Notices

The university reserves the right to make changes in admission requirements, fees, degree requirements, and other specifications set forth in this catalog. Such changes take precedence over catalog statements. While reasonable effort is made to publicize such changes, the student should remain in close touch with departmental advisers and appropriate offices, because responsibility for complying with all applicable requirements ultimately rests with the student.

Although the university attempts to accommodate the course requests of students, course offerings may be limited by financial, space, and staffing considerations or may otherwise be unavailable. Nothing in this catalog may be construed to promise or guarantee registration in any course or course of study (whether required or elective) nor may anything be construed to promise or guarantee the completion of an academic program within a specified length of time.

Admission to the Graduate School is not complete until application materials have been fully processed and the applicant has been notified by the Graduate School in writing of admission.

Other statements of a legal nature are printed in the "Notices" and "General Regulations" sections of this catalog.

Student Responsibility

It is the responsibility of students to know and observe all regulations and procedures relating to the program they are pursuing, as well as those of the university and Graduate School. In no case will a regulation be waived or an exception granted because students plead ignorance of, or contend that they were not informed of, the regulations or procedures. Questions on regulations and their interpretation pertaining to studies at the graduate level should be addressed to the office of the dean of the Graduate School.

Students planning to graduate should familiarize themselves with the dates relating to application for graduation and other pertinent deadlines. (See Graduate School Calendar.) It is necessary to apply for graduation by the specified deadline in order to graduate in a particular term, whether or not the student plans to attend the commencement ceremonies.

Students must satisfy the degree requirements of the catalog in force during the term for which they have been admitted to and begin course work in a degree program; or they may, with the consent of their advisers, meet graduation requirements by complying with the provisions of a later catalog. Students readmitted to a degree program must meet degree requirements of the catalog in force at the time of the later admission (or of a subsequent catalog, as provided above). Aside from degree requirements, all students are subject to the regulations and policies stated in the catalog currently in force. Exceptions to regulations contained in the *Graduate Catalog* require the written approval of the office of the dean of the Graduate School, unless otherwise stated in the catalog.

Graduate students and students-at-large should notify the Graduate School immediately of any change in address so that receipt of mail will not be delayed.

Graduate School Information

The Graduate School
Adams Hall
Northern Illinois University
DeKalb, Illinois 60115-2864

Phone numbers:
(815) 753-0395 (Graduate School)
(800) 892-3050 (toll-free number for Illinois callers only)
(815) 753-1000 (general university number)

E-mail address: gradsch@niu.edu

World Wide Web site: www.grad.niu.edu

World Wide Web information on the Graduate School is linked to much additional information on departments and their programs and includes an online version of this catalog. However, the printed catalog is the definitive version of program descriptions and of academic policies and procedures contained therein.

World Wide Web sites for academic colleges, departments, and schools are accessible through NIU's home page at www.niu.edu as well as via the Graduate School Web site. E-mail addresses are found at many of the departmental sites.

Further information on specific graduate programs can also be requested from the persons indicated in the "Directory for Correspondence" in this catalog.

NORTHERN ILLINOIS
UNIVERSITY

Graduate Catalog 2006-07

Effective May 15, 2006

The Graduate School

College of Business
College of Education
College of Engineering and Engineering Technology
College of Health and Human Sciences
College off Liberal Arts and Sciences
College of Visual and Performing Arts

NIU Bulletin Series (USPS 706-780)
Volume 38, Number 1, May 2006

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Calender

The *Schedule of Classes* should be consulted for registration dates. For detailed information regarding Graduate School deadlines pertaining to application, admission, and graduation, see the official *Graduate School Calendar*, which is available from the Graduate School and at our website, www.grad.niu.edu.

Summer Session 2006

June 19, Monday
Beginning of classes
July 4, Tuesday
Independence Day Holiday (no classes)
August 11, Friday
End of summer session
August 12, Saturday
Summer 2006 degree date

Fall Semester 2006

August 21-25, Monday-Friday
Department, college, and university faculty meetings
August 28, Monday
Beginning of classes
September 4, Monday
Labor Day Holiday (no classes)
November 21, Tuesday
Beginning of Thanksgiving break after regularly scheduled classes
November 27, Monday
Resumption of classes
December 11-16, Monday-Saturday
Final examinations
December 17, Sunday
Commencement; fall 2006 degree date

Spring Semester 2007

January 8-12, Monday-Friday
Department and college faculty meetings
January 15, Monday
Martin Luther King, Jr., Holiday (no classes)
January 16, Tuesday
Beginning of classes
March 10, Saturday
Beginning of spring break after regularly scheduled classes
March 19, Monday
Resumption of classes
May 4, Friday
Reading Day
May 5, 7-11, Saturday, Monday-Friday
Final examinations
May 12, Saturday
Commencement; spring 2007 degree date

June 2006

S	M	T	W	T	F	S
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4	5	6	7	8	9	10
11	12	13	14	15	16	17
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July

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August

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September

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October

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November

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January 2007

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March

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25	26	27	28	29	30	31

April

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15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

May

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13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

