Principles of radiation exposure; radiation producing and measuring devices; clinical application of radiation physics. (W)

3110 Clinical Aspects of Radiation Therapy. Cr. 3

Basic concepts in oncology and radiation therapy technology. Topics include: cancer statistics, neoplasia, and principles of treatment and dosage. (F)

3140 Topographic Anatomy and Medical Imaging. Cr. 3

Procedures for imaging human structure and their relevance to radiation therapy; topographic and cross sectional anatomy, identification of anatomic structures as demonstrated through various imaging modalities and human anatomy lab sessions; fundamentals of radiographic exposure techniques and film processing. Material Fee As Indicated In The Schedule of Classes (W)

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 (S)

3200 Therapeutic Interactions in Oncology Care. Cr. 2

Open only to radiation therapy technology students. Issues related to professional interaction with oncology patients. Impact of cancer diagnosis on patient and family; subsequent role of radiation therapist. Approaches to effective communication. Material Fee As Indicated In The Schedule of Classes (S)

3310 Clinical Practicum I. Cr. 3

Introduction to clinical radiation therapy. Closely supervised patient-related activities. Emphasis on development of interpersonal communication skills in the clinical setting; medical terminology. (F)

3320 Clinical Practicum II. Cr. 4

Prereq: R T 3310. Closely supervised practice in the delivery of prescribed doses of radiation utilizing common radiation equipment. Observation and performance of clinical care procedures; Development of communication skills in patient/therapist relationships. Correlation of medical imaging techniques to diagnostic workup and treatment planning. Completion of clinical competency requirements. (W)

3330 Clinical Practicum III. Cr. 4

Prereq: R T 3320. Expanded supervised practice in the delivery of radiation therapy treatments. Submission of essay on radiation oncology topic. Completion of clinical competency requirements. (S)

4110 Clinical Radiation Oncology. Cr. 4

General presentation of malignant conditions, their etiology and methods of treatment; specific radiation treatment methodology including technical parameters of field size and direction, dosage, blocking, and patient positioning. Material Fee As Indicated In The Schedule of Classes (F)

4120 Basic Clinical Dosimetry. Cr. 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 bioethical issues which influence professional practice. Material Fee As Indicated In The Schedule of Classes (W)

4300 Quality Assurance. Cr. 2

Open only to radiation therapy technology students. Principles and application of a comprehensive quality assurance program, addressing general clinical and physics factors. Contents include: tasks to be performed, with their frequency and acceptable limits; model implementation program; and legal implications. Lecture and laboratory settings. Material Fee As Indicated In The Schedule of Classes (S)

4350 Clinical Practicum IV. Cr. 4

Prereq: R T 3330. Continued supervised practice in a wide spectrum of clinical activities. Submission of a critical bibliography from current literature of radiation therapy, cancer management and related areas. Completion of clinical competency requirements. (F)

4360 (WI) Clinical Practicum V. Cr. 4

Prereq: R T 4350. Continued clinical practice under limited supervision. Submission of essay on radiation oncology topic. Completion of clinical competency requirements. Satisfies the University General Education Writing Intensive Course in the Major requirement. (W)

4370 Clinical Practicum VI. Cr. 4

Prereq: R T 4360. Continued clinical practice under minimal supervision. Practice of procedures related to the development of various treatment plans and methods of treatment planning. Submission of report on quality assurance activities. Completion of clinical competency requirements. Material Fee as indicated in the Schedule of Classes (S)



DOCTOR OF MEDICINE

Educational Goals

Our goals are for all graduates to be:

- knowledgeable in the basic science and clinical aspects of medicine and in the application of these principles;
- committed to the pursuit of excellence in all of their professional activities;
- well-grounded in the humanistic aspects of health care;
- well-prepared for future training for careers in patient care, health service, teaching or research;
- skilled in self-education;
- committed to continuing education;
- aware of their limitations throughout their careers;
- equipped to understand future developments, and to be effective problem-solvers in patient care, health care delivery systems, and other fields of medicine.

Admission and Registration — M.D.

Assistant Dean for Admissions: Silas Norman, Jr., M.D.

The School of Medicine currently accepts 256 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. 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 admissions 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.

Requirements for Entrance

The Medical College Admission Test (MCAT) is required, in addition to a baccalaureate degree or its equivalent; however, the Committee on Admissions is prepared to review the records of third-year students with unusual academic attainment. The MCAT should be taken during the year of application, preferably in the spring. 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.

You must be a US or Canadian citizen or US permanent resident to be eligible for admission.

Curriculum

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 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, embryology, and radiology), 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 is an elective year including emergency medicine, a subinternship, and an ambulatory block month.

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 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 LCME-approved medical schools may be admitted with advanced standing to the second and third years only, subject to the number of vacancies which may exist in the second and third years. 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 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 USMLE, Step I, for consideration to transfer with advanced standing into Year Three.

Diversity and Integrated Student Services

Director: Julia M. Simmons, M.A.

This unit is responsible for assisting in maintaining a representative enrollment of minority students through a combination of advising, counseling, and academic programs for high school, college, and post-baccalaureate students. At the undergraduate level, advising and counseling is available to premedical students through the minority premedical office. The Post Baccalaureate Program for disadvantaged students offers a one-year med-prep experience to a select group of qualified medical school applicants. The program guarantees admission to the School of Medicine for students who perform satisfactorily in the program.



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

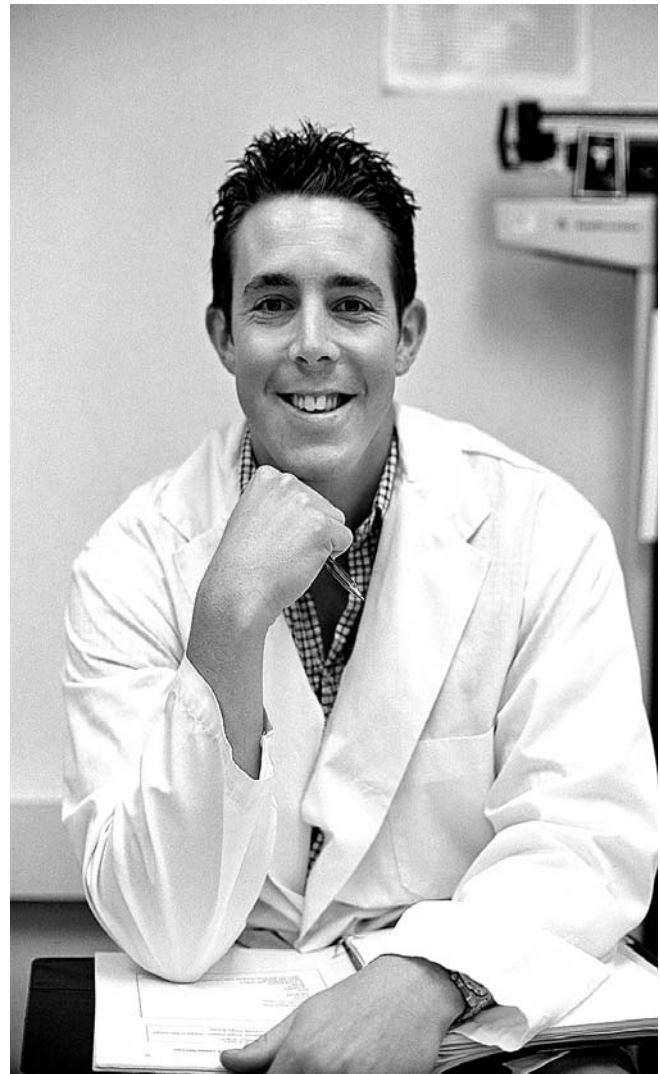
**MASTER OF SCIENCE in Nursing — with a clinical major in:*

- 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*



*For specific requirements, see the Wayne State University Graduate Bulletin.

ADMINISTRATION and FACULTY

Dean: Barbara Redman
Associate Dean, Academic and Clinical Affairs: Stephen Cavanagh
Associate Dean, Research: Judith Floyd
Interim Assistant Dean, Adult Health: Jean Davis
Assistant Dean, Family, Community, and Mental Health:
Naomi Ervin
Interim Director, Office of Student Affairs: Janet Harden
Assistant to the Dean: Mercedes Wolfe
Administrative Manager: Therese Kummer
Academic Staff: Felicia Grace, Jane Helinski, Lisa Lockhart

Professors

Karen Aroian, Nancy Artinian, Stephen Cavanagh, Judith Floyd, Helene Krouse, Marilyn Oermann, Barbara Pieper, Barbara Redman, Virginia Rice

Associate Professors

Jean Davis, Mary Denyes, Naomi Ervin, Ingvarda Hanson, Linda Lewandowski, Thomas Templin (research), Deborah Walker (clinical), Olivia Washington, Feleta Wilson

Assistant Professors

Ramona Benkert, Joan Bickes (clinical), Ann Collins (clinical), Cynthia Danford, Marie Draper Dykes, Margaret Falahee (clinical), Judith Foulad-bakhsh (clinical), Mary Hoes, Patricia Jarosz, Judith McComish, Daphne Nedd (clinical), Rosalind Peters, D. Martin Raymond, Janna Roop (clinical), Christine Saltzberg (clinical) Stephanie Schim, Patricia Thornburg (clinical), April Vallerand, Linda Weglicki

Clinical Instructors

Joanne Ashare, Heidi Bednarz, Suzanne Billingsley, Darlene Blair, Doris Denison, Diane Featherston, Dianne Hayward, Kathryn Keves-Foster, Kathleen Kowalewski, Karen Malmsten, Kelli Miller, Margie Miller, Barbara Moore, Linda Sikora, Susan Szczesny, Sue Webb, Mary White, Kathleen Zimnicki

Lecturers

Janet Harden, Nancy George, Barbara Williams

COLLEGE DIRECTORY

Dean: 112 Cohn; 313-577-4070
Associate Dean for Academic & Clinical Affairs: 230 Cohn
313-577-4138 and: 800-544-3890
Associate Dean for Research: 319 Cohn; 313-577-4135
Assistant Dean, Adult Health: 376 Cohn; 313-577-4144
Assistant Dean, Family, Community & Mental Health
242 Cohn; 313-577-4119
Office of Student Affairs: 10 Cohn; 313-577-4082 and 888-837-0847
Center for Health Research: 315 Cohn; 313-577-4134
Administrative Manager: 100 Cohn; 313-577-4086
Mailing address for all offices: College of Nursing, Wayne State University, 5557 Cass Avenue, Detroit, Michigan 48202
Web: <http://www.nursing.wayne.edu>

BACHELOR OF SCIENCE IN NURSING

The undergraduate program is designed to prepare students upon graduation to begin the practice of professional nursing. The program leads to the degree of Bachelor of Science in Nursing (BSN) and provides a basis for graduate study in nursing. This curriculum consists of courses in both general and professional education. Program options include: Traditional, Second Career/Second Degree, RN Completion, and RN-MSN Programs.

Professional Program Admission

TRADITIONAL: Applicants are eligible to apply to the Traditional Program if they are entering nursing for the first time and have completed the pre-nursing requirements (see below). The Traditional Program of study begins during the Fall term of the sophomore year. Students are eligible to apply for entry into the professional program after having completed at least thirty credits which include specific prerequisite courses, as outlined below, with a grade of 'C' (2.0) or better in each course. Applicants must have a minimum grade point average of 2.5 in the science prerequisite courses and a minimum 2.5 grade point average in all prerequisite courses to be *eligible* for admission consideration. If any professional nursing courses have been taken, grades earned in those courses will become part of the admission grade point average. Admission to the program is highly competitive and is based in large part on the grade point average earned in the prerequisite courses; therefore, the higher the average, the greater the likelihood of admission. The applicant's academic record indicating ability to pursue a full-time rigorous professional program is part of the admission criteria. All applicants are required to complete a professional goal statement as part of the admission process. Goal statements are evaluated as well as scholastic achievement as part of the admission criteria.

SECOND CAREER/SECOND DEGREE: Applicants are eligible to apply to the Second Career/Second Degree Program if they have an earned baccalaureate degree from an accredited institution in a discipline other than nursing and are entering nursing education for the first time. This is an accelerated, full-time program beginning in the Fall term for four consecutive semesters. Applicants are eligible to apply for entry into the program after completing the prerequisite courses (see below) with a grade of 'C' (2.0) or better in each course. Applicants must have a minimum of 2.5 grade point average in the science prerequisite courses and a minimum 2.5 grade point average in all prerequisite courses to be eligible for admission consideration. If any professional nursing courses have been taken, grades earned in those courses will become part of the admission grade point average. Admission to the program is highly competitive and is based in large part on the grade point average earned in the prerequisite courses; therefore, the higher the average, the greater the likelihood of admission. The applicant's academic record indicating ability to pursue a full-time rigorous professional program is part of the admission criteria. All applicants are required to complete a professional goal statement as part of the admission process. Goal statements are evaluated as well as scholastic achievement as part of the admission criteria.

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 programs and wish to continue their professional education.

Progression into senior year professional nursing courses is granted after completion of all prerequisite courses.

RN-MSN PROGRAM: Applicants are eligible to apply to the RN-MSN Program if they are Michigan licensed registered nurses and are interested in preparing for advanced nursing practice at the master's level. The RN-MSN Program combines courses in the baccalau-

reate 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 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 courses. Students must have a grade point average of at least 3.0 and meet with the graduate program director of their major interest prior to taking any graduate level course.

Admission to the M.S.N. portion of the program is a separate application process and students must meet all College of Nursing and Graduate School admission requirements for graduate study. (See Wayne State University Graduate Bulletin for details.) This process begins at the start of senior level professional course work. Completion of the Bachelor of Science in Nursing does not automatically guarantee admission to graduate study in the College of Nursing.

Presidential Scholars: Wayne State University Presidential Scholars are admitted directly to the College of Nursing as freshmen or transfer students. Presidential Scholars must satisfactorily complete all Traditional Program prerequisite courses (see below) prior to applying to the professional nursing component beginning in the sophomore year (Fall term) and must maintain Presidential Scholarship standards, including a grade point average of 3.0 or above. They must also apply directly to the College to begin the professional component of the program and meet program application deadlines.

Application

Admission to the Bachelor of Science in Nursing programs is a two-step process.

Step I — Application to Wayne State University: Applicants must submit the following items to the Office of University Admissions: the *Application for Undergraduate Admission*, application fee, official transcripts from all post-secondary institutions attended, and a copy of current Michigan RN license (if applicable). Applicants must meet all the general requirements for undergraduate admission to the University (see page 32). International applicants must also achieve a minimum score of 550 on the Test of English as a Foreign Language (TOEFL) and submit all other required documentation (see 'International Students,' page 34).

Step II — Application to the College of Nursing: Applicants must submit to the College of Nursing Office of Student Affairs the *Application for Admission to the Bachelor of Science in Nursing Program*, and a formal copy of all transcripts from all post-secondary institutions attended.

APPLICATION DEADLINES: All admission materials listed above must be received in the appropriate offices by the program application deadline dates listed below:

TRADITIONAL PROGRAM:

Fall Admission: March 31

SECOND CAREER/SECOND DEGREE PROGRAM:

Fall Admission: March 31

Evidence of completion of all course prerequisites must be documented with official transcripts and received by the College of Nursing, Office of Student Affairs, no later than June 1.

RN COMPLETION and RN-MSN 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.

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 community colleges or universities and apply for admission to the College of Nursing. Students 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 curricula 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 to the B.S.N. degree.

Pre-Nursing Requirements

NOTE: In the following curricula all sciences must include a laboratory component.

TRADITIONAL PROGRAM: The pre-nursing requirements for admission into the Traditional Program are completion of a minimum of thirty credits, including satisfaction of the Mathematics Competency (MC) and English Proficiency Exam (EPE) requirements of the General Education Requirements, and completion of the following courses with a grade of 'C' (2.0) or better. (Science prerequisites are indicated by an asterisk (*).)

BIO 1510 -- (LS) Basic Life Mechanisms (Laboratory): Cr. 4*

BIO 2200 -- (LS) Introductory Microbiology: Cr. 4*

BIO 2870 -- Anatomy and Physiology (Laboratory): Cr. 5*

CHM 1020 -- (PS) Survey of General Chemistry (Laboratory): Cr. 4*

CHM 1030 -- Survey of Organic/Biochemistry (Laboratory): Cr. 4*

ENG 1020 -- (BC) Introductory College Writing: Cr. 4

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

Mathematics Competency (MC) Requirement

English Proficiency Exam (EPE)

The Mathematics Competency (MC) requirement and English Proficiency requirement may be satisfied by examination (see General Education Requirements, page 16). All applicants must have a minimum 2.5 grade point average in the science prerequisite courses (indicated by an asterisk) and a minimum 2.5 grade point average in all other prerequisite courses to be eligible for admission consideration. If any professional nursing courses have been taken, grades earned in those courses will become part of the admission grade point average. Since admission to the program is competitive, the higher the grade point average, the greater the likelihood of admission.

SECOND CAREER/SECOND DEGREE PROGRAM: The pre-nursing requirements for admission into this program include completion of a baccalaureate degree from an accredited institution, and completion of the following courses with a grade of 'C' (2.0) or better. (Science prerequisites are indicated by an asterisk (*).)

ANT 2100 -- (SS) Introduction to Anthropology: Cr. 3

BIO 1510 -- (LS) Basic Life Mechanisms (Laboratory): Cr. 4*

BIO 2200 -- (LS) Introductory Microbiology (Laboratory): Cr. 4*

BIO 2870 -- Anatomy and Physiology (Laboratory): Cr. 5*

CHM 1020 -- (PS) Survey of General Chemistry (Laboratory): Cr. 4*

CHM 1030 -- Survey of Organic/Biochemistry (Laboratory): Cr. 4*

NFS 2210 -- Human Nutrition: Cr. 3

PSY 2400 -- Developmental Psychology: Cr. 4

One Sociology (SOC) course: Cr. 3

OR One Foreign Culture or Cultural Anthropology (FC) course: Cr. 3

Philosophy and Letters (PL) OR Visual & Performing Arts (VP) course: Cr. 3

All applicants must have a minimum 2.5 grade point average in the prerequisite science courses (indicated by an asterisk) and a minimum 2.5 grade point average in all other prerequisite courses to be eligible for admission consideration. If any professional nursing courses have been taken, grades earned in those courses will become part of the admission grade point average. Since admission to the program is competitive, the higher the grade point average, the greater the likelihood of admission.

Enrollment in Professional Nursing Courses

1. **Admission** to the College of Nursing and fulfillment of all prerequisites/corequisites identified for nursing courses.

2. **Health Status Report:** Students admitted to the College are required to have a *Health Clearance Form* on file in 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. Some health care agencies require a urine drug screen. Verification of compliance must be supplied annually to the Office of Student Affairs prior to August 15 for clinical courses beginning Fall Term. Throughout the program students must maintain a level of health consistent with meeting the objectives of the curriculum and practicing nursing safely. If a health problem occurs during a student's educational program, the faculty member responsible for clinical practice will assess the student's ability to continue in the program and will make recommendations for action to the Associate Dean for Academic and Clinical Affairs. The University and the College reserve the right to refuse or cancel a student's admission or to restrict his/her activities in the College if the health status indicates such action is warranted for safeguarding the patient, the student, other students, or the University.

3. **Liability Insurance:** The minimum amount of malpractice liability insurance acceptable is \$1,000,000/\$3,000,000 to cover each year of the student's nursing studies. Each student is to present a copy of his/her 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 History:** Students admitted to the College of Nursing are required to have a Criminal Background Investigation prior to beginning clinical nursing courses. The Criminal Background Investigation indicates that the student has not been convicted of a felony in the 15 years prior to application nor been convicted 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 would prohibit 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 course work prerequisite 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

Each student is to register at the beginning of each semester according to the procedures and schedules published in the official University Schedule of Classes, available online at: <http://www.classschedule.wayne.edu>. Students may not attend classes unless they are officially registered. The usual full-time undergraduate program is 12-16 credits per term.

DEGREE REQUIREMENTS

Candidates for the Bachelor of Science in Nursing must complete 126 credits in course work including satisfaction of the University General Education Requirements (see page 16) and in accordance with the academic procedures of the University and the College; see sections beginning on pages 43 and 392.

Residency: The last thirty credits of the degree must be taken at Wayne State.

Grade Point Average: A student 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 the curriculum and program requirements, remove any marks of 'I' or 'Y', and be recommended by the faculty for the degree. The student must complete the required minimum number of credits, elect courses in the proper sequence in the appropriate curriculum (as shown below), and satisfy any course prerequisite or corequisite.

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-three 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

Satisfaction of Mathematics Competency (MC) Requirement

Satisfaction of English Proficiency Examination Requirement

Total credits: 20

Sophomore Year

First Semester (Fall)

NUR 2010 -- Health Assessment: History Taking & Physical Exam: Cr. 4

NUR 2030 -- Pathophysiology Related to Nursing Practice: Cr. 2

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: 12-15

Second Semester (Winter)

NUR 2050 -- Supportive Measures for Basic Care Needs: Cr. 5

NFS 2030 or NFS 2210

-- Nutrition and Health: Cr. 3

-- Human Nutrition: Cr. 3

Computer Literacy (CL) proficiency (NUR 1110 recommended): Cr. 0-2

Oral Communication (OC): Cr. 0-2

Philosophy and Letters (PL): Cr. 3

Total credits: 11-15

Junior Year

First Semester (Fall)

NUR 3010 -- Restorative Care of Adults & Elders with Acute Illness: Cr. 5

NUR 3015 -- Restorative Care: Psychiatric Mental Health Nur: 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) Community Focused Nursing Practice: Cr. 6

Historical Studies (HS): Cr. 3

Total credits: 16

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 388) the following professional educational courses are required, in addition to a minimum of sixty-three credits in prior baccalaureate and pre-nursing requirements:

First Semester (Fall)

NUR 2010 -- Health Assessment: History Taking & Physical Exam: Cr. 4

NUR 2030 -- Pathophysiology Related to Nursing Practice: Cr. 2

NUR 2050 -- Supportive Measures for Basic Care Needs: Cr. 5

NUR 2060 -- Nursing Implications of Drug Administration: Cr. 3

NUR 2995 -- Special Topics in Foundations of Professional Nursing: Cr. 3

Total credits: 17

Second Semester (Winter)

NUR 3010 -- Restorative Care of Adults and Elders With Acute Illness: Cr. 5

NUR 3015 -- Restorative Care: Psychiatric Mental Health Nur: 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 -- Legal, Ethical & Health Policy Issues: Cr. 2

NUR 4120 -- (WI) 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 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.

The following courses are required for progression into Senior Year:

BIO 1510 -- (LS) Basic Life Mechanisms (Laboratory): Cr. 4

BIO 2200 -- (LS) Introductory Microbiology: Cr. 4

BIO 2870 -- Anatomy and Physiology (Laboratory): Cr. 5

CHM 1020 -- (PS) Survey of General Chemistry (Laboratory): Cr. 4

CHM 1030 -- Survey of Organic/Biochemistry (Laboratory): Cr. 4

ENG 1020 -- (BC) Introductory College Writing: Cr. 4

ENG 3010 -- (IC) Intermediate Writing: Cr. 3

NUR 2010 -- Health Assessment: History Taking & Physical Exam: Cr. 4

NUR 2070 -- Professional Nursing in the Future: Health Strategies: Cr. 3

NUR 3400 -- Intro. to Nursing Research: Cr. 2

NUR 4300 -- Nursing Informatics: Cr. 3

NUR 4800 -- (FC) Transcultural Health Through the Life Cycle: Cr. 3

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

General Education Requirements: The student must also demonstrate satisfactory completion of the University General Education Requirements (see page 16), including English Proficiency (EP), Mathematics Competency (MC), Critical Thinking (CT), Computer Literacy (CL), Computer Proficiency (CP), 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.**

NUR 4120 -- (WI) Community Focused Nursing Practice: Cr. 6
NUR 4040 -- Leadership and Management in Nursing Practice: Cr. 4
Foreign Culture (FC): Cr. 3
Historical Studies (HS): Cr. 3
Visual and Performing Arts (VP): Cr. 3
Philosophy and Letters (PL): Cr. 3
American Society and Institutions (AI): Cr. 3

RN to M.S.N. Completion Program

All students must achieve grades of 'C' or better in all courses cited below. These courses may NOT be taken for Passed/Not Passed grades. A cumulative University g.p.a. of 2.00 or above must be maintained.

Senior Year

All RN students must file an Application for Progression to the Senior Year by the semester prior to registering for 4000 level clinical nursing courses. The application is available in the Office of Student Affairs. Upon approval of the senior year application, RN students may register for senior year clinical nursing courses and will receive 33 credits for previous nursing education validated by a current license to practice in the state of Michigan.

BIO 1510 -- (LS) Basic Biology I (Laboratory): Cr. 4
BIO 2200 -- (LS) Introductory Microbiology (Laboratory): Cr. 4
BIO 2870 -- Anatomy and Physiology (Laboratory): Cr. 5
CHM 1020 -- (PS) Survey of General Chemistry (Laboratory): Cr. 4
CHM 1030 -- Survey of Organic/Biochemistry (Laboratory): Cr. 4
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
ENG 3010 -- (IC) Intermediate Writing: Cr. 3
NUR 2010 -- Health Assmnt.: History Taking and Phys. Exam.: Cr. 4
NUR 3400 -- Introduction to Nursing Research: Cr. 2
PSY 1010 -- (LS) Introductory Psychology: Cr. 4
PSY 2400 -- Developmental Psychology: Cr. 4
SOC 2000 or ANT 2100
 -- (SS) Understanding Human Society: Cr. 3
 -- (SS) Introduction to Anthropology: Cr. 3
Foreign Culture (FC): Cr. 3
Historical Studies (HS): Cr. 3
Visual and Performing Arts (VP): Cr. 3
Philosophy and Letters (PL): Cr. 3
American Society and Institutions (AI): Cr. 3

General Education Requirements: The student must also demonstrate completion of the University General Education Requirements (see page 16) including English Proficiency (EPE), Mathematics Competency (MC), Critical Thinking (CT), Computer Literacy (CL), Computer Proficiency (CP), Oral Communication (OC).

SENIOR/GRADUATE LEVEL PROFESSIONAL AND GENERAL EDUCATION REQUIREMENTS FOR THE RN TO MSN PROGRAM

In addition to the prerequisites for progression into senior year (listed above), the following senior level professional nursing courses are required.

SENIOR LEVEL PROFESSIONAL REQUIREMENTS

NUR 4040 -- Leadership and Management in Nursing Practice: Cr. 4
NUR 4120 -- (WI) Community Focused Nursing Practice: Cr. 6

RN to MSN 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 these course. 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 guaran-**

teed. 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 6510 -- Health Econ., Policy & Professional Issues for APNs: Cr. 3
NUR 7000 -- Statistics in Nursing: Cr. 3
NUR 7010 -- Research in Nursing: Cr. 3
NUR 7100 -- Theoretical Foundations of Nursing Practice: Cr. 3
NUR 7110 -- Resp. and Experiences in Health and Illness: Cr. 3
NUR 7030 -- Advanced Nursing Assessment: Cr. 4-5

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 'W.'
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 student who is granted an approved leave of absence is assured progression in the program as designated. A student who takes an unauthorized leave of absence will be considered to have voluntarily withdrawn from the program and must apply for readmission to the College.

Licensure Preparation

All students graduating from the Traditional and Second Career/Second Degree Programs must meet the following requirements: As a requirement of graduation, undergraduate students must earn a satisfactory score on a comprehensive exam in the last semester of the program. A satisfactory score is dictated by the comprehensive exam

used and will be identified prior to the beginning of the examination. Each student is expected to complete additional hours in the Learning Resource Center in preparation for this exam. **Each graduating student (who is not already a licensed RN) must attend a NCLEX Review course in preparation for the NCLEX licensure examination immediately following the conclusion of the semester as part of the program requirements. All program requirements must be met before a student can be certified as completing their degree requirements with the State of Michigan Licensing Board.**

Scholarship

1. All students must maintain a satisfactory (2.0) grade point average in both: a) cumulative grades (general education and nursing); and b) professional nursing courses.
2. Students must achieve a 2.0 g.p.a. in each nursing course. A student may not continue in subsequent courses for which the failed course is a prerequisite until a minimum of 2.0 has been achieved.
3. A grade below 'C' (2.0) in a nursing course is unsatisfactory for progression.
4. Students may apply to repeat a nursing course, as space is available, only once to raise the grade to the 2.0 level or above.
5. A maximum of two nursing courses 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 two professional nursing courses;
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 credits of the degree must be taken as resident credit 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 31.

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 47.)

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. (See also Exclusion, above.)

Student Rights and Responsibilities for the University: see page 45.

Financial Assistance

The University Office of Scholarships and Financial Aid, located in the Welcome Center (see page 41), 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 Morrisey 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.

The Alumni Association of the College of Nursing is composed of graduates, faculty and former students of the College. This group is part of the general University Alumni Association, but has its own organization. Its purpose is to keep members in close touch with College activities and with professional developments, and to work for the welfare of the College of Nursing.

Employment Opportunities for Students

Part-time employment opportunities are available both on and off campus for students. Information about these and other opportunities may be obtained from Career Planning and Placement, 1001 Faculty/ Administration Building.

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 479.

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 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. 4

Prereq: admission to the College of Nursing or RN licensure in Michigan; anatomy and physiology course. Foundational learning experience for performing comprehensive health assessments of individuals in the context of family and community. Included are theory and skill in health history-taking, physical examination, and mental health screening of children, adults, and elders. Material fee as indicated in the Schedule of Classes (T)

2020 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 Pathophysiology Related to Nursing Practice. Cr. 2

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. (T)

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 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 (W)

2060 Nursing Implications of Drug Administration. Cr. 3

Prereq: BIO 2870. Concepts of pharmacotherapeutics across the life cycle: theories of drug actions mediating physiological processes, variables affecting drug actions, and unusual and adverse reactions. Development of nursing role incorporating principles of safe, therapeutic, legal, and ethical principles. Psychological and cultural variations addressed. Contemporary research explored. Pharmacological math competency required. (F,W)

2070 Professional Nursing in the Future: Strategies for Health Promotion. Cr. 3

Prereq: admission to College of Nursing, R.N., BCLS, liability insurance, health clearance. Preparation for professional practice; emphasis on developing knowledge and skills for health promotion within the context of groups and the community. Impact of nursing theories and research on practice, directed toward health promotion issues. Strategies for health promotion; focus on group process and teaching/learning. (Y)

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; prereq. or coreq: ENG 3010. CPR-PR certification, liability insurance, health clearance required. Theory and practice in providing nursing care to adults throughout the lifespan experiencing acute disruptions in living patterns within the context of their families and in a community-based systems of health care. Emphasis on practice within a theoretical framework using research-based interventions. Material fee as indicated in the Schedule of Classes (F,W)

3015 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 announced in Schedule of Classes. (Y)

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,W)

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 (F)

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. (T)

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 promotive, 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 (W,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 preconception to postpartum and newborn in the first month of life. Emphasis on integrative care: health assessment, risk assessment, health promotion, supportive and restorative care of the woman and the family. Exploration of ethical and consumer movement effects on prenatal care. Material fee as indicated in the Schedule of Classes (W,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 announced in Schedule of Classes. (Y)

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 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 (Y)

4060 Legal, Ethical, and Health Policy Issues. Cr. 2

Prereq: senior standing. Integration of legal, ethical, and health policy issues affecting nursing practice; review of nursing content in preparation for licensure. Material fee as announced in Schedule of Classes. (Y)

4120 (WI) 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 announced in Schedule of Classes. (W,S)

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. (Y)

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. (Y)

4990 Directed Study. Cr. 1-4

Prereq: admission to College of Nursing; written consent of Associate Dean for Academic and Clinical Affairs. (T)

6010 Writing for Nursing Publication. Cr. 3

Graduate students prepare to write for nursing and health-care publications; process from beginning the manuscript through publication. (Y)

6510 Health Economics, Policy, and Professional Issues for APNs. Cr. 3

Examination of the major health policy and professional issues relevant to the advanced-practice nurse. Students will be assisted in the synthesis of theoretical and pragmatic aspects of issues of concern in order to develop confidence in their skills and establish an APN practice. (F,W)



EUGENE APPLEBAUM COLLEGE
OF PHARMACY
and HEALTH SCIENCES

DEAN: Beverly J. Schmoll

Foreword

Mission

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.

The College offers a variety of graduate-professional and graduate programs designed to provide advanced-level professional training, basic research, and scholarly activities in the various health science fields. Detailed information on each program may be found in the Departmental sections.

Location

The College is in 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.

Accreditation

Wayne State University is accredited by the North Central Association and all professional programs in the Eugene Applebaum College of Pharmacy and Health Sciences are accredited by their respective agencies (see page 9).



DEGREES

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 HEALTH SCIENCE

- Cytotechnology Concentration
- Occupational Therapy Concentration
- Pharmaceutical Sciences Concentration
- Physical Therapy Concentration

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 with a specialization in Clinical Pharmacy

**MASTER OF PUBLIC HEALTH*

**MASTER OF SCIENCE with majors in*

Occupational and Environmental Health Sciences with concentration in

Industrial Hygiene

Industrial Toxicology

Occupational Medicine

Pharmaceutical Sciences with concentration in

Medicinal Chemistry

Pharmaceutics

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 concentration in

Medicinal Chemistry

Pharmaceutics

Pharmacology/Toxicology

**GRADUATE CERTIFICATE in Analytical Toxicology*

**GRADUATE CERTIFICATE in Occupational Safety*

**GRADUATE CERTIFICATE in Pediatric Anesthesia*

**POST-MASTER'S CERTIFICATE in Industrial Toxicology*

* For specific requirements, see the Wayne State University Graduate Bulletin.

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 Emeritus:

W. Dale Walls

Associate Dean:

Howard Normile; 2627 APHS; 313-577-3270

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:

Stephanie Gebauer: 1631 APHS; 313-577-1716

Michael G. Koltuniak: 1613 APHS; 313-577-1716

Carol Meier: 1619 APHS; 313-577-1716

Jennifer Moore: 1621 APHS; 313-577-1716

Director of Enrollment Management and Graduate Officer:

Larry J. Zimmerman: 1637 APHS; 313-577-1716

Registrar Emeritus:

Richard H. Schell

Departments

Applied and Fundamental Sciences:

Peter D. Frade: 102 Mortuary Science; 313-577-2050
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:

Carol Watkins: 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

Physical Therapy:

Susan Talley: 2290 APHS; 313-577-1432

Physician Assistant Studies:

James Frick: 2590 APHS; 313-577-1368

Stephanie Gilkey: 2590 APHS; 313-577-1368

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.

FINANCIAL AID, SCHOLARSHIPS, LOANS, and AWARDS

Students in good academic standing may apply directly for federal financial aids (both scholarship and/or loan programs) at the University Office of Scholarships and Financial Aid, Welcome Center.

Federal Financial Aid awards are available to pharmacy and health science students who demonstrate exceptional financial need as defined by the federal government. Contact the Office of Scholarships and Financial Aid for further information.

Exceptional Financial Need Pharmacy Scholarship: Awards are available to students in pharmacy who demonstrate exceptional financial need as defined by the Federal Government. Contact Office of Scholarships and Financial Aid.

Additionally, the College offers private scholarship and short-term loan funds for students. Students in good academic standing enrolled in the pharmacy curriculum of the College may apply for these funds by completing the Pharmacy Financial Assistance Application form that can be obtained from the College.

Private Scholarships: Information about privately-funded pharmacy scholarships that are administered outside of the College and the University is available from the College. Deadlines for special interest scholarships vary.

Private Scholarships and Awards

Private scholarships are awarded to students in good academic standing, based on recommendations from faculty and criteria determined by the contributors. Based on recommendations from faculty and students, awards are made for outstanding achievement.

American Pharmaceutical Association (APhA) McNeil Mortar and Pestle Dean's Award: A distinctive replica of an antique Revolutionary War mortar and pestle is awarded annually to the graduating student who, in the judgment of the faculty, exhibits exceptional interest, aptitude, and achievement in pharmaceutical administration. The student is eligible for a competitive \$2000 scholarship.

American Pharmaceutical Association (APhA) / 3M Pharmaceuticals Partner for a Healthy Community Scholarship: A \$500 scholarship that recognizes one pharmacist and one full-time pharmacy student in each of the eight APhA/ASP regions who provide leadership and service in the delivery of patient education-based health services programs and are members of APhA. Selection is made by APhA/3M. Application deadline is January 1.

American Pharmaceutical Association / Academy of Students of Pharmacy (APhA/ASP) Senior Recognition Certificate: A framed certificate of commendation is issued annually by the ASP to the graduating student who, upon recommendation of the adviser and an APhA member, has contributed most in developing membership and encouraging participation in the activities of the student chapter of the College.

American Society of Health System Pharmacists (ASHP) Student Leadership Certificate is given to a second professional year pharmacy student who has demonstrated unusual personal and professional development, strong involvement in professional organizations, academic excellence and leadership, and who ranks academically in the upper half of the class.

Fred W. Arnold Endowed Pharmacy Scholarship: An award of \$500 is made to a pharmacy student in recognition of achievement in the pharmacy program.

CVS/pharmacy Award: \$1000 and a commemorative plaque is awarded annually by CVS/pharmacy to a graduating student in recognition of superior achievement in community pharmacy practice.

Sidney Barthwell (Alumni) Pharmacy Scholarship: \$1000 awarded to an African American pharmacy student with desirable qualities of character and leadership.

Alfred Berkowitz Pharmacy Scholarship: An award of \$500 is matched with \$500 from the College account for a total of \$1000 for each student. This scholarship was established to encourage continual progress and to provide financial assistance to students in the College. The scholarship is awarded to students with financial need who demonstrate scholastic achievement and qualities of leadership.

Bristol Myers Squibb Pharmacy Award: An appropriate book is awarded annually to the student who, in the judgment of the faculty, shows the greatest professional growth and excellence in the clinical curriculum. Supported locally by Rich McFarland.

Bristol Myers Squibb Doctor of Pharmacy Clinical Award: An appropriate book is awarded annually to a Doctor of Pharmacy candidate who, in the judgment of the faculty, has shown overall excellence in the clinical practice component of the curriculum. Supported locally by Rich McFarland.

Nettie and Paul C. Deutch (Alumnus) Education Resource Endowed Pharmacy Scholarship: Scholarships of \$1000 are awarded to one or more students to recognize scholarship achievement, encourage continued progress, and provide financial assistance. Recipients must have completed four academic courses as a pharmacy student with a minimum 3.0 g.p.a. This award is intended to help students in financial need who are not eligible for federal, state, or other governmental financial educational assistance.

Paul C. and Nettie Deutch Scholarship: Scholarships of \$1000 are awarded to pharmacy students who have completed a minimum of four academic courses in the professional program with a minimum grade point average of 3.0. The applicant must demonstrate financial need.

Bernard Thomas Downs Pharmacy Scholarship: This \$1000 scholarship was established to assist African American second, third or fourth professional year full-time undergraduate pharmacy students. Recipients are selected on the basis of scholastic achievement with a minimum 2.7 overall grade point average, with qualities of character, leadership, and financial need.

Melvin F. Dunker Award: A distinctive plaque and \$100 is presented to recognize the achievements of a graduating pharmacy student who through diligent, hard work has completed degree requirements having overcome a handicap.

Facts and Comparison Pharmacy Award of Excellence in Clinical Communication: An annual award of copies of Drug Facts and Comparison, American Drug Index, and Professional's Guide to Patient Drug Facts, and a set of marble bookends is presented to a graduating student in recognition of high academic achievement and outstanding clinical communication skills, who ranks academically in the top twenty-five per cent of his/her class.

John Helfman Endowed Pharmacy Scholarship Fund: Established by the estate of John Helfman, an award of \$2500 is made to a Wayne State pharmacy student, on admission to the professional pharmacy program, based on merit and completion of all pharmacy prerequisites at Wayne State University. The scholarship is renewable when student maintains an appropriate g.p.a.

Barbara Jewett Endowed Occupational Therapy Awards are given in the following categories: 1) the Honor Graduate Award recognizes the senior student who, upon completion of his/her academic program, has attained the highest scholarship in the graduating class; 2) Chairperson's Awards are presented to those students who, while in the professional program, demonstrate outstanding accomplishments in occupational therapy scholarship, leadership, or professional interest; 3) a Scholarship Award is presented by the W.S.U.

Occupational Therapy Alumnae Association to a deserving professional student to assist him/her in educational pursuits; 4) a Faculty Award is made to a graduating senior who, while in the professional program, displayed outstanding Departmental involvement; 5) awards in the areas of Professional Interest, and Creative Problem-Solving, and to a Part-Time Student.

Jewish Funeral Directors of America Scholarship: Awarded to a student in the Mortuary Science Program for outstanding achievement.

Robert C. Johnson Scholarship: \$1000 is awarded to a pharmacy student in the final professional year who has a grade point average of at least 2.8, and has demonstrated leadership, qualities of good character, and financial need.

Kappa Psi Graduate Chapter Award: An engraved plaque is awarded annually by the Detroit Graduate Chapter of Kappa Psi Pharmaceutical Fraternity to the graduating student with the highest scholastic average.

Kappa Psi Pharmaceutical Fraternity Grand Council Award: A distinctive recognition key and certificate are awarded by Kappa Psi Pharmaceutical Fraternity to a member of the Fraternity who attains the highest scholastic average in the College graduating class.

Kmart Pharmacy Endowed Scholarship for Excellence in Community Pharmacy: This award recognizes scholastic achievement and qualities of demonstrated leadership to a full-time pharmacy student with a preference for community pharmacy.

Dick Kuchinsky Scholarship: An award of \$300 is made to a pharmacy student entering the second, third or fourth professional year in good academic standing and with demonstrated financial need.

Jack Kutnick (Alumnus) Pharmacy Scholarship: This annual scholarship for graduating pharmacy students was established by alumnus Jack Kutnick to provide a \$100 scholarship to a pharmacy student who has demonstrated financial need, scholastic achievement and desirable characteristics of leadership.

Lambda Kappa Sigma Ruth Davies Flaherty Award: A certificate is presented by the Grand Council of Lambda Kappa Sigma International Pharmaceutical Fraternity for Women to a member of the Omicron Chapter of the Fraternity to recognize outstanding chapter loyalty and service.

Lambda Kappa Sigma Ethel J. Heath Scholarship Key: A distinctive honor key is awarded by Omicron Chapter of Lambda Kappa Sigma International Pharmaceutical Fraternity for Women, to each graduating member in good standing who has attained a cumulative scholastic rank academically in the upper ten percent of all candidates eligible for graduation.

Lambda Kappa Sigma Recognition Key: A recognition key is presented by Omicron Chapter of Lambda Kappa Sigma International Pharmaceutical Fraternity when, in the opinion of the Fraternity, a graduating member has displayed distinguished service to the Fraternity and College, and is in good standing academically and professionally.

The Lilly Achievement Award: Upon recommendation of the faculty, a gold medal encased in a plastic mounting is awarded annually by Eli Lilly and Company, to a graduating student for superior scholastic and professional achievement, leadership qualities, and professional attitude.

Macomb County Pharmacists' Association (MCPA) Pharmacy Scholarship: Award of at least \$500, given to a full-time pharmacy student in good academic standing.

Meijer's Pharmacy Scholarship: \$750 is given to a pharmacy student based on academic achievement and demonstrated interest in community pharmacy.

Merck Award: The Merck Index and The Merck Manual, personally embossed, are awarded annually to two or three graduating pharmacy students for outstanding academic achievement.

Michigan Mortuary Science Foundation Scholarship: A competitive scholarship given to mortuary science students for outstanding achievement.

Michigan Pharmacists' Association (MPA) Dean's Professionalism Award: This annual award is presented to the graduating student selected by the Dean as most likely to achieve leadership in pharmacy practice and advance the ethics and standards of the profession of pharmacy. Awardee is appointed to the MPA Public and Professional Affairs Committee with a complimentary one-year MPA membership.

Michigan Society of Health-System Pharmacists Award: \$100 is given to a pharmacy student who has demonstrated interest in hospital pharmacy, significant academic achievement, and professional extracurricular activity.

Barbara J. Henderson Miller Occupational Therapy Scholarship: A competitive scholarship given to occupational therapy students for outstanding achievement.

Mylan Pharmaceuticals Excellence in Pharmacy Award: A distinctive certificate and a subscription to *Drug Interaction Facts* is presented annually to the graduating pharmacy student who has demonstrated superior proficiency in the provision of drug information services as well as outstanding professional motivation. The recipient must rank academically in the top twenty-five per cent of the graduating class.

National Community Pharmacists' Association (NCPA) Presidential Scholarship: A \$2000 nationally-competitive scholarship, which is based on leadership qualities and academic achievement, awarded by NCPA. Application deadline is in March.

Oakland County Pharmacist Scholarship: An award of \$500 and a handsome engraved plaque are presented to a pharmacy student in accordance with established criteria.

Perrigo Pharmacy Award for Excellence in Nonprescription Medication Studies: An award of \$200 is presented to a graduating student who has excelled in the non-prescription medication course taught in the first professional year, as well as in the non-prescription medication components of community pharmacy externship.

Pfizer U.S. Pharmaceuticals Outstanding Leader Award: Upon recommendation of the practice faculty, a suitably engraved plaque and \$500 is awarded by Pfizer Laboratories to a graduating student who has demonstrated extraordinary leadership abilities.

Pharmacists Mutual Pharmacy Scholarship: \$1000 is awarded to a pharmacy student entering either the second, third, or fourth professional year.

Physical Therapy (PT) Scholarship: An award of at least \$500 is made to a physical therapy student in Professional Year II or Professional Year III of the program. The recipient is selected by the physical therapy faculty on the bases of academic standing in the professional program, financial need, and extracurricular and service activities. A minimum 3.0 g.p.a. in the professional program is required.

Robert Rembisz Memorial Pharmacy Scholarship: An award of approximately \$500 is given to a pharmacy student, in recognition of achievement in the pharmacy program; preference is given to a member of Kappa Psi, Mu Omicron Chapter.

Rite Aid Corporation Endowment Minority Pharmacy Student Scholarship: An award of \$1000 given to a minority student entering final year. Student must be in good academic standing, committed to practicing community pharmacy, and have exhibited good communication and leadership skills.

Rite Aid Pharmacy, Inc., Intern Scholarship: \$1000 is awarded to a graduating Rite Aid intern with the highest scholastic average in the program, to recognize scholastic achievement and to encourage continued progress.

Rite Aid Pharmacy, Inc., Scholarship: \$1000 awarded to a pharmacy student with a grade point average of at least 3.0 and an interest in

community pharmacy, to recognize scholastic achievement. Open to all pharmacy students.

Roche Pharmaceuticals Communications Award: Roche presents an annual award to the graduating student who has demonstrated qualities and abilities necessary to the practice of community pharmacy, to recognize and promote effective pharmacist/patient communication as a vital aspect of pharmacy service.

Smith Kline Beecham Patient Care Award: A plaque is presented annually to a graduating student in recognition of excellent performance during the pharmacy internship, with emphasis on superior patient relations in hospital and community practice.

Southeastern Michigan Society of Health System Pharmacists: \$1000 is awarded to a second, third, or fourth professional year pharmacy student with a grade point average of at least 2.8, an interest in hospital pharmacy, and desirable qualities of character and leadership.

Sarah Stier Memorial Pharmacy Scholarship: Award of approximately \$500, given to a pharmacy student in recognition of superior achievement in the pharmacy program.

Substance Abuse Educator Scholarship: In conjunction with the John Helfman Fund, \$200 is presented to a graduating student who, upon recommendation of faculty and students, has demonstrated active involvement in substance abuse education.

Frank O. Taylor Pharmacy Scholarship: An award of \$1000 is made to one undergraduate and one graduate/professional pharmacy student with an interest in pursuing a career in industrial pharmacy.

TEVA Pharmaceuticals USA Outstanding Student Award: Upon recommendation of the faculty, a plaque and \$100 is awarded by the TEVA Company to a graduating student who excels in the study of pharmacy.

David M. Thornton Memorial Occupational and Environmental Health Sciences (OEHS) Scholarship: Awarded annually for outstanding achievement with an emphasis on industrial safety.

Alexander Wallace III Endowed Scholarship: An award of \$500 is made to a junior year clinical laboratory science or cytotechnology student.

Wal-Mart Stores, Inc., Pharmacy Scholarship: Wal-Mart, Inc., annually awards a \$1000 scholarship to a full-time pharmacy student with high scholastic standing, who has demonstrated outstanding qualities of character and leadership. Emphasis is placed on financial need and a desire to enter community pharmacy practice.

Wayne County Pharmacists Association Scholarships: The members of the Wayne County Pharmacist Association award one scholarship of at least \$500 to a full time second (P2) professional year pharmacy student, and one scholarship of at least \$500 to a full-time third (P3) professional year pharmacy student. Each student must have a core g.p.a. of at least 2.8 and demonstrated involvement in professional activities.

WSU Pharmacy Alumni Scholarship: The pharmacy alumni of Wayne State University award an annual scholarship of at least \$500 to a full-time second (P2) professional year pharmacy student with a g.p.a. of at least 2.8 and demonstrated involvement in professional activities.

Elizabeth Green Wize (Alumna) Scholarship: An award of approximately \$500 to a full-time African American student with a grade point average of at least 3.0, financial need, and an interest in community pharmacy.

Faculty Awards

Roche 'Community Preceptor of the Year' Award: Upon recommendation of the graduating pharmacy students, a suitably engraved plaque is awarded by Roche Pharmaceuticals to a pharmacy practitioner in recognition of outstanding participation in the externship component of the pharmacy curriculum.

Roche 'Hospital Preceptor of the Year' Award: Upon recommendation of the graduating pharmacy students, a suitably engraved plaque is awarded by Roche Pharmaceuticals to a pharmacy practitioner in recognition of outstanding participation in the externship component of the pharmacy curriculum.

WSU First Year Doctor of Pharmacy Faculty Award: Upon recommendation and selection by the first year Pharm.D. class, a faculty member receives the Faculty of the Year Award for outstanding contribution to the class.

WSU Second Year Doctor of Pharmacy Preceptor Award: Upon recommendation and selection by the graduating year Pharm.D. class, a faculty member receives the Preceptor of the Year Award for outstanding contribution to the class.

WSU Third (P3) Professional Year Pharmacy Student Faculty Awards of the Year: Upon recommendation and selection by the graduating class, one or two faculty members receive the Faculty of the Year Award for outstanding contribution to the class.

WSU Second (P2) Professional Year Pharmacy Student Faculty Award of the Year: Upon recommendation and selection by the second professional year class, one faculty member receives the Faculty of the Year Award for outstanding contribution to the class.

WSU First (P1) Professional Year Pharmacy Student Faculty Award of the Year: Upon recommendation and selection by the first professional year class, one faculty member receives the Faculty of the Year Award for outstanding contribution to the class.

Short-Term (Emergency) Loans

Short-term emergency student loans are awarded to pharmacy students in good academic standing. The student is usually obligated to repay the no-interest loan before graduation from the College. For information, contact the Director of Enrollment Management.

Louis Bloch Student Loan Fund: Offers loans to qualified third- or fourth-year professional pharmacy students in good academic standing.

Concord/Wrigley Drugs, Inc., Pharmacy Student Loan: A loan in the amount of \$1000 was established by Alan Stotsky and is awarded annually by Concord/Wrigley Drugs, Inc., to a pharmacy student in good standing with an interest in community pharmacy practice. Recipients have the opportunity for reimbursement through an agreement with Concord/Wrigley Drugs, Inc.

G. Oliver Daniel Pharmacy Student Loan: This fund was established by the family of G. Oliver Daniel for the benefit of African American pharmacy students in good academic standing. The loan is intended primarily for fees, books, and supplies, for not more than two academic semesters.

Robert L. Fleischer Memorial Pharmacy Student Loan: This fund was established by friends of the Fleischer family to honor the memory of Mr. Fleischer, a 1933 pharmacy graduate of Detroit Institute of Technology. It provides financial assistance to pharmacy students in good standing for fees, books and supplies.

Arthur Koorhan Pharmacy Student Loan: Arthur Koorhan is the first recipient of the Harold W. Pratt Award sponsored by the National Association of Chain Drug Stores, Inc. Mr. Koorhan donated the monetary award to the College for loans to pharmacy students who are in good academic standing and need financial assistance for fees, books, and supplies.

Roland T. Lakey Pharmacy Student Loan: A loan fund was established in honor of Dean Emeritus Roland T. Lakey by the Pharmacy Alumni Association, Rho Pi Phi Fraternity, and friends of Dean Lakey. Pharmacy students are eligible for loans from this fund when students have completed twelve credits in the College with a grade point average of at least 2.2.

Bernard J. Levin Pharmacy Student Loan: This fund established in memory of Mr. Levin, a pharmacy graduate of Detroit Institute of

Technology, provides financial assistance to pharmacy students in good academic standing for fees, books and supplies.

Mortuary Science Department Loan: This loan was established by Dr. Mary Lou Fritts-Williams and is available to students in good standing.

Physician Assistant Studies Department Loan: This loan was established as an emergency fund for Departmental students in good standing.

Burton J. Platt Student Loan: This loan was established as a memorial to Mr. Burton J. Platt in February 1975 and is available to students in good academic standing in the Pharmacy program.

Morris Rogoff Student Loan: The family and friends of Mr. Morris Rogoff, a dedicated alumnus of the College, have established a loan fund in his memory. These funds provide financial assistance for pharmacy students and are intended primarily for fees, books and supplies.



FACULTY OF PHARMACY

The Faculty of Pharmacy is the component of the Eugene Applebaum College of Pharmacy and Health Sciences offering a program of professional pharmaceutical education at the undergraduate, graduate and graduate-professional levels. This unit traces its past through two pharmacy colleges. 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, and developing from the six-year course in pharmacy established at Cass Technical High School two years earlier, a new College of Pharmacy was 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 Colleges 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.

Goals of the Faculty of Pharmacy

Wayne State University is committed to the advancement of higher education and the contribution of services and research to the advancement of society. The Faculty of Pharmacy strives toward the achievement of these general goals:

1. To provide for the training, education and professional development of pharmacy students and pharmacists.
2. To foster interdisciplinary, community, University and professional interaction in education, research and community development needs.
3. To foster, conduct and promote applied research and problem-oriented basic research as a vital element of pharmaceutical care.
4. To provide for scholarly development and the dissemination of research findings and scholarly thought.
5. To encourage and support the development of appropriate pharmacist role models for various practice setting.

Pharmacy is a dynamic and essential component of the health care delivery system. Updating the curriculum and responding to the changing needs of society presents an exciting challenge to which the Faculty of Pharmacy has repeatedly responded. To this end, statements, provisions, or regulations contained herein are neither offers nor parts of a contract and the Faculty of Pharmacy reserves the right to change, at any time, any such statements, provision or regulation.

The Profession of Pharmacy

Expanded opportunities for pharmacists in patient-care roles and therapeutic decision-making have occurred as a result of several developments. Like most of the health professions, the practice of pharmacy has experienced profound change during the past three decades. Its traditional role in drug distribution has increasingly expanded to incorporate the concept of pharmaceutical care. The pharmaceutical care philosophy gives pharmacists the responsibility for assuring drug therapy that achieves defined outcomes and improves a patient's quality of life. Pharmacists in contemporary practice are trained and expected to work collaboratively with the patient and the patient's other health care providers to assure that drug therapy is safe and effective.

The ability of the pharmacist to play an active role in drug therapy is being recognized at both the state and national levels. In recent

years, several states have passed, or are considering, legislation that allows pharmacists to initiate or modify drug therapy, through collaboration with a physician or through independent authority. In Michigan, pharmacists may prescribe under the delegated authority of a licensed physician.

The profession of pharmacy continues to progress from a drug-product orientation to a more patient-focused practice. In addition, employers in managed care, long-term care, and primary care are demanding pharmacy professionals with increasingly higher levels of education. To allow pharmacy students to still be trained intensely in the basic sciences while emphasizing patient assessment, communication, and pharmacotherapy, an additional year of training is now required. Therefore, the Doctor of Pharmacy degree at Wayne State University is now the entry-level pharmacy degree program.

Accreditation

Wayne State University's Doctor of Pharmacy program is accredited by the Accreditation Council for Pharmacy Education, 20 North Clark Street, Suite 2500 Chicago, IL 60602-5109, Phone: (312) 664-3575; Fax: (312) 664-4652; <http://www.acpe-accredit.org>

The degree of Doctor of Pharmacy conferred by the College is the current minimal requirement for licensure eligibility and is recognized by all state boards of pharmacy.

Degrees

BACHELOR OF HEALTH SCIENCE

—Pharmaceutical Sciences Concentration

**MASTER OF SCIENCE with majors in
pharmaceutical sciences with concentration in
medicinal chemistry,
pharmaceutics,
pharmacology/toxicology*

*DOCTOR OF PHARMACY with a specialization in
clinical pharmacy*

**DOCTOR OF PHILOSOPHY with a major in
pharmaceutical sciences with concentration in
medical chemistry,
pharmaceutics,
pharmacology/toxicology*

* For specific requirements, see the Wayne State University Graduate Bulletin.

PHARMACY PRACTICE

Office: 2190 APHS; 313-577-0824

Chairperson: David J. Edwards

Director, Pharmacy Student Recruitment: Carol Bugdalski

Website: <http://pharmacy.wayne.edu/>

Professors

David J. Edwards, Douglas A. Miller, Michael J. Rybak, Richard L. Slaughter, Maureen Smythe, Jesse C. Vivian

Adjunct Professors

Richard LaLonde, Richard L. Lucarotti, Larry K. Shoup, James G. Stevenson, Barbara J. Zarowitz

Associate Professors

David S. Bach, Linda A. Jaber, Pramodini B. Kale-Pradhan, Nancy J.W. Lewis, Paul J. Munzenberger, Mary Beth O'Connell, Wynefred H. Schumann, Denise Rhoney, Victoria Tutag-Lehr

Adjunct Associate Professors

J.V. Anandan, Glenn Kaatz, Peggy McKinnon, Gregory S. Umstead

Assistant Professors

Megan Bestul, James Kalus, Kenyetta Nesbitt, Lynette Moser, Dennis Parker, Francine Salinitri, GERALYNN B. SMITH, Sheila Wilhelm, David Wilpula

Adjunct Assistant Professors

Richard Amenta, Elaine M. Bailey, Albert Bajjoka, Iman Bajjoka, Julie R. Berman, Nella Bieszk, Kevin Biglin, Len Billingsley, Beverly P. Bishop, Gary Blake, Thomas Brown, Patricia Camazzola, Pranarthi Chandrasekar, James Cizek, Daniel M. Colaluca, Ronald Coleman, Clifford Crabtree, Michelle Dehoorne-Smith, Bonnie DeLor, Anita Devine, Christine Donaldson, Peter Dumo, Margo Farber, Fadwa Gillanders, Suzette Gendjar, Tana Hannawa, Suzy Hart, Janet Hoffman, Rami Ibrahim, Richard H. Jennings, Matthew Johnson, Atheer Kaddis, Polly Kintzel, Cynthia Kirman, Celeste Latcha, Chin Liu, Richard MacDonald, Monica Malian, Nikki Milan, Martha J. Miller, Kellie Murry, Patricia Pacheco, Roseanne Paglia, Paru Patel, Kathleen Pawlicki, Antonio Pettita, Krista Piekos-Wahby, Heidi Pillen, William Porter, Cynthia L. Quince, Tanya Romain, Michael Ruffing, Nada Saad, May Saba, Randy F. Schad, Rosalyn Sims-McCallum, Richard Smolarek, Susan Smolinske, Patricia Stievater, Carl Stone, Mary Jane Sudekum, William Sypula, Edward G. Szandzik, Mark A. Touchette, Jacqueline Wilson, Michael Wimmer, David B. Wright, Chris Zimmerman

Adjunct Instructors

Marjorie Ambrosio-Whitson, Mary Beth Avripas, Roger Austin, James Bammert, Steve Beneteau, Daniel Bestul, Robert Boyko, Andrew Britton, Andrea Brooke, Linda Browning, John Brubaker, Ilze Berzins, Mary R. Bloome, Frank Cappellino, Shannon Card, Karen Claire, David Collins, Kim Corpus, Lisa A. Cortez, Teresa Cox, Glenn R. Currier, Kathy Dasse, Mary Dennis, William Drake, George Delgado, Neha Desai, Larry Diamond, Melissa Doyle, Terry Dunn, Kelly Dwyer, Barry Efras Stephen Ehardt, Tom Eidson, Ahab El-Madhoun, Thomas Fakih, Gerald Franchina, Livia Franchina, Michelle Ganoff, James Garnick, Tyra Gatewood, Lynn Goldstein, Henry Goodman, Richard Gray, David Gregonrik, Jan Groulx, Phil Hagerman, Hanane Haidar, Linda Hellebuyck, Rayne A. Henderson, Roberta Jacobson, Nicola Juzysta, David Jakubowski, Robert Jarosz, Samantha Karr, Timothy Knapp, Thomas Kochis, John Koerber, Terry Koehler, Trish Kunkel, Colleen Lauster, Michael Lehr, Jeff Livingston, Mary Ann Lulic-Botica, Joanne MacDonald, William MacDonald, Tom Macek, Kerry Manseau, Allycia Marie, Ronald A. McEachen, Linda McIntyre, Gary McGlaun, Trupti Mehta, Thomas Michalski, Angela Milad, Mark Milad, Dianne Miller, Mark E. Mlynarek, John Mohler, Sarah Muench, Lynn

Nadeau, Grace Norales, Sarah Norbeck, Sandy Nowak, Jignesh Patel, Michael Peters, Gerald Petrosky, Vanita Pindolia, Kristi Pomranka, Doug Post, Lynne Queen, Cyndi Reid, Carol Reneski, Joe Ringer, Susanna Robinson, Richard Roos, David Ruta, Diane Rutkowski, Stephanie Rybak, Deborah H. Schweyen, Prakash Shah, Monica Shieh, Diana Sigler, Nazir Sleimann, Effie Steele, Linda Strausbaugh, Elizabeth A. Simpson, Judy Suykerbuyk, Cheryl A. Szof, Sandy Taylor, Stephen J. Tebay, Virginia Tekieli, Dale Tucker, Donald Ventimiglia, Anna Vichiendilokkul, Ruomei Wang, Katie Webber, Marianne Wiegmann, James Winegardner, Karl Widak, Kenneth Wlasuk, Moses C. Wu, Joseph Yaklic, Ronald Young, Lidia Yrigoyen-Dacruz, Frances Zalewski, Frank Zaran



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), George C. Fuller, Fusao Hirata, Anjaneulyu 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. Bhalla, Robert A. Levine, Alice M. Young

Associate Professors

Randall L. Commissaris, Alope K. Dutta, William J. Lindblad, David K. Pitts

Adjunct Associate Professors

Merlin E. Ekstrom, Peter D. Frade, Howard J. Normile, Ralph E. Parchment

Assistant Professors

Jayanth Panyam, David Oupicky

Adjunct Assistant Professors

Bradford R. Hepler, Daniel S. Isenschmid, Robert J. Kerns, Michael T. McAvoy, Bonita Taffe, Michael A. Walters, G. Hani Zaher

Adjunct Instructor

Aiko Hirata

Degree Programs

BACHELOR OF HEALTH SCIENCE

—Pharmaceutical Sciences Concentration¹

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 32. 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

1. Curriculum for this concentration is being redeveloped. Contact the Director of Enrollment Management Office for current information.

Laboratory Science: 3 units

Social Studies and History: 2 units

Students will find it advantageous to have had at least one year each of algebra, biology, chemistry, and physics. English, mathematics, and science are strongly recommended.

Applicants whose first language is not English must pass the Test of English as a Foreign Language (TOEFL) with a minimum score of 550. Applicants who have taken classes outside the United States must supply a detailed report evaluation of foreign educational credentials completed by Educational Credential Evaluators, Inc. (ECE). Contact ECE at 414-289-3400 for evaluation applications.

Preprofessional Course Requirements

The following courses (or their equivalents) may be taken at Wayne State University, another university, or a community college. Students are advised that *no more than sixty-four* community college credits may be transferred as applicable to the Doctor of Pharmacy degree. Requirements to be completed prior to admission to the pharmacy curriculum are:

1. Completion of fifty-eight credits in core courses (see below), plus any General Education credits required to demonstrate competency in computer literacy, computer proficiency, critical and analytic thinking, and oral communication.

2. Completion of each of the following core courses (or their equivalents) with the grade of 'C' (2.0 g.p.a.) or better. Grades of 'C-minus' or below, or numerical grades below 2.0 g.p.a., are not acceptable.

Preprofessional Core

- BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
 - BIO 2200 -- (LS) Introductory Microbiology: Cr. 4
 - CHM 1220 -- (PS) General Chemistry I: Cr. 4
 - CHM 1230 -- General Chemistry I Lab: Cr. 1
 - CHM 1240 -- Organic Chemistry I: Cr. 4
 - CHM 1250 -- Organic Chemistry I Lab: Cr. 1
 - CHM 2220 -- Organic Chemistry II: Cr. 3
 - CHM 2230 -- Preparative Organic Chemistry Lab: Cr. 2
 - CSC 1000 -- (CL) Intro. to Computer Science: Cr. 3
 - ECO 1000 or 2010 or 2020
 - (SS) Survey of Economics: Cr. 4
 - (SS) Principles of Microeconomics: Cr. 4
 - (SS) Principles of Macroeconomics: Cr. 4
 - ENG 1020 or ENG 1050
 - (BC) Introductory College Writing: Cr. 4
 - (BC) Freshman Honors: English I: Cr. 4
 - ENG 3010 or ENG 3050
 - (IC) Intermediate Writing: Cr. 3
 - (IC) Technical Communication I: Report Writing: Cr. 3
 - ENG 3060 or ISP 1560 or COM 1010
 - (OC) Technical Communication II: Writing and Speaking: Cr. 3
 - (OC) Dimensions of Oral Communication: Cr. 4
 - (OC) Oral Communication: Basic Speech: Cr. 3
 - MAT 2010 -- Calculus I: Cr. 4
 - PHI 1050 or COM 2110 or ISP 3260
 - (CT) Critical Thinking: Cr. 3
 - (CT) Argumentation and Debate: Cr. 3
 - (CT) Methods of Search and Critical Thinking: Cr. 4
 - PHY 2130 -- (PS) General Physics: Cr. 3
 - PHY 2131 -- General Physics Lab: Cr. 1
 - P S 1010 -- (AI) American Government: Cr. 4
- Other General Education Requirements:
- Historical Studies (HS): Cr. 3
 - Foreign Culture (FC): Cr. 3
 - Visual and Performing Arts (VP): Cr. 3
 - Philosophy and Letters (PL): Cr. 3
- Minimum total credits: 62

Note: Beginning Fall 2005, General Education Requirements also include one Computer Proficiency (CP) course, and three Exposure Areas courses.

Basic Composition (BC) Competency: ENG 1020, 1050. This requirement may be met by earning an appropriate score on the University English Qualifying Examination, or by earning credit through Advanced Placement or CLEP examinations.

English Intermediate Composition (IC): ENG 3010, 3050 preferred; or ENG 2050, 2100, 2110, 2120, 2210, 2310, 2390, 2570.

English Proficiency (EP) Requirement: All applicants must demonstrate competence in written composition by successfully completing the English Proficiency Examination. Students who do not successfully complete the English Proficiency Examination after two attempts must elect and satisfactorily complete ENG 1080.

Competency and Proficiency Examinations: Contact Testing, Evaluation, and Student Life Research Services, 698 Student Center, 313-577-3400, for details on competency and proficiency examinations, test costs, dates and times.

Computer Literacy (CL) Competency: CSC 1000. This competency may be demonstrated by successfully completing an approved course, passing the Computer Literacy Competency Examination, or having successfully completed a suitable high school course.

Critical and Analytic Thinking (CT) Competency: PHI 1050, COM 2110, ISP 3260. This competency may be demonstrated by successfully completing an approved course or passing the Critical Thinking Competency Examination.

Mathematics Competency Requirement: Transfer students may fulfill this competency by transferring credit for the equivalent of MAT 2010.

Oral Communication (OC) Competency: ENG 3060, ISP 1560, COM 1010. This requirement may be met by successfully completing an approved course, passing the Oral Communication Competency Examination, or having successfully completed suitable high school courses.

The Pharmacy College Admission Test (PCAT) is required for admission. This standardized examination is offered in major cities three times a year, in June, October, and January. Applicants may obtain PCAT information by calling: (800) 622-3231, or at <http://www.pcatweb.info>.

Time Limitation: Because of rapid changes in technology, preprofessional science credits must be completed within five years prior to admission to the professional program.

General Education Requirements: Students must complete additional University General Education Requirements (see below, and page 16), for a total of sixty-two to seventy-four credits. The following requirements apply to students who do not have bachelor's degrees from accredited institutions:

Some pre-pharmacy courses, 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

Note: Beginning Fall 2005, General Education Requirements also include one Computer Proficiency (CP) course, and three Exposure Areas 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 Faculty of Pharmacy.

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 Faculty of Pharmacy Admissions Committee may be offered and may be required.

Differential Tuition

With commencement of the Pharm.D. professional program, students will be charged the following rates of tuition:

Resident Tuition: \$343.10 per credit

Non-resident Tuition: \$690.70 per credit

Omnibus Fee: \$21.60 per credit

Doctor of Pharmacy Degree Requirements

The Doctor of Pharmacy requires a minimum of 118 credits in the professional program. All course work must be completed in accordance with the academic procedures of the University (see page 32) and the College (see page 408) as well as meet the following standards:

Residence: A student must have devoted at least two academic years to resident study in the Doctor of Pharmacy program, of which

the last thirty credits must be taken at the Wayne State University Eugene Applebaum College of Pharmacy and Health Sciences.

Grade Point Average: A student must maintain a grade point average of at least 2.0 in all Doctor of Pharmacy courses and in total residence credit.

Curriculum and Program Requirements: A student must complete the curriculum and program requirements, remove any marks of 'I' or 'Y', and be recommended by the faculty for the degree. The student must complete the required minimum number of credits, elect courses in the proper sequence in the curriculum shown below, and meet any course prerequisite or corequisite.

Pharm.D. Curriculum

First Professional Year (P-1)

Fall Semester

IHS 3100 -- Basic Mechanisms of Human Disease I: Cr. 5
PHA 3030 -- Pharmaceutical Calculations and Descriptive Biostatistics: Cr.1
PPR 3020 -- Introduction to Patient Care I: Cr. 2
PPR 3040 -- Patient Care Lab I: Cr. 1
PSC 3110 -- Pharmaceutical Biochemistry: Cr. 3
PSC 3120 -- Dosage Form Design and Biopharmaceutics: Cr. 4
Total credits: 16

Winter Semester

IHS 3200 -- Basic Mechanisms of Human Disease II: Cr. 5
PHA 3040 -- Medical Informatics: Cr. 2
PPR 3060 -- Introduction to Patient Care II: Cr. 2
PPR 3070 -- Patient Care Lab II: Cr. 1
PPR 3120 -- Pharmacy Jurisprudence: Cr. 2
PSC 3210 -- Biotechnology in Therapeutics: Cr. 2
Total credits: 14

Spring Semester

PSC 3310 -- Principles of Drug Disposition: Cr. 3
Total credits: 3

Second Professional Year (P-2)

Fall Semester

PHA 4010 -- Principles of Pharmacotherapy I: Cr. 3
PHA 4110 -- Principles of Pharmacotherapy II: Cr. 4
PPR 4120 -- Patient Care Lab III: Cr. 1
PPR 4130 -- Early Practice Patient Care I: Cr. 1
PPR 4190 -- Health Care I: Delivery and Finance: Cr.3
PSC 4320 -- Principles of Drug Action: Cr. 3
Total credits: 15

Winter Semester

PHA 4210 -- Principles of Pharmacotherapy III: Cr. 5
PHA 4260 -- Principles of Pharmacotherapy IV: Cr. 5
PPR 4220 -- Patient Care Laboratory IV: Cr. 1
PPR 4230 -- Early Practice Patient Care II: Cr. 1
PPR 4290 -- Health Care II: Professional Practice and Development: Cr. 2
Total credits: 15

Third Professional Year (P-3)

Fall Semester

PHA 5155 -- Principles of Pharmacotherapy V: Cr.5
PHA 5165 -- Principles of Pharmacotherapy VI: Cr. 5
PHA 7840 -- Seminar: Cr. 1
PPR 5135 -- Early Practice Patient Care III: Cr. 1
PPR 6180 -- Advanced Ethics and Professional Responsibility: Cr. 2
Professional Electives: Cr. 2
Seminar: Cr. 1
Total credits: 16

Winter Semester

PHA 5270 -- Principles of Pharmacotherapy VII: Cr. 5
PHA 5280 -- Principles of Pharmacotherapy VIII: Cr. 3
PPR 5235 -- Early Practice Patient Care IV: Cr. 1
PPR 6290 -- Population-Based Medication Management: Cr. 2
PPR 7670 -- Clinical Pharmacokinetics: Cr. 2
Professional Electives: Cr. 2

Total credits:15

Fourth Professional Year (P-4)

Spring/Summer, Fall, and Winter Semesters

PPR 7410 -- Advanced Practice Patient Care I: Cr. 3
PPR 7420 -- Advanced Practice Patient Care II: Cr. 3
PPR 7430 -- Advanced Practice Patient Care III: Cr. 3
PPR 7550 -- Advanced Practice General Hospital Rotation: Cr. 3
PPR 7560 -- Advanced Practice General Comm. Rotation: Cr. 3

Advanced Practice Elective Rotations: Students may take three rotations from the following:

PPR 7530 -- Advanced Practice Patient Care Elective: Cr.3
PPR 7540 -- Advanced Practice Non-Patient Care Elective: Cr.3
PSC 7160 -- Advanced Basic Pharmaceutical Sciences Elective: Cr. 3
Seminar: Cr. 1

Total credits: 25

Pharmacy Practice Experience Requirements

To provide the pharmacy student with education in the application of knowledge he/she has gained in courses in the curriculum, pharmacy practice experiences also are scheduled throughout the first three years of the Pharm.D. program.

Pharmacy practice experiences give the student an opportunity to apply his/her pharmaceutical education directly to patients in a variety of pharmacy settings (community, ambulatory, and institutional locations). Practice experiences are required of all students.

Before students are scheduled in practice environments, they must provide health clearance documentation, proof of professional liability insurance, personal medical insurance, and Basic Cardiac Life Support certification; and sign a travel waiver. Additional information on pharmacy practice experience requirements and when they must be obtained will be provided by the College. Students provide their own transportation to practice site settings.

Pharmacist Licensure

Licensure as a pharmacist is available to graduates of the Doctor of Pharmacy program of the Eugene Applebaum College of Pharmacy and Health Sciences, either by examination or by reciprocity, in all states and in the District of Columbia.

Internship

Internship is an educational program of professional and practical experience under the supervision of a preceptor in a pharmacy approved by the Michigan State Board of Pharmacy beginning after a student has been licensed by the Board of Pharmacy as an intern. Students must obtain a Michigan Internship License when they begin the professional curriculum of the College.

For additional information regarding internship, examination or licensure in Michigan, write: Director, Licensing Division, State of Michigan Bureau of Health Services, Department of Consumer and Industry Services, P. O. Box 30670, Lansing MI 48909.

Additional information is available from:

The National Association of Boards of Pharmacy
1600 Feehanville Drive, Mount Prospect, IL 60056
Tel: 847/391-4406, Fax:847/391-4502.
Website: <http://www.nabp.net/>

ACADEMIC REGULATIONS

Doctor of Pharmacy

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 students in the Pharm.D. curriculum:

1. "Professional course" means any course required in the Pharm.D. curriculum and any course approved for professional elective credit and elected by the student for that purpose.
2. Satisfactory grade means a grade of 'C' or above, or a grade of 'S.'
3. Unsatisfactory grade means a grade of 'C-minus' or below 2.0 grade points, or a mark of 'X' or unauthorized 'W.' Marks of 'X' or marks of 'W' which have not been authorized will be treated as an 'E.'
4. Probation means a restricted status in the program (see below).
5. Dismissal from the program means that the student may no longer register in the program or elect professional course work. Continued registration in the University requires that a Change of Status to another program be effected.

Academic and Professional Progress

The Faculty of Pharmacy expects its students to develop professional competence and to satisfy the same high standards of exemplary character, appearance, and ethical conduct expected of professional pharmacists.

To merit confidence and esteem, both personally and in the health care professions, appropriate dress and demeanor are expected of each student in the academic and professional program in pharmacy. The Committee on Academic and Professional Progress (CAPP) reviews student performance regularly and makes decisions concerning probationary status. A student may be dismissed from the College at any time for an unsatisfactory academic or professional record, for irresponsible attendance or other failures to diligently pursue the academic and professional program.

Outside Employment

The undergraduate curriculum has been arranged with the presumption that the student will devote full time and energy to the program. Pharmacy internship and other pharmaceutical employment is recognized as an integral part of the academic and professional growth of the pharmacy student. The student, however, is responsible for maintaining the appropriate balance between such activity and satisfactory achievement in the classroom.

Attendance

Regularity in attendance and performance is necessary for success in college work. At the beginning of each course the instructor will announce the specific attendance required of students as part of the successful completion of the course.

Course Elections Policy

The program must be elected on a full-time basis, following the curriculum as outlined in this bulletin, unless specifically directed otherwise by the Committee on Academic and Professional Progress and/or the Faculty.

No course may be elected unless a satisfactory grade has been earned in each of the course prerequisites.

Registration to audit a course, or for courses elected on a Passed-Not Passed basis, is permitted only for elective credits in excess of the minimum degree requirements or by guest or post-degree students.

Leaves of Absence

A leave of absence may, and should, be requested by a student when personal circumstances interfere with the student's ability to devote sufficient time to academic pursuits to assure reasonable expectations of success. A leave of absence is requested from, and granted by, the Department Chairpersons in consultation with the CAPP. If a student requests and is granted an immediate leave of absence during a term, the student must withdraw from all courses enrolled in for that term.

A leave of absence must be requested no later than the end of the twelfth week of the term, or in the case of courses not offered over a traditional semester, prior to completion of seventy-five per cent of the course. Students wishing to request a leave of absence should fill out an Academic Exception Request Form (available from the College's Office of Student Affairs) and have the form signed by their faculty adviser as well as by the Chairperson of the Department of Pharmacy Practice or Pharmaceutical Sciences prior to forwarding to CAPP for review.

A student who takes an unauthorized leave of absence will be considered to have voluntarily withdrawn from the program and may be permitted to return only upon the recommendation of the Admissions Committee in consultation with the CAPP.

Time Limitations

The program must be completed within six calendar years of admission unless an extension is granted by the Committee on Academic and Professional Progress (extensions are appropriate in circumstances such as a delay required to repeat a course preceding or following an authorized leave of absence or an authorized leave of absence that extends beyond one year).

Students who are delayed in their progress by reason of academic failure and/or leaves of absence beyond the six-year limit may be required to repeat and/or take additional courses in order to assure their graduation with appropriate preparation for contemporary professional practice; such determination will be made by the CAPP in consultation with appropriate faculty.

Minimum Grade Requirement

No professional course in which an unsatisfactory grade is earned will be counted for degree credit in this program unless repeated for a satisfactory grade.

Grade Appeals

Following is the grade appeals policy in the Eugene Applebaum College of Pharmacy and Health Sciences:

At the beginning of each term the instructor is to 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 should be stated. Written materials should be graded in a timely manner and such materials, together with comments and an explanation of grading criteria, are to be made available to students by appropriate means. Students should be encouraged to discuss with the instructor any class-related problems.

Instructors are expected to evaluate student work according to sound academic standards. Equal demands should be required of all students in a class and grades should be 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.

This policy does not apply to allegations of academic dishonesty. Academic dishonesty matters should be addressed under the Student Due Process Statute (see 'Academic Dishonesty,' below).

Questions regarding grades, whether a grade on an individual course component or a final grade, properly should be directed to the instructor for resolution. The formal appeal of the grade in question must be initiated in writing within twenty-one calendar days following the student's receipt/knowledge of the grade (for example, return of marked paper, posting of marks, official report of grades). The instructor and each appeal officer in the College shall respond in writing within ten calendar days. Failure of the instructor or any appeal officer to respond within ten days of the formal written appeal entitles the student to proceed to the next level of appeal. In no case should there be any assumption that a failure to respond at any level signifies a granting of the appeal.

If an appeal is not resolved at the instructor's level, further appeals may be directed to the Departmental Chairperson. If the Departmental Chairperson agrees with the instructor's determination, the student may appeal, upon the same bases, to the Dean of the College. If the position of the student is upheld, a recommendation to the instructor that a 'Change of Grade' be effected may be made. If the instructor refuses and there is, in the opinion of the Dean, evidence that the instructor has been arbitrary or capricious in the grade decision, appropriate administrative procedures may be initiated and an administrative 'Change of Grade' may be effected.

Probation

Any student who earns an unsatisfactory grade in a professional course will be placed on professional probation until the course is satisfactorily repeated or the student is dismissed from the program.

Any student who is on probation may not hold student elective or appointive offices (including professional pharmacy fraternities, student professional organizations, and pharmacy class offices). If a student holding such an office is placed on probation, a hold will be placed on his or her registration for the following semester until he/she has officially relinquished the position.

Dismissal from the Program

A student will be dismissed from the program for the following reasons:

- A. Failing to earn a satisfactory grade when repeating a professional course.
- B. Earning unsatisfactory grades in seven or more credits of professional course work in a single term.
- C. Accumulating unsatisfactory grades in ten or more credits of professional course work. Unsatisfactory grades count towards this cumulative total even if a satisfactory grade was earned upon repetition of the course(s).
- D. Inability to complete the program within the time limitations outlined above unless granted an extension by the CAPP or the Faculty.
- E. Failing to meet any special conditions required by the CAPP or the Faculty for the student's continuation in the program.

Academic Review Process

If, upon notification of probation or dismissal, it appears that the action was based on incorrect information or that these academic policies and procedures were not appropriately applied, the Chairperson of the CAPP should be immediately notified in writing on the form provided, so that the action can be reviewed. Extenuating personal circumstances will only be considered in cases involving dis-

missal and/or an extension of the time limitation. Written notice of the CAPP determination will be promptly provided.

Following notice of the decision of CAPP, the student may request a review by the Dean. Following a final decision by the Dean, a procedural review may be sought from the Provost.

Note that this academic review process does not apply to grades. The CAPP will not review the assignment of grades within a course. All appeals regarding grades must follow the procedures described in the 'Grade Appeals' section above.

Readmission Following Academic Dismissal

Applications for readmission from students who have been dismissed from the program for academic reasons will only be considered when the applicant has earned a Bachelor of Science or higher degree in one of the physical or life sciences (biology, chemistry or physics) subsequent to the dismissal.

If a readmission is granted, the student may be required to repeat some or all of the previously completed professional courses if the material covered in the courses has changed to the extent that the student's preparation has become outdated; such determination will be made by the Committee on Academic and Professional Progress in consultation with the Admissions Committee and appropriate faculty.

Readmitted students will be required to complete all requirements of the curriculum in effect at the time of readmission.

This policy applies to any students excluded at the end of the Fall term 1989 and thereafter.

Student Conduct

Every student is subject to all regulations set forth by the University, the College, and the Faculty of Pharmacy governing student activities, student behavior, and in use of their facilities. The University, College, and Faculty have the responsibility of making these regulations available, and it is the student's responsibility to become thoroughly familiar with all regulations and to seek any necessary clarification. Questions and concerns regarding regulations should be brought to the appropriate faculty member and/or the Dean's office.

There are obligations inherent in registration as a student in this college. Students are expected to have the highest standards of personal conduct so as to be a credit to themselves, the College, the University, and the profession. When there are reasonable grounds to believe a student has acted in a manner contrary to ethical standards, the law or mores of the community, such a student may be disciplined. This discipline may include suspension or dismissal from the program after due process in accord with published policies.

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.

Dean's List of Honor Students

Undergraduate full-time students whose grade point averages are 3.6 or above in a given term and full time professional students whose grade point averages are a 3.8 or above are eligible for citation for distinguished scholarship for inclusion in the Dean's List of Honor Students after each accumulation of twelve credits.

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 479.

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.

INTERDISCIPLINARY HEALTH SCIENCES COURSES (IHS)

2000 Introduction to Health Careers. Cr. 1-3

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 3100, 3200 or equiv. Open only to health sciences students. Basic course for health sciences students in mechanisms of drug action (pharmacodynamics), and the use of drugs in the prevention and treatment of disease (pharmacotherapeutics). (S)

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, PHA 3010. 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. (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)

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 4220. 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)

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 Introduction to Patient Care I. Cr. 2

Prereq: admission to pharmacy program. Concepts in pharmaceutical care, introduction to the health care system and pharmacist's roles, communication techniques and inter-professional communication. Material fee as indicated in the Schedule of Classes (F)

3040 Patient Care Laboratory I. Cr. 1

Prereq: admission to pharmacy program. Hands-on training in the compounding and dispensing of pharmaceutical products, role playing in the interaction of pharmacists with patients and other professionals. Material fee as indicated in the Schedule of Classes (F)

3060 Introduction to Patient Care II. Cr. 2

Prereq: PPR 3040. Second course in the patient care aspects of the pharmacy profession. (W)

3070 Patient Care Laboratory II. Cr. 1

Prereq: PPR 3060. Introduction to concepts in patient communication, prescription dispensing and compounding. Material fee as indicated in the Schedule of Classes (W)

3120 Pharmacy Jurisprudence. Cr. 2

Prereq: P S 1010; PPR 3020, 3040; admission to professional curriculum in pharmacy. Various state and federal regulations affecting pharmacy practice and drug control. (F)

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 develop the pharmacy student's 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)

4230 Early Practice Patient Care II. Cr. 1

Offered for S and U grades only. Prereq: second professional year standing in Doctor of Pharmacy program. Continuation of PPR 4130. (Y)

5000 (WI) Drug Literature Evaluation. Cr. 2

Prereq: third professional year standing. Principles and methods of evaluating the medical literature with an emphasis on the practice of pharmacy. Writing intensive course in third professional year; in-class and out-of-class writing assignments required. (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/clerkship experiences. (T)

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 Early Practice Patient Care III. 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 Early Practice Patient Care IV. 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: 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: third professional year standing. 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)

6120 Home Health Care. Cr. 3

Prereq: third professional year 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 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: third professional year 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,W)

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)

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/diseases. (F,W)

6720 Pharmacotherapeutics of Diabetes Mellitus. Cr. 2

Prereq: PHA 4140. Multidisciplinary course. Knowledge and skills required to effectively manage patients with diabetes. (F)

6860 Principles of Pediatric Pharmacy. Cr. 2-3

Prereq: last professional year, graduate, or graduate professional standing. Common pediatric problems and diseases including poisonings, cystic fibrosis, sickle-cell anemia, placental transfer of drugs and teratology. (Y)

PHARMACY STUDENT and ALUMNI ACTIVITIES

The College has a Chapter of the *Academy of Students in Pharmacy (ASP)*, an affiliate of the American Pharmaceutical Association (APhA). The purpose of ASP is to encourage an early respect for pharmacy as a profession, and to promote student activities on a professional level. The Chapter accomplishes these goals by supporting professional functions at the College, by encouraging student attendance at local, state, and national conventions, and by promoting membership in professional associations.