A Guide to Reading This Catalog

Course Designators

ACCY–Accountancy
AHPH–Public Health and Health Education
AHPT–Physical Therapy
ANTH–Anthropology
ART–Art
ARTD–Art Design
ARTE–Art Education
ARTH–Art History
ARTS–Art 2-D and 3-D Studio
BIOS–Biological Sciences
CAHA–Adult and Higher Education
CAHC–Counseling
CAHE–Counseling, Adult and Higher Education
CHEM–Chemistry
COMD–Communicative Disorders
COMS–Communication Studies
CSCI–Computer Science
ECON–Economics
ELE–Electrical Engineering
ENGL–English
EPF–Educational Psychology and Foundations
EPFE–Foundations of Education
EPS–Educational Psychology
ETR–Research and Assessment
ETT–Instructional Technology
FCNS–Family, Consumer, and Nutrition Sciences
FINA–Finance
FLAL–Applied Linguistics and General
FLCL–Classical Languages
FLFR–French
FLGE–German
FLIN–Indonesian
FLIS–Foreign Language Independent Study
FLIT–Italian
FLMT–Foreign Language Methods
FLPO–Portuguese
FLRU–Russian
FLSP–Spanish
FLST–Foreign Language Special Topics
FLTE–Foreign Language Instructional Technology
GEOG–Geography
GEOL–Geology
HIST–History
IBUS–Interdisciplinary Business
IDSP–Inter-College Interdisciplinary
IEET–Interdisciplinary Engineering and Engineering Technology
IENG–Industrial Engineering
IHHS–Interdisciplinary Health and Human Sciences
ILAS–Interdisciplinary Liberal Arts and Sciences
JOUR–Journalism
KNDN–Physical Education Dance
KNPE–Physical Education
LEBM–School Business Management
LEEA–Educational Administration
LESM–Sport Management
LTCY–Literacy Education
LTDH–Deaf and Hard of Hearing
LTIC–Bilingual/ESL
LTLA–Language Arts
LTRE–Reading
MATH–Mathematical Sciences
MEE–Mechanical Engineering
MET–Meteorology
MGMT–Management
MILS–Military Science
MKTG–Marketing
MUSC–Music
NURS–Nursing
OMIS–Operations Management and Information Systems
PHIL–Philosophy
PHYS–Physics
POLS–Political Science
PSPA–Public Administration
PSYC–Psychology
SOCI–Sociology
STAT–Statistics
TECH–Technology
THEA–Theatre Arts
TH-D–Dance Performance
TLCI–Curriculum and Instruction
TLEC–Early Childhood Education
TLEE–Elementary Education
TLRN–Teaching and Learning
TLSE–Special Education
UBUS–Interdisciplinary Business
UNIV–University-Wide Interdisciplinary
WOMS–Women's Studies

T–This letter following a course number indicates that an old number is being reused for a new course.
X–This letter following a course number indicates that the course is offered primarily by another department but may be taken for credit in the department offering it with the "X" listing.

Abbreviations Used in This Catalog

Advanced Degrees

Au.D.–Doctor of Audiology
Ed.D.–Doctor of Education
Ed.S.–Educational Specialist
J.D.–Juris Doctor
M.A.–Master of Arts
M.A.S.–Master of Accounting Science
M.B.A.–Master of Business Administration
M.F.A.–Master of Fine Arts
M.M.–Master of Music
M.P.A.–Master of Public Administration
M.P.H.–Master of Public Health
M.P.T.–Master of Physical Therapy
M.S.–Master of Science
M.S.Ed.–Master of Science in Education
M.S.T.–Master of Science in Taxation
Ph.D.–Doctor of Philosophy

Other Abbreviations

CRQ–Corequisite
GPA–Grade point average
PRQ–Prerequisite

Definitions of Terms Used in This Catalog

***Academic dismissal:** Dismissal from the university for reasons such as not maintaining the required grade point average (GPA), or for accumulating excessive hours of graduate grades of D, F, U, or WF.

***Academic probation**: Academic status of a graduate-level student whose graduate GPA is below 3.00.

Accredited institution: A post-secondary institution that is accredited by the appropriate regional agency (New England Association of Schools and Colleges, Middle States Association of Colleges and Schools, North Central Association of Colleges and Schools, Northwest Association of Schools and Colleges, Southern Association of Colleges and Schools, or Western Association of Schools and Colleges).

***Admission (to the Graduate School):** Formal acceptance, both by the Graduate School and by the appropriate department or program, to pursue a specific graduate degree in a particular subject area or a Performer's Certificate in music.

***Auditing:** Registering for and attending a class regularly without necessarily completing the work required for credit; requires agreement of the instructor. (No grade points or credit hours are earned for audited courses.)

***Certificate of graduate study**: A course of study, not linked to the pursuit of a degree, consisting of a coherent set of courses, fewer than for a major, addressing a specific theme. Completion of the requirements for a certificate of graduate study will result in an appropriate notation on the student's academic record.

***Concentration:** A course of study**,** typically interdisciplinary, linked to the pursuit of a specific graduate degree. Completion of the requirements for a concentration will result in an appropriate notation on the student's academic record.

Corequisite (CRQ): A requirement, usually enrollment in a course, which should be undertaken at the same time as the course being described (if that requirement or its equivalent has not been completed previously).

***Correspondence course:** A course, other than an independent study course, that does not involve significant real-time interaction between students and faculty, when such interaction would normally be a part of the same course offering on campus.

***Course load:** All courses for which a student is registered, regardless of whether they are taken for credit or whether they are at the graduate level.

Departmental requirements: Courses or other requirements specified by a department as necessary for completion of a given course of study.

Dismissal: See **Academic dismissal.**

Drop: A procedure by which a course is deleted from a student's schedule so the course does not appear on the student's permanent academic record. A student may drop a course early in a term; this procedure must be completed by the date indicated in each academic term's *Schedule of Classes.* An administrative office may drop students from courses in which they are not eligible to enroll. See also **Withdrawal.**

Elective: A course in which a student chooses to enroll, as distinguished from a specific course required as part of a particular course of study.

Encumbrance: A hold placed on a student's record as a result of an unfulfilled obligation to the university. This may prevent the distribution of transcripts and may prevent further registration. A student with an encumbrance preventing registration is not eligible to participate in course work and may not be enrolled in a course retroactively if the encumbrance is not cleared before the course is over.

Endorsement: The written notation entered upon the face of a teaching certificate designating additional specific subjects and/or grade levels which an individual is qualified to teach. Endorsements are earned by taking designated course work in a specific discipline area.