A chapter of the *Student National Pharmaceutical Association (SNPhA)* was established at Wayne State University in 1976. The purpose of this organization is to plan, organize, supplement and coordinate a comprehensive program to improve the health, educational and social environment of minority groups in the United States; to aid both individuals and families in achieving a rich sense of dignity and self-respect. SNPhA hopes to provide a greater opportunity by which health-oriented minority students can achieve greater self awareness and a larger representation in colleges and universities of the United States.

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).

The Arab-American Pharmacy Student Organization (AAPSA) is a non-profit organization founded in 1999 by a promising new generation of pharmacy students. The mission of AAPSA is to prepare members to be pharmacy professionals who provide and promote patient-oriented pharmaceutical care, and the promotion of the pharmacy profession among the Arab-American public.

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.

Phi Delta Chi Pharmacy Fraternity (Alpha Eta Chapter) was formed in 1883 to aid its members to become part of the profession. The objectives of Phi Delta Chi include the advancement of the science of pharmacy, the fostering of a fraternal spirit among its members, and the development of projects to aid the patient and the health care system.

Pharmacy Alumni Association

The WSU 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.

FACULTY OF HEALTH SCIENCES

Fundamental and Applied Sciences

Department Office: 5439 Woodward; 313-577-2050
Chairperson: Peter D. Frade

Program Directors

Clinical Laboratory Science: Carol A. Watkins
Office: 4617 APHS; 313-577-1384

Mortuary Science: Peter D. Frade
Office: Suite 333, 5439 Woodward; 313-577-2050

Occupational and Environmental Health Sciences:
Peter D. Frade
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, 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. Pathologists' Assistant and Forensic Investigation 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 instilla-

tion of high standards of ethical conduct required to foster and uphold the dignity of funeral service.

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.

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 Pellerito, 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

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 who, as a member of a health-care team, is qualified to administer anesthesia to patients for all types of operations under the direction of a physician. The anesthetist is also prepared in the management of cardiopulmonary resuscitation and in the application of modern methods and procedures of respiratory care. This program is offered only at the graduate level and students should consult the Graduate Bulletin for details.

Occupational Therapy: The occupational therapy program prepares the student to assume clinician, researcher, educator, and consultative roles that assist individuals who are limited in the ability to perform tasks required in normal routines of daily living: self-care, work, and play/leisure. The entry level degree of Masters 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.

Physical Therapy: Undergraduate education in physical therapy leads to the Bachelor of Health Sciences degree and prepares students for the Doctor of Physical Therapy program. The curriculum, didactic and clinical, provides opportunities for the student to learn basic skills and techniques in evaluation, treatment procedures, and selection of appropriate therapeutic procedures, primarily affecting the neuro-musculo-skeletal system, to meet the needs of the individual. The physical therapist is an integral member of the medical team in the planning, implementation and evaluation of the patient's health-care program.

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.

ACADEMIC REGULATIONS for Health Sciences Programs

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 health sciences students.

Admission to Preprofessional Programs

Preprofessional programs in clinical laboratory science, mortuary science, occupational therapy, and physical therapy 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. 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

Each of the Fundamental and Applied Science and Health Care Science programs is 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. In the sophomore year the student should make application to the program of his/her choice. However, because of special requirements for each program, students are urged to contact the Department for advising and application deadline dates a year before they plan to enter.

For admission to the professional Health Sciences programs, applicants must have acquired a minimum of sixty credits (or their equivalent) and 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.

Academic Advising

A staff of academic advisers is available in the University Advising Center, 1600 Adamany Library, for students interested in health sciences professions.

Students, during their sophomore year, should confer with the professional program adviser of the health sciences profession of their choice 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

Following is the grade appeals policy in the Eugene Applebaum College of Pharmacy and Health Sciences:

At the beginning of each term the instructor is to 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 should be stated. Written materials should be graded in a timely manner and such materials, together with comments and an explanation of grading criteria, are to be made available to students by appropriate means. Students should be encouraged to discuss with the instructor any class-related problems.

Instructors are expected to evaluate student work according to sound academic standards. Equal demands should be required of all students in a class (although more work is expected from graduate students than from undergraduates), and grades should be assigned without departing substantially from announced procedures.

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.

Probation

If a student's work falls below the required cumulative average 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 grade point average falls below the required average will be placed on program probation. Each student must meet the academic and probationary requirements of his or her program.

Removal of Probation: The student will be removed from probation at the end of any semester in which he/she achieves a satisfactory grade point average as determined by the 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 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.

Dean's List of Honor Students

Undergraduate full-time students whose grade point averages are 3.6 or above in a given term and full time professional students whose grade point averages are a 3.8 or above are eligible for citation for distinguished scholarship for inclusion in the Dean's List of Honor Students after each accumulation of twelve credits.

Student Rights and Responsibilities

The Faculty reserves 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 Department.

Bachelor's Degree Requirements for Health Sciences Programs

Specific requirements for the several bachelor's degrees offered by the Faculty of Fundament and Applied Sciences and Health Care Sciences are enumerated in the Departmental 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 Requirement in American Society and Institutions — see page 16 and page 23.

University Proficiency Requirements in English and Mathematics: All undergraduate students who register for the first time at Wayne State University in Fall Semester 1983 or thereafter will be 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 16.

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

Because of rapid changes in technology and in the methods and concepts of patient care, students in the health sciences programs must complete their preprofessional science credits within the six years just prior to admission to the professional program and must complete their professional program within three years, unless exception is granted by the Department Chairperson. Students who interrupt their academic program will have to apply for reinstatement on an individual basis to have their performance evaluated. They may be required to pass examinations comparable to those given to current students at that level sought for re-entry into the program.

Financial Aid

See Office of Scholarships and Financial Aid, page 41.

Alfred Berkowitz Pharmacy and Health Sciences Professions Student Loan Fund: This fund was established by Mr. Alfred Berkowitz in March 1975 to provide financial assistance to needy students in the College.

Outside Employment

The undergraduate curriculum has been arranged with the presumption that students will devote full time and energy to their college and university experience. Students are encouraged to limit their outside employment in order to benefit from the full complement of academic and cultural opportunities that are a vital part of higher education.

Requirements for Graduation

In addition to the formal academic requirements for graduation, students in the health sciences must demonstrate traits of character, stamina, and emotional stability appropriate for work in a health-care field. Students may be required to withdraw from the College when, in the judgment of a committee of the faculty, they are deficient in these qualities so as to make them unsuitable for their chosen profession.

Graduation with Distinction: See page 31.



CLINICAL LABORATORY SCIENCE

Office: 4600 APHS; 313-577-1384

Chairman: Peter D. Frade, Ph.D.

Program Director: Carol Watkins

Website: <http://cphs.wayne.edu/MT-CLS.html>

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

Karen Appolini, Frank Bahorski, Deborah Cyzeska, Steven Duskey, Eric Emme, Carol Hillman-Wiseman, Charlene Kretch, Bernarda Wroblewski

Degree Programs

BACHELOR OF SCIENCE in Clinical Laboratory Science

BACHELOR OF HEALTH SCIENCE

with concentration in cytotechnology

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 careers devoted to giving indispensable aid to medical practitioners. The Clinical Laboratory Science (Medical Technology) Program at Wayne State University provides students with the technical knowledge and specialized skills necessary to this profession. 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 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 School of Medicine, the Faculty of Health Sciences and the pathology departments and clinical laboratories of hospitals affiliated with Clinical Laboratory Science/Medical Technology.

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 junior year begins the professional program and is taught by the faculty of the Department of Fundamental and Applied Sciences and the School of Medicine. 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 32. 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 319). 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.

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 which 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, both English and Mathematics proficiency examinations must be passed prior to admission to the Professional Program. These courses are taken under direction of the College of Liberal Arts and Sciences.

First Year

BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
CHM 1220 -- (PS) General Chemistry I: Cr. 4
CHM 1230 -- General Chemistry I Laboratory: Cr. 1
CHM 1240 -- Organic Chemistry I: Cr. 4
CHM 1250 -- Organic Chemistry I Laboratory: Cr. 1
CLS 2080 -- Clinical Laboratory Science Seminar: Cr. 1
COM 1010 -- (OC) Oral Communication: Basic Speech: Cr. 3
CSC 1000 -- (CL) Intro. to Computer Science: Cr. 3
(or CL Competency Examination)
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
MAT 1800 -- Elementary Functions: Cr. 4
HS, VP, FC, SS, AI, or PL General Education Requirement: Cr. 3-4
HS, VP, FC, SS, AI, or PL General Education Requirement: Cr. 3-4
Total credits: 33-38

Second Year

CHM 2220 or CHM 2280
-- Organic Chemistry II: Cr. 3
-- General Chemistry II: Analytical Chemistry: Cr. 3
CHM 2230 or CHM 2290
-- Organic Chemistry II Lab: Cr. 2
-- General Chemistry II Lab: Cr. 2
ENG 3010 or ENG 3050
-- (IC) Intermediate College Writing: Cr. 3
-- (IC) Technical Communication I (recommended): Cr. 3
BIO 2200 -- (LS) Introductory Microbiology: Cr. 4
PHI 1050 -- (CT) Critical Thinking (or Competency Examination): Cr. 0-3
HS, VP, FC, SS, AI, or PL General Education Requirement: Cr. 3-4
HS, VP, FC, SS, AI, or PL General Education Requirement: Cr. 3-4
HS, VP, FC, SS, AI, or PL General Education Requirement: Cr. 3-4
BIO 2870 -- Anatomy and Physiology: Cr. 5
STA 1020 -- Statistics: Cr. 3 (strongly recommended)
Total credits: 31-40

Professional Program

Professional Program Admission: The junior class is admitted to the professional curriculum in September 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 those students who:

1. Have 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. Have a grade of 'C' or better in ALL preprofessional courses.

3. Have no more than two marks of 'R' or two marks of 'W' in science courses. (If all courses are withdrawn in a single semester, it counts as one 'W'.)

4. Will have completed all preprofessional courses (see above) by the end of the summer semester prior to admission to the professional program.

5. Have taken the English Proficiency Examination prior to the beginning of the Fall program; see the University Schedule of Classes for date and time.

6. Submit, 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 no employer, two science faculty references may be submitted).

(b) If the student has transferred to Wayne State University, official transcripts from all former undergraduate schools must be included.

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 courses during the application process which are prerequisites to the program, 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 130-134 credits in course work, including 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 in the preprofessional program. The distribution of the total credits for the degree will be between the preprofessional program (see above) and the professional program as follows:

Professional Curriculum

Basic science courses in this program are taken under the direction of the faculty of Clinical Laboratory Science in cooperation with the faculty of the Department of Fundamental and Applied Sciences and the staff of affiliated clinical institutions.

Third and Fourth Years

CLS 5500 -- Principles of Immunology: Cr. 2
CLS 5510 -- Bacteriology: Cr. 5
CLS 5520 -- Virology/Mycology/Parasitology: Cr. 3
CLS 3040 -- Immunohematology Lecture/Lab: Cr. 5
CLS 3080 -- Instrumentation Lecture/Lab: Cr. 4
CLS 3090 -- Professional Practice I: Cr. 2
CLS 3100 -- Basic Techniques: Microscopy: Cr. 3
CLS 3280 -- Clinical Chemistry Lecture/Lab: Cr. 4
CLS 4040 -- Professional Practice II: Cr. 2
CLS 4230 -- Hemostasis/Special Hematology: Cr. 3
CLS 4990 -- Directed Study: Cr. 1 (if needed)
CLS 5550 -- Molecular Diagnostics: Cr. 4
CLS 5993 -- (WI) Writing Intensive Course in CLS: Cr. 0
MS 5020 -- Biochemical Basis of Pathophysiology: Cr. 3
HS, VP, FC, SS, AI, or PL General Education Requirements: Cr. 3-4

Six-Month Clinical Experience (Second Semester/Senior Year)

CLS 4000 -- Clinical Hematology: Cr. 5
CLS 4010 -- Clinical Chemistry: Cr. 3-4
CLS 4020 -- Clinical Blood Bank: Cr. 3-4
CLS 4030 -- Clinical Microbiology: Cr. 6
CLS 4050 -- Clinical Immunology: Cr. 1
CLS 5070 -- Clinical Pathology Correlation: Cr. 2

CLS 4000, 4010, 4020, 4030, and 4050 will be taken at a hospital affiliated with the Eugene Applebaum College of Pharmacy and Health Sciences.

Academic Standing — Dismissal and Readmission: No senior student will be graduated with a grade of less than 'C' in any clinical course. Students must successfully demonstrate sufficient skills and knowledge to be placed in a clinical experiential.

Any student with a semester g.p.a. less than 2.0 is subject to dismissal. The student who receives a final grade of 'E' and/or a second 'D' in a junior (first professional) or senior year course is automatically dismissed from the program. No student will be admitted to the clinical courses with an overall g.p.a. of less than 2.5.

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 competi-

tive basis and readmission is not guaranteed. If, upon readmission, the student fails to meet the academic standards of the Program he/she will be dismissed and not readmitted any time thereafter.

Any student who has been dismissed for academic reasons during the first admission to the program but has successfully completed clinical laboratory science or cytotechnology course work with a grade of 'C-plus' or better need not repeat these courses upon final readmission. All courses receiving a final grade of 'C,' 'D,' or 'E' 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 sub-standard 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, Michigan and other parts of the country. 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.

Residence: See the section above on Academic Regulations for the Faculty of Health Sciences, page 415.

Time Limitation: See the section above on Academic Regulations for the Faculty of Health Sciences, page 415.

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 practices under the direction of a pathologist in identifying changes in the body's cells. Microscopic examinations of specially stained slides are made to detect cytoplasmic or nuclear changes of cells which may differentiate healthy cells from those suspected of being cancerous or of having other structural abnormalities. While the majority of cytotechnologists work in hospitals, graduates are also prepared for positions in research laboratories, private and clinical laboratories and in cytotechnology education.

The freshman and sophomore years constitute the preprofessional curriculum with courses taught by the faculty of the College of Liberal Arts and Sciences (or equivalent courses at another accredited institution). The junior year begins the professional curriculum and is taught by the faculties of Clinical Laboratory Science and the College

of Liberal Arts and Sciences. The senior year consists of an eleven month clinical experience in the laboratory of an affiliated hospital.

Accreditation: The degree program in cytotechnology is four years in duration, culminating in the degree Bachelor of Health Science with a concentration in cytotechnology. The four-year program fulfills the requirements for cytotechnology education of the National Accrediting Agency for Clinical Laboratory Science in collaboration with the American Society of Cytology. A graduate from Wayne State University with this degree is eligible to take a national certification examination in cytotechnology.

Admission — Preprofessional

Admission requirements are the same as for the Bachelor of Science in Clinical Laboratory Science; see page 418.

Preprofessional Program

The preprofessional curriculum is the same as for the Bachelor of Science in Clinical Laboratory Science; see page 418.

Professional Program

Professional Program Admission: The junior class is admitted to the professional curriculum in the Fall Semester only. An application for admission to the program must be submitted to the Department of Fundamental and Applied Sciences, Clinical Laboratory Science, by April 15 of the year one wishes to enter the professional program. Professional program admission requirements are the same as for the general Bachelor of Science in Clinical Laboratory Science; see page 418. For further information, write: Department of Fundamental and Applied Sciences, Clinical Laboratory Science Program, Eugene Applebaum College of Pharmacy and Health Sciences, Wayne State University, Detroit, Michigan 48202.

Professional courses and/or professional program admission requirements are subject to change without notification. The curriculum is subject to change due to changes in requirements for entry into professional practice, which may be separate from academic requirements. It is the student's responsibility to obtain current information regarding the program from the Department of Clinical Laboratory Science.

Degree Requirements

Candidates for the Bachelor of Health Science with a concentration in cytotechnology must complete 125-126 credits in course work, 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 in the preprofessional program. The distribution of the total credits for the degree will be between the preprofessional program (see page 418) 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.

Third Year

BIO 2600 -- Introduction to Cell Biology: Cr. 3
BIO 3070 -- Genetics: Cr. 4
BIO 5630 -- Histology: Cr. 4
CLS 3020 -- Hematology Lecture: Cr. 3
CLS 3090 -- Professional Practice I: Cr. 2
CLS 3100 -- Basic Techniques: Microscopy: Cr. 2
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 5993 -- (WI) Writing Intensive Course in CLS: Cr. 0
HS, VP, FC, SS, AI, or PL General Education Requirement: Cr. 3-4

Fourth Year

CLS 4500 -- Cytotechnology Non-Gynecological Technique I: Cr. 13
CLS 4510 -- Cytotechnology Non-Gynecological Technique II: Cr. 16

Residence: See the section above on Academic Procedures for the Faculty of Health Sciences, page 415.

Time Limitation: See the section above on Academic Procedures for the Faculty of Health Sciences, page 415.

Post-Bachelor's Certificate in Clinical Laboratory Science

This post-baccalaureate certificate program is designed to provide students with clinical training and necessary course work in the field of clinical laboratory science. Graduates of the program will receive the post-baccalaureate Certificate in Clinical Laboratory Science ONLY if all courses cited below under Certificate Requirements are completed, and will be eligible to sit for the national examination for professional certification.

Accreditation: This is an NAACLS-accredited program

Admission: This program is open to graduates of baccalaureate programs in clinical laboratory science/medical technology who have (1) a cumulative g.p.a. of 2.5 or better overall; (2) a 2.5 or better combined science g.p.a. (biology, chemistry, computer science, mathematics); (3) earned grades of 'C' or better in ALL professional courses; and (4) submitted, in addition to the application for admission (see page 32), the following: two references - one from an employer and one from a science faculty member (or two science faculty members, if no employer); and official transcripts from all former undergraduate schools. Students must successfully demonstrate sufficient skills and knowledge to be placed in a clinical experiential.

For additional information, deadline dates, and application forms, contact the Clinical Laboratory Science Program.

CERTIFICATE REQUIREMENTS: The candidate for the post-baccalaureate Certificate in Clinical Laboratory Science must complete the following program with a grade point average of 2.5 or above and must have earned a minimum of eighteen semester credits at Wayne State University.

REQUIRED COURSES (Thirty Credits):

Clinical Rotation

CLS 5070 -- Clinical Pathology Correlation: Cr. 2
CLS 4000 -- Clinical Hematology: Cr. 5
CLS 4010 -- Clinical Chemistry: Cr. 3-4
CLS 4020 -- Clinical Blood Bank: Cr. 3-4
CLS 4030 -- Clinical Microbiology: Cr. 5-6

Required Elective Credits (Nine)

Nine credits from the following options:
CLS 4040 -- Professional Practice II: Cr. 2
CLS 5550 -- Molecular Diagnostics: Cr. 4
CLS 4990 -- Professional Directed Study: Cr. 2-8
Total credits: 30

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 Scholarships and Financial Aid, located in the Welcome Center.

The Medical Technology/Clinical Laboratory Science Alumni Association has established a scholarship fund available to junior year full-

time clinical laboratory science and cytotechnology students. Information is available through the Fundamental and Applied Sciences Department secretary.

The Dr. Alexander Wallace III Scholarship is available to a junior year clinical laboratory science or cytotechnology student. For further information, contact the Department secretary.

Medical Technology/ Clinical Laboratory Science Alumni Association

Organized in 1978, the Medical Technology/Clinical Laboratory Science Alumni Association was established for the purpose of developing and maintaining rapport between the graduates and the faculty of the Clinical Laboratory Science Program. In addition to being supportive of the University, one of the main functions of the Alumni Association is to provide continuing educational opportunities and social activities for alumni, faculty and students of the Clinical Laboratory Science Program.

Student Professional Activities: All CLS students may participate in the local, state and national organizations of the American Society for Clinical Laboratory Science. Cytotechnology students have the opportunity to join the national CT Society during their senior year.

CLINICAL LABORATORY SCIENCE COURSES (CLS)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 479.

2080 Clinical Laboratory Science Seminar. Cr. 1

Offered for S and U grades only. Introduction to clinical laboratory sciences. Opportunities and responsibilities. (F,W)

2990 Preprofessional Directed Study. Cr. 1-3

Prereq: enrollment in pre-clinical laboratory science program. Offered for S and U grades only. Independent study under faculty supervision. (F,S)

3020 Hematology Lecture and Laboratory. Cr. 2-4

Prereq: junior in clinical laboratory science program or consent of instructor. Basic study of blood-forming organs and components of blood; explanation of basic hematological procedures. Material fee as indicated in the Schedule of Classes (F)

3040 Immunohematology Lecture and Laboratory. Cr. 5

Prereq: junior in clinical laboratory science or consent of instructor. Principles of immunology and theory of procedures employed in the clinical blood bank. Survey of the organization and operation of a blood bank. Material fee as indicated in the Schedule of Classes (S)

3050 Hematology. Cr. 2-3

Prereq: CLS 3020. In-depth study of blood and blood forming organs (normal and pathological) from the standpoint of interpretation and diagnosis. (W)

3080 Instrumentation Lecture and Laboratory. Cr. 2-4

Prereq: junior standing in clinical laboratory science or consent of instructor. Introduction to fundamental laws of electronics, the theoretical basis of instrument design, and quality control in laboratory testing. Application of instrumental methods, including spectrophotometric, fluometric, electroanalytical, and chromatographic methods to the clinical laboratory. Material fee as indicated in the Schedule of Classes (W)

3090 Professional Practice I. Cr. 2

Prereq: junior in clinical laboratory science program. LIS systems, computers in laboratories, pre- and post-professional practice, ethics, critical thinking in the lab. (W)

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. Review of parasitology and laboratory methods for examination. Interdisciplinary case studies involving methods selection and interpretation of findings. Material fee as indicated in the Schedule of Classes (S)

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

Methodologies and interpretations of results of clinical chemistry diagnostic tests. Material fee as indicated in the Schedule of Classes (W)

3380 Basic Cytotechnology Technique and Research. Cr. 3

Prereq: junior standing in clinical laboratory science, cytotechnology concentration. Introduction to basic laboratory methodology including microscopy, laboratory safety, pipetting, quality control/assurance, specimen collection and handling, laboratory statistics and calculations, selected laboratory instrumentation, and related carcinoma topics. Field work includes in-depth study of cytopathology topic. Material fee as indicated in the Schedule of Classes (F)

4000 Clinical Hematology. Cr. 5

Prereq: senior standing in clinical laboratory science program. Theory and principles for evaluation of the quantity, morphology and function of cellular components of blood. (S)

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. (F)

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. (F)

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. (W)

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. (F,W)

4050 Clinical Immunology. Cr. 1

Prereq: senior standing in clinical laboratory science program. Study of diseases related to diagnostic immunology. (Y)

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 determina-

tions, 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. 2-3

Prereq: junior in clinical laboratory science or consent of instructor. Systematic concepts of hemostasis and coagulation. Platelet function in hemostasis and platelet disorders. Mechanism of coagulation; bleeding disorders. Interdisciplinary case studies; application of laboratory methods to diagnosis and treatment of coagulopathies. (F)

4250 Laboratory Techniques. Cr. 2-4

Prereq: junior in CLS/HST Program. 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 (WI) Professional Practice III. Cr. 1-2

Independent research project; student will produce poster and paper based on the research. Project opportunities supervised by program director in concert with clinical affiliates. Material will be presented at MSCLS convention, department symposium, and college events. Satisfies the General Education Writing Intensive Course in the major. (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 Principles of Immunology. Cr. 2

Open only to clinical laboratory science students; others by written consent of instructor. Lectures and laboratory exercises in basic immunology, including the relevance to human medicine. Material fee as indicated in the Schedule of Classes (F)

5510 Bacteriology. Cr. 2-6

Open only to clinical laboratory science students; others by written consent of instructor. Lectures and laboratory exercises in the fundamentals of microbiology, including bacteria, viruses and fungi, and a detailed consideration of the role of those agents in disease. Material fee as indicated in the Schedule of Classes (W)

5520 Virology, Mycology, Parasitology. Cr. 3

Prereq: CLS 5510. Open only to clinical laboratory science students; others by written consent of instructor. Lecture and laboratory course in diagnostic and clinical virology, mycology, and parasitology. Material fee announced in Schedule of Classes. (S)

5550 Molecular Diagnostics. Cr. 4

Prereq: junior in CLS Program. 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 (W)

5993 (WI) Writing Intensive Course in Clinical Laboratory Science. Cr. 0

Prereq: junior standing, satisfactory completion of English Proficiency Examination, 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

Chairperson and Program Director: Peter D. Frade

Associate Professor (Clinical)

Peter D. Frade

Assistant Professor (Clinical)

E. David Ladd

Part-Time Instructors and Instructional Assistants

Muhammad Amjad; Karen Apolloni, Gail Bentley, Paula Bober, Michelle Boeck, Shirley Brogan, Leena Budev, John Canine, Sharon Gee, Roger Husband, Ljubomir Jojich, Diane Moric, Charles Oliver, Bonita Taffe, Benjamin True, Michael Wilk, Robert Wilk, Robert Will, Thomas Zaremba

Adjunct Professor

David J. Grignon

Adjunct Associate Professors

Gilbert Herman, Edward J. Kerfoot, Eugene V. Perrin

Degree Programs

BACHELOR OF SCIENCE in Mortuary Science

BACHELOR OF SCIENCE in Pathologists' Assistant

POST-BACHELOR'S CERTIFICATE in Forensic Investigation

The Mortuary Science program offers curricula designed to enable public health personnel to deal effectively with personal and practical matters attendant on death and dying. 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), 38 Florida Ave., Portland ME 04103; 207-878-6538; Fax: 207-797-7686. The Bachelor of Science in Pathologists' Assistant degree is accredited by the National Accrediting Agency for Clinical Laboratory Sciences, 8410 W. Bryn Mawr Ave., Suite 670, Chicago IL 60631-3415; 773-714-8880.

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 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 Building, 5439 Woodward Ave., Detroit, Michigan 48202; telephone: 313-577-2050; Fax: 313-577-4456; <http://mortuarysciencewayne.org>.

ACADEMIC REGULATIONS

For complete information regarding academic rules and regulations of the University and of the Faculty of Health Sciences, students should consult the sections in this bulletin, page 5 and page 415. The following additions and amendments pertain to the Mortuary Science program.

Attendance

Students are expected to adhere to Departmental 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 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 Committee. These recommendations may include: promotion, reexamination, repetition of all or part of the curriculum, interruption or suspension or probation of a student's program, or dismissal.

The Promotion Committee is chaired by the Chairperson of the Department and consists of nine members: two students plus seven faculty members. Student members serve for one year and have full discussion privileges but their votes are only advisory to the Committee. The Promotion Committee meets 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 in mortuary science programs must demonstrate traits of character, stamina, and emotional stability appropriate to the profession. Students may be required to withdraw from the program if, in the judgment of the Promotions Committee, they fail to maintain appropriate standards of conduct and academic progress.

Students have the right to appeal decisions by direct petition to the Promotions 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 Promotions 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.

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 Department of Mortuary Science are eligible for the *Gordon W. Rose Scholarship* as well as other scholarships and loans available to all University students. Inquiries should be directed to the

University Office of Scholarships and 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 Scholarships and Financial Aid is January 15. For further information, contact: Office of Scholarships and Financial Aid; telephone: 313-577-3378.

Vocational Guidance and Placement

Men and women contemplating careers in mortuary science or as pathologists' assistants may take advantage of the Department's and University's counseling services. Every effort is made by the Departmental staff to acquaint the applicant with the vocational aspects of the professions. Students are assisted in securing part-time employment in funeral homes upon request.

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 Department.

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 16.

Students entering as freshmen and intending to pursue a degree in mortuary science must complete the preprofessional program (see below) offered by the College of Liberal Arts and Sciences. For admission requirements to this College see the regular undergraduate admission to the University, page 32.

Preprofessional Program (Minimum sixty credits)

Preprofessional course work *must* include the following courses, passed with a grade of 'C' or better: In addition, specific areas of competencies must be demonstrated by course work or examination prior to admission to the Mortuary Science Program.

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 (BC) (PSY 1010 or equivalent): 3 Cr
Computer Science (CL) (CSC 1000 or equivalent): Cr. 3
Communication (OC) (COM 1010 or equivalent): Cr. 3

University General Education Prerequisites:

Historical Studies (HS): Cr. 3
Critical and Analytic Thinking (CT) -- Exam or coursework: 3 Cr
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 course work

Note: Beginning Fall 2005, General Education Requirements also include one Computer Proficiency (CP) course, and three Exposure Areas courses.

Electives to complete the 68 credit requirement for admission to the Mortuary Science program are authorized in consultation with the Office of Student Affairs 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 68 credits of prerequisite course work. However, the applicant must satisfy the above Program specific prerequisites if they are not part of the prior degree program.

No more than 64 credits may be transferred from a two-year college program.

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:

1. have completed sixty-eight credits in preprofessional course work as defined in the preprofessional program description above.
2. have an overall cumulative grade point average of 2.5.
3. have been admitted to Wayne State University.
4. have submitted a complete application to the Department of Fundamental and Applied Sciences / Mortuary Science Program by March 15 of the year one wishes to enter the program.

CONDITIONAL/PROBATIONARY ADMISSION

Applicants who submit a Plan of Work indicating completion of all admission requirements prior to August 20th of the year one wishes to enter the program may be admitted on the 'Condition' of completing 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

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 the mortuary science and the anatomic pathologists' assistant programs.

Professional Program

Third Year

Fall Semester

M S 3100 -- Chemistry: Cr. 3
M S 3300 -- Religions, Values, and Death: Cr. 3
M S 3500 -- Embalming I: Cr. 3
M S 3800 -- Funeral Directing: Cr. 4
M S 3830 -- Psychology of Death and Dying: Cr. 3
M S 4050 -- Human Anatomy and Physiology: Cr. 3
Total credits: 19

Winter Semester

M S 3400 -- Mortuary and Business Law I: Cr. 3
M S 3510 -- Embalming II: Cr. 3
M S 3600 -- Restorative Art and Modeling I: Cr. 2
M S 3810 -- Mortuary Management and Administration: Cr. 3
M S 3840 -- Psychosocial Aspects of Grief: Cr. 2
M S 4250 -- Medical Microbiology: Cr. 3
M S 5996 -- Senior Seminar Cr. 2
Total credits: 18

Spring/Summer Semester

M S 0999 -- Practicum: Cr. 0
M S 3410 -- Mortuary and Business Law II: Cr. 3
M S 3610 -- Restorative Art and Modeling II: Cr. 2
M S 3760 -- Past and Future Trends in Funeral Service: Cr. 3
M S 4300 -- Introduction to the Study of Disease: Cr. 2
M S 4450 -- Small Business Financial Management: Cr. 3
M S 5350 -- (WI) Applied Grief Counseling: Aftercare: Cr. 3
Total credits: 15

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.
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 16).

Michigan State Licensure in Mortuary Science

To become eligible for licensure in the State of Michigan, one must fulfill the following educational requirements:

1. Complete an accredited program of academic instruction in mortuary science as defined by the American Board of Funeral Service Education;
2. Pass examinations as determined by the State Board;
3. Fulfill the requirements for resident training.

Direct inquiries for further information to: State of Michigan Department of Commerce, Bureau of Occupational and Professional Regulation, 2501 Woodlake Circle, Okemos MI 48864-5955 (telephone: 517-241-9252; Fax: 517-241-9280).

Bachelor of Science — Pathologists' Assistant Program

The Pathologists' Assistant program trains personnel to assist the pathologist in the performance of postmortem examinations and in

the preparation of surgical specimens for study, as well as to take responsibility for certain tasks delegated by supervising pathologists such as budgetary, superintending, and teaching duties.

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 32. 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' Assistants by April 15 of the year one wishes to enter the professional program. Applications are available from the Department of Fundamental and Applied Sciences, Pathologists' Assistants Program Director, 5439 Woodward Ave., Detroit, MI 48202; telephone: 313-577-2050; Fax: 313-577-4456 or downloaded off the program's website at <http://www.mortsci.wayne.edu>.

The Admissions Committee, composed of faculty and graduates of the program, will interview and consider for admission all students who: 1) have a cumulative g.p.a. of 2.5 overall, and 2.3 or better in science; 2) have completed all preprofessional courses by the time of admission; 3) have successfully completed the English Proficiency Examination (see page 22); and 4) have submitted a complete application to the Department of Fundamental and Applied Sciences / Mortuary Science by April 15 of the year one wishes to enter the program.

In addition, if the prospective applicant will be transferring to Wayne State, application for admission must be made to the University.

This is a competitive program limited by available clinical teaching affiliations. In reviewing applications, work experience, letters of evaluation/recommendation, science grades, 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 degree of Bachelor of Science 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 Departmental subject area group requirements as well as the University General Education Requirements (see page 16). Graduates of the program are eligible to sit for the AAPA fellowship examination.

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
PHI 1050 -- (CT) Critical Thinking: Cr. 3
Social Science (SS) elective: Cr. 3
Total credits: 33

Second Year

BIO 2200 -- (LS) Introductory Microbiology: Cr. 4
CSC 1000 -- (CL) Introduction to Computer Science: Cr. 3
ENG 3050 -- (IC) Technical Communication I: Cr. 3
Historical Studies (HS) elective (HIS 1100 or HIS 1200 preferred): Cr. 4
Visual and Performing Arts (VP) elective: Cr. 4
PHI 2320 -- (PL) 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 in cooperation with the School of Medicine and the College of Liberal Arts and Sciences. The third year begins *only* in September.

PROFESSIONAL PROGRAM

Third Year

Fall Semester

BIO 5630 -- Histology: Cr. 4
M S 5060 -- Human Anatomy and Physiology: Path. Asst.: Cr. 4
M S 4100 -- Medical Photography: Cr. 3
M S 5050 -- Clinical Terminology & Methodology: Cr. 3
M S 5020 -- Biochemical Basis of Pathophysiology: Cr. 3

Winter Semester

BIO 5610 -- Structural Embryology: Cr. 1
M S 4150 -- Histochemistry: Cr. 3
M S 4420 -- Laboratory Management: Cr. 3
M S 5200 -- Medical Microbiology for Technical Profnl.: 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

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 Department, 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.

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. The Program is offered by the

Department in cooperation with Oakland Community College, Police Evidence and Technology, 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 Department of Mortuary Science; those from other institutions must submit the Application for Undergraduate Admission (see page 32). All application materials must be received by July 1 for Fall and Winter admission, and by November 1 for Spring/Summer admission.

For information and application forms, contact the Department of Mortuary Science, 5439 Woodward Ave., Detroit MI 48202; telephone 313-577-2050; Fax: 313-577-4456.

CERTIFICATE REQUIREMENTS: The candidate for the post-baccalaureate Certificate in Forensic Investigation must complete the following program with a grade point average of 2.50 or above and have earned a minimum of eighteen semester credits at Wayne State University.

Required Courses (taken at Wayne State University):

M S 4200 -- Introduction to Forensic Anatomic Pathology: Cr. 3
M S 4010 -- Basic Forensic Analysis: Cr. 3
M S 5010 -- Advanced Forensic Analysis: Cr. 2

Required Courses (taken at Oakland Community College)

PLS 215.4 -- Ballistics, Firearms and Explosives Identification: Cr. 4
PLS 220 or CRJ 3260
-- Criminal Investigation and Case Preparation: Cr. 4
-- Investigation: Cr. 3

PLS 231 -- Interview and Interrogation Techniques: Cr. 3

NOTE: Courses above designated PLS are available only at Oakland Community College; CRJ 3260 is a Wayne State course.

In addition, the candidate must complete a minimum of six semester credits from the following:

Internship

M S 4600 -- Clinical Forensic Pathology: Cr. 3
BIO 6020 -- Methods of Analysis: Cr. 2-4

Expert Witness

M S 5550 -- Special Topics: Cr. 1

Independent Study

M S 5990 -- Directed Studies: Cr. 3
BIO 3990 -- Directed Study: Cr. 1-2

Loss, Grief and Stress

M S 5996 -- Seminar: Cr. 2

MORTUARY SCIENCE COURSES (M S)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 479.

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 preservation, and embalming chemistry. Material fee as indicated in the Schedule of Classes (F)

3300 Religions, Values, and Death. Cr. 3

Various religious, secular, and philosophical views regarding the value of life, the meaning of death, and life after death. (F)

3400 Mortuary and Business Law I. Cr. 3

Business law and legal environment affecting practice of mortuary science. Introduction to American legal system, court structure, and contract law. Survey of tort law; regulation of businesses with emphasis on mortuary practice regulation; property law including zoning and mortuary practice regulations; personal property and insurance law. (W)

3410 Mortuary and Business Law II. Cr. 3

Prereq: M S 3400 Business and legal principles affecting mortuary practice with special emphasis on forms of business organization, law of sales, federal disclosure rules, legal responsibilities of the funeral service provider, probate law, and related federal/state laws. (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 chemicals; use of special instruments and equipment; special case embalming. Laboratory teaching of all practical aspects of embalming. Material fee as indicated in the Schedule of Classes (F)

3510 Embalming II. Cr. 3

Prereq: M S 3500. Dynamics of decomposition; influence of disease and its treatment on the embalming process; public health considerations; anatomical embalming; disaster response; evaluation of embalming techniques. Material fee as indicated in the Schedule of Classes (W)

3600 Restorative Art and Modeling I. Cr. 2

Prereq: M S 3500. Theories, methods, and techniques used in the restoration of superficial tissues and features; color theory, cosmetology, facial proportions, skin tones correlated with reconstruction; clay and wax modeling; actual restorations performed on human remains. Material fee as indicated in the Schedule of Classes (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. Funeralization as a process affected by social and religious change. The funeral service professional in a socio-temporal context. Possible future practices based on understanding of historical record and current trends. (S)

3800 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 and Administration. Cr. 3

Prereq: M S 3800. Continuation of M S 3800. Marketing, merchandising, public relations, preneed 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)

4010 Basic Forensic Analysis. Cr. 3

Prereq: admission to post-bachelor forensic investigation program. The forensic lab, its organization, accreditation, and regulation; quality control, safety, and documentation; discussion and demonstration of methods for collection and processing of specimens. (F)

4011 Interview and Interrogation Techniques. Cr. 3

Prereq: enrollment in post-bachelor certificate program in forensic investigation. Appropriate and effective techniques for conducting interviews in forensic investigations. (F)

4050 Human Anatomy and Physiology. Cr. 3

Open only to students seeking funeral service licensure. Detailed systemic study of human anatomy and physiology. Laboratory work consists of demonstrations and selected dissections; emphasis on vascular anatomy and adjacent structural relationships; anatomic guides. Material fee as indicated in the Schedule of Classes (F)

4100 Medical Photography. Cr. 3

Theory and behavior of light and lenses; principles of exposure, color, and filters; macro- and microphotography. (F)

4150 Histochemistry. Cr. 3

Prereq: M S 4050; prereq. or coreq: BIO 5630. Study of techniques involved in the preparation of tissues prior to microscopic examination. Material fee as indicated in the Schedule of Classes (W)

4200 Introduction to Forensic Anatomic Pathology. Cr. 3

Role of medical examiner, early signs of death, medical investigation of cause of death, methods for identification of remains, medicolegal aspects of forensic science, toxicology specimen techniques. (S)

4250 Medical Microbiology. Cr. 3-4

Open only to students seeking funeral service licensure. A study of pathogenic microbial agents; host-parasite relationships; disinfection-decontamination; immunology; epidemiology of infectious disease. Microscopy, staining technology; differentiation and identification of bacteria; evaluation of chemical disinfectants. Lecture and laboratory. Material fee as indicated in the Schedule of Classes (W)

4300 Introduction to the Study of Disease. Cr. 2

Prereq: M S 4050, 4250. Causes of disease; basic epidemiology; tissue reactions to injury, gross and microscopic; neoplasia; select systemic pathologies; comparative roles of various specialties in pathology. (S)

4420 Laboratory Management. Cr. 3

Interpersonal and technical management techniques for the laboratory setting. (W)

4450 Small Business Financial Management. Cr. 3

Prereq: ACC 3020. Financial aspects of starting and operating a small business; dealings with fellow professionals and government agencies. (S)

4500 Clinical Autopsy Pathology. Cr. 2-6

Prereq: senior standing in pathologist assistant program. Autopsy procedures, including data retention, dissection techniques, selection of tissue for microscopic examination, and methods of body restoration prior to release. (T)

- 4550 Clinical Histopathologic Technique. Cr. 3**
Prereq: senior standing in pathologist assistant program. Organization of a histology laboratory, proper handling of specimens for processing, available procedures and techniques. (T)
- 4600 Clinical Forensic Pathology. Cr. 2-5**
Prereq: senior standing in anatomic pathologists' assistant program or consent of Department Chairperson. Assisting pathologist in determining cause of death; basic methods for identifying remains with regard to age, sex, and race; techniques of photographic record keeping. (T)
- 4650 Clinical Surgical Pathology. Cr. 5**
Prereq: senior standing in pathologist assistant program. Principles and theories related to gross surgical dissections. (T)
- 4700 Clinical Pathology. Cr. 3**
Prereq: senior standing in pathologist assistant program. Students become familiar with the operational requirements of the clinical chemistry and microbiology laboratories. (T)
- 4800 Clinical Photography. Cr. 2**
Prereq: senior standing in pathologist assistant program. Techniques required to photographically record gross and microscopic specimens. (T)
- 4850 Clinical Academic Pathology. Cr. 6**
Prereq: senior standing in pathologist assistant program. Principles and theories of surgical diagnostic pathology and mechanisms of disease. (T)
- 5010 Advanced Forensic Analysis. Cr. 2**
Prereq: M S 4010; admission to post-bachelor forensic investigation program. New developments in the forensic laboratory; current areas of research and potential applications. (W)
- 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 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)
- 5200 Medical Microbiology for the Technical Professional. Cr. 3**
Prereq: BIO 2220 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. 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. (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 skill-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. (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. (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)

OCCUPATIONAL THERAPY

Office: Room 2248 APHS

Program Director: Joseph M. Pellerito, Jr.

Graduate Coordinator for Master of Occupational Therapy Program:
Doreen Head

Graduate Coordinator for Master of Science Program:
Gerry Conti

Director of Fieldwork Education: Karmen Brown

Department Secretary: Tamra Samuels

Website: <http://www.wizard.pharm.wayne.edu/ot>

Website: <http://www.cphs.wayne.edu/ot/>

Professors Emerita

Miriam C. Freeling, Suesetta McCree, Martha E. Schnebly

Adjunct Professors

Franklin Stein, Elizabeth J. Yerxa

Associate Professor

Joseph M. Pellerito, Jr.

Adjunct Associate Professors

Robert Erlandson, Linda M. Roth

Assistant Professors

Karmen Brown, Gerry Conti, Doreen Head, Catherine L. Lysack, Rosanne DiZazzo-Miller

Senior Lecturer

Regina Parnell

Part-Time Faculty

Angie Bayci, Tina Briggs, Donna Case, Susan Koziatek, Susan Robosan-Burt

Adjunct Faculty

Janet R. Andrews, Diane Brazen, Jane DeHart, Robert Erlandson, Cathy Fuerstnau, Darren Gustitus, Kirk Krugger

Part-Time Instructional Assistant

Michael Barrett

Cooperating Faculty

David Ladd, Ljubomir Jojich

Michigan Field Work Educators

Beth Angst, Gerylann Arden, Lou Ann Audette, Carol Bator, Cheryl Boyd, Diane Brazen, Tina L. Briggs, Sandra Brown, Bernard Burk, Barbara Butyer, Jo Ann Bush, James Cox, Mary Kay Currie, Nancy Demkin, Cheryl Garnett, Diana Gibson-Lee, Danielle Giras, Sandy Glovak, Deborah Grant, Cindy Grider, Carol Habel, Annetta Hardamon, Carol Holland, Lori Irvin, Mary Kaye, Susan Koziatek, Rosemary Kuzak, Moreen Kuznicki, Lisa Lemke, Ann Ladak-Tymowski, Sal Lograsso, Carol MacQueen, Renee Madris, Florence Monnier, Cindy Muszynski, Sheila Norwood, Judy Oberdier, Connie O'Rourke, Joyce Rosal, Lisa Schlicker, Linda Schmidt, Kadi

Shuling, Lisa Simmons, Lisa Singer, Donna Sokoly, Amy Spears, Susanne Terry, Cathy Turner, Karen Westrick, Jane Yatzak, Karmen Zaytho

Degree Programs

BACHELOR OF HEALTH SCIENCE

with a concentration in occupational therapy

*MASTER OF OCCUPATIONAL THERAPY

*MASTER OF SCIENCE in Occupational Therapy

The Department of Occupational Therapy's vision encompasses education, research, and service excellence, in the promotion of occupations of meaning within a multicultural urban community.

'Occupation' in occupational therapy means more than the word implies. It goes beyond work and work training. Occupational therapy helps people enhance wellness at any stage of life. It helps them engage in everyday activities that are 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.

Bachelor of Health Science

— Occupational Therapy Concentration

Degree Requirements: This program offers coursework leading to the Bachelor of Health Science with a concentration in occupational therapy. This degree requires completion of between 120 and 125 semester credits (approximately 71-73 preprofessional semester credits and 52 professional program credits) and is prerequisite for entry into the graduate component of the professional program, leading to the entry-level professional Master of Occupational Therapy, see below.

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 Allied 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 16), 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.

Time Limitation: See the section above on Academic Procedures for the Faculty of Health Sciences, page 415.

PREPROFESSIONAL PROGRAM

CORE COURSES

BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
BIO 2870 -- Anatomy and Physiology: Cr. 5
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
ENG 3010 -- (IC) Intermediate Writing: Cr. 3
PHY 2130 -- (PS) General Physics: Cr. 4
PHY 2131 -- General Physics Lab: Cr. 1
PSY 1010 or 1020
 -- (LS) Introductory Psychology: Cr. 4
 -- (LS) Elements of Psychology: Cr. 3
PSY 2400 -- Developmental Psychology: Cr. 4
Political Science Course (AI): Cr. 3-4
Social Sciences (SS) course: Cr. 3-4
Statistics course (STA 1020 or PSY 3010 or other): Cr. 3
Total: 44- 46 credits

ADDITIONAL GENERAL EDUCATION REQUIREMENTS:

Critical Thinking (CT) competency requirement: Cr. 3
COM 1010 -- (OC) Oral communication: Basic speech: Cr.3
Foreign Culture (FC) course: Cr. 3-4
Historical Studies (HS) course: Cr. 3
NUR 1110 -- (CL) Intro.: Computers & Technol. for Health Profns: Cr. 2
PHI 2320 -- (PL) Introduction to Ethics (or another PL course): Cr. 3
Mathematics Competency (MC) requirement: Cr. 3
PHI 1050 -- (CT) Critical Thinking: Cr. 3
Visual and Performing Arts (VP) course: Cr. 3
Mathematics Competency (MC) requirement
English Proficiency (EP) requirement

Note: Beginning Fall 2005, General Education Requirements also include one Computer Proficiency (CP) course, and three Exposure Areas courses.

Professional Program

Professional Program Admission: The professional program in occupational therapy is nine 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 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 pre 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 twenty hours of 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 total contact hours must equal twenty. The therapist(s) with whom the student had the contact experience(s) must complete documentation on the form provided by the Department.
3. Complete a Personal/Professional Statement.
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 57 credits in course-work including preprofessional study (please see above), and professional courses as outlined below. The professional program consists of seven semesters of full-time academic work followed by six months of full-time field-work experience. During the professional program the student must complete the following courses in the basic and medical sciences, and occupational therapy theory and practice, as well as related health sciences courses. Upon satisfactory completion of the degree, the graduate is eligible for examination and certification through the National Board of Certification in Occupational Therapy (NBCOT), and licensure where applicable.

PROFESSIONAL PROGRAM

UNDERGRADUATE LEVEL COURSES

O T 3000 -- Intro. to Occupation, Health, and Wellness: Cr. 3
O T 3070 -- Occupational Therapy Research I: Cr. 3
O T 3200 -- Therapeutic Media: Cr. 3
O T 3280 -- Client Factors I: Cr. 3
O T 3300 -- Movement Assessment (with lab): 3
O T 3400 -- Health Conditions I: Physical Disabilities: Cr. 3
O T 4050 -- Life Occupations I: Cr. 3
O T 4280 -- Client Factors II: Cr. 3
O T 4400 -- Health Conditions II: Psychiatry: Cr. 4
O T 4600 -- Group Dynamics: Cr. 5
O T 5000 -- Interventions and Outcomes I: Cr. 5
O T 5050 -- Life Occupations II: Cr. 3
O T 5200 and OT 5210 --Human Anat. for Health Sci with Lab: Cr. 4
O T 5400 -- Neuroanat. and Neurophys. for Health Sci.: Cr.3
O T 5650 -- Pathophysiology for Health Sciences: Cr. 3-5
O T 5993 -- (WI) Writing Intensive Seminar in O T: Cr. 0
O T 6070 -- Occ.I Therapy Research II: Cr. 3 (Project required)

TOTAL: 52 credits

(Upon completion of this part of the program students may apply for the degree: Bachelor of Health Science.)

GRADUATE LEVEL COURSES

O T 5040 -- Environment s Influence on Disability and Health: Cr. 3
O T 6000 -- Interventions and Outcomes II: Cr. 5
O T 7070 -- Outcomes Research: Cr. 3
O T 7200 -- Program Administration and Entrepreneurship: Cr. 3
O T 7998 -- Level II Fieldwork: Cr. 8
O T 7999 -- Master s Essay Direction: Cr. 1-2 (2 req.)
Elective I
Elective II

Fieldwork: During the course work outlined above, students participate in Level I fieldwork experiences that are designated to meet course objectives in O T 4600, 5000, and 6000. In the final portion of the curriculum, students must participated in two full-time three-month field experiences (O T 7998, 7999), 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 2.5 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 5. 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 2.5 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 2.5 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.

A course from which a student withdraws prior to the end of the semester, and in which he/she has maintained a 'C' 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 Scholarships and Financial Aid, University Welcome Center on the corner of Woodward and Warren in Detroit, Michigan.

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.

Scholarships, 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.

Loans:

The Ruth Marion Miller Memorial Student Loan Fund provides no-interest loans to qualified occupational therapy students.

The Occupational Therapy Program Emergency Financial Assistance Loan; provides small, no-interest loans to qualified students in crisis situations. An application and faculty decision is required.

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 pre professional 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' primary efforts are 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 479.

2050 Leisure/Play as Occupation. Cr. 2

Open only to OT Professional Program students; others by consent of instructor. Lectures, discussions, demonstrations and practical experience involving the leisure/play occupation. Issues, concepts and application as related to lifestyles. (F,W)

3000 Introduction to Occupation, Health, and Wellness. Cr. 3

Prereq: admission to the occupational therapy professional program; coreq: O T 5993. Introduction to the processes and procedures utilized by the occupational therapist: observation, interview, communication and skills gained through interaction with normal individuals from infancy through senescence. Material fee as indicated in the Schedule of Classes (F)

3020 Developmental Assessment and Performance Techniques. Cr. 2

Prereq: PSY 1020; BIO 1050, BIO 2870; SOC 2000; admission to OT professional program. Lecture, discussions, field observations on interaction of environmental factors with sensorimotor, cognitive, psychosocial, physiological components. Normal skills and activities inherent in different life roles through the life stages. Continuum of healthy or well lifestyles in lifespan. Material fee as indicated in the Schedule of Classes (F)

3050 Technology for Professional Enhancement. Cr. 3

Prereq: admission to OT program, consent of instructor. Use of computer-based tools in treatment, research, marketing and reimbursement tasks; content presented using didactic, lab-based, case-based, and on-line distance formats. (S)

3060 Environmental Influence on Disability and Health I. Cr. 1

Prereq: admission to OT program. Application of OT practice in health care delivery. Relationship of physical, social, economic and political environments that affect the health and disability of individual populations. First of series of three courses. (F)

3070 Occupational Therapy Research I. Cr. 3

Prereq: admission to occupational therapy program. Basic concepts and principles of research, terminology used to describe research, and effective use of research information for evidence-based practice in occupational therapy. Didactic and experiential components. (Y)

3100 Clinical Psychiatry. Cr. 4

Prereq: consent of adviser. Study of the major categories of psychiatric conditions and their clinical treatment including psychiatric interview and crisis intervention techniques. Lecture, demonstration, participation and field experience. (W)

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 (T)

3280 Client Factors I. Cr. 3

Prereq: admission to OT program. Impact of client factors on life occupations. Tools and techniques for conducting assessments, documenting, observing and interviewing clients; course format is didactic, case presentation and experiential. First of two courses. (F)

3300 Movement Assessment. Cr. 3

Prereq: PHY 2130, ANA 3030. Lecture and laboratory on human movement concepts prerequisite to the understanding of occupational therapy procedures applicable to patients with physical or sensory-integrative dysfunction. Material fee as indicated in the Schedule of Classes (F)

**3400 Health Conditions I: Physical Disabilities. (PT 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 (W)

3450 Health Conditions I. Cr. 3

Prereq: admission to OT program. Course includes a series of interdisciplinary presentations on clinical manifestations and medical management of selected diseases and injuries; examination of impact of occupational conditions. (F)

4050 Life Occupations I. Cr. 3

Prereq: admission to OT program. Examination of areas of occupation: daily living activities, work/school, play, leisure and social participation. Tools and techniques for analysis of occupations; development of intervention strategies; effective documentation. First of two courses. (S)

4070 Roles and Functions I. Cr. 2

Prereq: consent of adviser. Basic introduction to research and statistical methods in occupational therapy. Elementary computer use in occupational therapy research. (F)

4080 Roles and Functions II. Cr. 2

Prereq: consent of adviser. Organizational and administrative structure and functions of occupational therapy service programs; emphasis on communication techniques, personnel management and supervision, program and space planning, budgeting and legal implications of a service unit. Development of occupational therapy services and programs. Course cannot be taken out of sequence. (W)

4200 Theory and Practice I. Cr. 4

Prereq: consent of adviser. Occupational therapy in mental health practice; evaluation, treatment planning, reporting and an overview of mental health theories. Lecture, class participation and field experience. Material fee as indicated in the Schedule of Classes (F,W)

4210 Theory and Practice II. Cr. 4

Prereq. or coreq: O T 3400; prereq: 3300, consent of adviser. Instruction, laboratory and field experience in occupational therapy theory and procedures. Includes activities of daily living, leisure time activities, therapeutic exercise, splinting and prevocational evaluation. Material fee as indicated in the Schedule of Classes (F)

4220 Theory and Practice III. Cr. 3

Prereq: O T 4210. Continuation of O T 4210. Material fee as indicated in the Schedule of Classes (W)

4230 Theory and Practice IV. Cr. 5

Prereq: ANA 3040, O T 3400, consent of adviser. Study of the neurophysiologically-based treatment approaches in occupational therapy for patients with central nervous system dysfunction; includes occupational therapy in school systems. Material fee as indicated in the Schedule of Classes (F,W)

4250 Level I Field Work in Schools. Cr. 1

Prereq: ANA 3040; coreq: O T 4230. On-site first level experience in school systems. (F,W)

4260 Level I Field Work Experience. Cr. 1

Prereq: consent of occupational therapy adviser. Offered for S and U grades only. Experience in affiliated agencies under supervision of on-site occupational therapist. (F)

4270 Mental Health Level I Fieldwork Experience. Cr. 1

Prereq: consent of adviser. Offered for S and U grades only. Field work experience in affiliating agencies under supervision of registered, on-site occupational therapist. (T)

4280 Client Factors II. Cr. 3

Prereq: O T 3280. Impact of sensory-motor skills on client's life occupations. Tools and techniques for conducting assessments; documenting, observing, and interviewing. Course format: didactic, case presentation, and experiential. Second of two courses. (W)

4300 Client Issues in Occupational Therapy. Cr. 2

Prereq: senior standing in occupational therapy. Workshop presentation of role of the occupational therapist in various aspects of patient management. (F)

4350 Occupational Therapy Seminar. Cr. 1-3

Prereq: consent of adviser. Correlation of social, cultural, physical, economic and psychological aspects of illnesses with occupational therapy theory and practice. Discussion and field experience. (I)

4400 Health Conditions II: Psychiatry. Cr. 4

Prereq: O T 3400. Major categories of psychiatric conditions, young adult through elderly. Diagnostic criteria; treatment strategies in hospital and community settings with fieldwork requirements. Guest lecturers from medical and community settings. Second of two courses. (W)

4500 Social and Organizational Aspects of Health Care. Cr. 2

Prereq: introductory sociology courses. Health care systems, organization and financing of health care services and resources available. Course cannot be taken out of sequence. (W)

4600 Group Dynamics. Cr. 5

Experiential approach to learning group dynamics and achieving skills necessary for conducting effective therapeutic groups for a variety of settings. Development of self-awareness and social skills necessary in building practical group skills. Level I fieldwork. (F,W)

4990 Directed Study. Cr. 1-2 (Max. 5)

Prereq: consent of adviser. (T)

4998 Field Work I. Cr. 5

Prereq: consent of adviser. Three months of supervised field work experience in affiliated health care agencies. Course cannot be taken out of sequence. (T)

4999 Field Work II. Cr. 5

Prereq: consent of adviser. Three months of supervised field work experience in affiliated health care agencies. (T)

5000 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. (W)

5040 Environmental Influence on Disability and Health. Cr. 3

Application of OT practice in health care delivery. Critical examination of physical, social, economic and political environments on the health, wellness, and disability of individuals, populations, and the health care delivery system. (F)

5050 Life Occupations II. Cr. 3

Prereq: O T 4050. 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)

5060 Environmental Influence on Disability and Health III. Cr. 2

Prereq: O T 4060. Application of occupational therapy practice in health care delivery. Critical examination of physical, social, economic, and political environments on the health and disability of individuals, populations, and health care delivery systems. (W)

5200 (P T 5200) Human Anatomy for Health Sciences. Cr. 4

Prereq: admission to Physical Therapy or Occupational Therapy professional program, or consent of instructor; coreq: P T 5210 or O T 5210. Knowledge of basic human anatomy for students in health science professional programs; foundation for further study in clinical sciences. (F)

5210 (P T 5210) Human Anatomy for Health Sciences: Laboratory. Cr. 1-2

Prereq: admission to professional OT program or consent of instructor; coreq: O T 5200 or P T 5200. Examination of prosections, dissection of human cadavers; didactic study. (F)

5280 Client Factors III. Cr. 4

Prereq: O T 4280. Foundation for assessment of client factors for participation in life occupations. Synthesis of information from O T 3280 and 4280. (S)

5400 Neuroanatomy and Neurophysiology for Health Sciences. (P T 5400) 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. (Y)

5650 (P T 5650) Pathophysiology for Health Sciences. Cr. 3-5

Prereq: admission to professional Physical Therapy or Occupational Therapy program, or consent of instructor; P T 5200 or O T 5200. Fundamental knowledge of the nature of disease for the health sciences student; physiologic and morphologic changes accompanying disease processes; mechanisms of repair and recovery. (W)

5993 (WI) Writing Intensive Seminar in Occupational Therapy. Cr. 0

Prereq: enrollment in occupational therapy program; coreq: O T 3000. Offered for S and U grades only. No degree credit. Required for all majors. Disciplinary writing assignments under the direction of a faculty member. Must be selected in conjunction with designated corequisite; consult Schedule of Classes for corequisites available each term. Satisfies University General Education Writing Intensive Course in the Major requirement. (T)

6000 Interventions and Outcomes II. Cr. 5

Prereq: O T 5000. Occupation-based therapeutic activities, intervention strategies, documentation skills, and discharge planning that promote client-centered outcome; focus is on young adult, adult years, life span. Second of two courses. (Y)

6050 Life Occupations III. Cr. 2

Prereq: O T 5050. Areas of occupation: daily living activities, work/school, play, leisure and social participation; focus is across the life

span. Tools and techniques for analysis of occupations; intervention strategies and effective documentation, observation, and interview skills. Course format: didactic, case-presentation, and experiential. (F)

6070 Occupational Therapy Research II. Cr. 3

Prereq: O T 4070 or O T 3070. Application of research principles and methods to solving occupational therapy problems. (F)

6090 Directed Research. Cr. 1-4 (Max. 8)

Prereq: graduate status, O T 6070 or equiv., and consent of instructor. Opportunity to conduct supervised research and to participate in research activities of a mentor. (T)

6150 (ELE 6010) Family Centered Collaboration in Early Childhood Intervention and Special Education. (PSY 6010) (SW 6010) Cr. 3-4

Theories, concepts and practices of family centered intervention services for young children with special needs. Team-building and cross-disciplinary communication and collaboration with families. (F)

6230 Motor Control. Cr. 3

Prereq: graduate status; ANA 3030; O T 3300, O T 5400; OT 7300; or consent of instructor. Current theories of motor control and motor learning; recovery of function following neurological damage. (W)

6620 (ECE 6100) Enabling Technology. (BME 6500) Cr. 4

Prereq: consent of instructor. Principles of application of enabling technology: across life stages, for differing ethnic and cultural backgrounds, for individuals with varying functional abilities. (Y)

6800 Culture and Disability. Cr. 2-3

Prereq: senior level graduate admission status. How cultural context affects interpretation of disability; ways of measuring disability. Principles of health statistics, rationale for rehabilitation programs and disability policy, cultural variations in concepts of disability. (Y)



PHYSICAL THERAPY

Office: 2248 APAHS; 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 Jakubiak 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

Judith Aikman, Jeff Alaska, Manjula Amarnath, Annamarie Asher, Rachel Atanosian, Curtis J. Best, Kurt Biebuyck, Marcia Boileau, Katie Bowser, Jan Brock, Marj Bryen, Dan Cady, Alicia Carr, Amanda Chilton, Michelle Cowell, Karen Crute, Deanna Cueny, Janet Downey, Franz D'Souza, Timothy L. Fifer, Anna Fiorito, Laura Freeman, Judy Goik, Gregg Golden, Miriam Goldstein, Jackie Grabinski, Sharon Grogg, Stan Guest, Maryann Herman, Brad Jackson, Pam Jasinski, Yvonne Katharopoulos, Mary Kaye, Jaime Kenny, Muhammad U. Khan, Julie Kiefer-Eaman, Greg Kopp, Ed Kornacki, Martha Kramer, Shankar Krishnan, Beth Kuzma, Elizabeth Lauhoff, Ted Lezotte, Connie Machnacki, Valerie McPherson, Chaka Mathika, Maureen Mattiello, Alice Maxon, Todd May, Paulette Mazzara, Jodi Meclude, Burton Moon, Kevin Moore, Theresa Moyer, Jaime Myers, Adele Myszenski, Lee Ann Odom, Mary Pawlicki, Ann Pollzzie, Lisa Ragusa, Karen Reyhl, Rose Sager, P. Cindi Schuer, Cindy Schutt, Kim Schwartz, Karen Smith, Ken Soave, Ron Sorgeloos, Ellen Steudle, Derek Stevenson, Lisa Stogner, Cheryl Strong, Laurie Templeton, Bindu Thamman, Jim Turnipseed, Lori Walker, Brooke Wayman, Carl P. Weaver, Brian Whalen, Jan Zehms-Stankrauff

Degree Programs

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 professionals, address risk factors to health, are leaders and providers in the areas of prevention and promoting health, wellness and fitness,

serve as educators, consultants, administrators and advocates, utilize critical inquiry skills and direct and supervise the provision of physical therapy services. Physical Therapy services include examination, evaluation, diagnosis, prognosis and intervention primarily for individuals with musculoskeletal, neuromuscular, cardiopulmonary and/or integumentary 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 please explore 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 32). 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 16) and have completed a minimum of 77 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:

* For specific requirements, see the Wayne State University Graduate Bulletin.

PREPROFESSIONAL PROGRAM

BIO 1510 -- (LS) Basic Life Mechanisms: Cr. 4
BIO 2870 -- Anatomy and Physiology: Cr. 5
BMB 5010 -- General Biochemistry Lecture: Cr. 2
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
ENG 1020 -- (BC) Introductory College Writing: Cr. 4
ENG 3010 -- (IC) Intermediate Writing: Cr. 3
ENG 3050 or ENG 3010 (ENG 3050 is the preferred election)
 -- (IC) Technical Communication I: Report Writing: Cr. 3
 -- (IC) Intermediate Writing: Cr. 3
HEA 2330 -- First Aid and CPR: Cr. 3
KIN 5570 -- Physiology of Exercise 1: Cr. 3
MAT 1800 -- Elementary Functions: Cr. 4
PHY 2130 -- (PS) General Physics: Cr. 3
PHY 2131 -- General Physics Lab: Cr. 1
PHY 2140 -- General Physics: Cr. 3
PHY 2141 -- General Physics Lab: Cr. 1
PSL 3220 -- Fundamentals of Human Physiology: Cr. 4
PSY 1010 -- (LS) Introductory Psychology: Cr. 4
PSY 2400 -- Developmental Psychology: Cr. 4
PSY 3010 -- Statistical Methods in Psychology: Cr. 4

If the applicant does not have a bachelor's degree the student must also take at least 6 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 16) must also be satisfied:

(AI) American Society and Institutions
(CL) Computer Literacy Competency
(CP) Computer Proficiency Competency
(CT) Critical Thinking Competency
(EP) English Proficiency Requirement
(FC) Foreign Culture Group Requirement
(HS) Historical Studies Group Requirement
(OC) Oral Communication Competency
(PL) Philosophy and Letters Group Requirement
(SS) Social Studies Group Requirement
(VP) Visual and Performing Arts Group Requirement

Note: Beginning Fall 2005, General Education Requirements also include one Computer Proficiency (CP) course, and three Exposure Areas courses.

Professional Program Admission: The professional program in physical therapy is three and one-half years in length and consists of an undergraduate component and a graduate component. Progression to the graduate component 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 on-line 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 32 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 16), 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

P T 4020 -- Introduction to Physical Therapy: Cr. 4

P T 4120 -- Human Growth and Development: Cr. 4

P T 4320 -- Basic Evaluation Procedures: Cr. 3

P T 4400 -- Clinical Medicine I: Cr. 2

P T 4430 -- Clinical Medicine II: Cr. 2

P T 4500 -- Kinesiology and Biomechanics: Cr. 3

P T 4650 -- Pathokinesiology: Cr. 2
P T 5100 -- Therapeutic Exercise: Cr. 2
P T 5800 -- Clinical Education I: Cr. 2

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 of the entire physical therapy program 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 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 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, 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 Scholarships and 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.

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 479.

ANATOMY COURSE (ANA)

6050 Biology of the Eye. (BIO 6055) (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)

PHYSICAL THERAPY COURSES (P T)

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)

4020 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 (F)

4120 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)

4300 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)

4320 Basic Evaluation Procedures. Cr. 3

Prereq: P T 4500, 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)

4400 Clinical Medicine I. Cr. 2

Prereq: P T 5200; coreq: P T 5650. Disease processes, medical and surgical interventions. Role of physical therapist and other health care professionals: physician, occupational therapist, speech pathologist, psychologist, nurse, others. (W)

4430 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. (S)

4500 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)

4650 Pathokinesiology. Cr. 3

Prereq: P T 4500. Continuation of P T 4500. Additional depth and breadth. 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)

5070 Clinical Applications II. Cr. 2

Prereq. or coreq: P T 5100, P T 7100; 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. or coreq: P T 4430, P T 4500, or consent of instructor. Fundamental principles and techniques of therapeutic exercise. Physio-

logical, neuromuscular processes, and 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)

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 indicated in Schedule of Classes. (F)

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)

5650 Pathophysiology for Health Sciences. (O T 5650) Cr. 3-5

Prereq: admission to professional Physical Therapy or Occupational Therapy program, or consent of instructor; P T 5200 or O T 5200. Fundamental knowledge of the nature of disease for the health sciences student; physiologic and morphologic changes accompanying disease processes; mechanisms of repair and recovery. (W)

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

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. 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 indicated in Schedule of Classes. (F)

6200 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 a health profession degree program; 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 5570 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)

6400 Teaching and Learning in Health Care. Cr. 2

Prereq: admission to physical therapy program. Exploration of theoretical and practical issues pertinent to physical therapy profession: educational methods, adult learning theories, instructional design methodologies, evaluation, instructional management. (W)

6500 Pharmacology. Cr. 2

Prereq: P T 4430, P T 7400 or consent of instructor. Effects of drug distribution, absorption and excretion as pertaining to physical therapy. Major drug categories, OTC, and nutritional supplements, pertinent to acute and chronic responses to physical therapy; indications, mechanisms, effects. (F)

6600 Ethics and Legal Issues. Cr. 2

Prereq: P T 4020, P T 6200, P T 5820, or consent of instructor. Impact of legal practice standards, including federal, state, and institutional regulations related to patient care and fiscal management of health care practice. Ethics and ethical decision making. (W)

6700 Motor Learning and Motor Control. Cr. 2-3

Prereq: P T 5400. Current theories and concepts in processes of motor skill acquisition and performance, from a behavioral objective. (W)



SCHOOL OF SOCIAL WORK

DEAN: Phyllis I. Vroom

Foreword

The School of Social Work at Wayne State University has as its mission the teaching of 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, the faculty of the School contributes to the knowledge base of the social work profession, and the faculty and students serve the community by participating in professional societies, civic and community groups, and human service organizations.

The School of Social Work is an integral part of Wayne State University, an urban university in a culturally diverse, industrialized and technologically advanced, metropolitan area. The School is committed in its teaching, research, and service activities to address the problems of people living in this environment. Both in class and in the human service organizations that are the sites for field education, students learn how to provide effective social services and to influence social policies.

The School's activities are intended ultimately to alleviate the condition of those affected by poverty, racism, sexism, ageism, homophobia, unemployment, and those with emotional disturbances, or physical and/or developmental challenges, oppressive environmental conditions, and political oppression. Students learn methods of intervention with individuals, families, groups, communities, and organizations. 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.

Accreditation

The undergraduate program leading to the Bachelor of Social Work (B.S.W.) degree and the graduate program leading to the Master of Social Work (M.S.W.B.S.W.) degree are accredited by the Council on Social Work Education, the authorized accrediting body for social work education.

Programs

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.

Information Meetings: The School holds bi-weekly information meetings on its undergraduate and graduate programs. Potential applicants are encouraged to attend one of these meetings prior to making application. Information about the schedule of meetings may be obtained by calling the School's Office of Admissions and Student Services (313-313-577-4409).

* For specific requirements, see the Wayne State University Graduate Bulletin.

Degree Programs

BACHELOR OF SOCIAL WORK

**MASTER OF SOCIAL WORK*

**GRADUATE CERTIFICATE PROGRAM IN SOCIAL WORK PRACTICE WITH FAMILIES AND COUPLES*

School Directory

Dean: 201 Thompson Home; 313-577-4400; Fax: 313-577-6555

Associate Dean: 240 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

Coordinator of the B.S.W. Program:
236 Thompson Home; 313-577-4433

Coordinator of the M.S.W. Program:
237 Thompson Home; 313-577-4408

Coordinator of Field Education:
144 Thompson Home; 313-577-4479

Recruitment of Minority Students:
105 Thompson Home; 313-577-4409

Student Organization: 21 Thompson Home; 313-577-1639

Greater Detroit Assoc. of Black Social Workers (student chapter):
21 Thompson Home; 313-577-1639

Student Organization of Latino/a Social Workers:
21 Thompson Home; 313-577-1639

Website: <http://www.socialwork.wayne.edu/>

Mailing address for all offices: School of Social Work, Wayne State University, Detroit, Michigan 48202



Faculty and Administration

Dean: Phyllis I. Vroom

Associate Dean: Ann Rosegrant Alvarez

Director of Admissions and Student Services: Janet Joiner

M.S.W. Academic Services Officer: Anwar Najor-Durack

Administrative Officer: Curtis Brahm

Assistant to Administrative Officer: Juanitta D. Hill

Assistant to the Dean: Marilyn Knall

Professors

Jerrold Brandell, David P. Moxley, Anna Santiago

Associate Professors

Ann Rosegrant Alvarez, Beverly Black, Ronald L. Jirovec, Anthony King, Durrenda Onolemhemen, Melvyn C. Raider, Eileen Trzcinski, Phyllis I. Vroom, Arlene Weisz

Assistant Professors

Terrence Allen, Margaret O. Brunhofer (Clinical), Antonio Gonzalez-Prendes, Loren Hoffman (Clinical), Royce Hutson, Debra Jozefowicz-Simbeni, Poco Kernsmith, Bart Miles, Sheryl Pimlott-Kubiak, Joanne Soback, Shirley Thomas

Lecturers

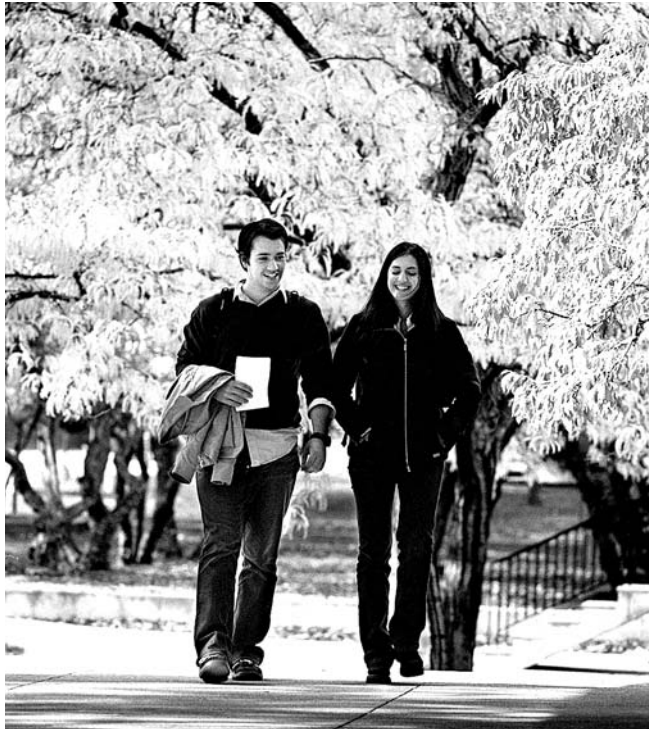
Cassandra Bowers (Senior), Lois J. Garriott

Emeriti Professors

Creigs C. Beverly, Leon W. Chestang, Sidney Dillick, Joseph P. Hourihan, Maryann Mahaffey, Betty Rusnack, Betty L. Welsh

Emeriti Associate Professors

Ralph Abramowitz, Theodore Goldberg, Carl Hartman, Alice E. Lamont, Thomas P. Melican, Edna P. Miller, Sandy G. Reid, Mavis M. Spencer, Susan L. Whitelaw



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 38); 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 priority deadline for submission of initial and all supporting materials for September admission is February 28. 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. Applications received after the closing date cannot be guaranteed processing. Applicants who begin their course of 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 with-

drawn 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 33 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 the B.S.W. and M.S.W. 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 the student 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 16.

The two patterns outlined below, designated Pattern A and Pattern B, are available through the College of Liberal Arts and Sciences and the Interdisciplinary Studies Program of the College of Urban, Labor and Metropolitan Affairs, respectively. 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 (College of Liberal Arts and Sciences)

Some of the following subject areas are prefixed with two-letter parenthetical codes. These codes indicate General Education categories which may be satisfied (entirely or in part) by the corresponding requirement in the pre-social work curriculum. For a definition of the General Education Requirements and a list of courses which satisfy each of them, see page 16.

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 credits (HIS 1300 is not a pre-social work option, but is a corequisite in the junior year of the professional program)
4. (AI) Political Science 3-4 credits
5. (SS) Sociology two courses

B. Natural Sciences: The following distribution of courses is required, including a laboratory course in one of the LS or PS areas designated below.

1. (LS) Biology 3-4 credits
2. Psychology three courses. Field practicum courses do not meet this requirement. A course in developmental psychology is required. Introduction to Principles of Psychology will NOT satisfy the LS (laboratory) requirement.
3. (PS) One course (3-4 credits) to be selected from the following: Physics, Chemistry, Geology, Astronomy.

C. Humanities: The following distribution of courses is required.

1. (PL) Philosophy/Letters 3 credits
2. (VP) Humanities 3 credits

D. English: The following distribution of courses is required.

1. (BC) Freshman Composition 4 credits
2. (IC) English Elective (2000 level or above) 3 credits

E. (OC) Basic Speech: 2-3 credits

F. Electives: Recommended: Select electives from General Education Requirements in Foreign Culture (FC), Computer Literacy (CL), and Critical Thinking (CT). Electives should be selected in conjunction with the School's Academic Services Officer.

Note: Beginning Fall 2005, General Education Requirements also include one Computer Proficiency (CP) course, and three Exposure Areas courses.

Pattern B (College of Urban, Labor, and Metropolitan Affairs)

Titles of some of the following courses are prefixed with two-letter parenthetical codes. These codes indicate General Education categories which may be satisfied (entirely or in part) by the corresponding requirement in the pre-social work curriculum. For a definition of the General Education Requirements and a list of courses which satisfy each of them, see page 16.

A. Social Sciences: The following distribution of courses is required.

1. ISS 2710 (SS) Selected 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 the Judicial System: Cr. 4
5. Economics 1000 (SS) Survey of Economics: Cr. 4

B. Natural Sciences: The following distribution of courses is required.

1. IST 2010 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) 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. I H 2710 (PL) Art and Aesthetics: Literature and Philosophy: Cr. 4
2. I 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 one Computer Proficiency (CP) course, and 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-seven credits in field work and related courses and a minimum of thirteen 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, computer proficiency, and critical thinking (competency examinations in each of these areas are available). See the General Information section of this Bulletin, page

16; and consult an undergraduate adviser regarding the pre-Social Work pattern and General Education courses.

Suitability and Fitness for the Profession: Students must show suitability and fitness for the profession of social work. Any breach of the values and ethics of the profession embodied in the Code of Ethics established by the National Association of Social Workers may result in termination from the B.S.W. or M.S.W. program.

School of Social Work Honors Option

Social Work students of superior academic ability are eligible to participate in the University's Honor Option, available in connection with specified social work courses during the junior and senior years. All Honors Option course work is to be completed with a previously-approved social work professor, and will include work beyond normal course requirements. Students interested in the Honors Option must present a cumulative grade point average of 3.30 or better and develop an academic plan of work with the School of Social Work Academic Services Officer. Application forms for the Honors Option are available in the Office of Admissions and Student Services. The application form must be signed by the instructor and the Academic Services Officer and must be returned to the Office of Admissions and Student Services by the end of the second week of classes. It is the student's responsibility to make sure that the instructor receives and turns in near the end of the semester an additional form that includes the grade for the student, in both the course and on the specific Honors-level work agreed upon. Students are required to complete a minimum of twelve credits under the Honors Option and maintain a cumulative grade point average of at least 3.30. The Honors Option is available in designated sections of the following courses: S W 3610, 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 Diversity, Oppression and Social Justice: Cr. 2
- S W 3510 Human Behavior in the Social Environment: Cr. 3

S W 3710 Social Welfare & the Social Work Profession:
History, Trends & Basic Concepts: Cr. 2

Second Semester

S W 3020 Social Work Practice Method II: Cr. 3
S W 3610 Organizational and Community Change: Cr. 3
S W 3810 Research Methods, Data Analysis, & Practice Eval. I: Cr. 3
S W 3998 Field Practice in Social Work I: Cr. 5

Senior Year

First Semester

S W 4010 Social Work Practice Method III: Cr. 3
S W 4710 Social Welfare in the United States: Current Programs: Cr. 2
S W 4810 Research Methods, Data Analysis, & Practice Eval. II: Cr. 3
S W 4998 Field Practice in Social Work II: Cr. 5

Second Semester

S W 4020 Social Work Practice Method IV: Cr. 3
S W 4997 (WI) Integrative Seminar in Social Work: Cr. 2
S W 4998 Field Practice in Social Work II: Cr. 5

GENERAL EDUCATION, COREQUISITES, AND ELECTIVES

Corequisite: The corequisite for the program during the junior and senior years must be distributed as follows:

History 1300, 3 credits, to be taken no later than the second semester of junior year.

Electives: Electives must be selected in consultation with the School of Social Work Academic Services Officer.

PART-TIME EXTENDED STUDY OPTION: Students interested in the part-time extended study option for the B.S.W. program must file a plan of work with the School's Academic Services Officer. The extended study option may be elected only if approved by the Coordinator of the B.S.W. program, or if the student is admitted to this option in the junior year.

SOCIAL WORK COURSES (S W)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 479.

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 Diversity, Oppression and Social Justice. Cr. 2

Prereq: S W 3010, S W 3070. 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. Assessment of the phenomenon of social functioning with reference to the human life cycle and human diversity in the context of families, groups, neighborhoods, communities, organizations and society. (Y)

3610 Organizational and Community Change. Cr. 3

Prereq: junior standing; admission to B.S.W. program. Theories of organizational and community change and social networks, neighborhoods, interorganizational and organizational behavior within a social work framework; study and simulation of change processes within human communities. (W,S)

3710 Social Welfare and the Social Work Profession: History, Trends and Basic Concepts. Cr. 2

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 Practice Method III. Cr. 3

Prereq: S W 3020; coreq: S W 4998. Continuation of four-course sequence. Utilization of systems and problem-solving approaches to plan for and apply appropriate social work interventions with emphasis on individuals, families and small groups. Analysis of student experience in practicum; use of simulation, videotapes, role-playing, and discussion. (Y)

4020 Social Work Practice Method IV. Cr. 3

Prereq: S W 4010; coreq: S W 4998. Continuation of four-course sequence. Emphasis on service delivery and change within organizations, neighborhoods, and communities. Learning experiences on functioning effectively in complex organizations and seeking organizational change. (F)

4710 Social Welfare in the United States: Current Programs. Cr. 2

Prereq: S W 3710; coreq: S W 4998. 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; coreq: S W 4998. 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. 2

Prereq: S W 4010; coreq: S W 4998, 4020. Integration of classroom learning and field experiences to promote student's understanding of social work knowledge, skills and values. Assessment of knowledge and experiential bases for generalist social work practice. (W)

4998 Field Practice in Social Work II. Cr. 5

Coreq: one course per term in social work practice methods. Minimum of ten credits must be taken over not less than two semesters; open only to senior B.S.W. students. Offered for S, M, and U grades only. The ratio of clock hours to credits is 46 to 1. Field practicum for senior-level students in the B.S.W. program. Field placements assigned by the Coordinator of Field Education. (T)

5720 Social Services for the Aged. Cr. 3

Identification, description and analysis of the problems of the aged; development of social work services to meet their needs. (Y)

5755 Introduction to Child Welfare. Cr. 2

Issues related to children and youth in care, or those in need of protection from abusive and/or neglectful caretakers. Information on legal processes. (F)

6010 (ELE 6010) Family Centered Collaboration in Early Childhood Intervention and Special Education. (O T 6150) (PSY 6010) Cr. 3-4

Theories, concepts and practices of family centered intervention services for young children with special needs. Team-building and cross-disciplinary communication and collaboration with families. (F)

6500 Social Work and the Law. (ULM 6600) Cr. 2

Study of the relationship between law and social work practice. Emphasis on understanding the legal processes, the relationship and interdependence of law and social work practice and the knowledge and skill needed to help integrate law into social work practice. (W)

6510 Social Work and the Black Community. (AFS 6510) 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)

6535 Juvenile Delinquency: Social Functioning. Cr. 2-4

Causes of juvenile delinquency from an ecological perspective; assessment of delinquents and their environment as basis for social work intervention. (F,W)

6540 Effects of Drugs and Alcohol on Social Functioning. Cr. 2

Prereq: senior or graduate standing. Types of substances most frequently abused, their effects on physiological, psychological and social functioning, and patterns of use among different age groups and populations. (T)

6550 Social Work Issues in the Work Place. Cr. 2

The nature and causes of occupational stress and other work-related behavior; existing and needed social work services in work settings, union programs, and community social agencies. (Y)

6560 Social Work and Sexual Orientation. Cr. 2

Prereq: senior or graduate standing. Theories of human behavior that relate to sexual orientation; impact of gay, lesbian, bisexual sexual orientation on social functioning; transference and counter-transference issues and homophobia, assessment of their impact on practice and policy. (Y)

6991 Special Topics in Social Work. Cr. 2-4

For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Topics of current interest to be announced in Schedule of Classes. (F,W)

ACADEMIC REGULATIONS and FINANCIAL AID

For complete information regarding academic rules and regulations of the University, students should consult the section of this Bulletin beginning on page 5. The following additions and amendments pertain to the School of Social Work.