Enrollment: Registration in a course that subsequently appears on the student's permanent academic record.

Entitlement program: A specific teacher certification program approved by the Illinois State Board of Education to be offered by an institution of higher education.

***GPA hours:** The number of semester hours for which grades of A, B, C, D, F, or U are recorded.

***Grade point:** The numerical value given to letter grades. A grade of D is equivalent to 1 point per semester hour, a C to 2 points, a B to 3 points, and an A to 4 points.

***Grade point average (GPA):** A student's scholastic average, computed by dividing the total number of grade points earned by the total number of GPA hours. For a graduate student or student-at-large, the GPA is based on all courses taken at NIU that carry graduate credit.

Graduate-level student: A graduate student or student-at-large.

Graduate student: A student admitted to the Graduate School whose admission has not been canceled or terminated and who has not been academically dismissed.

Half-session courses: Courses that are offered for the first or second half of an academic term, rather than a full term. They are distinguished in the *Schedule of Classes* by an F (first half term) or an L (last half) after the course number.

Hold: See *Encumbrance.*

***Incomplete (temporary):** A grade (I) that may be assigned by an instructor when a student is temporarily unable to complete course requirements because of unusual circumstances. Left unresolved, a grade of I becomes on the academic record a permanent grade of incomplete (IN).

***International student:** With respect to academic regulations in this catalog, any student who is not a U.S. citizen.

Major: A designated subject area in which one can pursue an extensive program of study leading to a graduate degree or to the Performer's Certificate in music. Completion of the requirements for a major will result in an appropriate notation on the student's academic record.

Option: An academic track within a program or specialization.

Prerequisite (PRQ): A requirement, usually completion of another course or its equivalent, which should be met before a student registers for the course being described.

Probation: See **Academic probation.**

Proficiency examination: A way for a student to receive course credit for individual or special study. Graduate credit may not be earned by proficiency examination.

Recognized institution: An institution in a country outside of the U.S. that is recognized by that nation's Ministry of Education, or similar authority, as a post-secondary, academic-degree-granting institution.

***Reentry:** Return of a student to study at NIU after a lapse in enrollment, into the same classification/program as that in which the student was previously enrolled.

***Reinstatement:** A procedure by which a student who was formerly enrolled in the university but was academically dismissed is permitted to enroll again.

Semester hour: The university's unit of academic credit reflecting a standard expectation of course activity.

Specialization: A subdivision of a graduate major representing a particular subject focus within the major. Completion of the requirements for a specialization will result in an appropriate notation on the student's academic record at the time of the student's graduation from the major program.

***Student-at-large:** A student who holds a baccalaureate or higher degree from an accredited U.S. institution (or the equivalent from a recognized foreign institution), who is not admitted to the Graduate School, but who has received permission from the Graduate School to register for graduate-level classes and who has not been academically dismissed.

Transcript: A copy of a student's permanent academic record at a particular institution.

***Transfer credit:** Course work completed at an accredited U.S. institution other than NIU, or at a recognized foreign institution, that is accepted in partial fulfillment of requirements for a graduate degree at NIU.

***Withdrawal:** Formal action by which a student officially discontinues participation in a course; a record of enrollment remains on the student's permanent academic record. This action must be taken by the deadline published each term in the *Schedule of Classes*. See also **Drop**.

*See the more detailed discussion on this topic elsewhere in this catalog.

Northern Illinois University

History

Northern Illinois University is a comprehensive university, whose faculty, staff, and students engage in instruction, research and artistry, and professional service in a variety of fields.

Established in 1895 by an act of the Illinois General Assembly, the Northern Illinois State Normal School opened its doors to students in September 1899. At that time only a two-year curriculum in teacher education was offered.

In July 1921, the legislature gave the institution the name Northern Illinois State Teachers College and empowered it to award the four-year degree Bachelor of Education. By action of the Teachers College Board in 1943 the title of the degree was changed to Bachelor of Science in Education. Eight years later, the Teachers College Board authorized the college to grant the degree Master of Science in Education, and the institution's Graduate School was established.

On July 1, 1955, as a result of action by the state legislature, the college was renamed Northern Illinois State College. Moreover, the legislature authorized the college to broaden its educational services by offering academic work in areas other than teacher education. The Teachers College Board then granted permission for the college to add curricula leading to the degrees Bachelor of Arts and Bachelor of Science.

By action of the Seventieth General Assembly, Northern Illinois State College became Northern Illinois University on July 1, 1957. Since that time, authority has been granted for the university to offer additional degrees and certificates at the baccalaureate, professional, and graduate levels.

In 1965, the Illinois State Teachers College Board became the Board of Governors of State Colleges and Universities; in 1967, Northern Illinois University was placed under the control of the newly created Board of Regents; in 1996, this authority was transferred to the Board of Trustees of Northern Illinois University.

Northern Illinois University has offered work leading to graduate degrees since 1951 and currently offers graduate study in over 100 major programs and specializations. The following master's degrees, which encompass more than 50 academic majors, are now available: Master of Accounting Science (M.A.S.), Master of Arts (M.A.), Master of Business Administration (M.B.A.), Master of Fine Arts (M.F.A.), Master of Music (M.M.), Master of Physical Therapy (M.P.T.), Master of Public Administration (M.P.A.), Master of Public Health (M.P.H.), Master of Science (M.S.), Master of Science in Education (M.S.Ed.), and Master of Science in Taxation (M.S.T.). In 1961 programs leading to the degrees Doctor of Philosophy (Ph.D.) and Doctor of Education (Ed.D.) were authorized; currently, the Ph.D. is offered by ten academic departments and the Ed.D. in six academic majors. The Juris Doctor (J.D.) degree, offered by the College of Law, was authorized in 1979, the Performer's Certificate in 1982, the Educational Specialist (Ed.S.) degree in 1983, and the Doctor of Audiology (Au.D.) in 2003.