Students in the School of Social Work are responsible for informing themselves of all rules, regulations and requirements, complying with all official procedures, and fulfilling all course and degree requirements in proper sequence with satisfactory scholarship. In case of doubt regarding any matter, the student should consult the School's Academic Services Officer. The primary responsibility rests with the student. All students are urged to file a plan of work with the School's Academic Services Officer, and to update the plan periodically. Electives should be selected in consultation with the School's Academic Services Officer.

The faculty of the School of Social Work has the responsibility to require a student to withdraw at any time prior to receipt of the degree when, in its judgment, the student fails to do satisfactory work. Such decisions may be based on deficiencies in performance in class or field or in personal fitness for the profession. The faculty has adopted a set of criteria and procedures for academic termination, copies of which may be obtained in the Dean's office.

Every effort is made to assist students whose work suffers as a result of conditions beyond their control such as personal illness, serious illness in the immediate family, or similar emergencies.

Attendance and Residency

Students are expected to attend all sessions of courses for which they are registered and to notify the instructors or their secretaries prior to the class session, if possible, when absence is necessary due to illness or similar emergency. Absence from the field practicum must be reported prior to the scheduled time, both to the agency and the faculty adviser. Consistent absence or tardiness in classes or the field practicum may have an adverse effect on the student's grade and may result in termination from the B.S.W. program.

A student must complete thirty semester credits in the School of Social Work and must be in residence during the final semester prior to graduation.

Maximum Hours

A student engaged in full-time or part-time study in the School of Social Work should plan a program in consultation with the Academic Services Officer, limiting it within a framework of required courses and electives in order to maintain a standard of scholarly attainment and academic excellence.

Field Education

All students enrolled in S W 3998 or 4998, Field Practice in Social Work I and II, are required to carry professional liability insurance as a condition of field placement.

The Field Education Manual contains a description of the field education program and the policies and procedures related to the program. Students are responsible for observing the procedures governing field work practice which are detailed in the manual. The manual is distributed to each student enrolled in S W 3998 and 4998.

Field Education Health Clearances Policy

The School may require students in field placement to obtain assessments of their physical or mental health from health or mental health professionals approved or selected by the School. The School of

Social Work reserves the right to refuse to place or direct students in field education if their physical or mental health status indicates such action is warranted in order to safeguard clients, agencies, the students themselves, other students, or the School.

Degree Application

Application for the degree must be filed in the University Records Office no later than the 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 Scholarships and 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 Scholarships and Financial Aid, 3 West, Helen Newberry Joy Student Services Building. Information on Guaranteed Student Loans may be obtained by contacting the Office of Scholarships and Financial Aid.

When financial aid is necessary, the School of Social Work will cooperate with the University Office of Scholarships and Financial Aid (see page 41) 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.

Shawn Abraham Endowed Memorial Scholarship provides awards of varying amounts, dependent upon funds available. Full or part time undergraduate and graduate social work students are eligible. Recipients must be minority women (Detroit resident) with leadership skills, financial need and a minimum 2.50 g.p.a. Scholarship may be used for tuition or educational expenses.

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.

Arnette Burwell Endowed Scholarship provides awards of varying amounts, dependent upon funds available. Undergraduate and graduate students are eligible. Preference given to African-American females. The award is based on financial need, and scholastic achievement.

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.

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.

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.

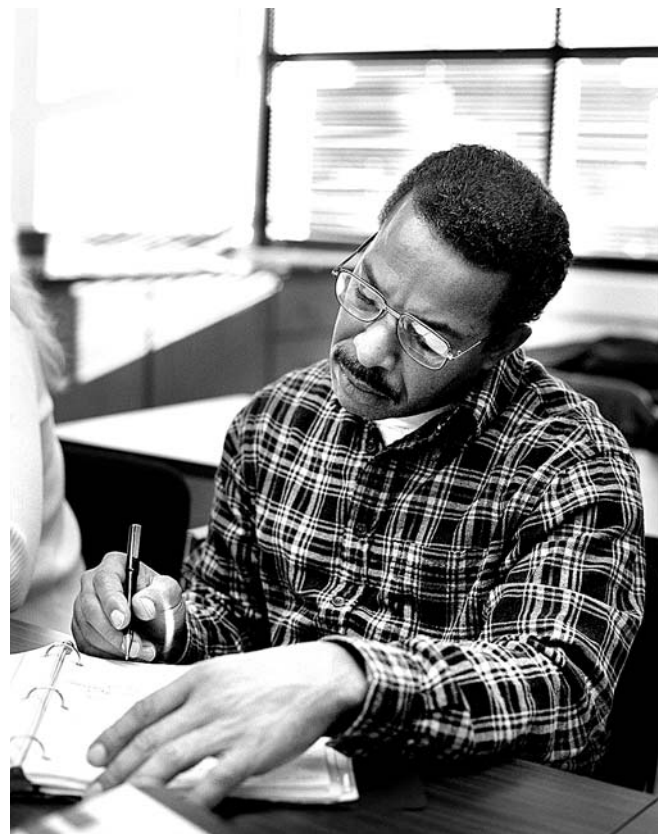
School of Social Work Alumni Association Endowed Scholarship of varying amounts is awarded to undergraduate and graduate students who participate in activities that promote social work principles, have financial need and demonstrate scholastic achievement.

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.

Shirley P. Thrasher & Cecille Y. Dumbrigue Endowed Memorial Scholarship of varying amounts is awarded to full-time undergraduate or graduate social work students. Preference given to minority female students who demonstrate financial need and scholastic achievement.

Mary Turner Scholarship is an award of variable amount, made to full-time female students on the basis of academic achievement and financial need.

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.

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 (S.O.L.A.S.W.)

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.

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.

Alumni Association

The 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 2004-05:

ACCESS: Alia Beydoun

ALTERNATIVES FOR GIRLS: Patty Swift, Joan Dennehy

ANCHOR BAY SCHOOL DISTRICT: Marc Patyi

ANGELA HOSPICE: Rebecca Margolis

ARC OF LIVINGSTON: Sherri Boyd

ARC SERVICES OF MACOMB, INC.: Luanne DeGueisippe

BENJAMIN CARSON ACADEMY: Patricia Moore

BERKLEY SCHOOL DISTRICT: Nancy Urban

BIG BROTHERS/BIG SISTERS: Jean Butler

BIO MED BEHAVIORAL HEALTHCARE: Nicole Martin

BLACK FAMILY DEVELOPMENT: Kenyatta Stephens

BLACK UNITED FUND OF MICHIGAN, INC.: Brenda Rayford

BLOOMFIELD HILLS SCHOOLS: Gail Lepage

BOYS AND GIRLS REPUBLIC: Noreen Haggerty

BRIGHTMOOR COMMUNITY CENTER: Peter Lisiecki

C.A.R.E.: Ellen Tucker, Pat Mroch

CATANESE CLINIC: Cindy Anderson

CATHOLIC CHARITIES OF MONROE: Victoria Brown

CATHOLIC SOCIAL SERVICES OF WAYNE COUNTY: Cam Gild, Josephine McCrary

CATHOLIC SOCIAL SERVICES OF ST.CLAIR COUNTY: Edward Cleslinski

CENTER FOR COMMUNITY ACCESS INC: Michael Paul

CHATHAM-KENT INTEGRATED CHILDREN'S SERVICES: Mike Stephens

CHILDREN AND YOUTH INITIATIVE INC.: Belinda Evans-Ebio

CHILDREN'S CENTER OF WAYNE CO.: Demereal Owens

CHILDREN'S HOME OF DETROIT: Jill Killenberg

CHIPPEWA VALLEY SCHOOLS: Charlene McGunn

CHRIST CHILD HOUSE, THE: Julia Winston

CITIZENS FOR BETTER CARE: Nida Donar

CLARKSTON COMMUNITY SCHOOLS: Brenda Bowling

CLEAN HOUSE: Sandra Schiff

COMMON GROUND SANCTUARY: Barbara Broesamle

COMMUNITIES IN SCHOOLS, INC. DETROIT: Cynthia Williams

COMMUNITY CARE SERVICES: Cheryl Green

CONGRESSMAN SANDER LEVIN: Heather Merser

CONNECTING POINT: Janice Szegedi

CONNER CREEK ACADEMY EAST HIGH SCHOOL: Christine Grippi

CORNELL CENTER: Jane Diehl

CROSSROADS FOR YOUTH: Carol Teachworth

CROSSROADS OF MICHIGAN: Latoria Glenn

CSS OF FLINT: Betty Rathfon

CSS OF OAKLAND CO. - Pontiac: Peggy Akrigg

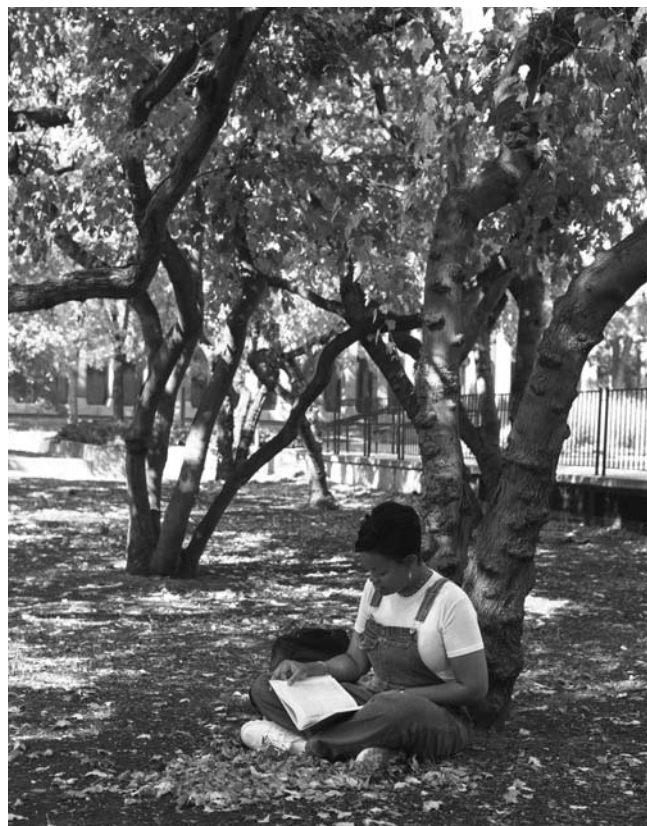
CSS OF OAKLAND CO. - Royal Oak: Francesca Pernice-Duca

DEARBORN PUBLIC SCHOOLS: Kathleen Gabe, Angela Burley

DETROIT BOARD OF EDUCATION: Carolyn Phillips
 DETROIT CENTRAL CITY CMH, INC.: Henriette Warren, Gail Johnson
 DETROIT CITY COUNCIL: Sara Gleicher, Terry Howcott
 DETROIT EAST CMH: Karen Sumpter
 DETROIT EAST COMMUNITY MENTAL HEALTH: Patricia Gibbs
 DETROIT HEALTH DEPT.: Olivia Ramsey
 DETROIT INSTITUTE FOR CHILDREN: Kathy Sundberg
 DETROIT NEIGHBORHOOD & FAMILY INITIATIVE: Maureen Taylor
 DETROIT PARENT NETWORK: Tonya Allen
 DETROIT SENIOR CITIZENS DEPT.: Elizabeth Quinones
 DETROIT YOUTH FOUNDATION: Anthony Thompson
 DEVELOPMENT CENTERS, INC. Christel Danna, Steve Nims
 DMC - CHILDREN'S HOSPITAL OF MICHIGAN: Mary Mueller, Shirley Monn-Grey
 DMC - REHABILITATION INSTITUTE: Patrick Donnellon
 DMC - SINAI GRACE HOSPITAL: Eugene Breman
 DON BOSCO HALL: Duane Carter, Lawrence Abner
 DOWNRIVER COMMUNITY SERVICES, INC.: Marguaret Hader
 DOWNRIVER COMMUNITY SERVICES: Mary Owen
 EAST CHINA TOWNSHIP SCHOOL DISTRICT: Linda Bruckner
 EASTER SEALS: Vicky Millmine
 EASTWOOD COMMUNITY CLINIC: Don Healy
 ELMHURST HOMES INC.: Donald Berry
 ENNIS CENTER FOR CHILDREN: David Mayfield, Bennie Whitfield
 FAMILY AND CHILDREN'S SERVICE OF MIDLAND: Janine Ouderkirk
 FAMILY YOUTH INTERVENTIONS: Jolyne Baarck
 FIA - OAKLAND COUNTY: Cassandra Bowers
 FIA - WAYNE COUNTY: Ellen Devine
 FIA - ST. CLAIR COUNTY: Cassandra Bowers
 FIRST STEP: Carmen Dominguez
 3rd JUDICIAL COURT: David Manville
 FITZGERALD PUBLIC SCHOOLS: Polly Hardy
 FRIEND OF FIRST CONGREGATIONAL CHURCH: Lothe Jones-Hood
 FRIENDSHIP CIRCLE: Marc Greenberg
 FRIENDSHIP HOUSE: Sharon A. Buttry
 GARDEN CITY HOSPITAL: Margaret Sasena
 GUIDANCE CENTER, THE: Carol Oleksiak, Jackie Cormickle, Lisa Fitch
 HARBOR BEHAVIORAL HEALTHCARE: Gwen Jones
 HAVENWYCK HOSPITAL: Robert Kercorian, Lynn Nichols
 HAWTHORN CENTER: Angeline Houston
 HEARTLAND HOSPICE: Mary Parmentier
 HEGIRA PROGRAMS, INC.: Kristin Ryeson-Dzahristos, Ron Silber
 HENRY FORD BEHAVIORAL SERVICES: Kathy Ransome
 HENRY FORD HEALTH INITIATIVE: Janet Nicoletti
 HENRY FORD HEALTH SYSTEM - EAP: Lynda Mance
 HENRY FORD HEALTH SYSTEM: Rachel Pearson
 HENRY FORD HEALTH SYSTEMS - HOSPICE: Diana Tomezak
 HENRY FORD HEALTH SYSTEMS - Maplegrove: Joan Zaremba
 HENRY FORD HEALTH SYSTEMS: Mara Figel
 HENRY FORD HOSPITAL: Teri Sahn-Silver
 HIGHLAND PARK SCHOOL DISTRICT: Odevia Brown
 HOLY CROSS CHILDREN'S CENTER: Michael Smith
 HURON INTERMEDIATE SCHOOL DISTRICT: Jill Champagne
 IMPACT CONSULTING SERVICES PC: John Neumann
 JEC CONSELING: Joseph Mojet
 JEWISH APARTMENTS & SERVICES: Jennifer Ruby, Andrea Rosner-Najer
 JEWISH FAMILY SERVICE: Barbara Berger-White
 JEWISH FEDERATION APARTMENTS: Steve Popkin
 JEWISH HOME AND AGING SERVICES: Shirley Jarcaig, Minda Silver-Weiss
 JUDSON CENTER: Winifred Price, Cherie Plevak
 JVS SENIOR ADULT SERVICES: Peter Ostrow, James Willis
 KARMANOS CANCER CENTER: Marie O'Leary
 LACASA: Mary Forsberg
 LAKEVIEW PUBLIC SCHOOLS: Chris Templeton
 LEGAL AID & DEFENDER ASSOCIATION: Robyn D. Tolbert
 LINCOLN PARK HIGH SCHOOL: Sharon Sadowski
 LIVONIA PUBLIC SCHOOLS: Tonia Busch
 LULA BELLE STEWART CENTER: Edna Walker
 LUTHERAN CHILD & FAMILY SERVICES: Rebecca Salver, Helen Drake
 LUTHERAN SOCIAL SERVICES: Renee Peters
 MACOMB COUNTY CRISIS CENTER: Gary Burnett
 MACOMB COUNTY FAMILY INDEPENDENCE AGENCY: Karen Urquhart, Angela Smalarz
 MACOMB FAMILY SERVICES INC: Nancy Jenuwine, Laura Henderson
 MACOMB INTERMEDIATE SCHOOL DISTRICT: Phyllis O'Brien
 MACOMB INTERMEDIATE SCHOOLS: Nadine Lovell
 MARINER'S INN: David Sampson
 MATRIX HUMAN SERVICES: Corey James, Robin Brumlow
 MICHIGAN LEAGUE FOR HUMAN SERVICES: Ann Marston
 MONROE CO. INTERMEDIATE SCHOOL DISTRICT: Sue Honn
 NATIONAL COUNCIL ON ALCOHOLISM: Linda Woodward
 NATIONAL INSTITUTE FOR TRAUMA AND LOSS IN CHILDREN: Rebecca Konarz
 NEW DETROIT: Vanessa Mayers
 NEW START: Jo Neal
 OAKDALE RECOVERY CENTER: Patsy Schwartz
 OAKLAND CO. CHILDREN'S VILLAGE: Theresa Krolczyk, Jody Overall
 OAKLAND CO. PROBATE COURT: Patrick Breen
 OAKLAND CO. FRIEND OF THE COURT: Lori Klein-Shapiro
 OAKLAND FAMILY SERVICES: Gail Babb, Barbara Campbell, Laura LaVoisine-Williams, Rose Couzeure, Richard Silber
 OAK PARK SCHOOL DISTRICT: Walid Gammouth
 OAKWOOD HOSPITAL: Ed Essa
 OAKWOOD SOUTHSORE HOSPITAL: Joan Southworth

ORCHARDS CHILDREN'S SERVICES: Dawn Dwyer, Trudy Fortino
 PAUL MARTIN HOME FOR BOYS: Carla Spight-Mackey
 P.O.W.E.R., INC.: Carol Burrell-Jackson
 PONTIAC SCHOOLS - WISNER CENTER: Dr. Clyde Alexander
 PORT HURON HOSPITAL: James King
 PROVIDENCE HOSPITAL: Pamela Oehmke
 RAPE COUNSELING CENTER: Althea M. Grant, Debbie Kaminskis
 REDFORD SCHOOLS: Bryant Goulet
 RESTORATION TOWERS: Gladys Murphy
 ROSEVILLE COMMUNITY SCHOOLS: Liz Andrzejewski, Nicole Stacey
 SAGINAW CO. CMH: Lori Denter
 SALVATION ARMY ADULT REHAB CENTER: Joseph Cummings
 SALVATION ARMY, THE: Joyce Stefanski
 SANCTUARY, THE (COMMONGROUND): Barbara Broesamle
 SENATOR STABENOW: Trina Ellis
 SEXUAL ASSAULT CRISIS CENTRE OF ESSEX CO: Gisele Harrison
 SHUMARD COUNSELING, PC: Barbara Shumard
 SOUTHFIELD DAVITA DIALYSIS: Gina Sikon
 SOUTHFIELD PUBLIC SCHOOLS - SOCIAL WORK: Karen Weiner
 SOUTHGATE COMMUNITY SCHOOL DISTRICT: Beverly A. Baroni-Yeglic
 SOUTHWEST SOLUTIONS: Roberta Walker
 SPAULDING FOR CHILDREN: Charles Shultz, Addie Williams, Janice King
 SPECTRUM HUMAN SERVICES: Shirley Titus, Pam Bolivao
 ST. JOHN DETROIT RIVERVIEW HOSPITAL: Sheila Boone
 ST. JOHN HEALTH SYSTEM: Ambra Redrick
 ST. JOHN HEALTH SYSTEM-OPEN ARMS: LaShawn Myers, Gwendolyn Pettway
 ST. JOHN MACOMB HOSPITAL CENTER: John Dobat, Maryann Woodard
 ST. JOSEPH MACOMB: Sharon Vanderwinkle
 ST. PETER'S HOME FOR BOYS: Marlene Knecht
 ST. PETER THE APOSTLE: Marion McCarthy
 STARFISH FAMILY SERVICES: Leslie Weimer
 STRAITH HOSPITAL: Matthew Haun
 THE OPEN DOOR: John Heiss
 THE ORDER OF THE FISHERMAN MINISTRY: Marlene Harper
 TRAINING & TREATMENT INNOVATIONS INC.: Jean Pfaendtner
 TROY SCHOOL DISTRICT: Wendy Talan
 TUSCOLA INTERMEDIATE SCHOOL DISTRICT: Rebecca Ducham
 TURNING POINT, INC.: Nicole Hall
 UNIVERSITY PSYCHIATRIC CENTER: Elise Hairston
 UTICA COMMUNITY SCHOOLS: Diane Redmond, Dorothy Sommers
 VA MEDICAL CENTER-DETROIT: Sandra Wilson, Brenda Hayes, Delores Reynolds, Crystal Lindsay, Lynn Senia, Jessie Martin-Ford, Michael Bethune, Cindy Albain, Ann Brady
 VA MEDICAL-ANN ARBOR: Thomas Ross, Dorothy Stock, Debra Amieya

VAN DYKE PUBLIC SCHOOLS: Glennis Dale, Patricia Magas, Kathleen Blair
 VAN ELSLANDER CANCER CENTER: Monique Willett
 VISTA MARIA: Wendy Kearney, Sarah Platz
 WALLED LAKE PUBLIC SCHOOLS: Glenn Whitelaw, Dennis Wisniski
 WARREN WOODS SCHOOLS: Alan Koshko, Linda Hutchins
 WASHINGTON WAY RECOVERY CENTER: Patricia Burbank
 WATERFORD SCHOOL DISTRICT: Karen Gomez, Sara Gedda, Denise Sokol
 WAYNE CO. JUVENILE DETENTION FACILITY: Debra Love
 WAYNE MEMORIAL HIGH SCHOOL: Diana Yurk
 WINDSOR FAMILY FORUM: Suzanne El-Baba
 WINDSOR REGIONAL CANCER CENTER: Sharron Mailloux
 WINDSOR REGIONAL CHILDREN'S CENTER: Alan Goyette, Joann Pignonelli
 WINDSOR REGIONAL HOSPITAL: Elaine Sinnnot
 WOLVERINE HUMAN SERVICES: Tom Krolicki, Melissa Brazza
 WOMEN'S JUSTICE CENTER: Karen Weatherford
 WOMEN'S SURVIVAL CENTER: Cassandra Scott
 WOMEN'S RESOURCE CENTER OF LIVINGSTON COUNTY: Connie Dole
 WSU CENTER FOR URBAN STUDIES: Wilma Scott
 WSU COUNSELING AND PSYCHOLOGICAL SERVICES: Galen Duncan
 WSU SCHOOL OF SOCIAL WORK: Poco Kernsmith
 YPSILANTI PUBLIC SCHOOLS: Cynthia Abraham



**COLLEGE OF URBAN, LABOR
and METROPOLITAN AFFAIRS**

INTERIM DEAN: Jack Kay

Foreword

The College of Urban, Labor and Metropolitan Affairs was approved by the Board of Governors, effective Fall Term 1987. The primary mission of the College is to promote, stimulate and engage in pure and applied urban-oriented research and scholarship; to provide instructional programs (credit and non-credit curricula) in urban and labor affairs; and to develop and conduct programs of service to public and private institutions and to individuals, consistent with the overall mission of the University.

The College of Urban, Labor and Metropolitan Affairs includes:

The Archives of Labor and Urban Affairs
The Center for Chicano-Boricua Studies
The Center for Peace and Conflict Studies
The Center for Urban Studies
The Department of Geography and Urban Planning
The Department of Interdisciplinary Studies
The Detroit Orientation Institute
The Labor Studies Center
The Douglas A. Fraser Center for Workplace Issues
The Skillman Center for Children
The State Policy Center
The University Professors for Labor Studies

The College is responsible for the administration of the Bachelor of Arts in Labor Studies; the Bachelor of Interdisciplinary Studies; the Bachelor of Technical and Interdisciplinary Studies; graduate programs in Geography, Industrial Relations, and Urban Planning; the Graduate Certificate Program in Economic Development; the Graduate Certificate Program in Dispute Resolution; and the Co-Majors in Urban Studies and Chicano-Boricua Studies, and Peace and Conflict Studies. (For information on the Bachelor of Arts program in Geography, see page 294 in the College of Liberal Arts and Sciences section of this bulletin.)

Archives of Labor and Urban Affairs

Walter P. Reuther Library; 313-577-4024

The Archives of Labor and Urban Affairs, College of Urban, Labor and Metropolitan Affairs, was established in 1960 to collect, preserve and make available to qualified researchers records of the American labor movement and related social, economic and political reform groups, and twentieth-century urban America. The Archives has since become the official depository for the inactive files of the Congress of Industrial Organizations, the United Auto Workers, the American Federation of Teachers, The Newspaper Guild, the United Farm Workers, the American Federation of State, County and Municipal Employees, the Airline Pilots Association, the Association of Flight Attendants, the Industrial Workers of the World and many state and local labor organizations. Files have also been gathered from such groups as the Citizens' Crusade Against Poverty, the American Civil Liberties Union, the National Association for the Advancement of Colored People, the United Community Services of Detroit, and New Detroit, Inc. Many individuals who played leading roles in labor and urban affairs have also placed their papers in the Archives. Correspondence, minutes, clippings, notes, newspapers and other written records, as well as films, tapes and photographs, are available for research. The Archives Newsletter is published periodically to describe recent acquisitions, research in progress and other topics.

University Archives

Walter P. Reuther Library; 313-577-4024

The University Archives, College of Urban, Labor and Metropolitan Affairs, was established in 1958 to collect, preserve, organize and make available to qualified researchers those University records which have research value. The Archives also collects the records of student organizations, professional associations and personal

papers of faculty members who have contributed to the development of the University and higher education. The collections include manuscripts, photographs, publications, tape recordings, Board of Governors Proceedings, catalogs, schedules of classes and an extensive vertical file. The Archives currently holds over 500 newsletters and publications including *Wayne Report*, *The South End*, and less commonly known titles such as *Crumbs and Ravelings*, *Gabriel's Horn* and *Short Circuit*.

Graduate Study in Industrial Relations

Office: 1262 Faculty Administration Building; 313-577-6092

This graduate program provides a curriculum leading to the M.A. degree in Industrial Relations (MAIR). MAIR is inter-college, as well as interdisciplinary, and is administered by the College of Urban, Labor and Metropolitan Affairs.

MAIR is jointly sponsored by the Departments of Economics and Psychology in the College of Liberal Arts and Sciences, and the Department of Business in the School of Business Administration. Policy direction is provided by an Advisory Committee comprised of one representative of each sponsoring Department.

MAIR is designed to provide professional preparation for a career in industrial relations with a focus on the substance and process of collective bargaining. Students will be prepared for industrial relations positions in government, business and union organizations, and MAIR intends to assist in the appropriate job placement of its graduates. MAIR will also provide knowledge and skills for persons who contemplate entering or who are already engaged in self-employment involving industrial relations, such as labor arbitration.

For further information, consult the Wayne State University Graduate Bulletin.

Degree and Certificate Programs

BACHELOR OF INTERDISCIPLINARY STUDIES

BACHELOR OF TECHNICAL AND INTERDISCIPLINARY STUDIES

BACHELOR OF ARTS with a major in labor studies

(The Bachelor of Arts with a Major in Geography degree is awarded by the College of Liberal Arts and Sciences; see page 294.)

POST-BACCALAUREATE CERTIFICATE in Nonprofit Sector Studies

**MASTER OF ARTS with a major in geography (in moratorium)*

**MASTER OF ARTS in Dispute Resolution*

**MASTER OF ARTS in Industrial Relations*

**MASTER OF INTERDISCIPLINARY STUDIES*

**MASTER OF URBAN PLANNING*

**GRADUATE CERTIFICATE IN ECONOMIC DEVELOPMENT*

**GRADUATE CERTIFICATE IN DISPUTE RESOLUTION*

Co-Major Programs

Degrees with co-majors in the following areas are granted in the College of Liberal Arts and Sciences and the College of Fine, Performing and Communication Arts in conjunction with the College of Urban, Labor and Metropolitan Affairs:

Chicano-Boricua Studies
Peace and Conflict Studies
Urban Studies

* For specific requirements, see the Wayne State University Graduate Bulletin.

Bachelor of Arts Degree Requirements

Credits

Candidates for the Bachelor of Arts degree must complete at least 120 credits. Certain curricula may require additional credits above this minimum. (See 'Restrictions on Credit,' below.)

Group Requirements

University-wide general education requirements and College-wide group requirements are designed to enhance students' basic skills and the diversity of their intellectual background. These requirements assure minimal competence in those skills needed to succeed in college and professional life and provide a selective introduction to the increasingly broad range of academic disciplines represented at the University. They serve to emphasize the fundamental means and essential knowledge required for continuing self-education and intellectual growth.

Beginning with the Fall semester of 1987, all first-semester freshmen entering the College of Urban, Labor and Metropolitan Affairs and all Urban, Labor and Metropolitan Affairs students who transfer twelve or fewer credits into the College are required to satisfy both the University General Education Requirements (see page 16) and the College of Liberal Arts and Sciences Group Requirements (see page 234). While these two sets of requirements substantially overlap and complement each other, the College Group Requirements, in several respects, supplement and modify the University program by requiring additional course work or restricting the use of certain courses to satisfy these requirements.

University Requirement In American Government for students enrolled prior to Fall Term 1987: see General University Information, page 24.

Proficiency in English and Mathematics

All undergraduate students who register for the first time at Wayne State University in Fall Semester 1983 or thereafter will be required to demonstrate proficiency in English and mathematics by the time they have earned sixty semester credits towards a bachelor's degree. For full particulars, as well as the requirements applicable to registrants at the University prior to Fall 1983, see the General Information section of this Bulletin, page 24.

Major and Co-Major Requirements

A major or co-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 are expected to select areas of concentration during their sophomore year and to declare majors in the subject or field of choice 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, 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. An up-to-date cumulative record of the student's work should be obtained by the student from the Records Office and delivered to the Department for its files. At the time of formal declaration, the student must obtain the signature of the Department Chairperson or the designated representative on the major declaration form and file the form in the Dean's Office, College of Urban, Labor and Metropolitan Affairs. 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 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.

Within the above limits, each major program has specific requirements, which may be modified from time to time; therefore, it is the student's responsibility to obtain the current requirements from the major Department.

For interdepartmental or field majors, the rule regarding minimum credits required in one subject is waived.

For majors which require intensive study in a particular subject, more than forty-six credits are allowed.

The major completed is part of the degree designation on the diploma.

Restrictions on Credit

The College imposes the following restrictions on credit:

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 specified additional courses in the curriculum outline.

Over-age Credits: Students attempting to complete majors after a protracted interruptions in 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 out of date. 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 — Two-Year Colleges: No more than sixty-four semester credits may be transferred from two-year colleges.

— *Labor School:* A maximum of ten hours of elective credit may be granted students who have been certified as having completed the Labor School curriculum, have a letter of recommendation from the Director, and have earned sixty credits with a grade point average of at least 2.0.

Restricted Courses: Degree credit is not given for elections in restricted courses which exceed the approved limit 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 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 limitation stated in paragraph below)
16 credits maximum
- Physical Education (approved courses) 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:

MUA 2800 -- University Bands: Cr. 1
MUA 2810 -- University Symphony Orchestra: Cr. 1
MUA 2820 -- Jazz Ensembles: 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
COM 2240 -- Forensics Practicum: Cr. 1-3

Repeated Subjects

It is understood that degree credit will not be granted for course work in 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 work as credit towards a degree.

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.

Advanced Courses

At least fifteen credits in courses numbered 3000 or above *must* be earned.

Combined Degrees: Courses taken in the first year of professional school may be applied toward the required fifteen credits in advanced courses.

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 48.

Residence

To qualify for a baccalaureate degree in the College of Urban, Labor and Metropolitan Affairs, a minimum of thirty credits must be earned at Wayne State University. In addition, the last thirty credits applicable to the degree, not including credit by special examination, must be completed at the 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 approval of the Dean; however, when the candidate has fewer than the minimum thirty credits of residence at Wayne State University, no such exceptions are permitted.

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 Urban, Labor and Metropolitan Affairs.

Recommended High School Preparation

The College of Urban, Labor and Metropolitan Affairs strongly supports the University's recommendations concerning academic preparation. See page 33.

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 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

For more than a quarter of a century, the University has provided its students with the opportunity to study abroad for a year in order to experience the cultural, academic, and social life of a foreign country.

The College of Urban, Labor and Metropolitan Affairs has initiated an Undergraduate Student Exchange in Urban Affairs with the University of Salford, England. Students in good academic standing studying in the social sciences in the University, with the approval of the major Department, may apply for one or two semesters of study in Salford. Prerequisites include: a minimum 3.0 g.p.a. or Departmental nomination for the program; at least twelve credits earned towards a major; and satisfactory completion of at least fifty-four credits prior to departure. Participants will register as full-time students and pay tuition at Wayne State University and will receive University credit for Salford study. Interested students should contact the Office of the Dean, College of Urban, Labor and Metropolitan Affairs; telephone: 313-577-5071.

College of Urban, Labor and Metropolitan Affairs students are also eligible for other opportunities to study abroad that the University provides, including the Junior Year in Munich or Freiburg Program, the Wayne at Gordes Program, and the exchange program with the Jagiellonian University in Krakow, Poland. For these and other opportunities for foreign study, see 'Study Abroad,' page 242; and contact the University Advising Center, 313-577-2680.

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 and Sciences by the United Chapters. 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.

Students in the College of Urban, Labor and Metropolitan Affairs are also eligible for election if they meet the chapter's requirements and are enrolled in a degree program transferred from the College of Liberal Arts and Sciences at the time the College of Urban, Labor and Metropolitan Affairs was formed or afterwards.

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 the requirements.

Graduation With Academic Distinction

Candidates eligible for the bachelor's degree may receive a special citation placed 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 5%, the next 5% and the next 10% or 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 in the College of Liberal Arts and Sciences 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.

Academic Probation

Low Grade Point Average: Student's whose grade point average falls below 2.0 will be placed on academic probation. If serious grade point deficiencies are incurred, the students may be required to obtain permission from the Office of the Dean before registering. Such permission will be granted only after an interview during which some assurance is given that previous causes of failure have been ameliorated.

Lack of Progress: Students whose records reveal an excessive number of 'Withdrawal,' 'Incomplete' and 'X' marks and who, as a result, make little or no progress towards earning a degree, will be placed on academic probation. Such students may be required to confer with an academic adviser in the Undergraduate Office in order to register. Students on academic probation are encouraged to use support services of the University.

Restriction: While on academic probation, a student may not represent the College in student activities.

Removal of Academic Probation: Probation will be removed at the end of any term in which an over-all average of 'C' or better for all degree work taken in the College or earned as cognate credit is achieved.

Exclusion

Low Grade Point Average: Students on academic probation who incur serious deficiencies or fail to raise their grade point averages within a reasonable length of time, may be excluded from the Col-

lege. Such an exclusion will be reviewed by the Probation Committee and the Dean upon the request of the student.

Lack of Progress: After having conferred with an academic adviser, students who make little or no progress towards a degree may be excluded from the College.

Readmission: After one year of exclusion, students may apply for readmission to the College. The decision to readmit will be based upon evidence which indicates 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 Office of Instructional Programs.

Academic Advising

Freshmen and sophomores are encouraged to consult advisers each time they register. A staff of academic advisers is available in the University Advising Center. 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.

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.

Directory

Office of the Dean

Interim Dean: Jack Kay

Associate Dean: Robin Boyle

Business Manager: Pamela Day

3198 Faculty/Administration Building: 313-577-5071

Fax: 313-577-8800

Web: <http://www.culma.wayne.edu>

Academic Services Officer: Linda Johnson

1262 Faculty/Administration Building: 313-577-6092

Fax: 313-577-9969

Archives of Labor and Urban Affairs

Director: Michael Smith

231 Reuther Library: 313-577-4024

Fax: 313-577-4300

Center for Chicano-Boricua Studies

Director: Jorge Chinae

3324 Faculty/Administration Building: 313-577-4378

Fax: 993-4073

Center for Peace and Conflict Studies

Director: Fred Pearson

2319 Faculty/Administration Building: 313-577-3468

Fax: 313-577-8269

Center for Urban Studies

Director: Thomas Lyke Thompson
3043 Faculty/Administration Building: 313-577-2208
Fax: 313-577-1274

Dispute Resolution

Director: Loreleigh Keashly
Research Associate: William Warters
3198 Faculty/Administration Building: 313-577-3221
Fax: 313-577-8800

Fraser Center for Workplace Issues

Director: William N. Cooke
Reuther Library: 313-577-2100
Fax: 313-577-7599

Geography and Urban Planning

Interim Chairperson: Gary Sands
225 State Hall: 313-577-2701
Fax: 313-577-0022

Industrial Relations

Director: Heidi Gottfried
1262 Faculty/Administration Building: 313-577-6092

Interdisciplinary Studies

Chairperson: Stuart Henry
Second Floor, Academic/Administrative Building,
5700 Cass Avenue; 313-577-6566

Labor Studies Center

Director: Hal Stack
3168 Faculty/Administration Building: 313-577-2191
Fax: 313-577-7726

Skillman Center for Children

Director: Kristine Miranne
3198 Faculty/Administration Building: 313-577-5225
Fax: 313-577-8800

State Policy Center

Director: Peter Eisinger: 313-577-0635
3231 Faculty/Administration Building
Fax: 313-577-8800

Faculty of Urban and Labor Studies

Professors

Timothy M. Bates, Diane Brown, Peter Eisinger, Michael Goldfield, Philip P. Mason, Thomas L. Thompson

Associate Professors

Michael Belzer, David Fasenfest, Heidi Gottfried, Loreleigh Keashly

University Professors

Office: 253 Reuther Library: 313-577-5196

David Bonier, Douglas Fraser

Clarence B. Hilberry Endowed Chair of Urban Affairs

George C. Galster

CHICANO-BORICUA STUDIES

Office: 3326 Faculty Administration Building; 313-577-4378
Fax: 313-993-4073

Director: Jorge L. China

Assistant Director for Recruitment & Retention: Katalina Berdy

Counselor: Tammy Ortega

e-mail: ah3826@wayne.edu

Professors

Jorge L. China, Jose Cuello

Affiliate Faculty

Jorgelina Corbatta

Counselor

Tammy Ortega

Purpose

The mission of the Center for Chicano-Boricua Studies (CBS) is to provide equitable access to a quality university education to Latina/o students in the Detroit metropolitan area, 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 metropolitan 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.

Student Academic Self-Empowerment Program

Chicano-Boricua Studies offers a comprehensive student services program. CBS recruits Latina/o students from the metropolitan area into a two-year program 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 in academic learning skills. The goal of the Program is to educate students beyond the acquisition of employment skills, but to encourage them to develop the conceptual-intellectual practices that provide an appreciation for the life of the mind, a wisdom of the world, and a sense of ethical responsibility to society. Students have access to the Center's resources from recruitment through graduation, and as alumni.

Admission: Requirements include submission of an official Wayne State Application for Undergraduate Admission, a minimum high school grade point average of 2.0, 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. High achievers are strongly encouraged to join the Program.

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 with peoples of Latin American descent. 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 453 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 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
HIS 3995 -- Special Topics in History: Latin America: Cr. 3-4
P S 5770 -- Government and Politics of Latin America: Cr. 4
SPA 3630 -- Survey of Spanish American Literatures: Cr. 3
SPA 5560 -- Spanish American Cultures and Their Traditions: Cr. 4
SPA 6600 -- Spanish American Colonial Literature: Cr. 4
SPA 6620 -- The Spanish American Novel II: Cr. 4
SPA 6630 -- Spanish American Poetry: Cr. 4
SPA 6670 -- Latin American Novel to 1900: Cr. 3

Latino En Marcha Scholarship

CBS administers an annual scholarship fund of \$150,000, available to all of the approximately 600 Latina/o students at Wayne State University. Competition is for the academic year comprising the Fall and Winter semesters, with an additional competition for spring-summer. Minimum requirements for continuing Wayne State students are a 2.5 or above cumulative and last-semester g.p.a.s (2.5 g.p.a. for entering first-year students).

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 479.

1410 Student Success Seminar. Cr. 1 (Max. 2)

Prereq: consent of instructor. Open only to students in Chicano-Boricua Studies program. Developing academic skills; self-empowerment. (T)

2100 Chicano Literature and Culture. (SPA 2400) Cr. 3

Examination of Chicano literature. Themes and figures in a social and historical context. (B)

2110 Puerto Rican Literature and Culture. (SPA 2500) Cr. 3

Examination of Puerto Rican literature. Themes and figures in a social and historical context. (B)

2410 (FC) History of Mexico. (HIS 2440) Cr. 3

Historical development of Mexico and the Mexican people from the Spanish conquest to the present. Interaction of political, social, economic and cultural influences. (Y)

2420 (FC) History of Puerto Rico and Cuba. Cr. 3

Historical development of Puerto Rico and Cuba from the pre-Columbian period to the present. Interaction of political, social, economic and cultural influences. (I)

2430 History of Latinos in the United States. (HIS 2430) Cr. 3

Historical development of people of Hispanic descent in the United States from the early nineteenth century to the present. Cultural conflict, interaction of political, social, and economic forces. (Y)

3510 (ANT 5510) Mesoamerican Civilization. Cr. 3

Prereq: ANT 2100 or consent of instructor, or CBS 2010. Survey of the history and characteristics of culture in Mesoamerica prior to colonization, from the Maya and Olmec to the Aztec. (Y)

3610 Seminar in Latino Urban Problems I. Cr. 3

Prereq: consent of instructor. Analysis of historical and current issues in economics, politics, and culture involving the multi-racial and multi-ethnic Latino population of the United States. (I)

5560 (SPA 5560) Spanish American Cultures and their Traditions. Cr. 3

Prereq: SPA 4610 or SPA 4620 or consent of instructor. Panorama of Latin American civilization and culture from the pre-Colombian period to the present. (Y)



GEOGRAPHY and URBAN PLANNING

Office: 225 State Hall; 313-577-2701; Fax: 313-577-0022

Web: <http://www.science.wayne.edu/~gup>

Interim Chairperson: Gary Sands

Professors

Robert M. Boyle, Fred E. Dohrs (Emeritus), Robert J. Goodman (Emeritus), George J. Honzatko (Emeritus), Laura Reese, Robert Sinclair

Associate Professors

Gary Sands, Bryan Thompson (Emeritus)

Assistant Professors

P. Anthony Brinkman, Rayman Mohamed, Kami Pothukuchi

Lecturers

Richard Sauerzopf, Paul Vigeant

Adjunct Faculty

Sii-Monni Chabi, Jeffrey Horner, Darryl LaFlamme, Ernando Minghine, William James, Portia Reuben, Robert Turner, Peter Zeiler

Degree Programs

BACHELOR OF ARTS with a major in geography

**MASTER OF ARTS with a major in geography*

**MASTER OF URBAN PLANNING*

The discipline of geography is concerned with the analysis of environmental and social systems, their variations over the earth's surface and their interactions in different regions. The undergraduate program has three major goals: 1) to provide students with a geographic framework for understanding global, regional and local issues and problems; 2) to prepare students for many occupations in which geographic understanding is essential, including locational analysis, community and regional development, resource conservation and management, cartography, urban and environmental planning, and numerous government positions; and 3) to train students for advanced geographic research. Students are invited to consult with geography faculty members concerning the content of the discipline, as well as employment opportunities available for geographers. A voluntary internship program permits a limited number of credits for on-the-job experience.

The profession of urban planning is responsible for the development of comprehensive plans and programs for local communities as well as larger regional units. These plans visualize future conditions of social, economic, and physical change, and provide an estimate of the community's long-range needs for various facilities and services. Professional urban planners perform a variety of tasks such as developing plans for housing, transportation, rehabilitation of blighted metropolitan areas, and improving the appearance and efficiency of communities. The program seeks to prepare individuals for working with local community planning agencies and regional groups.

Undergraduate degrees in geography are offered by the College of Liberal Arts and Sciences (see page 294). Master's degree programs in geography and in urban planning are offered by the College of Urban, Labor and Metropolitan Affairs; descriptions of these programs may be found in the Wayne State University Graduate Bulletin.

* For requirements, consult the Wayne State University Graduate Bulletin.

URBAN PLANNING COURSES (U P)

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 479.

3530 Urban and Regional Planning. (GPH 3530) (U S 3530) Cr. 3

Introduction to urban and regional planning concepts, including zoning, growth management and economic development. Emphasis on metropolitan Detroit. (Y)

5010 Resources and Communication in Planning. Cr. 3

Introduction to the use of basic tools and techniques of professional planning practice, including data resources, computer applications, map and plan preparation, presentation techniques. (Y)

5110 Urban Planning Process. Cr. 3

Scope and historical development of planning. Topics relevant to the practice of planning: theory, planning practice, social and physical development policy. (Y)

5210 (SOC 5500) Urban and Metropolitan Living. Cr. 3

Examination of the development and organization of urban living as it emerged from village to city to metropolitan region. Topics include: causes of urbanization and its consequences for the ecological and social structure of the city, intergroup relations, crime and poverty in the city. (I)

5310 Current Planning Practice. Cr. 3

Practical application of planning theory to current issues of planning and community development, including land use, economic development, and environmental concerns. (I)

5420 (GEG 6150) Internal Structure of the City. (GPH 6150) Cr. 4

Topics include: perception of the urban environment, spatial interaction and movement, models of structure and growth, migration to and within the city, ethnic and social areas, community extension, social processes and spatial form. (Y)

5520 (GEG 6240) Industrial Geography. (GPH 6240) Cr. 4

Theory and practice of the location of industry, analysis of selected manufacturing industries and selected industrial regions. The role of industrial location in urban and regional development. (I)

5610 Managing Public Participation. Cr. 3

Development of conceptual and practical skills for eliciting and managing public participation in planning. Key approaches include community organizing, facilitating consensus building in public deliberations, and negotiation. (Y)

5620 (GEG 6280) Marketing Geography. (GPH 6280) Cr. 4

Factors underlying retail location and shopping center development; evaluation of population, income levels, access and competition for location decisions; techniques applicable to sales potential/rent-up/sell-out estimates for retail units, housing developments, recreation facilities, office buildings; retail impact on urban land use; crime and commercial location; considerations for the elderly in commercial locations. (I)

5820 (ECO 5800) Urban and Regional Economics I. Cr. 4

Prereq: ECO 2010 or consent of instructor. Introduction to the economic foundations of urban problems; land use, housing, poverty, transportation, local public finance; regional industry mix, income, growth and development; the national system of cities and location of firms. (Y)

6120 Planning Studies and Methods. Cr. 4

Economic base, population, and land use studies. Discussion of approaches used to solve selected community development problems. (Y)

6210 Urban Design Elements. Cr. 3

Introduction to the role of urban design and the concept of design criteria, design variables, and terminology. (B)

6260 Land Use Policy and Planning. Cr. 3

Prereq: graduate standing or consent of instructor. Role of economics, history, and technology in shaping land use patterns within limits established by public policies and the legal system. Development of conceptual and practical skills for effective ethical intervention in local land markets. (Y)

6310 Real Estate Development. Cr. 3

Process of urban real estate development; emphasis on market analysis, the construction process, and finance. (Y)

6320 Quantitative Techniques I. (GEG 6420) (GPH 6420) Cr. 4

Statistical inference with emphasis on applications including central tendency, dispersion, hypothesis testing, correlation and regression. (Y)

6340 Community Development. Cr. 3

Prereq: graduate standing or consent of instructor. Overview of contemporary community development practice in U.S. cities with emphasis on community-based approaches and the role of non-profit organizations. Housing and economic development aspects of neighborhood revitalization; social and political development. (Y)

6350 Housing Policy and Programs. (ULM 6400) Cr. 3

Governmental housing policies and programs at the Federal, state and local levels. Role of community-based organizations in housing activities. (Y)

6400 Planning Issues. Cr. 2-4 (Max. 6)

Studies of urban policy issues as they affect land use. Social and economic determinants of the physical composition of urban areas. (I)

6420 Quantitative Techniques II. Cr. 4

Multivariate analysis with emphasis on applications, including matrix algebra, vector spaces, linear and non-linear models, principal components analysis, and programming approaches. Material fee as indicated in the Schedule of Classes (I)

6455 Discrimination and Fair Housing. (AFS 6455) (ECO 6455) (P S 6455) (SOC 6455) (U S 6455) (ULM 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)

6470 Environmental Planning. Cr. 3

Prereq: graduate standing or consent of instructor. Overview of local and regional environmental planning and policy. Rationale and ethics of environmental interventions; major elements of environmental plans and impact statements; current approaches to environmental problems. (Y)

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. (C E 6525) Cr. 3

Introduction to the role of transportation in the planning process involving both regional and urban considerations. (Y)

6550 (ULM 6210) Regional, State, and Urban Economic Development: Policy and Administration. (ECO 6650) (P S 6440) Cr. 3

Prereq: graduate standing. Examination of regional, state, and local economic development theory, analysis, policy and administration. (Y)

6570 Local Economic Development: Implementation and Finance. Cr. 3

Prereq: U P 6550 or consent of instructor. Detailed examination of economic development programs available to local governments for commercial revitalization (neighborhood and downtown), and industrial development and redevelopment. (Y)

6610 Planning Ethics. Cr. 3

Prereq: graduate standing or consent of instructor. Theories in moral philosophy and contemporary debates about problematic issues of planning practice, such as environmental ethics and whistleblowing. Development of a consistent and complete understanding of professional ethics. (I)

6650 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 (ULM 6150) Political Economy of the Urban Ghetto. (ECO 6810) (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)

6680 Neighborhood Decline and Revitalization. (ULM 6680) Cr. 3

Prereq: graduate standing or consent of instructor. Examination of reasons for neighborhood change and how plans and policies can be specified and implemented for neighborhood improvement. (Y)

6700 (GEG 6700) Geographic Information Systems. Cr. 4

Principles and applications of GIS, including spatial statistics, computer graphics, computer cartography. (Y)

6830 (GEG 6830) Advanced GIS Applications. Cr. 4

Prereq: GEG 6700 or written consent of instructor. Use of GIS for spatial analysis and computer cartography. (Y)

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. (I)

INTERDISCIPLINARY STUDIES

Office: Second Floor, Academic/Administration Building,
5700 Cass Avenue, Detroit, MI 48202

Chairperson: Stuart D. Henry

Director for Student Services: Howard Finley

Assistant to the Director for Student Services: Linda L. Hulbert

e-mail: tmp@wayne.edu

Web: <http://www.is.wayne.edu>

Professors

A. Ronald Aronson, Jerry G. Bails (Emeritus), Stuart D. Henry, Julie T. Klein, Clifford L. Maier (Emeritus), Richard Raspa, Francis Shor, Rolland Wright (Emeritus)

Associate Professors

Sandor Agocs (Emeritus), Eric A. Bockstael, David Bowen, Mary Lee Field (Emerita), Gloria House (Emerita), William Lynch, Moti Nissani, Daphne W. Ntiri, Marsha Richmond, Roslyn Abt Schindler, Roland Wacker

Assistant Professors

Peter Friedlander, Andre Furtado, Theodore Kotila (Emeritus), Caroline Maun, Lisa Maruca, James Michels

Lecturers

Lina Beydoun, Laura Corrunker, Thomas Moeller

Adjunct Professor

Guerin C. Montilus

Adjunct Professors (Research)

Elizabeth Barton, Kristine Miranne, William Waters

Academic Advisers

Darrell Brockway, Pynthia Caffee, Roberta DeMeyer, Ruthie Flowers, Frank Koscielski, 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 Urban, Labor and Metropolitan Affairs, 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.

* For specific requirements, see the Wayne State University Graduate Bulletin.

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 students 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 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 are available as group directed attachments to existing courses, enabling 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 restricted by 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 16) and the credit distribution requirements as stated below. (See page 24 for special requirements for students enrolled prior to Fall Term 1987.) 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 a community college or a maximum of eighty credits transferred from a four-year college to this degree; however, no more than eighty credits can be transferred from any combination of sources.

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 advisor 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.

ISP 2030 -- Interdisciplinary Studies Seminar: Cr. 4
Social Science Electives (ISS): Cr. 20
Humanities Electives (I H): Cr. 20
Science and Technology Electives (IST): Cr. 20

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.

ISP 3991 -- Interdisciplinary Core Seminar: Cr. 4
Advanced Interdisciplinary Studies Courses (ISP above 3000-level): Cr. 14
Seminar or Essay/Project (ISP 4760/4860 or ISP 4991/4996): Cr. 8

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 Urban, Labor and Metropolitan Affairs 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 BIS 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 16) and the following distribution requirements.

Capstone Program Credit Distribution Requirements

ASSOCIATE DEGREE TRANSFER CREDIT (Sixty-four 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 (I H): Cr. 7
Science and Technology Electives (IST): Cr. 7

Advanced Interdisciplinary Studies Courses (ISP above 3000-level): 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 maximum 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 16) 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, I H 2010
Writing-Intensive Course: ISP 4860, ISP 4992, ISP 4996
Oral Communication: ISP 1560
Computer Literacy: IST 2710
Critical and Analytic Thinking: ISP 3260

GROUP REQUIREMENTS

Life Science: IST 2310
Physical Science: IST 2420
Historical Studies: ISP 3160, I H 3810
Social Science: ISP 3480, ISS 2710
American Society/Institutions: ISP 3420, ISS 1510
Foreign Culture: ISP 3600, ISP 3610, ISP 3620
Visual and Performing Arts: I H 2730, I H 3730
Philosophy and Letters: I H 2710, I H 3710

Note: Beginning Fall 2005, General Education Requirements also include one Computer Proficiency (CP) course, and 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 already 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. For details of this program consult with the MIS graduate program chair. 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.

THE MINOR in Nonprofit Sector Studies 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.

THE POST-BACCALAUREATE CERTIFICATE in Nonprofit Sector Studies 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 38).

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.

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 Scholarships and Financial Aid, 3 West, Helen Newberry Joy Student Services Building.

Interdisciplinary Studies Women's Scholarship: An award of partial tuition, open to any woman enrolled in degree programs in the Department of Interdisciplinary Studies with demonstrated financial need and a minimum 3.0 g.p.a. who is registered for at least seven credits in the semester of the award. Application deadline for each semester is the first day of final registration for that semester.

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.

Honor 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 0900-6999, are offered for undergraduate credit. For interpretation of numbering system, signs and abbreviations, see page 479.

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. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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. Three-faceted inquiry 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. Dates and specific topics announced for each Fall semester. (F)

3040 Foundations of Knowledge: Directed Study. Cr. 4 (Max. 12)
Prereq: upper division standing or consent of instructor. For any class designated as Web, contact online: (<http://www.classsschedule.wayne.edu>). 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 Foundations of Knowledge Seminar: Cross-Cultural Perspectives. Cr. 4
Prereq: upper division standing. For any class designated as Web, contact online: (<http://www.classsschedule.wayne.edu>). 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 in a varied, pluralistic world. (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) World War I as a Turning Point: Historical Perspectives. Cr. 4
Prereq: upper division standing. For any class designated as Web, contact online: (<http://www.classsschedule.wayne.edu>). 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. For any class designated as Web, contact online: (<http://www.classsschedule.wayne.edu>). 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 Advanced Directed Study: Science and Technology. Cr. 2-4 (Max. 12)
Prereq: upper division standing and consent of instructor. For any class designated as Web, contact online: (<http://www.classsschedule.wayne.edu>). 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 Science and Technology Advanced Studies Seminar. Cr. 4 (Max. 12)
Prereq: upper division standing. For any class designated as Web, contact online: (<http://www.classsschedule.wayne.edu>). 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. For any class designated as Web, contact online: (<http://www.classsschedule.wayne.edu>). Interdisciplinary approach to phases of United States constitutional development and the relationship of the courts to American government in historical and contemporary contexts. (Y)

3440 Advanced Directed Study: Social Science. Cr. 2-4 (Max. 12)
Prereq: upper division standing and consent of instructor. For any class designated as Web, contact online: (<http://www.classsschedule.wayne.edu>). 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. For any class designated as Web, contact online: (<http://www.classsschedule.wayne.edu>). Area and period studies, problems and themes in interdisciplinary 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. For any class designated as Web, contact online: (<http://www.classsschedule.wayne.edu>). 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. For any class designated as Web, contact online: (<http://www.classsschedule.wayne.edu>). Continuation of GIS 1510. Analytical reading, writing, and writing revision in the humanities, sciences and social sciences. Emphasis on research. (T)

3540 Advanced Directed Study: Humanities. Cr. 2-4 (Max. 12)
Prereq: upper division standing and consent of instructor. For any class designated as Web, contact online: (<http://www.classsschedule.wayne.edu>). Directed study supervised by a faculty member. Appropriate if no courses of instruction are available covering desired humanities topic area. Elective. (T)

3600 (FC) Interdisciplinary Perspectives on Foreign Culture: The Arabs. Cr. 3
Prereq: upper division standing or consent of instructor. For any class designated as Web, contact online: (<http://www.classsschedule.wayne.edu>). Humanistic aspects, history, socio-cultural institutions of Arab cultures; theory and methods, comparativist perspectives. (F)

3610 (FC) Interdisciplinary Perspectives on Foreign Culture: The Africans. (AFS 3610) Cr. 4

Prereq: upper division standing. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Humanistic aspects, history, socio-cultural institutions of African cultures; theory, methods, comparativist perspectives. (Y)

3620 (FC) Interdisciplinary Perspectives on Foreign Culture: The Chinese. Cr. 3

Prereq: upper division standing. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Humanistic aspects, history, and socio-cultural institutions of Chinese culture; theory, methods, comparativist perspectives. (W)

3840 General Interdisciplinary Directed Study. Cr. 2-4 (Max. 12)

Prereq: upper division standing and prior consent of instructor. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Elective. Directed study supervised by a faculty member. Appropriate if no courses of instruction are available covering desired interdisciplinary topic area. (I)

3860 Interdisciplinary/Integrated Advanced Studies Seminar. Cr. 4-12

Prereq: upper division standing. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Elective. Explorations of the theoretical 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 3080. Required of all IS students admitted in Fall 1996 or thereafter; must be elected prior to ISP 4760/ISP 4860, ISP 4991/ISP 4996, or ISP 4992. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Application of theories and methods of interdisciplinary problem solving. Case study of problem involving two or more disciplinary areas; research under direction of instructor. (T)

4550 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 experience 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 2030 or 3080; ISP 3991 for all IS students admitted Fall 1996 or after. 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. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Interdisciplinary examination 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 2030 or 3080; ISP 3510 or equiv.; ISP 3991 for all students admitted Fall 1996 or thereafter. Lecture and consultation course; students complete a major research paper. Semester-long process of synthesis and analysis, writing, oral presentation and consultation with the instructor. (T)

4991 (IC) Senior Essay Seminar I. Cr. 4

Prereq: upper division standing; ISP 2030 or 3080; ISP 3991 for all IS students admitted Fall 1996 or after. Research for and development of a senior essay on a topic approved by the directing faculty adviser; culminates in an oral presentation for approval by faculty panel. (T)

4992 (WI) Senior Capstone Essay/Project. Cr. 4

Prereq: senior level standing; ISP 3080; ISP 3510 or equiv.; ISP 3991 for all DIS Capstone students admitted Fall 1996 or thereafter. One-semester senior capstone essay/project for Bachelor of Interdisciplinary Studies-Capstone 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 Intensive Course in the Major requirement. (T)

4996 (WI) Senior Essay Seminar II. Cr. 4

Prereq: ISP 4991 and all ISP 4991 prereqs. Continuation of first seminar; culmination in oral presentation before faculty panel and submission of completed major research essay or project for approval. (T)

5000 (NPS 3000) Introduction to Non-Profit Sector Studies. Cr. 4

Prereq: passing score on English Proficiency Exam; junior standing. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Management in nonprofit organizations, including human service, arts, and cultural and civic organizations; overview of theory, practice and history in nonprofits. (Y)

5130 (AFS 5130) The Black Family. Cr. 4

Prereq: upper division undergraduate standing. Survey and analysis of historical and social forces relative to the study of the Black family. (Y)

5200 (NPS 4200) Grant Writing and Survey of Resources for Nonprofits. (ISP 6200) Cr. 2-4

Prereq: NPS 3000. Broad understanding of potential financial support for nonprofit managers; art and science of proposal writing. Students complete actual grant proposal. (T)

5260 (ANT 5260) The African Religious Experience: A Triple Heritage. (AFS 5260) Cr. 3

A triple heritage has contributed to the shaping of lives of African descent: the indigenous, Islamic and Christian religions. Analysis of these legacies, their specificity, interplay and significance in Africa, the Caribbean, South and North America. (B)

5500 Selected Topics in Interdisciplinary Studies. (ISP 7500) Cr. 2-4 (Max. 8)

Prereq: written consent of adviser and instructor. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Topics to be announced in Schedule of Classes. (Y)

5510 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)

5550 (NPS 3500) Management of Volunteer Programs. Cr. 3-4

Prereq: passing score on English Proficiency exam; junior standing. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Directed study and individual research under faculty member on a topic mutually agreed upon. (T)

6000 (NPS 4000) Marketing and Development for Nonprofits. Cr. 4

Prereq: NPS 3000. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Methods and techniques of fundraising and development for nonprofits, from perspectives of theory and practice. (Y)

6010 Interdisciplinary Core Seminar. Cr. 4

Prereq: admission to MIS program or consent of graduate chairperson. Must be elected only once; elect within the first two semesters. Introduction to themes, methods and objectives of advanced interdisciplinary study, and application of the interdisciplinary method to a major case study. Students will initiate an interdisciplinary research project. (Y)

6110 Seminar in Historical and Cultural Studies. Cr. 4

Prereq: admission to the MIS program or consent of the graduate chairperson. Must be elected within first two semesters; may elect only once. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Introduction to principles of interdisciplinary historical and cultural study while exploring the phenomenon of change. Topics of case study vary each semester. This course is to be taken within the first two semesters of the MIS program and establishes prerequisite knowledge for further study in the program. (Y)

6200 (NPS 4200) Grantwriting and Survey of Resources for Nonprofits. (ISP 5200) Cr. 2-4

Prereq: NPS 3000. Broad understanding of potential financial support for nonprofit managers; art and science of proposal writing. Students complete actual grant proposal. (T)

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. (F,W)

1510 Quantitative Methods and Their Applications: A Critical Thinking Approach. Cr. 3

Prereq: passing grade in math diagnostic test or consent of instructor. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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 Science and Technology: Directed Study. Cr. 2-4 (Max. 12)

Prereq: consent of instructor. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Directed study supervised by a faculty member; appropriate if no course of instruction available in desired subject area. (T)

2010 Health Concepts and Strategies. Cr. 3

Coreq: IST 2020 recommended. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Introduction to some 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 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 and dates announced each semester. (F)

2310 (LS) Living in the Environment. Cr. 4

For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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; fate of humanity. (W)

2420 (PS) Atoms and Stars: A Historical Introduction to Astronomy, Physics and the Process of Scientific Discovery. Cr. 3-4

Meets General Education laboratory requirement when elected for four credits. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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 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 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**

For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Survey of major developments in American political institutions and ideas; analysis of the current operation of the national government. Workshop course. (F,W)

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 Social Science: Directed Study. Cr. 2-4 (Max. 12)

Prereq: consent of instructor. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Directed study supervised by a faculty member; appropriate if no courses of instruction are available in desired subject area. (T)

2010 Problems in Work and Labor. Cr. 4

For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Workshop course emphasizing problems related to the nature of work and jobs. (W)

2710 (SS) Selected Perspectives on Ethnicity. Cr. 4

For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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 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)

5710 American Religion: An Interdisciplinary Social Science Study. Cr. 4

Prereq: senior standing. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Workshop. Socio-historical structure of religious beliefs and practices in American society from early migrations of European settlers to modern time. (Y)

INTERDISCIPLINARY HUMANITIES COURSES (I H)

1990 Urban Humanities: Directed Study. Cr. 2-4 (Max. 12)

Prereq: consent of instructor. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Directed study supervised by a faculty member; appropriate if no course of instruction available in desired subject area. (T)

2010 (IC) Cultural Identity and the American Experience: Writers' Responses. Cr. 4

Prereq: ISP 1510 or equiv. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Origins, ideals, symbols and substance of American culture and character. Critical analysis and writing on the distinguishing features of American thought and culture. (F)

2030 Visions of America Conference. Cr. 3

Semester-long course with periodic weekend sessions. Conference explores particular aspects of American society and culture, both as Americans and as people living in other parts of the world, past and present, have seen them. Topics and dates announced each semester. (F)

2710 (PL) Art and Aesthetics: Literature and Philosophy. Cr. 4

For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Analysis of literary works; philosophical approaches to the meaning and nature of literature, and of the criteria for its evaluation. (W)

2730 (VP) Meaning in the Visual and Performing Arts. Cr. 3

Weekend conference course: meaning and experience in the visual and performing arts from the perspectives of artist and audience.

Analytical, interpretative, and evaluative approaches through case studies. (W)

3710 (PL) Significant Issues in Cultural Studies. Cr. 3-4

Prereq: upper division standing or consent of instructor. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). Culture, including mass and popular cultures; how ideas give significance to human experience, and how they are valued and devalued. Writing of essays with emphasis on comparative method. (Y)

3730 (VP) Music and American Culture. Cr. 3

Prereq: upper division standing. Conference course. Study of cultural meaning focusing on one or more selected art forms: history of art, music, poetry, film, dance, theatre, or appropriate combinations of these media. (Y)

3810 (HS) Discovering the Past. Cr. 3-4

Prereq: upper division standing or consent of instructor. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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 Examination. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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. 2-4

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. For any class designated as Web, contact online: (<http://www.classschedule.wayne.edu>). 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 under professionals in a nonprofit setting; demonstration of nonprofit leadership and trainer skills at professional level. (T)



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 Urban, Labor and Metropolitan Affairs.

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 32.

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 234) and the University General Education Requirements (see page 16), 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 Urban, Labor and Metropolitan Affairs governing undergraduate scholarship and degrees; see sections beginning on page 16, 43, and 454.

REQUIRED CORE COURSES (Twenty Credits)

- ECO 5400 -- Labor Economics: Cr. 4
- HIS 5290 -- American Labor History: Cr. 4
- LBS 2500 -- (HUM 2500) Images of Labor In the Arts and Lit.: 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 lists:

RELATED COURSES (12 credits)

- HIS 5320 -- Black Labor History: Cr. 3
- 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
 P S 3020 -- Political Parties and Elections: Cr. 4
 P S 3030 -- Political Interest Groups: Cr. 4
 P S 3040 -- The Legislative Process: Cr. 4

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 Strategies — Strategies for increasing union power and effectiveness

LABOR STUDIES COURSES (LBS)

The following courses, are offered for undergraduate credit. For interpretation of numbering system, signs and abbreviations, see page 479.

2500 (HUM 2500) Images of Labor in the Arts and Literature. Cr. 4

Diverse history of labor as reflected in the popular arts (films, songs, stories, and graphics). (T)

4500 Applied Labor Studies. Cr. 3 (Max. 12)

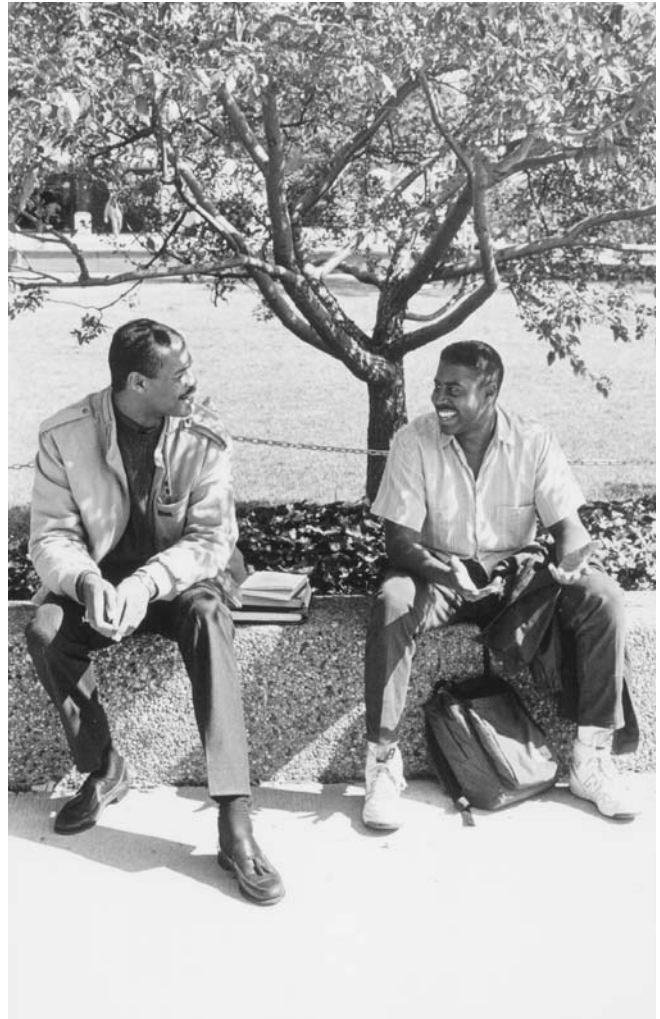
Prereq: consent of instructor. Practical training in various labor relations specialties, such as collective bargaining or labor law. Consult coordinator on specific topic. (T)

4700 (WI) Senior Seminar. Cr. 3 (Max. 6)

Prereq: consent of instructor. Research, reflection, discussion and analysis of labor relations practice. (Y)

4990 Directed Study. Cr. 3-6 (Max. 6)

Prereq: consent of coordinator. Supervised reading and research in labor studies. (T)



PEACE and CONFLICT STUDIES

Office: 2320 Faculty/Administration Building; 313-577-3453;
Fax: 313-577-8269

Director: Frederic S. Pearson

Web: <http://www.pcs.wayne.edu>

Executive Committee

Sheldon Alexander, *Psychology*
Ronald Aronson, *Urban, Labor and Metropolitan Affairs*
Elizabeth Barton, *Peace and Conflict Studies and Interdisciplinary Studies*
Navaz Bhavnagri, *Education*
Ronald Brown, *Political Science*
William Burnham, *Law*
Joella Gipson, *Education*
Eboe Hutchful, *Africana Studies*
Marion Jackson, *Art History*
Loraleigh Keashly, *Urban, Labor and Metropolitan Affairs and Psychology*
Marlyne Kilbey, *Psychology*
Kevin Deegan Krause, *Political Science*
Barry Lyons, *Anthropology*
Mbodja Mougoue, *Business*
Daphne Ntiri, *Interdisciplinary Studies*
Eugene Perrin, *Medicine (Emeritus)*
Marc Rosa, *Education*
Brad Roth, *Political Science and Legal Studies*
Alvin Saperstein, *Physics*
Matthew Seeger, *Communication*
May Seikaly, *Near East Studies*
Fran Shor, *Interdisciplinary Studies*
Melvin Small, *History*
Guy Stern, *German and Slavic Studies*
Frances Trix, *Anthropology*
William Warters, *Urban, Labor and Metropolitan Affairs and Interdisciplinary Studies*
Marvin Zalman, *Criminal Justice*
Marilyn Zimmerman, *Fine Arts*

Peace and Conflict Studies (Co-Major Program)

The Peace and Conflict Studies (PACS) Co-Major Program integrates a variety of practical courses and interdisciplinary research to allow students to combine with their own majors training, study, and experience in peace studies and the emerging field of dispute resolution, both national and international. 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 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 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 16), 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 conflict management and the application of conflict management methods,

and finally which assess the student's overall progress in a senior research seminar. 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.

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 PCS ¹ (P S 2830) (HIS 2520): Cr. 1-4
PCS 2020 -- Science, Technology and War (HIS 2510) (P S 2440): Cr. 4
PCS 2050 -- Non-Violence: Cr. 3
PCS 5100 -- Advanced Special Topics ¹: Cr. 3-4
PCS 5999 -- Special Readings/Research: Cr. 3
PHI 2330 -- Introduction to Social & Political Philosophy: Cr. 3
P S 2510 -- Introduction to Political Ideologies: Cr. 4
P S 2810 -- World Politics: Cr. 4
PSY 2600 -- Psychology of Social Behavior: Cr. 4
SOC 3300 -- (SS) Social Institutions and Social Structure: Cr. 4

Plus one course from the following:

PCS 5000 -- Dispute Resolution: Cr. 3
PCS 5010 -- Internship in Dispute Resolution: Cr. 3
PCS 5500 -- Ethnicity: Cr. 4

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; a number of others might qualify for inclusion upon petition of the student.

Race, Gender and Religion

AFS 2600 -- Race and Racism in America (SOC 2600): Cr. 3
AFS 3420 -- Pan-Africanism: Politics of the Black Diaspora (P S 3820): Cr. 4
AFS 3860 -- Race, Class & the Criminal Justice System (SOC 3860): Cr. 3
AFS 5570 -- Race Relations in Urban Society: Cr. 3
ANT 3110 -- Detroit Area Minorities: Arabs, Hispanics, & African Americans: Cr. 3-4
ANT 3530 -- Native Americans: Cr. 3
ANT 5240 -- Cross-Cultural Study of Gender: Cr. 3
ANT 5260 -- The African Religious Experience: A Triple Heritage (AFS 5260) (ISP 5260): Cr. 3
COM 4030 -- Gender and Communication (W S 4030): Cr. 3
COM 4040 -- Diversity in Interpersonal Communication: Cr. 3

1. Course may be taken only once for satisfaction of Core Requirement.

HIS 3150 -- The Black Experience in America II: 1865 to the Present (AFS 3150): Cr. 3-4
 HIS 5200 -- Women in American Life & Thought (HIS 7200): Cr. 3
 HIS 5480 -- Nazi Germany (HIS 7480): Cr. 3-4
 N E 2020 -- Survey of Jewish History & Civilization (HIS 2320): Cr. 3
 P S 5030 -- African American Politics (AFS 5030): Cr. 4
 PSY 3250 -- Psychology of Women: Cr. 3
 SOC 4460 -- Women in Society: Cr. 3
 SOC 5570 -- Race Relations in Urban Society (AFS 5570): Cr. 3

Peace and Conflict Theory

ANT 5140 -- Biology and Culture: Cr. 3
 CRJ 5060 -- Comparative Criminal Justice Systems: Cr. 3
 GER 2700 -- (PL) Anguish & Commitment: European Existentialist Literature (SPA/FRE/ITA/RUS 2700): Cr. 3-4
 PCS 2010 -- Non-Violence (P S 2550) (SOC 2050): Cr. 3
 PHI 3270 -- Foundations of Law: Cr. 3
 P S 2460 -- Policy and Rationality: Dilemmas of Choice: Cr. 4
 P S 3510 -- (PL) Law, Authority & Rebellion: Cr. 4
 P S 3520 -- (PL) Justice: Cr. 4
 P S 3530 -- Great Political Thinkers: Cr. 4
 P S 5560 -- Biopolitics: Cr. 4
 P S 5830 -- International Conflict Management: Cr. 4
 PSY 3040 -- Psychology of Perception: Fundamental Processes: Cr. 3
 PSY 3080 -- Cognitive Psychology Fundamental Processes (LIN 3080): Cr. 3
 PSY 3200 -- Motivation, Feeling & Emotion: Cr. 3
 PSY 3310 -- Abnormal Psychology: Cr. 4
 SOC 3820 -- Criminology: Cr. 3
 SOC 5870 -- Violence in the Family: Cr. 3-4

Human Rights

AFS 2600 -- Race & Racism in America (SOC 2600): Cr. 3
 AFS 3860 -- Race, Class, & the Criminal Justice System (SOC 3860): Cr. 3
 AFS 5320 -- Black Labor History (HIS 5320): Cr. 3
 AFS 5580 -- Law & the African American Experience (SOC 5580): Cr. 4
 CBS 2430 -- History of Latinos in the U.S. (HIS 2430): Cr. 3
 CLA 3100 -- Law and Ancient Society: Cr. 3-4
 CRJ 4600 -- The Police in America: Cr. 4
 CRJ 5720 -- Criminal Law: Cr. 4
 ECO 5490 -- American Labor History (HIS 5290) (HIS 7290): Cr. 4
 PHI 3270 -- Foundations of Law: Cr. 3
 PCS 2010 -- Topics in PCS: Humanitarian Intervention (P S 2830) (HIS 2520): Cr. 3
 P S 5120 -- Constitutional Rights & Liberties: Cr. 4
 P S 5820 -- International Law: Cr. 4
 SOC 2600 -- Race and Racism in America: Cr. 3
 SOC 3860 -- Race, Class, and the Criminal Justice System: Cr. 3
 SOC 5700 -- Inequality and Social Class: Cr. 3

International Issues in Peace & Conflict Studies

ANT 3100 -- Cultures of the World: Cr. 3-4
 ANT 3540 -- (FC) Cultures & Societies of Latin America: Cr. 3
 ANT 3550 -- (FC) Arab Society in Transition (N E 3550): Cr. 3
 ECO 5300 -- International Trade: Cr. 4
 ECO 5310 -- International Finance: Cr. 4
 ISP 3610 -- (FC) Interdisciplinary Perspectives in Foreign Culture: The Africans (AFS 3610): Cr. 4
 GPH 2700 -- Introduction to Canadian Studies: Cr. 3
 HIS 1400 -- (HS) The World Since 1945: Cr. 3-4
 HIS 3050 -- United States & the Vietnam Experience: Cr. 4
 JPN 4550 -- (FC) Japanese Culture & Society I: Cr. 4
 JPN 4560 -- (FC) Japanese Culture & Society II: Cr. 4
 N E 2040 -- (HS) The Modern Middle East (HIS 1810): Cr. 3
 P S 2700 -- Introduction to Canadian Studies (HIS 2700) (GPH 2700) (ENG 2670): Cr. 3
 P S 2710 -- Introduction to Comparative Politics: Cr. 4

P S 3991 -- Directed Study: WSU-Salford Exchange: Cr. 3-9
 P S 3735 -- Government & Politics of Latin America: Cr. 4
 P S 3840 -- American Foreign Policy and Administration: Cr. 4
 P S 4810 -- Foreign Policies of Major Powers: Cr. 4
 SLA 3410 -- (FC) New Soil, Old Roots: The Immigrant Experience (ARM/GER/POL/RUS 3410): Cr. 3
 SLA 3700 -- The Changing Face of Europe (ARM/GER/POL/RUS/UKR 3700): Cr. 1-2
 SLA 3710 -- Russia & East European Film (RUS/UKR/POL/ARM 3710): Cr. 3

Peace & Conflict Studies in the United States

AFS 5110 -- Black Women in America (W S 5110): Cr. 3
 HIS 5200 -- Women in American Life & Thought (HIS 7200): Cr. 3
 HIS 5220 -- The Changing Shape of Ethnic America: WW I to Present (HIS 7220): Cr. 3-4
 HIS 5290 -- American Labor History: Cr. 4
 P S 5030 -- African American Politics (AFS 5030): Cr. 4
 SOC 5570 -- Race Relations in Urban Society (AFS 5570): Cr. 3
 SOC 6750 -- Sociology of Urban Health: Cr. 3
 ULM 6150 -- Political Economy of the Urban Ghetto (ECO 6810) (U P 6670) (SOC 6850): Cr. 3
 U S 2000 -- (SS) Introduction to Urban Studies (SOC 2500) (GPH 2000) (HIS 2000) (P S 2000): Cr. 4

Peace Studies in Human Development

AFS 5130 -- The Black Family (ISP 5130): Cr. 4
 ANT 5140 -- Biology and Culture: Cr. 3
 ANT 5310 -- Language and Culture (LIN 5310): Cr. 3
 ANT 5320 -- Language and Societies (LIN 5320): Cr. 3
 COM 3400 -- (WI) Theories of Communication: Cr. 4
 COM 3270 -- Group Communication & Human Interaction: Cr. 3
 PSY 2400 -- Developmental Psychology: Cr. 4
 PSY 3310 -- Abnormal Psychology: Cr. 4
 PSY 3350 -- Psychology of Personality: Cr. 3
 PSY 5280 -- Psychoanalytic Theory: Cr. 3
 SOC 4100 -- (SS) Social Psychology: Cr. 4
 SOC 5400 -- The Family: Cr. 3
 SOC 5870 -- Violence in the Family: Cr. 3-4

Dispute Resolution (assumes completion of PCS 5000)

COM 2200 -- Interpersonal Communication: Cr. 3
 COM 3250 -- Introduction to Organizational Communication: Cr. 3
 COM 6171 -- Human Communication and Aging: Cr. 3
 ECO 6420 -- Labor Relations Institutions & Public Policy: Cr. 3
 GEG 5810 -- Locational Issues in Hazardous Waste Management (GPH 5810) (HWM 5810): Cr. 3
 HIS 5320 -- Black Labor History: Cr. 3
 HUM 2500 -- Images of Labor in the Arts and Literature (LBS 2500): Cr. 4
 LBS 4500 -- Applied Labor Studies: Cr. 3
 MGT 4520 -- Managing Organizational Behavior: Cr. 3
 MGT 5740 -- Collective Bargaining: Cr. 3
 P S 3030 -- Political Interest Groups: Cr. 4
 P S 3040 -- The Legislative Process: Cr. 4
 P S 6070 -- Labor and American Politics: Cr. 3
 PSY 3500 -- Psychology and the Workplace: Cr. 3
 PSY 5540 -- Motivation in the World of Work: Cr. 3
 PSY 5630 -- Group Dynamics: Cr. 3
 SOC 5890 -- Applied Techniques: Dealing with Family Violence: Cr. 3
 S W 1010 -- Introduction to Social Work & Social Welfare: Cr. 2-3

Minor Program

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.

PEACE and CONFLICT STUDIES COURSES (PCS)

The following courses, numbered 0900-6999, are offered for undergraduate credit. Courses numbered 7000-9999, which are offered for graduate credit only, may be found in the graduate bulletin. Courses in the following list numbered 5000-6999 may be taken for graduate credit unless specifically restricted to undergraduate students by individual course limitations. For interpretation of numbering system, signs and abbreviations, see page 479.

2000 (PCS 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 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. (T)

2010 (PCS 2010) Topics in Peace and Conflict Studies. (HIS 2520) (P S 2830) Cr. 1-4

Special topics relating to peace and conflict studies. (Y)

2020 (PHY 2020) Science, Technology, and War. (HIS 2510) (P S 2440) Cr. 4

May not be used to fulfill natural science group requirement. Modern weapons, nuclear and 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. (W)

2050 (PCS 2050) The Study of Non-Violence. (HIS 2530) (P S 2550) (SOC 2050) Cr. 3

Intellectual and social roots of non-violence and the practice of non-violence in different people's life styles. (F,W)

5000 (PCS 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 Internship in Dispute Resolution. Cr. 3

Prereq: PCS 5000 or consent of instructor. Offered for S and U grades only. Internship in dispute resolution, research, social service or mediation agency in Detroit area, nationally, or abroad. (T)

5100 Advanced Special Topics. Cr. 3-4

Prereq: senior standing or consent of instructor. Topics may include: study of negotiating processes, advanced theory to practice applications, or organizations and processes involved in conflict resolution. (Y)

5500 (P S 5740) Ethnicity: The Politics of Conflict and Cooperation. (AFS 5740) Cr. 4

Current ethnic (racial, linguistic, religious, and cultural) conflicts regionally, nationally and internationally. Introduction to concepts and analytic perspectives for understanding ethnicity as a factor in nation building and maintenance. (Y)

5999 Special Readings/Research. Cr. 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 project relevant to concepts studied in the program; serves as capstone program evaluative course. (T)

URBAN STUDIES

Office: 225 State Hall; 313-577-0538; Fax: 313-577-0022
Web: <http://culma.wayne.edu/gup/>
e-mail: urbanstudies@wayne.edu

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 32). 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, 43, and 454 — 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
(SOC 2500) (GPH 2000) (HIS 2000) (P S 2000): Cr. 4

U S 4510 -- Cities and Regions (GPH 4510): Cr. 4

Plus one of the following:

U S 2992 -- (P S 2992) Political Science Internship: Cr. 4

U S 6050 -- (GEG 6520) Independent Field Study (GPH 6520): Cr. 2-4

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 -- (HS) Lost Cities and Ancient Civilizations. Cr. 3

ECO 6810 -- (ULM 6150) Political Economy of the Urban Ghetto. (SOC 6850)
(U P 6670): Cr. 3

GPH 3600 -- Intro. to Geographic Information Systems: Cr. 4

GPH 5650 -- (GEG 5650) Metropolitan Detroit: Cr. 4

GPH 5750 -- (GEG 5750) Social and Economic Geography of the U.S.
and Canada: Cr. 4

GPH 6150 -- (GEG 6150) Internal Structure of the City. (U P 5420): Cr. 4

HIS 1050 -- (AI) 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 -- (VP) Exploring the Arts in Detroit: Cr. 4
 ISS 2730 -- Conference on Contemporary Issues in Ethnic Studies: Cr. 3
 P S 3250 -- Detroit Politics: Continuity & Change in City & Suburbs
 (HIS 3240) (ULM 3250): Cr. 4
 SOC 3510 -- (SS) The Nature and Impact of Population on Society: Cr. 3
 ULM 6150 -- Political Economy of the Urban Ghetto (ECO 6810) (SOC 6850)
 (U P 6670): Cr. 3
 ULM 6350 -- Sociology of Urban Health (SOC 6750): Cr. 3
 ULM 6680 -- Neighborhood Decline and Revitalization (U P 6680): 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 and 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 -- (P S 2992) Political Science Internship: Cr. 4
 U S 6050 -- (GEG 6520) 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.

COURSES OF INSTRUCTION

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 479.