Mission

The central mission of Northern Illinois University is the transmission, expansion, and application of knowledge through teaching, research and artistry, and public service. Recognizing that students will need to learn throughout their lives, the university provides them with the opportunity to become more competent in analytical thought, informed judgment, and effective communication. In its instructional activities, the university conveys an understanding of the organization of knowledge and the means of inquiry.

The university aims to develop a respect for rationality, a tolerance for uncertainty, and an appreciation of diversity. It fosters the capacity to explore the unfamiliar, to use the intellect in the process of discovery and the synthesis of knowledge, and to become familiar with new technology and its implications. It strives to enhance the imagination, sensibility, and creative talents of each student. It believes that all students should attain a level of academic and professional competence sufficient for productive employment and citizenship and makes opportunities available for those who are able to undertake the advanced study required for leadership in their chosen professional fields and academic disciplines.

The university makes significant contributions to the expansion of knowledge. To accomplish this, it provides an environment of academic freedom in which all are free to inquire and to disseminate scholarly and creative work. It believes that active programs in research and artistry promote intellectual vitality and enrich an institution's instructional mission and its service to the broader community.

NIU enthusiastically accepts its responsibility to contribute to the nation's scientific, technological, and educational advancement, to bring ideas to bear on issues of public policy, to contribute to the sustained appreciation of our diverse cultural heritage and the international nature of contemporary life, and to prepare and develop scholars and educational leaders. The university is committed both to pure research and to the study of applications of knowledge.

Northern Illinois University 's history reflects flexibility in the face of change and consistency in the pursuit of excellence. In this, the university expects its future to confirm its past.

Accreditation and Affiliation

Northern Illinois University is accredited by the Higher Learning Commission and is a member of the North Central Association of Colleges and Schools. NIU is included in the Doctoral/Research Universities—Extensive category of the Carnegie Foundation for the Advancement of Teaching and is a member of the National Association of State Universities and Land-Grant Colleges.

The university and its colleges have institutional membership or other affiliations in or with the American Association of Colleges for Teacher Education, American Council on Education, Association of State Colleges and Universities, Council of Graduate Schools, and Universities Research Association. The university is fully accredited by the National Council for Accreditation of Teacher Education to offer teacher education programs.

In the College of Business, the M.A.S., the M.S.T., the M.B.A., and the M.S. in management information systems programs are accredited by AACSB International–The Association to Advance Collegiate Schools of Business.

In the College of Education, the Council for Accreditation of Counseling and Related Educational Programs has accredited the following program areas in counseling within the Department of Counseling, Adult and Higher Education: community counseling, school counseling, and student development in higher education (M.S.Ed.), and counseling (Ed.D.).

In the College of Engineering and Engineering Technology, the undergraduate programs in electrical engineering, industrial engineering, and mechanical engineering are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). The undergraduate technology program emphases in electrical engineering technology and manufacturing engineering technology are accredited by the Technology Accreditation Commission of ABET and the emphasis in industrial technology is accredited by the National Association of Industrial Technology.

In the College of Health and Human Sciences, the M.P.H. and M.P.T. programs offered by the School of Allied Health Professions are accredited by the Council on Education for Public Health and the Commission on Accreditation in Physical Therapy, respectively. The Department of Communicative Disorders offers the Au.D. and an M.A. with a specialization in speech-language pathology that are accredited by the American Speech-Language-Hearing Association and a specialization in rehabilitation counseling that holds accreditation from the Council on Rehabilitation Education. The specialization in marriage and family therapy in the M.S. program in applied family and child studies within the School of Family, Consumer, and Nutrition Sciences is accredited by the Commission on Accreditation for Marriage and Family Therapy. In the same school, the Dietetic Internship, taken in conjunction with the M.S. degree in nutrition and dietetics, is accredited by the Commission of Accreditation/ Approval for Dietetics Education. The graduate program in the School of Nursing is accredited by the Commission on Collegiate Nursing Education.

The College of Law is accredited by the American Bar Association and is a member of the Association of American Law Schools.

In the College of Liberal Arts and Sciences, the Master of Public Administration within the Department of Political Science is accredited by the National Association of Schools of Public Affairs and Administration, and the clinical psychology area within the Doctor of Philosophy degree program in the Department of Psychology is accredited by the American Psychological Association.

In the College of Visual and Performing Arts, the School of Art, School of Music, and School of Theatre and Dance are accredited, respectively, by the National Association of Schools of Art and Design, the National Association of Schools of Music, and the National Association of Schools of Theatre.

University Academic Publications

The *Undergraduate Catalog* contains information on undergraduate admission policies and procedures, graduation requirements, academic regulations, expenses, housing, financial aid, and other university services, as well as detailed descriptions of academic majors, minors, and course offerings. Copies are available to current students from the university's bookstore, and to prospective students from the Office of Admissions. It is online at catalog.niu.edu.

The *Graduate Catalog* contains detailed statements of Graduate School policies and procedures, curricula, and expenses, and lists the graduate course offerings of the various departments. Copies are available from the Graduate School. It is online at catalog.niu.edu.

The *College of Law Bulletin* provides information regarding application procedures, academic requirements, course offerings, and tuition and fees, as applicable to law students. Copies may be obtained from the College of Law. It is online at law.niu.edu.

The *Graduate School Calendar* and *Information for International Graduate Students* are available from the Graduate School and online at www.grad.niu.edu. T*he Graduate School Manual for Theses and Dissertations* is available for purchase at campus bookstores and is available online at www.grad.niu.edu. *Information for International Graduate Students* is online at www.niu.edu/grad/inter.html.