2000 (U S 2000) (SS) Introduction to Urban Studies. (GPH 2000) (HIS 2000) (P S 2000) (SOC 2500) Cr. 4

Urban phenomena, past and present, quality and nature of urban life, major concerns of urban areas; perspectives and techniques of various urban-related disciplines. (T)

2992 (P S 2992) Political Science Internship. Cr. 1-4 (Max. 6)

Prereq: consent of undergraduate adviser. Open only to political science majors or minors, urban studies co-majors, or students with twelve credits or more in political science. Offered for S and U grades only. Internship in a public or quasi-public organization, agency, civic or voluntary group, or campaign organization. Collateral reading, written work, arranged conferences with faculty supervisor. (T)

3530 (U P 3530) Urban and Regional Planning. (GPH 3530) Cr. 3

Introduction to urban and regional planning concepts, including zoning, growth management and economic development. Emphasis on metropolitan Detroit. (Y)

4510 (U S 4510) Cities and Regions. (GPH 4510) Cr. 4

Processes of urbanization and metropolitanization in both the western and non-western worlds. (W)

6050 (GEG 6520) Independent Field Study. (GPH 6520) Cr. 2-4 (Max. 4)

Prereq: consent of instructor. Observation and interpretation of data in the field. (Y)

6455 (U P 6455) Discrimination and Fair Housing. (AFS 6455) (ECO 6455) (P S 6455) (SOC 6455) (ULM 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)

URBAN, LABOR and METROPOLITAN STUDIES INTERDISCIPLINARY COURSES (ULM)

3070 (ULM 3070) Michigan Politics. (P S 3070) Cr. 4

History and overview of Michigan politics: structure, process, current issues. (B)

3250 (P S 3250) Detroit Politics: Continuity and Change in City and Suburbs. (HIS 3240) Cr. 4

Detroit area political systems and processes, historical, economic, and social influences on local politics. Traditions, changes, and future challenges in Detroit and metropolitan area. (B)

5999 Special Topics. Cr. 1-4 (Max. 8)

Prereq: junior, senior, or graduate standing. (Y)

6100 Class, Race, and Politics in America. (AFS 6100) (HIS 5110) (P S 6050) (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)

6150 (ULM 6150) Political Economy of the Urban Ghetto. (ECO 6810) (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)

6350 (ULM 6350) Sociology of Urban Health. (SOC 6750) Cr. 3

Prereq: graduate standing; undergraduates by consent of instructor. Review of theories and research on health status and health care delivery issues in urban communities. (Y)

6400 (U P 6350) Housing Policy and Programs. Cr. 3

Governmental housing policies at the Federal, state and local levels. Role of community-based organizations in housing activities. (Y)

6455 (U P 6455) Discrimination and Fair Housing. (AFS 6455) (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. (B)

6600 (S W 6500) Social Work and the Law. Cr. 2

Study of the relationship between law and social work practice. Emphasis on understanding the legal processes, the relationship and interdependence of law and social work practice and the knowledge and skill needed to help integrate law into social work practice. (W)

6680 (U P 6680) Neighborhood Decline and Revitalization. (ULM 6680) Cr. 3

Prereq: graduate standing or consent of instructor. Examination of reasons for neighborhood change and how plans and policies can be specified and implemented for neighborhood improvement. (Y)

6700 Disabilities in an Urban Society. Cr. 3

Topics central to understanding living with disabilities across the life span in an urban society. Implications for persons with disabilities, their families, their advocates, and service providers. (F)

6710 Practicum in Disabilities. Cr. 4

Prereq: student in Graduate Certificate in Disabilities program; ULM 6700. Supervision and direction of students as they begin to apply professional knowledge and skills in an interdisciplinary, service-oriented environment. (F,W)

6720 Seminar in Disability Studies. Cr. 3

Prereq: student in Graduate Certificate in Disabilities program; ULM 6700, ULM 6710. Integration of theoretical and practical knowledge within the disciplines and areas of interests of the students. (W)

ADDITIONAL ACADEMIC PROGRAMS

Academic Success Center

1600 Adamany Undergraduate Library; 577-3165; Fax: 577-9372
Service hours: see our Website: <http://www.success.wayne.edu/>

Academic Success Center offers non-credit courses to help students ensure successful education outcomes, develop skills for University and career life, and avoid commonly-encountered difficulties. For further information, see page 50.

READING EFFICIENCY COURSES (R E)

For interpretation of course numbering system and signs, see page 479.

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. (Y)

UNIVERSITY COUNSELING SERVICES COURSE (UCS)

For interpretation of course numbering system and signs, see page 479.

0991 Designing Your Future. Cr. 0

Prereq: coregistration in at least one credit course. Offered for S and U grades only. No degree credit. Concepts of work and career; development of knowledge of world of work and related self-knowledge; exploration of educational and career options; decision-making strategy; establishment of personal career goals and career plan. (I)

Aerospace Studies

The Air Force Officer Education Program at the University of Michigan provides Wayne State University students opportunity to earn a commission as a second lieutenant in the U.S. Air Force through the Air Force Reserve Officer Training Corps (AFROTC). Four-year and two-year programs are offered, and aerospace studies classes are conducted on the University of Michigan campus, Ann Arbor MI; registration is managed by the AFROTC. Interested students should contact AFROTC at (734) 764-2403 or visit Room 154 at North Hall on the Ann Arbor campus. Students who enroll as cadets in the Air Force Officer Education Program, successfully complete the program, and receive a university degree are commissioned as second lieutenants in the United States Air Force.

Admission to introductory-level courses in this program is open to anyone, but admission to junior-level standing is open only to students having matriculate status in a four-year degree program at one of the resident sponsoring institutions.

Career Opportunities: Men and women can serve in a wide range of flying duties as aircrew members or in technical fields such as meteorology, research and development, communications and electronics, engineering, transportation, logistics, and intelligence, as well as in numerous managerial and training fields such as administrative services, accounting and finance, personnel, manpower management, education and training, investigation, and information services. 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.

CAMPUS MAPS
SIGNS and ABBREVIATIONS
INDEX

MAPS 1 SPACE

MAPS 2 SPACE

MAPS 3 SPACE

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.

ACC	— Accounting	81
ACE	— Adult and Continuing Education	(see Graduate Bulletin)
ACR	— Ceramics	187
ACS	— Art — Special Courses	195
ADE	— Design	188
ADR	— Drawing	188
AED	— Art Education	119
AET	— Alternative Energy Technologies	(see Graduate Bulletin)
AFA	— Fashion Design and Merchandising	189
AFI	— Fibers	189
AFS	— Africana Studies	245
AGD	— Graphic Design	190
AH	— Art History	196
AIA	— Interior Design	191
AID	— Industrial Design	190
AIN	— Interdisciplinary Electronic Arts	191
AME	— Metals	192
AN	— Anesthesia	(see Graduate Bulletin)
ANA	— Anatomy (Physical Therapy Program)	436
ANA	— Anatomy and Cell Biology	(see Graduate Bulletin)
ANT	— Anthropology	249
APA	— Painting	193
APH	— Photography	194
APR	— Printmaking	194
ARB	— Arabic	327
ARM	— Armenian	300, 301
AS	— American Studies	248
ASL	— Sculpture	195
ASN	— Asian	327
AST	— Astronomy	342
AUD	— Audiology	253
BA	— Business Administration	84
BBE	— Bilingual/Bicultural Education	120
BE	— Basic Engineering	139
BIO	— Biological Sciences	256
BLG	— Business Logistics	84
BMB	— Biochemistry & Molecular Biology	(see Graduate Bulletin)
BME	— Biomedical Engineering	(see Graduate Bulletin)
BMS	— Basic Medical Sciences	(see Graduate Bulletin)
CB	— Cancer Biology	(see Graduate Bulletin)
CBS	— Chicano-Boricua Studies	457
CE	— Civil and Environmental Engineering	147
CED	— Counselor Education	121
CHE	— Chemical Engineering	143
CHI	— Chinese	327
CHM	— Chemistry	265
CLA	— Classics in English Translation	269
CLS	— Clinical Laboratory Science	421
CM	— Community Medicine	(see Graduate Bulletin)
COM	— Communication	200
CRJ	— Criminal Justice	280
CSC	— Computer Science	275
CTE	— Career and Technical Education	120

DE	— Driver Education	100
DNC	— Dance	207
DNE	— Dance Education	209
DR	— Dispute Resolution	(see Graduate Bulletin)
ECE	— Electrical and Computer Engineering	151
ECO	— Economics	283
ED	— Education (Interdivisional)	121
EDA	— Education Administration	(see Graduate Bulletin)
EDP	— Educational Psychology	121
EDS	— Educational Sociology	(see Graduate Bulletin)
EED	— English Education	122
EER	— Educational Evaluation & Research	(see Graduate Bulletin)
EET	— Electrical/Electronic Engineering Technology	169
EHP	— Educational History and Philosophy	126
ELE	— Elementary Education	121
ENG	— English	288
ET	— Engineering Technology	169
FIN	— Finance	85
FPC	— Fine, Perform'g. & Comm'n. Arts (Multidisciplinary)	183
FR	— French	357, 358
GCC	— Greenfield Coalition Chemistry	171
GCE	— Greenfield Coalition Engineering	171
GCF	— Greenfield Coalition Fundamentals	172
GCL	— Greenfield Coalition Liberal Arts	172
GCM	— Greenfield Coalition Mathematics	173
GCS	— Greenfield Coalition Science	174
GCT	— Greenfield Coalition Technology	174
GEG	— Geography (Graduate courses)	(see Graduate Bulletin)
GEL	— Geology	297
GER	— German	300, 301
GPH	— Geography (Undergrad. courses)	294
GRK	— Greek (Ancient and Modern)	271
HE	— Health Education	100
HEA	— Health	100
HEB	— Hebrew	328
HED	— Higher Education	(see Graduate Bulletin)
HIS	— History	305
HON	— Honors	311
HUM	— Humanities	312
HWM	— Hazardous Waste Management	(see Graduate Bulletin)
IBS	— Interdisciplinary Biomedical Scis.	(see Graduate Bulletin)
IE	— Industrial and Manufacturing Engineering	156
IH	— Interdisciplinary Humanities	466
IHS	— Interdisciplinary Health Sciences	410
IM	— Immunology and Microbiology	(see Graduate Bulletin)
IR	— Industrial Relations	(see Graduate Bulletin)
ISM	— Information Systems and Manufacturing	82
ISP	— Interdisciplinary Studies Program	462
ISS	— Interdisciplinary Social Sciences	465
IST	— Interdisciplinary Science & Technology	465
IT	— Instructional Technology	125
ITA	— Italian	358, 359
JPN	— Japanese	328
KHS	— Kinesiology, Health, and Sport Studies	
	— Interdivisional	103
KIN	— Kinesiology	101
LAT	— Latin	271
LBS	— Labor Studies	468

LED	— Language Education	122	SOC	— Sociology	365
LEX	— Law Courses (see Graduate Bulletin)		SPA	— Spanish	358, 361
LFA	— Lifestyle Fitness Activities	103	SSE	— Social Studies Education	124
LGS	— Legal Studies (Liberal Arts)	315	STA	— Statistics	325
LIN	— Linguistics	317	S W	— Social Work	444
LIS	— Library and Information Science	373	SWA	— Swahili	247
MAE	— Mathematics Education	123	TED	— Teacher Education Division	118
MAT	— Mathematics	321	THR	— Theatre	220
MBG	— Molecular Biology and Genetics . . (see Graduate Bulletin)		UCS	— University Counseling Services	474
MCT	— Mechanical Engineering Technology	171	UGE	— General Education	24
M E	— Mechanical Engineering	159	UKR	— Ukrainian	301, 304
MED	— Music Education	213	ULM	— Urban, Labor & Metropolitan Affairs (Interdept'l.)	472
MGT	— Management	86	U P	— Urban Planning	458
MIT	— Manufacturing/Industrial Engineering Technology	170	U S	— Urban Studies	472
MKT	— Marketing	87	W S	— Women's Studies	368
M S	— Mortuary Science	426			
MSE	— Materials Science	144			
MTX	— Molecular and Cellular Technology (see Graduate Bulletin)				
MUA	— Applied Music — Classroom Instruction	213			
MUH	— Music History	215			
MUP	— Music — Private Instruction	216			
MUT	— Music Theory	217			
N E	— Near Eastern Studies	329			
NFS	— Nutrition and Food Science	333			
NPS	— Nonprofit Sector Studies	466			
NUR	— Nursing	394			
OBG	— Obstetrics and Gynecology (see Graduate Bulletin)				
OEH	— Occupational & Environmental Health Sciences (see Graduate Bulletin)				
O T	— Occupational Therapy	431			
PAS	— Physician Assistant Studies (see Graduate Bulletin)				
PCS	— Peace and Conflict Studies	471			
PHA	— Pharmacy	410			
PHC	— Pharmacology (Medicine) (see Graduate Bulletin)				
PHI	— Philosophy	336			
PHY	— Physics	342			
POL	— Polish	300, 303			
PPR	— Pharmacy Practice	411			
P S	— Political Science	348			
PSC	— Pharmaceutical Sciences	410			
PSL	— Physiology	377			
PSY	— Psychology	353			
P T	— Physical Therapy	436			
PTH	— Pathology (see Graduate Bulletin)				
PYC	— Psychiatry & Behavioral Neurosci. (see Graduate Bulletin)				
RAD	— Radiology (see Graduate Bulletin)				
RCI	— Rehabilitation Counseling & Community Inclusion (see Graduate Bulletin)				
RDG	— Reading Education	123			
R E	— Reading Efficiency	474			
ROC	— Radiation Oncology (see Graduate Bulletin)				
R S	— Rehabilitation Sciences (see Graduate Bulletin)				
R T	— Radiation Therapy Technology	381			
RUS	— Russian	300, 303			
SCE	— Science Education	124			
SCI	— Multidisciplinary Science (see Graduate Bulletin)				
SCI	— Scientific Computing Program . . . (see Graduate Bulletin)				
S E	— Speech Education (College of Education)	125			
SED	— Special Education	124			
SLA	— Slavic	301			
SLP	— Speech-Language Pathology	253			

UNDERGRADUATE COURSE NUMBERING SYSTEMS

For the College of Education

0000-4999 — Undergraduate credit only.

5000-6999 — Undergraduate or graduate credit.

For the Faculty of Pharmacy

0000-2999 — Preprofessional Courses.

3000-3999 — First Professional Year Courses.

4000-4999 — Second Professional Year Courses.

5000-5999 — Third Professional Year Courses.

6000-6999 — Undergraduate/Graduate Courses.

For All Other Schools and Colleges

0000-0999 — No degree credit; graded S and U.

— *School of Business Administration*: Elementary courses auxiliary to the usual academic program.

— *College of Engineering*: Orientation courses.

1000-1999 — Primarily freshman courses; open to all undergraduates.

2000-2999 — Primarily freshman and sophomore courses; open to all undergraduates who have completed course prerequisites.

— *School of Business Administration*: Primarily junior college courses.

— *College of Engineering*: Lower division courses; open to all undergraduates.

3000-4999 — Junior and senior courses; undergraduate credit. (Ordinarily freshmen and sophomores will not be permitted to register for these courses.)

— *College of Engineering*: Upper division courses.

5000-6999 — Junior and senior courses; undergraduate and graduate credit.

COURSE SYMBOLS and ABBREVIATIONS

Course Offering Frequency: Parenthetical letters at the end of course descriptions identify the term and frequency courses will be offered.

(T) — Offered every term

(Y) — Offered at least once every academic year
(Fall or Winter, not Spring/Summer)

(F) — Offered Fall Term

(W) — Offered Winter Term

(S) — Offered Spring/Summer Term

(B) — Offered every other year

(I) — Offered irregularly

Course Activity Mode: 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

TV — Television

Cr. Credit: The amount of credit a course may be offered for is indicated by the number or numbers following the abbreviation.

Max. Maximum: Indicates that a course may be re-elected for credit to the maximum number indicated

Prereq. Prerequisite: Course must be preceded by the indicated course or courses or other requirements cited as prerequisite.

Coreq. Corequisite: Course must be taken concurrently with the indicated course or courses.

Cross-listed courses may be taken for major credit in more than one department, as indicated by cross-references which appear in parentheses either before or after the title. In registering for cross-listed courses, the student should be certain that he/she has designated the Department and course number under which he/she wishes to earn the credit.

INDEX

Abbreviations, Course	479	Adding/Dropping Classes	47
Degrees	11	Adjustment of Fees	39
Absence from Class	49	Administration, University	6
Academic Advising	50	Admission (also see individual degree programs)	
Academic Appeal Procedure	46	Business Administration, School of	71
Academic College Enrichment Services (ACCESS)	55	Education, Teacher, Programs	83
Educational Opportunity Center (EOC)	55	Engineering, College of	133
Higher Education Opportunities Committee (HEOC)	55	Graduate School	36
King-Chavez-Parks (KCP) College Day Program	55	Application Dates	36
McNair Scholars Program	55	English Proficiency Requirement	37
Student Support Services (Project 350)	55	Guest	36
Upward Bound Program	55	International Student	37
Veterans' Educational Opportunity Program (VEOP)	55	Michigan Intercollegiate Graduate Studies (MIGS) Program	37
Academic Nepotism	46	Non-Degree	36
Academic Progress Standards (Financial Aid)	43	Permit to Register	37
Academic Regulations		Post-Bachelor	37
Business Administration, School of	73	Post-Doctoral	36
Education, College of	91	Post-Master's	36
Engineering, College of	137, 168	Pre-Master's	36
Fine, Performing and Communication Arts, College of	182	Qualified Admission	36
Health Sciences, Faculty of	415	Senior Rule Admission	43, 36
Nursing, College of	392	Guest Admission	34
Liberal Arts and Sciences, College of	237	Health Sciences, Faculty of	415
Pharmacy, Faculty of	408	Law School	228
Social Work, School of	445	Liberal Arts and Sciences, College of (see University Undergraduate Admission, below)	
University	43	Medicine, School of	382
Urban, Labor, and Metropolitan Affairs, College of	454	Nursing, College of	387
Academic Services Division, College of Education	92	Pharmacy, Faculty of	403
Academic Success Center	50	Second Start (Phoenix Program)	35
Learning Fitness Plan, Individual	50	Social Work, School of	441
Reading and Study Skills	50	University Undergraduate Admission	32
Tutoring & Supplemental Instruction	50	Application Fee	38
Undergraduate Courses (R E) (UCS)	474	Application for	32
Accelerated Graduate Enrollment ('AGRADE')	237	International Students	34
ACCESS (see Academic College Enrichment Services)		Office of University Admissions	32
Accessibility Services, Educational, for Handicapped	53	Post-Bachelor	37
Access, Internet (WSU AccessID)	63	Readmission	34
Accounting Department	80	Requirements	32
Bachelor's Degree Programs	80	Transfer	33
Courses (ACC)	81	When to Apply	32
Managerial Accounting	80	Visitor Program, University	34, 62
Post-Bachelor's Certificate	80	Admissions, Office of University	32
Public Accounting	80	Presidential Scholarship Program	35
Systems, Accounting	80	Advanced Placement Tests	34
Accreditations		Advanced Standing Admission	33, 44
Business Administration, School of	70	Advertising Design Courses (see Graphic Design)	
Education, College of	90	Advertising/Marketing Communications	84
Engineering, College of	129	Advising, Student Academic (also see Academic Success Center) (also see Student Development & Campus Life)	50
Law School	226	Education, College of	92, 118
Nursing, College of	386	Fine, Performing and Communication Arts, College of	183
Pharmacy, Faculty of	398, 403	Health Sciences, Faculty of	415
Social Work, School of	440	Liberal Arts	238
University	8	University Advising Center	50
Activities, Lifestyle Fitness	100	Urban, Labor, and Metropolitan Affairs, College of	455
Activities, Student		Aerospace Studies (AFROTC)	474
Engineering, College of	130	Affirmative Action Statement	9
Occupational Therapy	431	African American Student Organizations	
Pharmacy, Faculty of	413	Business Students	79
Social Work	447	Engineering Students	130
ACT (American College Test) Score: Admissions Requirement	32	Social Work Students	447
Actuarial Science Concentration in Mathematics	320		
Adaptive Physical Education Training Program	98		

Africana Studies, Department of	244	Interdisciplinary Electronic Arts (AIN)	191
Africana Studies Courses (AFS)	245	Interior Design (AIA)	191
Foreign Study in Ghana and South Africa	242	Metals (AME)	192
Scholarships	245	Painting (APA)	193
Swahili Courses (SWA)	247	Photography (APH)	194
'AGRADE' (Accelerated Graduate Enrollment)		Printmaking (APR)	194
Graduate School Admission	37	Sculpture (ASL)	195
Liberal Arts and Sciences	237	Special Class (ACS)	195
Air Force ROTC	474	Bachelor's Degrees	184
Allied Health Sciences (see Health Science)		Minor	187
Alumni Associations		Scholarships	187
Education, College of	95	Art Education	115
Nursing, College of	393	Bachelor's Degrees with Certification in	115
Pharmacy, Faculty of	413	Courses (AED)	119
Social Work, School of	447	Minor	115
American College Test (ACT): Score Admissions Requirement	32	Post-Baccalaureate Program	116
American Government, Former University Requirements in	24	Arts, College of Fine, Performing and Communication	177
American Society and Institutions Group Requirement	19	Arts, Radio and Television (see Communication Department)	
Liberal Arts and Sciences, College of	234	Asian Courses (ASN)	327
American Studies Program	247	Asian Studies, Department of Near Eastern and	326
Bachelor of Arts	247	Assessments (Fees)	38
Courses (A S)	248	Assistance, Financial (see Financial Aid)	
Anatomy Course (ANA)	436	Astronomy Courses (AST)	342
Anesthesia, Nurse (see Graduate Bulletin)		Athletics (Matthaei Building)	57
Anthropology, Department of	248	Attendance	
'AGRADE' Program	249	Business Administration, School of	73
Bachelor of Arts	249	Education, College of	91
Courses (ANT)	249	Engineering, College of	137
Foreign Study in Benin	242	Fine, Performing and Communication Arts, College of	182
Foreign Study in Cuba and Haiti	242	Health Sciences, Faculty of	416
Honors Program	249	Liberal Arts and Sciences, College of	237
Minor	249	Mortuary Science	423
AP (Advanced Placement) Tests	34	Nursing, College of	392
Apparel Design	185	Pharmacy, Faculty of	408
Appeal of Grade	46	Social Work, School of	445
Appeal Procedure, Academic	46	University Policy	49
Appeals, Academic	46	Classroom Attendance Policy	45
Business Administration, School of	74	Audiology and Speech-Language Pathology, Department of	252
Pharmacy, Faculty of	408	Bachelor's Degree Requirements	252
Applebaum College of Pharmacy and Health Sciences	397	Courses (AUD)	253
Application for Admission	32	Courses (SLP)	253
Application Fee	38	Auditing of Courses	43
Application for Degrees or Certificates		Averages, Grade Point	48
Business Administration, School of	73	Awards and Prizes	
University	16, 49	Business Administration, School of	76
Arabic Courses (ARB)	327	Engineering	131
Arab/Islamic Culture & Civilization (Near Eastern Studies)	326	Pharmacy, Faculty of	414
Architecture: Interior Design		University	41
Courses (AIA)	191	Bachelor's Degree Requirements, University	16
Major Curriculum	186	Business Administration, School of	71
Archives of Labor and Urban Affairs	66, 452	Education, College of (Teaching Degree)	107
Archives, University	65, 452	Engineering, College of	135
Armenian Courses (ARM)	301	Engineering Technology, Division of	164
Art and Art History, Department of	184	Fine, Performing and Communication Arts, College of	179
Art Courses		Health Sciences, Faculty of	416
Art History (A H)	196	Liberal Arts and Sciences, College of	234
Ceramics (ACR)	187	Nursing, College of	389
Design (ADE)	188	Social Work, School of	443
Drawing (ADR)	188	Urban, Labor, and Metropolitan Affairs, College of	453
Electronic Arts, Interdisciplinary (AIN)	191	Bacteriology (see Biological Sciences)	
Fashion Design (AFA)	189	Ballet	205
Graphic Design (AGD)	190	Band Ensemble Participation	210
Fibers (AFI)	189	Basic Composition Requirements, University	17
Industrial Design (AID)	190		

Basic Computer Competency, Level I (CL)	18	Management Courses (MGT)	86
Basic Engineering Courses (B E)	139	Management Major	83
Basic Science Requirement, College of Engineering	136	Marketing Communications	84
Behavior, Student (see Conduct, Student)		Marketing Courses (MKT)	87
Biblical Studies (see Near Eastern & Asian Studies; English Dept.)		Marketing Management	84
Bilingual/Bicultural Education		Marketing Major	83
Courses (BBE)	120	Business Education, Career and Technical Education	116
Elementary Teaching Minor	109	Business Logistics Courses (BLG)	84
Endorsement	117	Business Logistics Specialization, Marketing	84
Secondary Teaching Minor	113	Calendar, Academic.	4
Biochemistry Concentration in Chemistry	264	Campus Information and Service Center (in Student Center)	58
Biological Sciences, Department of	254	Canadian Students, Commuting	60
Academic Policies	256	Canadian Studies Interdisciplinary Minor	260
'AGRADE' Program	256	Cancellation of Fees	39
Bachelor of Arts Degree	254	Card: ID, Library, Parking, Debit, Access (WSU OneCard)	49
Bachelor of Science Degree	255	Career and Technical Education Programs	116
Biodiversity Track	256	Career Planning and Placement Services	51
Biomedical Track	255	Centers and Institutes, University	66
Biotechnology Track	255	Ceramics	
Courses (BIO)	256	Courses (ACR)	187
Honors Degree	256	Major Curriculum	186
Minor	256	Certificate, Application for	49
Blackboard Courses on the Web	63	Certificate Fee	38
Black Student Associations		Certificates, Teaching, College of Education	116
Business Students	79	Bilingual/Bicultural Education	117
Engineering Students	130	Continuing Education	117
Social Work Students	447	Provisional	117
Black Studies (see Africana Studies)		Certification Requirements, College of Education	117
Board of Governors	6,7	Change of Major, School of Business Administration	73
Botany (see Biological Sciences)		Change of Course Elections (Drop/Add)	47
Bridge Program (see Engineering Bridge Program)		Change of Grade	48
Business Administration, School of	69	Changes of College and Curriculum	50
(also see Accounting Department; Business Department)		Cheating	
Academic Regulations	73	University Policies on Student Ethics	45
Accounting Department	80	Chemical Engineering and Materials Science, Department of	140
Admission	71, 73	Bachelor of Science in Chemical Engineering	141
Bachelor's Degrees in	71	Courses (CHE)	143
Business Department	82	Chemistry, Department of	261
Co-op Program	73	Advanced Placement Credit	261
Core Requirements	72	American Chemistry Society (ACS) Certificate	262
Courses of Instruction	84	Bachelor of Arts	262
Directory	71	Bachelor of Science	263
Financial Aid and Awards	76	Biochemistry Concentration	264
Major Requirements	72	Courses (CHM)	265
Minor	73	Honors BA	262
Professional Development Division	78	Honors BS	264
Pre-Business Administration	71	Minor	265
Repeating Courses	75	Chemistry Placement Exam	52
Small		Engineering, College of, Requirements	135
Transfer of Courses in Major	75	Chicano-Boricua Studies, Co-Major Program	456
Business Department	82	Center for	66
Advertising / Marketing Communications	84	Courses (CBS)	457
Bachelor's Degree Programs	82	Chinese (CHI) Courses	327
Business Administration Courses (B A)	84	Chorus Ensemble Participation	210
Business Logistics	84	Civil and Environmental Engineering, Department of	145
Business Logistics Courses (BLG)	84	Bachelor of Science in	145
Corporate Finance	82	Courses (C E)	147
Finance Courses (FIN)	85	Curricula	145
Finance Major	82	Civilizations and Societies	
Financial Markets & Investments	83	Liberal Arts & Sciences Group Requirement in	235
Human Resource Management / Labor Relations	83	Classical Civilization	
Information Systems & Manufacturing	83	Concentration in	268
Information Systems & Manufacturing Courses (ISM)	85	Minor	268
Labor Relations	83	Classics, Greek, and Latin, Department of	267
Logistics, Business	84		

Bachelor of Arts	267	University	17
Classics in English Courses (CLA)	269	Computer Competency, Level I (CL), Basic	18
Courses, Departmental	269	Computer Engineering, Department of Electrical and	149
Foreign Language Group Requirement	269	Bachelor of Science in	150
Foreign Study in Greece	243	Courses (ECE)	151
Greek Courses (GRK)	271	Curricula	150
Latin Courses (LAT)	271	Computer Literacy Competency Requirement, Level I (CL)	18
Minors	268	Computer Literacy (CL) Competency Examination	53
Scholarships	269	Computer Proficiency Requirement, Level II (CP)	18
Class Ranking	48	Computer Science Concentration in Mathematics	319
Classroom Attendance Policy	45	Computer Science, Department of	272
CLEP (College-Level Examination Program)	34	'AGRADE' Program	274
Clinical Laboratory Science Program	417	Bachelor's Degrees	273
Admission, Program	418, 420	Cooperative Work-Study Program	274
Alumni Association	421	Courses (CSC)	275
Bachelor of Science	418	Financial Aid	275
Clinical Laboratory Science (CLS) Courses	421	Honors Program (B.S.)	273
Liability Insurance	419, 436	Information Systems Technology (B.A.)	274
Post-Bachelor Certificate Program	420	Minors	274
Student Aid	420	Post-Bachelor Certificate	274
Codes, Course Subject Area	479	Computer Science Education, Secondary Teaching Minor	113
Cognitive Impairment Major (Special Education)	114	Computing and Information Technology (C&IT)	63
Collateral-College Offerings	61	Concurrent Degrees	
College Day Program	55	Fine, Performing and Communication Arts, College of	180
College-Level Examination Program	34	Liberal Arts and Sciences, College of	236
Co-Major Programs		University	16
Chicano-Boricua Studies	456	Conduct, Student	
Peace and Conflict Studies	469	Business Administration, School of	73
Urban Studies	471	Engineering Students	138
Women's Studies	367	Health Sciences, Faculty of	416
Combined Degrees		Pharmacy, Faculty of	409
Fine, Performing and Communication Arts, College of	180	University Student Ethics	45
Liberal Arts and Sciences, College of	236	University Student Obligations to Instructional Process	45
Commencement		Confidentiality of Records	49
Engineering, College of	139	Publication of Information in Student Directory	49
University	49	Conflict Resolution (see Peace and Conflict Studies)	
Communication Competency Requirements		Continuing Education Unit (CEU)	62
Oral	18	Corporate Finance	82
Written	17	Cooperative Education	51
Communication, Department of	198	Engineering, College of	136
Bachelor's Degrees	198	Co-op Program, Business Administration	73
Communication Courses (COM)	200	Correctional Programs (Criminal Justice)	278
Honors Program	199	Correction of Grades	48
Journalism Institute for Minorities	199	Costs (Tuition and Fees)	38
Journalism Major	199	Council, Student	56
Journalism Scholarships and Loans	200	Counseling (also see Student Development & Campus Life)	
Media Arts & Studies Major	199	Academic Success Center	50, 474
Minor Concentrations	200	Counseling Course (UCS)	474
Public Relations Major	199	Counseling Services, Personal	50
Speech Communication Major	199	Reading Efficiency Courses (R E)	474
Television & Radio (Media Arts & Studies)	199	Counseling and Psychological Services	50
Communication Disorders and Sciences (see Audiology)		Counselor Education Courses (CED)	121
Communication Skills Requirement, College of Engineering	136	Course Load (see Normal Program Load)	
Community and School Psychology (see Graduate Bulletin)		Course Numbering Systems	481
Community Education, Division of	54	Course Symbols and Abbreviations	479
Community Health Nursing (see Graduate Bulletin)		Credit by Special Examination, University Policy	44
Competency Examinations	52	Credit Revalidation	
Computer Literacy (CL)	53	Education, College of	91
Critical Thinking (CT)	53	Pharmacy, Faculty of	409
Mathematics Competency (MC) / Proficiency	53	Credits	
Oral Communication (OC)	53	Definition of	48
Competency Requirements, University	17	Extra, Liberal Arts and Sciences, College of	237
Composition, Music Major in	211	Maximum and Minimum (see Normal Program Load)	
Composition Requirements, Proficiency in English			

Restrictions on	
Fine, Performing and Communication Arts, College of	180
Liberal Arts and Sciences, College of	236
Transfer of Credits	
Education, College of	91
Engineering, College of	133
Liberal Arts and Sciences, College of	236
University Policy	14
Criminal Justice, Department of	278
'AGRADE' Program	280
Bachelor's Degree	279
Courses (CRJ)	280
Honors Program	280
Minor	279
Pre-Law Curriculum	280
Crisis Services (Counseling & Psychological Services)	51
Critical Thinking Competency Requirement	18
Critical Thinking (CT) Competency Examination	53
Cultural Diversity (CD) Exposure (General Education	20
Cultural Studies Group Requirement, Foreign	
Liberal Arts and Sciences	235
University (FC)	19
<i>Cum Laude</i> Designations	31
Cytotechnology Concentration, Health Science Degree	419
Dance, Department of	204
Bachelor of Science Degree	205
Dance Courses (DNC)	207
Dance Education Courses (DNE)	209
Education Dance Minor, Secondary	113
Major Requirements	205
Minor Requirements	206
Performance Opportunities	205
Dean of Students Office, University	56
Dean's List (see Honor Students)	
Declaration of Majors	
Fine, Performing and Communication Arts	179
Liberal Arts and Sciences	235
Nursing	391
Urban, Labor and Metropolitan Affairs	453
Degree Programs, University, Lists of (see individual disciplines)	
Business Administration, School of	70
Education, College of	90
Engineering, College of	129
Fine, Performing and Communication Arts, College of	178
Law School	226
Liberal Arts and Sciences	232
Library and Information Science Program	371
Medicine, School of	378
Nursing, College of	386
Pharmacy and Health Sciences, Applebaum College of	398
Social Work, School of	440
University, List of All	12
Urban, Labor, and Metropolitan Affairs, College of	452
Degree Requirements, University Baccalaureate	16
Competency Requirements	17
Concurrent Degrees	16
English Proficiency	17
General Education Requirements	16
Group Requirements	18
Mathematics Competency	17
Degrees, Application for	49
Dentistry, Pre-	
Liberal Arts and Sciences, College of	239
Design (Graphic Arts Programs)	
Apparel Design Courses (AFA)	189
Apparel Design Curriculum	185
Design Courses (ADE)	188
Graphic Design Courses (AGD)	190
Graphic Design Curriculum	186
Industrial Design Courses (AID)	190
Industrial Design Curriculum	186
Interdisciplinary Electronic Arts Courses (AIN)	191
Interdisciplinary Electronic Arts Curriculum	186
Interior Design Courses (AIA)	191
Interior Design Curriculum	186
Detroit Council for World Affairs	67
Developmental Disabilities Institute	66
Dietetics, Bachelor of Science in	332
Post Bachelor Certificate in	332
Directed Study, School of Business Administration	74
Directories, School and College	
Business Administration, School of	71
Education, College of	96
Engineering, College of	128
Fine, Performing and Communication Arts, College of	183
Health Sciences, Faculty of	399
Liberal Arts and Sciences, College of	233
Medicine, School of	378
Nursing, College of	387
Pharmacy, Faculty of	399
Social Work, School of	440
University Directory (online)	63
Urban, Labor, and Metropolitan Affairs, College of	455
Directory, Student, Publication of Information in	49
Disabled Student Accessibility Services	53
Dismissal	38, 46
Dispute Resolution (see Peace and Conflict Studies; also see: Graduate Bulletin)	
Distinction, Graduation with	31
Doctor of Medicine Program	382
Donnelly Award	56
Double Major	
Fine, Performing and Communication Arts, College of	179
Liberal Arts and Sciences, College of	235
Drawing	
Courses (ADR)	188
Major Curriculum	186
Driver Education Courses (D E)	100
Dropping/Adding Classes	47
Dual Enrollment	43
Due Process, Student	45
Early Academic Assessment	50
Early Childhood Education Endorsement	118
Elementary Teaching Minor	109
East European Studies (see Graduate Bulletin)	
Economics, Department of	282
'AGRADE' Program	283
Bachelor of Arts	282
Courses (ECO)	283
Honors	282
Minor	283
Teaching Curriculum	282
Educational Accessibility Services	53
Educational History and Philosophy Courses (EHP)	126
Educational Opportunity Center (EOC)	55
Educational Psychology Courses (EDP)	121

Education, College of	89	Manufacturing Engineering Technology B.S.	167
Academic Regulations	91	Manufacturing/Industrial Engineering Technology (MIT)	165
Academic Services	92	Mathematics Placement Examination	164
Bachelor's Degrees in Teaching.	106-116	Mechanical Engineering Technology (MCT) Curriculum	166
Degrees, List of	90	Program Specialities.	164-167
Departments	96-105	Product Design Engineering Technology (PDT) Curriculum.	167
Directory	96	English Composition Proficiency Requirements	
Education Courses (ED)	121	Business Administration, School of	74
Education Placement, College of Education	240	Engineering Qualifying Examination	135
Education, Pre-		University	17
Liberal Arts and Sciences, College of	240	English, Department of	285
Electrical and Computer Engineering, Department of	149	'AGRADE' Program	286
Bachelor of Science in	150	Bachelor of Arts in English	286
Curriculum	150	Cognate Study	287
Courses (ECE).	151	Combined Curriculum.	287
Electrical/Electronic Engineering Technology	164	Competency Requirement	287
Bachelor of Engineering Technology in	164	Courses (ENG)	288
Courses (EET).	169	Film Studies B.A. Program	287
Curriculum	164	Folklore Minor.	287
Electromechanical Engineering Technology	165	Honors Program	286
Electronic Arts Courses, Interdisciplinary (AIN)	191	Minor in English	287
Electronic Arts Curriculum, Interdisciplinary	186	Scholarships.	288
Elementary Education		English Education	
Courses (EED).	122	Courses (EED)	122
Degree Programs.	107-110	Elementary Teaching Major	108
e-Mail, University.	63	Elementary Teaching Minor	109
Emergency Crisis Services (Counseling & Psychological)	51	Secondary Teaching Major	111
Emergency Services, WSU Police Department	58	Secondary Teaching Minor	113
Employment (see Placement Services)		English Proficiency Examination	17, 52
Employment, Student	51	English Proficiency Requirement, Undergraduate.	17
Engineering Bridge Program, College of Engineering		English Qualifying Examination	52
Academic Programs.	133	English Translation, Language Courses in	269, 300, 357
Admission Requirements.	133	Enrollment, Accelerated Graduate ('AGRADE').	237
Engineering, College of	127	Enrollment, Dual	43
(also see individual departments)		Enrollment in Classes	46
Academic Programs, Division of Engineering	133	Entrance Examinations	32
Academic Regulations	137	Environmental Engineering	
Admission	133	(see Civil and Environmental Engineering)	
'AGRADE' Program	137	Environmental Science B.S. Program	293
Bachelor of Science Degrees	132	Equality of Opportunity Statement.	9
Basic Engineering Courses (B E)	139	Ethical Issues in Society Exposure (EI) (General Education).	20
Bridge Program, Engineering.	133	Ethics, Student (also see Conduct, Student)	45
Co-Operative Education Program	136	Ethics, Study of	336
Degree Requirements	135	EurAm Center (Study Abroad in France).	51
Degrees, List of	129	European Literature Courses in English Translation	300, 357
Departments	140 - 162	Evaluation, Testing, and Student Life Research	52
Directory	130	Evaluation of Transfer Credits	33
Financial Aid	131	Examinations	
Grade Point Average	138	Advanced Placement	34
Minors	139	American College Test (ACT): Admissions Requirement	32
Placement & Qualifying Examinations.	135	Chemistry Placement	52
Student Activities	130	College Level Examination Program	34
Engineering Technology, Division of	162	Competency Examinations.	52
Academic Regulations	168	Computer Literacy (CL)	53
Admission	164	Credit by Special Examination	44
Bachelor of Science in Computer Technology	163	Critical Thinking (CT)	53
Bachelor of Science in Engineering Technology	164	Engineering, College of, Requirements	135, 164
Courses (E T)	169	English Proficiency.	17, 52
Bachelor of Science in Manufacturing Engineering Technology	167	English Qualifying.	52
Electrical/Electronic Technology (EET) Curriculum	164	General Education Competency.	53
Electromechanical Engineering Technology (EMT)	165	Mathematics Placement	52, 319
Greenfield Coalition /Focus:HOPE BSMFT Degree	168	Mathematics Competency / Proficiency	53
Courses	171	Oral Communication (OC)	53
		Placement	52
		Proficiency (also see individual departments)	52

Exclusion and Probation		Financial Markets and Investments	83
Business Administration, School of	74	Fine, Performing, and Communication Arts, College of	177
Education, College of	92	Academic Regulations	182
Engineering, College of	138, 168	Bachelor's Degree Requirements	179
Fine, Performing and Communication Arts, College of	182	Courses, Multidisciplinary (FPC)	183
Health Sciences, Faculty of	399	Degrees, List of	152
Liberal Arts and Sciences, College of	238	Directory	183
Mortuary Science	423	Fitness Activities, Lifestyle	100
Nursing, College of	392	Fitness Activities Courses, Lifestyle (LFA)	103
Pharmacy, Faculty of	409	Fitness and Recreation Center	57
University	44	Fitness Classes, Non-credit	57
Urban, Labor, and Metropolitan Affairs	455	Focus:HOPE / Greenfield Coalition Engineering Program	168
Exposure Areas (General Education program)	20	Courses	171
Cultural Diversity (CD)	20	Folklore Minor, English Department	287
Ethical Issues in Society (EI)	20	Food Science, Nutrition and	331
Science, Technology & Society (ST)	20	Foreign Culture Group Requirement	
Extension and Summer Sessions Non-credit Offerings	8	Liberal Arts and Sciences, College of	234
Extension Centers	60	University	19
Extra Credits, Undergraduate		Foreign Language Education	
College of Liberal Arts	237	Courses (LED)	122
eWayne and Lifelong Learning Programs		Elementary Teaching Major	108
(seeWSU Pipeline; see Metropolitan Programs)		Elementary Teaching Minor	109
Facilities (see Student Services)		Secondary Teaching Major	111
Faculty (see individual departments)		Secondary Teaching Minor	113
Failure (see Probation)		Foreign Language Group Requirement	
Fashion Design and Merchandising		Fine, Performing, and Communication Arts, College of	179
Courses (AFA)	189	Liberal Arts and Sciences, College of	234
Major Curriculum	185	Foreign Language Proficiency Examinations	
Fees, University Policy	38	(see individual departments)	
Admission Application	38	Foreign Students (see International Students)	
Cancellation of	39	Foreign Study (see Study Abroad)	
Certificate	38	Forensic Investigation, Post-Bachelor's Certificate in	426
Graduation	38	Former Students, Readmission of	34
Late Registration	38	France, Study Abroad in (EurAm Center)	51
Materials and Breakage Fees	38	Freedom of Information Act, Michigan	49
Music Fees	38	French (see Romance Languages and Literatures)	
Other	38	Courses (FRE)	358
Paying	38	Fulbright Grants	51
Physical Education	38	Full-time Status	43
Short Term Courses	39	General Education Requirements, University	16
Special Adjustments	39	(Requirements effective Fall 2005)	
Special Examination	38	Competency Requirements	17
Transcript	38	Computer Literacy & Proficiency	18
Fibers: Major Curriculum	186	Critical Thinking	18
Courses (AFI)	189	Mathematics	17
Field Education Personnel, Social Work	447	Oral Communication	17
Film, Bachelor of Arts with a major in	198	Written Communication	17
B.A. with a major in Film Studies	287	Exposure Areas	20
Finance, Bachelor's Degrees	82	Cultural Diversity	20
Courses (FIN)	85	Ethical Issues in Society	20
Financial Aid	41	Science, Technology & Society	20
Academic Progress Standards (Financial Aid)	43	Group Requirements	18
Business Administration, School of	76	Foreign Culture	19
Clinical Laboratory Science, Department of	420	Historical Studies	19
Disabled Student	53	Humanities	20
Engineering, College of	131	Libraries Orientation Course (UGE)	24
Kinesiology, Health, and Sport Studies	94	Natural Science	19
Library and Information Science Program	372	Social Science	19
Mortuary Science, Department of	423	Requirements, Fall 1987 through Spring-Summer 2005	20
Nursing, College of	393	University Requirements Prior to Fall 1987	24
Pharmacy, Faculty of	414	Geography, Department of (College of Liberal Arts & Sciences)	294
Social Work, School of	445	Bachelor of Arts	294
University Office of Scholarships and	41	Geography Courses (GPH)	294