Schedule of Classes

The *Schedule of Classes* supplies timetables of undergraduate and graduate course offerings. It describes registration and fee payment procedures and provides a detailed academic calendar. Information from the *Schedule of Classes* for courses on the DeKalb campus and at regional sites is available at www.reg.niu.edu/menus/course.htm.

The Graduate School

Vice President for Research and Dean of the Graduate School: Rathindra N. Bose, Ph.D.
Acting Associate Dean: Suzanne Willis, Ph.D.

Graduate Council, 2005-2006

Ibrahim Abdel-Motaleb, Ph.D., College of Engineering and Engineering Technology
Katharina Barbe, Ph.D., College of Liberal Arts and Sciences
Tim Blickhan, D.M.A., College of Visual and Performing Arts
Rathindra N. Bose, Ph.D., dean of the Graduate School
Christine Brovelli, student, College of Liberal Arts and Sciences
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David Changnon, Ph.D., College of Liberal Arts and Sciences
Therese A. Clarke, J.D., College of Law
Lemetra Curry, student, College of Education
Yale Factor, M.F.A., College of Visual and Performing Arts
Charles R. Gowen, Ph.D., College of Business
Abhijit Gupta, Ph.D., P.E., College of Engineering and Engineering Technology
Bernard J. Harris, Ph.D., College of Liberal Arts and Sciences
Jitka Hurych, M.A., University Libraries
Pamela L. Jackson, Ph.D., College of Health and Human Sciences
James M. Johnson, Ph.D., College of Business
Nicholas T. Karonis, Ph.D., College of Liberal Arts and Sciences
Joyce Lieberman, Ed.D., College of Education
James A. Lockard, Ph.D., College of Education
Wilma R. Miranda, Ph.D., College of Education
Molly Morrissey, student, College of Visual and Performing Arts
Angela M. Odoms-Young, Ph.D., College of Health and Human Sciences
Donald J. Richgels, Ph.D., College of Education
Thomas L. Sims, Ph.D., College of Liberal Arts and Sciences
Pritpal Singh, student, College of Engineering and Engineering Technology
Gregory A. Waas, Ph.D., College of Liberal Arts and Sciences
Suzanne Willis, Ph.D., acting associate dean of the Graduate School

Graduate Programs

The graduate degrees and Performer's Certificate offered by the university are listed below by the name of the college and of the department or school in which that degree program is housed. See "Directory for Correspondence" in the following section to ascertain to whom inquiries should be directed and from whom additional information may be sought.

College of Business

Master of Business Administration (M.B.A.)

Department of Accountancy
Master of Accounting Science (M.A.S.)
Master of Science in Taxation (M.S.T.)

Department of Finance

Department of Management

Department of Marketing

Department of Operations Management and Information Systems

Master of Science (M.S.)
Management Information Systems

College of Education

Department of Counseling, Adult and Higher Education
Master of Science in Education (M.S.Ed.)
Adult and Higher Education
Counseling
Doctor of Education (Ed.D.)
Adult and Higher Education
Counseling

Department of Educational Technology, Research and Assessment
Master of Science (M.S.)
Educational Research and Evaluation
Master of Science in Education (M.S.Ed.)
Instructional Technology
Doctor of Education (Ed.D.)
Instructional Technology

Department of Kinesiology and Physical Education
Master of Science (M.S.)
Sport Management
Master of Science in Education (M.S.Ed.)
Physical Education
with or without specialization in
Adapted Physical Education
Exercise Physiology/Fitness Leadership
Pedagogy and Curriculum Development in Physical Education

Department of Leadership, Educational Psychology and Foundations
Master of Science in Education (M.S.Ed.)
Educational Administration
Educational Psychology
Foundations of Education
School Business Management
Educational Specialist (Ed.S.)
Educational Administration
Doctor of Education (Ed.D.)
Educational Administration
Educational Psychology

Department of Literacy Education
Master of Science in Education (M.S.Ed.)
Literacy Education
Doctor of Education (Ed.D.)
Curriculum and Instruction
with specialization in
Literacy Education

Department of Teaching and Learning
Master of Science in Education (M.S.Ed.)
Curriculum and Instruction
Early Childhood Education
Elementary Education
Special Education
with specialization in
Advanced Special Education Practices
Blind Rehabilitation
Early Childhood Special Education
Learning Behavior Specialist I
Orientation and Mobility
Visual Impairments
Doctor of Education (Ed.D.)
Curriculum and Instruction
with specialization in
Curriculum Leadership
Elementary Education
Secondary Education

College of Engineering and Engineering Technology

Department of Electrical Engineering
Master of Science (M.S.)

Department of Industrial Engineering
Master of Science (M.S.)

Department of Mechanical Engineering
Master of Science (M.S.)

Department of Technology
Master of Science (M.S.)
Industrial Management

College of Health and Human Sciences

School of Allied Health Professions
Master of Public Health (M.P.H.)
with or without specialization in
Health Promotion
Health Services Management
Master of Physical Therapy (M.P.T.)

Department of Communicative Disorders
Master of Arts (M.A.)
with specialization in
Audiology
Rehabilitation Counseling
Speech-Language Pathology
Doctor of Audiology (Au.D.)

School of Family, Consumer, and Nutrition Sciences
Master of Science (M.S.)
Applied Family and Child Studies
with or without specialization in
Marriage and Family Therapy
Nutrition and Dietetics

Department of Military Science

School of Nursing
Master of Science (M.S.)

College of Liberal Arts and Sciences

Department of Anthropology
Master of Arts (M.A.)

Department of Biological Sciences
Master of Science (M.S.)
with or without specialization in
Bioinformatics
Human Anatomical Sciences
Doctor of Philosophy (Ph.D.)