Honors Program	294	University Commencement	49
Minor	294	Graduation with Distinction	31
Urban Planning Courses (U P)	458	Fine, Performing and Communication Arts, College of	182
Geography and Urban Planning, Department of (College of Urban, Labor and Metropolitan Affairs)	458	Liberal Arts and Sciences, College of	237
(also see Graduate Bulletin)		Nursing, College of	393
Urban Planning Courses (U P)	458	Grants (see Financial Aid)	
Geology, Department of	296	Graphic Design Courses (AGD).	190
Assistantships and Awards	297	Graphic Design Curriculum	186
Bachelor's Degrees	296	Greek and Latin (see Classics, Greek, and Latin)	
Courses (GEL).	297	Greek Courses (GRK)	271
Honors Program	296	Greenfield Coalition /Focus:HOPE Engineering Program	168
Minor	297	Courses	171
German and Slavic Studies, Department of	298	Grievance Procedure (Ombudsperson)	58
Armenian Courses (ARM)	301	Business Administration, School of	74
Armenian Studies Courses in English	300	Grosberg Religious Center	58
Bachelor of Arts	298	Group Requirements	
Engineering / German Dual Degree	299	Liberal Arts and Sciences, College of	234
English Translation, Courses in	300	University	18
Foreign Language Group Requirement	299	Guest Admission	34
Foreign Study in Germany	242	Guest Students, College of Engineering	139
German Courses (GER)	301	Guidance, Academic	50
German Courses in English	300	Guidance and Counseling Courses (CED)	121
Honors Program	299	Handicapped, Educational Accessibility Services for	53
Minors	299	Handicapped, Non-Discrimination Policy for	9
Polish Courses (POL)	303	Handicapped, Teaching Physical Education for	98
Polish Courses in English	300	Health Education (see Kinesiology, Health, and Sport Studies)	
Russian Courses (RUS).	303	Elementary Teaching Minor	109
Russian Courses in English	300	Health Courses (HEA)	100
Slavic Courses (SLA)	301	Health Education Courses	100
Slavic Courses in English	301	Minor	100
Travel-Study Programs	299	Health Occupations, Career and Technical Education.	116
Ukrainian Courses (UKR)	304	Health Requirements, College of Nursing	389
Ukrainian Courses in English	301	Health Science, Bachelor of	
Global Education / World Bridge	51	Cytotechnology Concentration	419
Grade Appeal	46	Occupational Therapy Concentration	429
Grade Point Average	48	Physical Therapy Concentration	434
Engineering	138	Health Sciences Courses, Interdisciplinary (IHS)	410
Fine, Performing and Communication Arts	181	Health Sciences, Faculty of	414
Grading System, University.	47	Academic Regulations	415
Change of Grade	48	Admission	415
Graduate Enrollment, Accelerated ('AGRADE')	237	Applied Sciences (see Fundamental & Applied Sciences Dept.)	
Graduate School	35	Bachelor's Degree Requirements, General	416
(also see Graduate Bulletin)		Clinical Laboratory Science B.S. Program	417
Admission	35	Courses (CLS)	421
Application Dates	36	Cytotechnology Concentration	419
English Proficiency Requirement	37	Post-Bachelor's Certificate	420
Guest	36	Aid, Student	420
International Student	37	Conduct, Student	416
Michigan Intercollegiate Graduate Studies (MIGS) Program	37	Degrees, List of	398
Non-Degree	36	Directory	399
Permit to Register	37	Dishonesty, Academic	415
Post-Bachelor.	37	Fundamental & Applied Sciences Department.	414
Post-Doctoral	36	Grade Appeals	415
Post-Master's	36	Health Care Sciences Department.	414
Pre-Master's	36	Mortuary Science Program	423
Qualified Admission	36	Academic Regulations	423
Senior Rule Admission.	43, 36	Bachelor of Science: Mortuary Science	424
Graduation		Courses (M S)	426
Application	16	Degree Programs	423
Engineering, College of	139	Forensic Investigation, Certificate in	426
Fee	38	Licensure, Michigan	425
Health Sciences, Faculty of	417	Pathologists' Assistant B.S.	425
		Occupational Therapy Program	429
		Bachelor of Health Science: Occupational Therapy	429
		Courses (O T)	431

Financial Aid	431	Housing and Residential Life Office.	56
M.O.T. Degree Requirements	430	Human Development (see Psychology)	
Preprofessional Program	429	Human Resource Management, Curriculum in	83
Professional Program	430	Human Rights and Human Development (see Peace and Conflict Studies)	
Scholarship and Awards	431	Humanities and Social Science Requirement, Engineering	136
Student Activities	431	Humanities Courses (Liberal Arts and Sciences) (HUM)	312
Probation	416	Humanities Courses, Interdisciplinary (I H) (Urban, Labor, Metro Affairs)	466
Physical Therapy Program	434	Humanities Group Requirement	
Admission, Program	434	Liberal Arts and Sciences, College of	235
Anatomy Course (ANA)	436	University	20
Bachelor of Health Science: Physical Therapy	434	Humanities Program, Liberal Arts	312
Degree Requirements.	435	Courses (HUM).	312
Financial Aid	436	Identification, Student Online Access (AccessID)	63
Liability Insurance.	436	Student ID (WSU OneCard)	49
Physical Therapy Courses (P T)	436	Incomplete ('I') Mark	
Scholarship	436	Business Administration, School of	74
Requirements for Graduation.	417	University Policy	48
Scholarships, Aid, Loans, Awards (College)	399	Industrial Design	
Time Limitation.	416	Courses (AID).	190
Health Service: Primary Care Nursing	58	Major Curriculum	186
Hebrew (see Near Eastern and Asian Studies)		Industrial and Manufacturing Engineering, Department of	154
Courses (HEB).	328	Bachelor of Science in Industrial Engineering	155
Henry Award	56	Bachelor of Science in Manufacturing Engineering	155
High School Preparation		Curriculum	155
Engineering, College of	132	Courses (I E)	156
Health Sciences, Faculty of	416	Industrial Engineering Technology.	165
Liberal Arts and Sciences, College of	33	Bachelor of Engineering Technology in	165
Pharmacy, Faculty of	405	Curricula	166
University Admission	33	Courses (MIT).	170
Historical Studies Group Requirements		Industrial Hygiene (see Graduate Bulletin)	
Liberal Arts and Sciences, College of	234	Industrial Relations, School of Business Administration	83
University	19	Industrial Relations, Graduate Study in	452
History, Department of	304	Industrial Toxicology (see Graduate Bulletin)	
'AGRADE' Program	305	Industry and Trade, Career and Technical Education	116
Bachelor of Arts	304	Information and Service Center (in Student Center)	58
Courses (HIS)	305	Information Power (UGE Library Course)	24
Honors, Awards, Scholarships	305	Information Science (see Library and Information Science)	
Honors Program.	305	Information Systems and Manufacturing	
Minor	305	Bachelor's Degrees	83
Pre-Law Program	305	Courses (ISM)	85
History of Schools and Colleges		Information Systems Technology Major.	274
Law School	226	Institutes, University Centers and	66
Medicine, School of	376	Institute for Organizational & Industrial Competitiveness	78
Pharmacy, Faculty of	403	Instructional Process, Obligations to	44
University	7	Instructional Technology Courses (I T).	125
Home Economics (also see Nutrition and Food Science)		Instrumental Music.	211
Career and Technical Education	116	Insurance (see Liability Insurance)	
Honor Point Average (see Grade Point Average)		Intercollegiate Graduate Studies, Michigan (MIGS)	37
Honors, Graduation with	31	Interdisciplinary Health Sciences Courses (IHS).	410
Honors Programs		Interdisciplinary Humanities Courses (I H)	466
Bachelors Degrees listed by Department	310	Interdisciplinary Science & Technology Courses (IST)	465
Courses (HON)	311	Interdisciplinary Social Sciences Courses (ISS)	465
Courses in other Departments, Honors	311	Interdisciplinary Studies, Bachelor of	460
Engineering, College of	134	Interdisciplinary Studies, Bachelor of Technical and	461
Fine, Performing and Communication Arts, College of	182	Interdisciplinary Studies Courses (Urban, Labor & Metro.)	462
Liberal Arts and Sciences, College of	310	Interdisciplinary Studies, Department of	460
Social Work, School of.	443	Bachelor of Interdisciplinary Studies	460
University	31	Bachelor of Technical and Interdisciplinary Studies	461
Honor Students, Dean's List of		Capstone Program	461
Engineering, College of	137, 168	Courses, Departmental	462
Fine, Performing and Communication Arts, College of	182	Nonprofit Sector Studies (Interdisciplinary Studies).	462
Pharmacy & Health Sciences, College of	416	Interdisciplinary Studies Program Courses (ISP)	462
Liberal Arts and Sciences, College of	237		
Nursing, College of	393		

Interior Design	186	Law School	225
Courses (AIA)	191	Admission	228
Intermediate Composition Requirement	17	Degrees, List of	226
Intermediate Teaching	110	Directory	229
International Education, Opportunities in (see Global Education)		Graduate Programs, Combined	228
International Services Office	59	Learning Fitness Plan, Individual	50
International Students		Learning Resources Center, Medical Library	65
Graduate Admission	37	Leaves of Absence	34
Office of International Students & Scholars	59	Social Work	442
Undergraduate Admission	34	Legal Studies (Liberal Arts) Interdisciplinary Minor	314
International Studies Co-Major or Minor	313	Courses (LGS)	315
Internet Access, Student (WSU AccessID)	63	Liability Insurance, Student	
Internet Courses (see WSU Pipeline; also see individual departments)		Clinical Laboratory Science	419
Internships, Faculty of Pharmacy	407	Nursing, College of	389
Interruption in Residence		Physical Therapy	436
Education, College of	91	Radiation Therapy Technology	381
University Policy	34	Liberal Arts and Sciences, College of	231
Intramural Sports	57	(also see individual departments)	
Islamic/Arab Culture & Civilization (Near Eastern Studies)	326	Academic Regulations	237
Italian (see Romance Languages and Literatures)		Bachelor's Degree Requirements	234
Courses (ITA)	359	Curricula, Preprofessional	239
Japan Center for Michigan Universities	51	Degrees, List of	232
Japanese Courses (JPN)	328	Departments	247 -367
Jazz Studies Concentration, Bachelor of Music	212	Directory	233
Jazz Studies Minor, Instrumental Music Education	212	General Education Requirements	234
Journalism (see Communication Department)		Group Requirements	234
Major	199	Non-Matriculant Advising	55
Minor	200	Libraries, University	64
Judaic Studies (Near Eastern & Asian Studies)	326	Labor and Urban Affairs, Archives of	66
Junior Year in Germany	242	Law, Neef	65
Kinesiology, Health and Sport Studies, Division of	96	Medical, Shiffman	65
Bachelor of Arts	98	Purdy/Kresge	65
Bachelor of Science	97	Science and Engineering	65
Courses	100	Undergraduate, Adamany	65
Driver Education (D E)	100	Library and Information Science Program	369
Health (HEA)	100	Activities and Awards	372
Health Education (H E)	100	Computer Labs	371
Kinesiology (KIN)	101	Courses (LIS)	373
Kinesiology, Health & Sport Studies	103	Degree and Certificate, Graduate	371
Lifestyle Fitness Activity (LFA)	103	Facilities	370
Degree Programs	96	Financial Aid	372
Pedagogy Minor, Secondary Health Education	100	Placement Services	372
King, Chavez, Parks College Day Program	55	Undergraduate Study	371
Labor, and Metropolitan Affairs, College of Urban	451	Library Course (General Education Requirement) (UGE)	24
Labor and Urban Affairs, Archives of	66, 452	Library Services Center, Oakland Center	65
Labor Relations, Management Curriculum in	83	Library System, University	64
Labor School Program	468	Licensure, Mortuary Science State	425
Labor Studies Center	66	Pharmacist Licensure	407
Labor Studies Program	467	Lifelong Learning Programs	
Bachelor of Arts	467	(see Metropolitan Programs & Summer Sessions)	60
Courses (LBS)	468	Life Sciences Group Requirement	
Noncredit Courses	468	Liberal Arts and Sciences, College of	234
Language Education Courses (LED)	122	University	19
Language Electives, School of Business Administration	72	Lifestyle Fitness Activities Courses (LFA)	103
Language Proficiency Examinations (see individual departments)		Linguistics Program (Liberal Arts and Sciences)	315
Late Payment of Fees	38	'AGRADE' Program	316
<i>Latino En Marcha</i> Grant	457	Bachelor's Degree	315
Latin (see Classics, Greek, and Latin, Department of)		Courses (LIN)	317
Latin Courses (LAT)	271	Minor	317
Latino/a Social Workers, Student Organization	447	Literature in English Translation	269, 300, 357
Law Enforcement (see Criminal Justice)		Literature, Study of (see English, and individual languages)	
Law, Pre-	239	Loan Funds (see Financial Aid)	
		Locations, School and College	
		Health Sciences, Faculty of	398

Maps	476	Matthaei Building (Physical Education)	57
Medical Center	376	Maximum Credits	
Pharmacy, Faculty of	398	Liberal Arts and Sciences, College of	236
University Main Campus	7	Social Work, School of	445
Macomb, Programs at University Center at	62	McNair Scholars Program	55
Major Degree Programs	12	Mechanical Engineering, Department of	157
Majors, Declaration of		Bachelor of Science in	158
Fine, Performing and Communication Arts	179	Courses (M E)	159
Liberal Arts and Sciences	235	Curriculum	158
Nursing	391	Mechanical Engineering / German Dual Degree	299
Urban, Labor and Metropolitan Affairs	453	Mechanical Engineering Technology	166
Management Major, Bachelor's Degrees	83	Bachelor of Engineering Technology	165
Courses (MGT)	86	Curriculum	165
Managerial Accounting	80	Courses (MCT)	171
Manufacturing Engineering (see Industrial and		Media Arts and Studies Major (see Communication Dept.)	199
Manufacturing Engineering)		Medical Physics, Pre-	340
Manufacturing Engineering Technology B.S. Degree		Medical Technology (see Clinical Laboratory Science)	
(Greenfield Coalition /Focus:HOPE)	168	Medicine, Pre-	
Courses	171	Liberal Arts and Sciences, College of	239
Manufacturing/Industrial Engineering Technology	165	Medicine, School of	375
Bachelor of Engineering Technology in	165	Admission, Preprofessional (B.S.)	379
Curriculum	165	Admission, Professional Program (B.S.)	379
Courses (MIT)	170	Bachelor's Degree in Radiation Therapy Technology	379
Maps of the University	476	Degrees, List of	378
Marketing Communications/Advertising	84	Directory	378
Marketing, Bachelor's Degrees	83	Doctor of Medicine (M.D.) Program	382
Courses (MKT)	87	Facilities, Medical Center	376
Marketing Management	84	Facilities, Medical School	376
Marks and Changes of Marks	48	Library, Shiffman Medical	377
Mass Communications	199	Physiology Service Courses (PSL)	377
Materials Fees	38	Radiation Therapy Technology Courses (R T)	381
Engineering, College of	151	Radiation Therapy Technology (B.S.) Program	379
Materials Science, Department of Chemical Engineering and	140	Services for Students	377
Courses (MSE)	144	Student Affairs	377
Mathematics Competency / Proficiency Exam	53	Undergraduate-level Service Courses (PSL)	377
Mathematics Competency Requirement (MC)	17	Merchandising, Fashion Design and	185
Mathematics, Department of	318	Merrill-Palmer Institute	66
Actuarial Science Concentration	320	Metallurgical Engineering (see Materials Science and Engineering)	
AGRADE Program	321	Metals, Art/Craft Courses (AME)	192
Bachelor's Degrees	319	Major Curriculum	186
Competency / Proficiency Exam	53	Metropolitan Affairs, College of Urban, Labor, and	451
Computer Science Concentration	319	Metropolitan Programs and Summer Sessions	60
Courses (MAT)	321	Academic Regulations	60
Curricular Alternatives	319	Admission	61
Degree Programs	318	Centers, Instructional	60
Emerging Scholars	320	Collateral-College Offerings	61
Honors Program	320	Degree Programs	61
Minor	321	Noncredit Career & Professional Development Programs	62
Non-majors, Advanced Courses for	321	University Center at Macomb, Programs at	62
Placement Exam	52, 319	Michigan Intercollegiate Graduate Studies Program (MIGS)	37
Scholarships & Awards	321	Michigan, University of, Dual Elections with	44
Secondary Teaching Curriculum	319	Military and Veterans' Educational Benefits	54
Statistics Course (STA)	325	Minority Recruitment, School of Medicine	383
Mathematics Education		Minor Requirements	
Courses (MAE)	123	Liberal Arts and Sciences, College of	235
Elementary Teaching Major	108	Minors, List of University	10
Elementary Teaching Minor	109	Mission of the University	6
Secondary Teaching Major	111	Mortuary Science Program	423
Secondary Teaching Minor	111	Academic Regulations	423
Mathematics Placement Exam	52, 319	Attendance	423
Mathematics Proficiency Requirement		Licensure	425
Business Administration, School of	74	Placement	424
Engineering, College of	135	Bachelor of Science in Mortuary Science	424
Engineering Technology, Division of	164	Courses (M S)	426
University General Education Requirements (MC)	17		

Financial Aid	423	Nursing, College of	385
Forensic Investigation, Certificate in	426	Academic Regulations	392
Pre-Mortuary Science Curriculum	424	Accelerated RN-MSN Program	387
Multi-Lingual/Multi-Cultural Education (see Foreign Language Education)		Admission	387
Museum Certificate Program (see Graduate Bulletin)		Attendance Policy	392
Music, Department of	209	Bachelor of Science in Nursing	387
Bachelor's Degrees	210	Courses (NUR)	394
Classroom Instruction Courses (MUA)	213	Degrees, List of	386
Concentrations, Bachelor of Music	211	Degree Requirements	389
Instrumental Music Education	211	Directory	387
Jazz Studies	212	Exclusion	392
Music Management	212	Faculty	387
Music Technology	212	Financial Assistance	393
Performance	212	Leave of Absence	392
Theory/Composition	211	Licensure Preparation	392
Vocal Music Education	211	Pre-Nursing	388
Courses, Departmental	213	Presidential Scholars	388
Education Courses, Music (MED)	213	Probation	392
Education Majors	212	Re-Entry to Clinical Sequence	389
Ensemble Requirements	210	Residency Requirement	393
History Courses, Music (MUH)	215	Time Limitation	392
Minor	212	Nutrition and Food Science, Department of	331
Private Instruction Courses (MUP)	216	'AGRADE' Program	332
Theory Courses, Music (MUT)	217	Bachelor's Degrees	
Natural Science Education		Certificate Program, Post-Bachelor, in Dietetics	332
Elementary Teaching Major	108	Courses (NFS)	333
Elementary Teaching Minor	109	Dietetics, Bachelor of Science in	332
Secondary Teaching Major	112	Dietetics Post-Bachelor Certificate Program	332
Secondary Teaching Minor	113	Honors Program	335
Natural Science Group Requirements		Minor	332
Liberal Arts and Sciences, College of	234	Oakland Center Library Services Center	65
University	19	Occupational Therapy Program	429
Near Eastern and Asian Studies, Department of	326	Bachelor of Science	429
Arabic Courses (ARB)	327	Concentration, BA in Health Science	429
Asian Studies Courses (ASN)	327	Courses (O T)	431
Bachelor's Degree Programs	326	Financial Aid	431
Chinese Courses (CHI)	327	Scholarship and Awards	431
Financial Aid	326	Student Activities	431
Hebrew Courses (HEB)	328	Off-Campus Course Registration	55
Honors Program	326	Officers, University	6
Japanese Courses (JPN)	328	Offices, School and College (see Directories)	
Near Eastern Studies Courses (N E)	329	Ombudsperson, University	58
Nepotism, Academic	46	OneCard, WSU (Student ID)	49
New Student Orientation	35	Online Courses (see WSU Pipeline; also see individual departments)	
Non-Credit Offerings		Online Registration for Courses	46
Career & Professional Development	62	Optometry, Pre- Liberal Arts and Sciences, College of	240
Extension and Summer Sessions Offerings	8	Oral Communication (OC) Competency Exam	53
Fitness Classes	57	Orchestra Ensemble Participation	210
Labor Studies	468	Organizational & Industrial Competitiveness, Institute for	78
Visitor Program	34	Organization of the University	7
Non-Matriculant Advising (College of Liberal Arts)	55	Organizations, Student Business Administration, School of	79
Nonprofit Sector Studies Certificate Program	462	Clinical Laboratory Science	421
Courses (NPS)	466	Engineering, College of	130
Normal Program Load	43	Nursing, College of	393
Business Administration, School of	74	Occupational Therapy	431
Education, College of	91	Pharmacy	413
Fine, Performing and Communication Arts, College of	182	Social Work	447
Health Sciences	415	Oriental Studies (Near Eastern & Asian Studies)	326
Liberal Arts and Sciences, College of	237	Orientation, New Student	35
University	43	International Student	59
Numbering Systems, Course	481		
Nursery School Education (see Early Childhood Education)			

Osteopathic Medicine, Pre-		
Liberal Arts and Sciences, College of	239	
Out-of-State Tuition	38	
Overseas Study (see Study Abroad)		
Painting Courses (APA)	193	
Major Curriculum	186	
Passed—Not Passed Program		
Business Administration, School of	74	
University Policy	48	
Pathologists' Assistant, Bachelor of Science degree	425	
Peace and Conflict Studies, Co-Major	469	
Core Requirements	469	
Courses (PCS)	471	
Center for	67	
Minor	470	
Pell Grants (see Financial Aid)		
Performing & Visual Arts Group Requirement		
Liberal Arts and Sciences, College of	235	
University	20	
Personal Selling/Sales Management	84	
Personnel Management	83	
Pharmaceutical Sciences, Department of	405	
Doctor of Pharmacy	405	
Courses (PSC)	410	
Pharmacy & Health Sciences, Eugene Applebaum College of	397	
(also see Pharmacy, Faculty of)		
Degrees and Certificates, List of	398	
Directory	399	
Grade Appeals	408	
Health Sciences, Faculty of	414	
Academic Regulations	415	
Admission	415	
Applied Sciences (see Fundamental & Applied Sciences Dept.)		
Bachelor's Degree Requirements, General	416	
Clinical Laboratory Science B.S. Program	417	
Courses (CLS)	421	
Cytotechnology Concentration	419	
Post-Bachelor's Certificate	420	
Aid, Student	420	
Conduct, Student	416	
Degrees, List of	398	
Directory	399	
Dishonesty, Academic	415	
Fundamental & Applied Sciences Department	414	
Grade Appeals	415	
Health Care Sciences Department	414	
Mortuary Science Program	423	
Academic Regulations	423	
Bachelor of Science: Mortuary Science	424	
Courses (M S)	426	
Degree Programs	423	
Forensic Investigation, Certificate in	426	
Licensure, Michigan	425	
Pathologists' Assistant B.S.	425	
Occupational Therapy Program	429	
Bachelor of Health Science: Occupational Therapy	429	
Courses (O T)	431	
Financial Aid	431	
M.O.T. Degree Requirements	430	
Preprofessional Program	429	
Professional Program	430	
Scholarship and Awards	431	
Student Activities	431	
Probation	416	
Physical Therapy Program	434	
Admission, Program	434	
Anatomy Course (ANA)	436	
Bachelor of Health Science: Physical Therapy	434	
Degree Requirements	435	
Financial Aid	436	
Liability Insurance	436	
Physical Therapy Courses (P T)	436	
Scholarship	436	
Requirements for Graduation	417	
Scholarships, Aid, Loans, Awards (College)	399	
Time Limitation	416	
Pharmacy Courses (PHA)	410	
Pharmacy, Doctor of	405	
Academic Regulations	408	
Degree Requirements	406	
Internship	407	
Licensure	407	
Pharmacy Practice Experience	407	
Preprofessional Program	405	
Professional Program	406	
Tuition	406	
Pharmacy, Faculty of (also see individual departments)	403	
(also see Pharmacy, Doctor of)		
Academic Progress	408	
Academic Review	409	
Attendance	408	
Bachelor of Health Science	419, 429	
Conduct, Student	409	
Courses	410	
Dean's List, Pharmacy	416	
Degrees, List of	398	
Directory	399	
Dishonesty, Academic	409	
Dismissal	409	
Employment, Outside	408	
Financial Aid	414	
Grade Appeals	408	
Grade Requirement, Minimum	408	
Interdisciplinary Health Sciences Courses (IHS)	410	
Leaves of Absence	408	
Licensure	407	
Pharmaceutical Sciences	405	
Pharmaceutical Sciences Courses (PSC)	410	
Pharmacy Courses (PHA)	410	
Pharmacy, Doctor of	405	
Pharmacy Practice	404	
Pharmacy Practice Courses (PPR)	411	
Probation	409	
Readmission	409	
Scholarships, Aid, Loans, Awards (College)	399	
Student and Alumni Activities	413	
Time Limitations	408	
Pharmacy Practice, Department of	404	
Courses (PPR)	411	
Pharmacy Practice Experiences Requirement	407	
Pharmacy, Pre-	240	
Phi Beta Kappa		
Liberal Arts and Sciences, College of	237	
Philosophy and History of Education Course (EHP)	126	
Philosophy and Letters Group Requirement		
Liberal Arts and Sciences, College of	234	
University	20	
Philosophy, Department of	335	
Bachelor of Arts	335	
Courses (PHI)	336	

Honors Program	335	Courses (POL)	303
Minor	335	Political Science, Department of	345
Phoenix Program (Second Start)	35	'AGRADE' Program	347
Photography Courses (APH)	194	Awards and Honorary Societies	348
Major Curriculum	187	Bachelor's Degrees	345, 346
Physical Education (see Kinesiology, Health, and Sport Studies)		Concentration Requirement (B.P.A. Program)	347
Bachelor's Degree with Certification in	97	Core Curriculum (B.P.A. Program)	347
Courses (P E)	101	Courses (P S)	348
Elementary Teaching Minor	100	Fields (B.A. Program)	346
Facilities	57	Honors Program	347
Lifestyle Fitness Activities Courses (LFA)	103	Internships	347
Secondary Teaching Minor	100	Minor	347
Physical Examinations		Public Affairs, Bachelor of	346
Education, College of	106	Salford, University of, Exchange Program	347
Mortuary Science	424	Post-Baccalaureate Certification, College of Education	117
Nursing	389	Post-Bachelor Admission	37
Physical Science Group Requirement		Post-Doctoral Admission	36
Liberal Arts and Sciences, College of	234	Post-Master's Admission	36
University	19	Preprofessional Curricula	
Physical Therapy Program	434	Liberal Arts and Sciences, College of	239
Admission, Program	434	(also see individual disciplines)	
Anatomy Course (ANA)	436	Presidential Scholarship Program	35
Bachelor of Health Science: Physical Therapy Concentration	434	Presidential Scholars, College of Nursing	388
Courses (P T)	436	Primary Care Nursing Service (University Health Service)	58
Degree Requirements	435	Printmaking Courses (APR)	194
Financial Aid	436	Major Curriculum	187
Liability Insurance	436	Privacy of Educational Records	49
Scholarship	436	Probability (see Mathematics)	
Physical Therapy, Health Science B.S. Concentration	434	Probation	
Physics and Astronomy, Department of	338	Business Administration, School of	74
Applied Physics	340	Education, College of	92
Astronomy Courses (AST)	342	Engineering, College of	138
Bachelor's Degrees	339	Engineering Technology, Division of	168
Minor	341	Fine, Performing and Communication Arts, College of	182
Non-Science Major Courses	341	Health Sciences, Faculty of	416
Physics Courses (PHY)	342	Liberal Arts and Sciences, College of	237
Pre-Medical Physics Option	340	Mortuary Science	423
Scholarships & Awards	341	Nursing, College of	392
Physiology Service Courses (PSL)	377	Pharmacy, Faculty of	409
Pipeline (Web Access at WSU)	47, 63	University	44
Blackboard Courses	63	Urban, Labor, and Metropolitan Affairs, College of	455
Grade Access, Final	47	Procurement Technical Assistance Center	78
Payment of Tuition and Fees via	38	Professional Development Co-op, Business Administration	73
Registration (Web)	46	Professional Development Division, Business Administration	78
Placement and On-Campus Recruiting	51	Business Training & Executive Education	78
Placement Examinations	52	Certificate Programs	78
Chemistry Placement	52	Consulting Services, On-site	78
Engineering, College of, Requirements	135, 164	Procurement Technical Assistance Center	78
Mathematics Placement	52, 319	Small Business Services	78
Placement Services		Professional Development Programs, Noncredit Career &	62
Business Administration, School of	79	Professional Registration, Engineering	139
Education, College of	92	Proficiency Examinations	52
Mortuary Science	424	English Proficiency	52
Nursing, College of	393	Language Proficiency, Foreign (see individual departments)	
Placement Services, Career Planning and, University	51	Mathematics Competency / Proficiency	53
Placement Tests, Advanced	34	Program Load, Normal	
Plagiarism		Business Administration, School of	74
Fine, Performing and Communication Arts, College of	183	Education, College of	91
Liberal Arts and Sciences, College of	238	Fine, Performing and Communication Arts, College of	182
Planning, Career, and Placement Services	51	Health Sciences, Faculty of	415
Point System, Grade	48	Liberal Arts and Sciences, College of	237
Police Department, Wayne State University	58	University	387
Police/Police Administration (see Criminal Justice)		Programs, List of Degree and Certificate	12
Polish (see German and Slavic Studies)		Progress Standards, Academic (Financial Aid)	43

Project 350	33, 55	Residency	40
Product Design Engineering Technology (PDT) Curriculum	167	Review Procedures	40
Public Accounting	80	Responsibilities of Faculty	44
Psychological and Counseling Services	50	Responsibilities of Students	45
Psychology, Department of	351	Retailing (see Marketing Major)	
Bachelor's Degrees	352	Retaking Courses	44
Courses (PSY)	353	Business Administration, School of	75
Honors Program	352	Engineering, College of	138
Minor	353	Health Sciences, Faculty of	44
Psychology, Educational, Courses (EDP)	121	Liberal Arts and Sciences, College of	236
Public Affairs, Bachelor of	346	University Policy	44
Public Safety, Wayne State University (Police)	58	Retention of Student Records	
Qualified Graduate Admission	36	Business Administration, School of	75
Qualifying Examinations	52	Fine, Performing and Communication Arts, College of	182
Engineering, College of, Requirements	135, 164	Liberal Arts and Sciences, College of	237
English	52	Returning to University (see Re-Entry; see Phoenix Program)	
Radiation Therapy Technology Program	379	Rights and Responsibilities, Student	
Bachelor of Science in Radiation Therapy Technology	379	Health Sciences, Faculty of	416
Courses (R T)	381	Nursing, College of	393
Degree Requirements	380	University Policy	45
General Education Requirements	381	Romance Languages and Literatures, Department of	356
Liability Insurance	381	'AGRADE' Program	357
Preprofessional Program Admission	379	Bachelor of Arts in Romance Languages	356
Professional Program Admission	379	Concentrations (French, Italian, Spanish)	356
Radiation Therapy Technology, Pre-	379	Courses, Departmental	357
Radio/TV Studies (see Communication Department)		English Translation, Courses in	357
Radio/TV Secondary Teaching Speech Major	113	Financial Aid & Awards	357
Ranking, Undergraduate Class	48	Foreign Language Group Requirement	357
Reading and Study Skills	50, 474	French Courses (FRE)	358
Reading Education Courses (RDG)	123	Honors Program	356
Reading Efficiency Courses (R E)	474	Italian Courses (ITA)	359
Readmission		Minors & Cognate Study	357
Education, College of	91	Spanish Courses (SPA)	361
Pharmacy, Faculty of	409	Travel-Study Programs	242, 299
University Policy	34	ROTC: Aerospace Studies	474
Records, Student	46	Russian Courses (RUS)	303
Release of	49	Sales Management/Personal Selling	84
(also see Retention of Student Records)		Salford University Exchange Program	347
Recreation and Fitness Center	57	Satisfactory/Unsatisfactory Grades	47
Recreation (Matthaei Building)	57	Schedule Changes, Student	46
Re-entry Following Interruption in Residence	34	Scholarship and Academic Performance Standards	
Re-entry after Probation/Dismissal (Phoenix Program)	35	(also see Probation)	
Refunds	39	Engineering, College of	138, 168
Registrar, Office of	46	Nursing, College of	392
Registration for Courses	46	Pharmacy, Faculty of	408
Dual	43	Progress Standards, Academic (Financial Aid)	43
Engineering, College of	137	Scholarships, Financial Aid, and Awards	
Late	38	Business Administration, School of	76
Off-Campus Registration	55	Education, College of	92
Web (Online)	46	Engineering, College of	131
Religious Center, Grosberg	58	Nursing, College of	393
Repeating (Retaking) Courses, University Policy	44	Pharmacy, Faculty of	414
Requirements, School and College (see Bachelor's Degrees)		Presidential Scholarship Program	35
Residence Credit Requirement		Progress Standards, Academic (Financial Aid)	43
Health Sciences, Faculty of	416	Social Work, School of	446
Business Administration, School of	75	University Office of	41
Education, College of	91	Science & Technology Courses, Interdisciplinary	
Fine, Performing and Communication Arts, College of	181	(Urban, Labor, Metropolitan Affairs) (IST)	465
Liberal Arts and Sciences, College of	236	Science Education	
Nursing, College of	393	Courses (SCE)	124
Pharmacy, Faculty of	406	Elementary Certification	107
Residences and Housing	56	Secondary Certification	110

Science Group Requirements, Natural	
Liberal Arts and Sciences, College of	234
University	19
Science Requirement, Basic, College of Engineering	136
Science Requirement, Liberal Arts & Sciences B.S.	235
Science, Technology & Society (ST) (General Education)	20
Sculpture Courses (ASL)	195
Major Curriculum	187
Secondary Education, Bachelor's Degree Programs	110
Secondary School Teaching	
Liberal Arts and Sciences, College of	241
(also see individual departments)	
Second Degree	
Engineering, College of	139
Fine, Performing and Communication Arts, College of	180
Liberal Arts and Sciences, College of	236
University	16
Second Start (Phoenix Program)	35
Semitic Studies (Near Eastern & Asian Studies)	326
Senior Graduate Credit	43, 36
Senior Rule Admission, University Policy	43, 36
Service Center, Campus Information and (in Student Center)	58
Services, Student Success	50
Academic Success Center	50
Accessibility Services, Educational)	53
Advising Center, University	50
Community Education, Division of	54
Shiffman Medical Library	65
Short Term Course Fee Payment	39
Signs and Abbreviations, Course	479
Slavic Language (see German and Slavic Studies)	
Slavic Studies, Bachelor of Arts in	298
Small Business Services	78
Social Science and Humanities Requirement, Engineering	136
Social Science Education Minors	113
Social Science Group Requirement	
Liberal Arts and Sciences, College of	234
University	19
Social Sciences Courses, Interdisciplinary	
(Urban, Labor and Metropolitan Affairs) (ISS)	465
Social Studies Education	
Courses (SSE)	124
Elementary Teaching Major	109
Elementary Teaching Minor	110
Secondary Teaching Major	112
Secondary Teaching Minor	113
Social Work, School of	439
Academic Regulations	445
Activities, School	447
Alumni Association	447
Latino/a Social Workers Student Organization	447
Black Social Work Students, National Association	447
Student Organization	447
Bachelor of Social Work	441
Pre-Social Work	442
Courses (S W)	444
Degree Programs, List of	440
Directory	440
Faculty and Administration	441
Field Education	447
Financial Aid and Awards	445
Honors	443
Leave of Absence	442
Liberal Arts, Pre-Social Work in	442
Pre-Social Work	442
Scholarships and Awards	446
Sociology, Department of	363
'AGRADE' Program	364
Bachelor of Arts	363
Courses (SOC)	365
Honors Program	364
Minor	364
Scholarships and Awards	364
Spanish (see Romance Languages and Literatures)	
Courses (SPA)	361
Special Education	
Bachelor's Degree with Certificate in	114
Cognitive Impaired Major	114
Courses (SED)	124
Secondary Teaching Minor	114
Speech Impaired Concentration	241
Speech-Language Impaired	115
Special Examination, Credit by	44
Speech Education Courses, Education (S E)	125
Speech Impaired Concentration, Teacher Education /Audiology	241
Speech-Language Pathology Courses (SLP)	253
Speech-Language Pathology, Department of Audiology and	252
Sports Administration (see Graduate Bulletin)	
Statistics Concentration (see Actuarial Science)	
Statistics Course (STA)	325
Student Success Services	50
Academic Success Center	50
Accessibility Services, Educational)	53
Advising Center, University	50
Community Education, Division of	54
Student Activities and Organizations	
Business Administration, School of	79
Engineering, College of	130
Nursing, College of	431
Occupational Therapy	431
Pharmacy	413
Social Work, School of	447
Student Affairs, Office of, School of Medicine	377
Student Center Building	57
Student Council	56
Student Directory, Publication of Information in Online	49
Student Due Process	45
Student Employment	51
Student Government	
Engineering Student Faculty Board	130
Student Council, University	56
Student ID (WSU OneCard)	49
Student Life Research, Testing, and Evaluation	52
Student Organizations (see Dean of Students Office)	
Student Records	46
Holds on	39
Release of	49
Retention of	
Business Administration	75
Fine, Performing and Communication Arts	182
Liberal Arts	237
Student Rights and Responsibilities	
Nursing, College of	393
University Policy	45
Students, Dean of	56
Student Services	
Business Administration, School of	78

Disabled Students, Accessibility Services for	53	Engineering, College of	133
Education, College of	92	Liberal Arts and Sciences, College of	236
University Student Success Services	50	University Policy	33
Student Teaching		Travel Study (see Study Abroad)	
Education, College of	118	Tuition (see Fees)	
Kinesiology, Health, and Sport Studies, Division of	98	Tutoring & Supplemental Instruction	50
Study Abroad Office	51	TV/Radio Secondary Teaching Speech Major	113
Study Abroad Programs	51	TV/Radio Studies (see Communication Department)	
Africa	242	UGE (University General Education) Course	24
Caribbean	242	Ukrainian Courses (UKR)	304
Fine, Performing and Communication Arts, College of	182	Undergraduate Admission	32
France (EurAm Center)	51	University Center at Macomb, Programs at	62
Fulbright Grants	51	University of Michigan, Dual Elections with	44
Germany	242	University of Salford, Exchange Program with	347
Greece	243	University of Windsor, Exchange Agreement with	34
Japan Center for Michigan Universities	51	Upward Bound	55
Liberal Arts and Sciences, College of	242	Urban Affairs, Archives of Labor and	66, 452
Office, Study Abroad	51	Urban, Labor, and Metropolitan Affairs, College of	451
Salford University	347	(also see individual departments)	
Urban, Labor and Metropolitan Affairs, College of	454	Academic Regulations	454
World Bridge	51	Bachelor's Degree Requirements	453
Substandard Performance (see Scholarship)		Departments	456 - 471
Summer Sessions, Metropolitan Programs and	60	Directory	455
Academic Regulations	60	Urban Planning, Department of Geography and	458
Admission	61	(also see Graduate Bulletin)	
Centers, Instructional	60	Courses (U P)	458
Collateral-College Offerings	61	Urban Studies, Center for	67
Degree Programs	61	Urban Studies, Co-Major Program	471
Noncredit Career & Professional Development Programs	62	Courses (U S)	472
University Center at Macomb, Programs at	62	Veterans' Affairs	54
Supplemental Instruction & Tutoring	50	Veterans' Educational Benefits Office	54
Suspension	35, 44	Veterans' Educational Opportunity Program (VEOP)	55
Swahili Courses (SWA)	247	Veterinary Medicine, Pre-	
Systems, Accounting	80	Liberal Arts and Sciences, College of	240
Talent Search (HEOC)	55	Violence in the Workplace, Policy on	10
Teacher Education, Division of	105	Visitor Program, University	34, 62
Certification	116	Visual and Performing Arts Group Requirement	
Courses (TED)	118	Liberal Arts and Sciences, College of	235
Degrees, List of	105	University	20
Undergraduate Programs	107	Vocal Music Major	211
Teacher Placement	92	Vocational Education Programs (see Career & Technical Education)	
Teacher Preparation Curricula		Waiver of Course Prerequisites, Business Administration	75
Fine, Performing and Communication Arts, College of	180	Waiver of Degree Requirements, Business Administration	75
Liberal Arts and Sciences, College of	240	Web Courses (see WSU Pipeline; also see individual departments)	
Teaching Certificates, Michigan	116	Web Registration for Courses	46
Teaching Certification, Kinesiology	98	Windsor, University of, Exchange Agreement with	34
Technical and Interdisciplinary Studies, Bachelor of	461	Withdrawals from Courses	
Television (see Communication Department)		Education, College of	92
Testing, Evaluation, and Student Life Research	52	Engineering, College of	139
Tests, Advanced Placement	34	University Policy	47
American College Test (ACT): Admissions Requirement	32	Women Engineers, Society of	130
Theatre, Department of	218	Women's Studies, Co-Major Program	367
Bachelor of Arts	218	Courses (W S)	368
Bachelor of Fine Arts	219	Minor or Cognate Study	368
Courses (THR)	220	World Affairs, Detroit Council for	67
Majors	219	World Bridge	51
Minor	219	Writing-Intensive Course Requirement	17
Time Limitations (see individual degree programs)		Written Communication Requirement	17
Trade and Industry, Career and Technical Education	116	WSU AccessID	63
Transcripts	49	WSU OneCard (Student ID)	49
Transfer of College, Engineering	133	WSU Pipeline (WSU Web Access)	47
Transfer of Major Courses in Business Administration School	75	Zoology (see Biological Sciences)	
Transfer of Credit			
Education, College of	91		