Department of Chemistry and Biochemistry
Master of Science (M.S.)
Chemistry
Doctor of Philosophy (Ph.D.)
Chemistry

Department of Communication
Master of Arts (M.A.)
Communication Studies

Department of Computer Science
Master of Science (M.S.)

Department of Economics
Master of Arts (M.A.)
Doctor of Philosophy (Ph.D.)

Department of English
Master of Arts (M.A.)
Doctor of Philosophy (Ph.D.)

Department of Foreign Languages and Literatures
Master of Arts (M.A.)
Foreign Languages
with specialization in
French
Spanish

Department of Geography
Master of Science (M.S.)

Department of Geology and Environmental Geosciences
Master of Science (M.S.)
Geology
Doctor of Philosophy (Ph.D.)
Geology

Department of History
Master of Arts (M.A.)
Doctor of Philosophy (Ph.D.)

Department of Mathematical Sciences
Master of Science (M.S.)
Applied Probability and Statistics
Mathematics
with specialization in
Applied Mathematics
Computational Mathematics
Mathematics Education
Pure Mathematics
Doctor of Philosophy (Ph.D.)

Department of Philosophy
Master of Arts (M.A.)

Department of Physics
Master of Science (M.S.)
with specialization in
Applied Physics
Basic Physics
Physics Teaching
Doctor of Philosophy (Ph.D.)

Department of Political Science
Master of Arts (M.A.)
Master of Public Administration (M.P.A.)
with specialization in
Comparative and Developmental Administration
Fiscal Administration
Human Services Administration
Public Management and Leadership
Urban Management
Doctor of Philosophy (Ph.D.)

Department of Psychology
Master of Arts (M.A.)
Doctor of Philosophy (Ph.D.)

Department of Sociology
Master of Arts (M.A.)
with or without specialization in
Criminology

College of Visual and Performing Arts

School of Art
Master of Arts (M.A.)
with specialization in
Art History
Studio Art
Master of Science (M.S.)
with specialization in
Art Education
Master of Fine Arts (M.F.A.)

School of Music
Master of Music (M.M.)
Performer's Certificate

School of Theatre and Dance
Master of Fine Arts (M.F.A.)
Theatre Arts
with specialization in
Acting
Design and Technology
Directing

Graduate Concentrations and Certificates of Graduate Study

Graduate Concentrations

A concentration is a course of study, typically interdisciplinary, linked to the pursuit of a specific graduate degree. Completion of the requirements for a concentration will result in an appropriate notation on the student's academic record.

See "Directory for Correspondence" in the following section to ascertain to whom inquiries should be directed and from whom additional information may be sought.

The concentrations offered by the university are listed below.

Biochemistry or Biophysics
Historical Administration
Latin American Studies
Southeast Asian Studies

Certificates of Graduate Study

A certificate of graduate study is a course of study, not linked to the pursuit of a degree, consisting of a coherent set of courses, fewer than for a major, addressing a specific theme. Completion of the requirements for a certificate of graduate study will result in an appropriate notation on the student's academic record.

See "Directory for Correspondence" in the following section to ascertain to whom inquiries should be directed and from whom additional information may be sought.

The certificates of graduate study offered by the university are listed below.

Adapted Physical Education
Advanced Quantitative Methodology in Education
Advanced Teaching Practices
Applied Mechanics
Applied Statistics
Assistive Technology Specialist
Behavior Specialist
Bioinformatics
Career Development
Computer-Aided Design and Computer-Aided Manufacturing
Curriculum Adaptations Specialist
Design of Thermal Systems
Digital Image Processing
Digital Signal Processing
Digital Systems
Earth Science Education
Eating Disorders and Obesity
Elementary Mathematics Teaching
English Education
Environmental Education
Family Nurse Practitioner
Foreign Language Instructional Technology
Foundations of Education
Geographic Information Analysis
German Language, Literature, and Culture
Gerontology
Health Education
Higher Education
Industrial Control
Industrial Project Management
Industrial Workplace Design Systems
Integrated Manufacturing Systems
Lesbian, Gay, Bisexual, and Transgender Studies
Management Information Systems
Multiple Disabilities Specialist
Museum Studies
Problem-Based Learning in Educational Psychology
Public Health
Public Management
Quality Control of Manufacturing Processes
Semiconductor Devices
Semiconductor Fabrication
Spanish Language, Literature, and Culture
Strategic Industrial Management
Teaching English as a Second Language and Bilingual Education
Technical Writing
Technology of Quality
Traffic Safety Education
Vibration and Control System Design
VLSI Design
Women's Studies

Directory for Correspondence

Inquiries concerning the graduate degree programs, specializations, concentrations, and certificates of graduate study shown on the previous pages should be addressed according to the following lists, using the name of the individual and the individual's department, school, or center at Northern Illinois University, DeKalb, IL 60115. Prospective students seeking information on assistantships and fellowships should also direct their inquiries to the persons whose names appear below or to other offices that appoint graduate assistants.

Graduate Degree Programs, Specializations, and Departments

Accountancy: John R. Simon, C.P.A., Ph.D., departmental program director and adviser for M.A.S.
Acting: See Theatre Arts
Adapted Physical Eduction: See Kinesiology and Physical Education
Adult and Higher Education: See Counseling, Adult and Higher Education
Advanced Special Education Practices: See Teaching and Learning
Allied Health Professions: chair of school
Anthropology: Judy Ledgerwood, Ph.D., chair of department
Applied Family and Child Studies: See Family, Consumer, and Nutrition Sciences
Applied Probability and Statistics: See Statistics
Art: Yale Factor, M.F.A., graduate coordinator of school
Audiology: See Communicative Disorders
Bioinformatics: See Biological Sciences.
Biological Sciences: Thomas L. Sims, Ph.D., departmental director of graduate studies
Blind Rehabilitation: See Teaching and Learning
Business Administration: Harold O. Wright, Jr., J.D., director of M.B.A. program
Chemistry: Jon W. Carnahan, Ph.D., departmental director of graduate studies
Communication Studies: Jeffrey P. Chown, Ph.D., departmental graduate director
Communicative Disorders: Sue E. Ouellette, Ph.D., chair of department
Comparative and Developmental Administration: See Public Administration
Computational Mathematics: See Mathematical Sciences
Computer Science: George Henry, Ed.D., departmental director of graduate studies
Counseling: See Counseling, Adult and Higher Education
Counseling, Adult and Higher Education: Lemuel W. Watson, Ed.D., chair of department
Criminology: See Sociology
Curriculum and Instruction: See Teaching and Learning
Curriculum Leadership: See Teaching and Learning
Design and Technology: See Theatre Arts
Directing: See Theatre Arts
Early Childhood Education: See Teaching and Learning
Early Childhood Special Education: See Teaching and Learning
Economics: Ardashir J. Dalal, Ph.D., departmental director of graduate studies
Educational Administration: See Leadership, Educational Psychology and Foundations
Educational Psychology: See Leadership, Educational Psychology and Foundations
Educational Research and Evaluation: See Educational Technology, Research and Assessment
Educational Technology, Research and Assessment: Jeffrey B. Hecht, Ph.D., chair of department
Electrical Engineering: Sen Maw-Kuo, Ph.D., chair of department
Elementary Education: See Teaching and Learning
English: Philip E. Eubanks, Ph.D., departmental director of graduate studies
Exercise Physiology/Fitness Leadership: See Kinesiology and Physical Education
Family, Consumer, and Nutrition Sciences: Laura S. Smart, Ph.D., chair of school
Finance: Richard J. Dowen, C.F.A., C.M.A., Ph.D., chair of department
Fiscal Administration: See Public Administration
Foreign Languages: Anne L. Birberick, chair of department
Foundations of Education: See Leadership, Educational Psychology and Foundations
French: Michael L. Mazzola, Ph.D., departmental coordinator of specialization
Geography: Michael Konen, Ph.D., departmental coordinator of graduate studies
Geology: James A. Walker, Ph.D., departmental director of graduate studies
Health Promotion: See Allied Health Professions
Health Services Management: See Allied Health Professions
History: Anne Hanley, Ph.D., departmental director of graduate studies
Human Anatomical Sciences: Christopher J. Hubbard, Ph.D., Department of Biological Sciences
Human Services Administration: See Public Administration
Industrial Engineering: Dennis V. Stoia, M.B.A., interim chair of department
Industrial Management: See Technology
Instructional Technology: See Educational Technology, Research and Assessment
Kinesiology and Physical Education: Laurice Zittel, Ph.D., departmental director of graduate studies
Leadership, Educational Psychology and Foundations, Wilma R. Miranda, Ph.D., chair of department
Learning Behavior Specialist I: See Teaching and Learning
Literacy Education: Norman A. Stahl, Ph.D., chair of department
Management: Sarah J. Marsh, Ph.D., chair of department
Management Information Systems: See Operations Management and Information Systems
Marketing: Denise D. Schoenbachler, Ph.D., chair of department
Marriage and Family Therapy: See Family, Consumer, and Nutrition Sciences
Mathematical Sciences: Bernard J. Harris, Ph.D., departmental director of graduate studies
Mechanical Engineering: Abhijit Gupta, Ph.D., departmental director of graduate studies
Music: Tim Blickhan, D.M.A., graduate coordinator of school
Nursing: Brigid Lusk, Ph.D., acting chair of school
Nutrition and Dietetics: See Family, Consumer, and Nutrition Sciences
Operations Management and Information Systems: Nancy L. Russo, Ph.D., chair of department
Orientation and Mobility: See Teaching and Learning
Pedagogy and Curriculum Development in Physical Education: See Kinesiology and Physical Education
Performer's Certificate: See Music

Philosophy: Michael A. Bishop, Ph.D., departmental graduate adviser
Physical Education: See Kinesiology and Physical Education
Physical Therapy: M.J. Blaschak, Ph.D., program coordinator
Physics: David Hedin, Ph.D., departmental director of graduate studies
Political Science: Dwight King, Ph.D., departmental director of graduate studies
Psychology: Christopher Parker, Ph.D., departmental director of graduate studies
Public Administration: Gerald T. Gabris, Ph.D., director of division
Public Health: See Allied Health Professions
Public Management and Leadership: See Public Administration
Rehabilitation Counseling: See Communicative Disorders
School Business Management: See Leadership, Educational Psychology and Foundations
Secondary Education: See Teaching and Learning
Sociology: Kay B. Forest, Ph.D., chair of department
Spanish: Eloy Merino, Ph.D., departmental coordinator of specialization
Special Education: See Teaching and Learning
Speech-Language Pathology: See Communicative Disorders
Sport Management: See Kinesiology and Physical Education
Statistics: Sudhir Gupta, Ph.D., director of division
Taxation: Suzanne Youngberg, C.P.A., M.S., departmental adviser for M.S.T.
Teaching and Learning: Nina G. Dorsch, Ph.D., chair of department
Technology: Clifford Mirman, Ph.D., chair of department
Theatre Arts: Terry McClellan, M.F.A., director of school
Urban Management: See Public Administration
Visual Impairments: See Teaching and Learning

Graduate Concentrations and Certificates of Graduate Study

Adapted Physical Education: Chair, Department of Kinesiology and Physical Education
Advanced Quantitative Methodology in Education: Chair, Department of Educational Technology, Research and Assessment
Advanced Teaching Practices: Chair, Department of Teaching and Learning
Applied Mechanics: Chair, Department of Mechanical Engineering
Applied Statistics: Director, Division of Statistics
Assistive Technology Specialist: Chair, Department of Teaching and Learning
Behavior Specialist: Chair, Department of Teaching and Learning
Biochemistry: Director, Center for Biochemical and Biophysical Studies
Bioinformatics: Director of Graduate Studies, Department of Biological Sciences
Biophysics: Director, Center for Biochemical and Biophysical Sciences
Career Development: Chair, Department of Counseling, Adult and Higher Education
Computer-Aided Design and Computer-Aided Manufacturing: Chair, Department of Mechanical Engineering
Curriculum Adaptations Specialist: Chair, Department of Teaching and Learning
Design of Thermal Systems: Chair, Department of Mechanical Engineering
Digital Image Processing: Chair, Department of Electrical Engineering
Digital Signal Processing: Chair, Department of Electrical Engineering
Digital Systems: Chair, Department of Electrical Engineering
Earth Science Education: Teacher Certification Coordinator, Department of Geology and Environmental Geosciences
Eating Disorders and Obesity: Chair, School of Family, Consumer, and Nutrition Sciences
Elementary Mathematics Teaching: Chair, Department of Mathematical Sciences
English Education: Director of Graduate Studies, Department of English
Environmental Education: Chair, Department of Teaching and Learning
Family Nurse Practitioner: Chair, School of Nursing
Foreign Language Instructional Technology: Chair, Department of Foreign Languages and Literatures
Foundations of Education: Chair, Department of Leadership, Educational Psychology and Foundations
Geographic Information Analysis: Chair, Department of Geography
German Language, Literature, and Culture: Chair, Department of Foreign Languages and Literatures
Gerontology: Director, Gerontology Program
Health Education: Chair, School of Allied Health Professions
Higher Education: Chair, Department of Counseling, Adult and Higher Education
Historical Administration: Director of Graduate Studies, Department of History
Industrial Control: Chair, Department of Electrical Engineering
Industrial Project Management: Chair, Department of Technology
Industrial Workplace Design Systems: Chair, Department of Technology
Integrated Manufacturing Systems: Chair, Department of Industrial Engineering
Latin American Studies: Director: Center for Latino and Latin American Studies
Lesbian, Gay, Bisexual, and Transgender Studies: Coordinators, Bradley Peters (Department of English) and Diana Swanson (Women's Studies Program and Department of English)
Management Information Systems: Chair, Department of Operations Management and Information Systems
Multiple Disabilities Specialist: Chair, Department of Teaching and Learning
Museum Studies: Director, School of Art
Problem-Based Learning in Educational Psychology: Chair, Department of Leadership, Educational Psychology and Foundations
Public Health: Chair, School of Allied Health Professions
Public Management: Director, Division of Public Administration
Quality Control of Manufacturing Processes: Chair, Department of Industrial Engineering
Semiconductor Devices: Chair, Department of Electrical Engineering
Semiconductor Fabrication: Chair, Department of Electrical Engineering
Southeast Asian Studies: Director, Center for Southeast Asian Studies
Spanish Language, Literature, and Culture: Chair, Department of Foreign Languages and Literatures
Strategic Industrial Management: Chair, Department of Technology
Teaching English as a Second Language and Bilingual Education: Chair, Department of Literacy Education
Technical Writing: Director of Graduate Studies, Department of English
Technology of Quality: Chair, Department of Technology
Traffic Safety Education: Chair, Department of Technology
Vibration and Control System Design: Chair, Department of Mechanical Engineering
VLSI Design: Chair, Department of Electrical Engineering
Women's Studies: Director, Women's Studies Program

Admission to Graduate Study

General Requirements for Admission to the Graduate School

To be admitted as a graduate student, an applicant must have obtained a baccalaureate or higher degree, prior to the start of the NIU term for which the student is admitted, from an accredited U.S. college or university or the equivalent degree from a recognized foreign institution. (See "Definitions of Terms Used in This Catalog" for definitions of "accredited institution" and "recognized institution.") Applicants must have the approval of the department in which they plan to major and either must have a minimum 2.75 overall grade point average (GPA), based on a 4.00 system, in their baccalaureate program or must have completed 15 or more semester hours of graduate work at an accredited institution with a GPA of 3.20 or higher. The overall baccalaureate GPA is here defined as the GPA as reflected on the official transcript of the institution granting the baccalaureate degree; if the institution specifies none, or uses other than a 4.00 system, NIU will compute the GPA for course work at that institution, when possible. To be admitted to a program beyond the master's degree, students must have at least a 3.20 GPA in all graduate work taken.

Applicants whose GPA is below the required level may, at the discretion of the major department, be recommended for admission if they satisfy one of the following criteria.

Demonstrated ability to conduct graduate work at an accredited college or university.

Exceptional performance on required graduate-level admission tests (GRE or GMAT).

Presentation of other relevant evidence acceptable to the department, such as a portfolio in art or an audition in music of notably high quality.

The above are minimum academic requirements for admission to the Graduate School. The applicant's character, integrity, and general fitness to practice a particular profession may also be considered in the admissions process. Departments reserve the right, in consultation with the Graduate School, to establish additional standards and criteria for admission. It is the responsibility of the applicant to ascertain the nature and extent of these requirements. In addition, limited resources may indicate a need for limited enrollments, requiring departments to restrict admissions and to entertain special admissions only under exceptional circumstances. Admission of any student failing to meet admissions criteria as set forth in the *Graduate Catalog* requires the approval of the office of the dean of the Graduate School.

A student-at-large must be in good academic standing to be admitted to the Graduate School; see "Enrollment for Graduate Study as a Student-at-Large."

Application for Admission

In order to pursue a graduate degree, one must apply and be admitted to the Graduate School, as well as be accepted for admission by the faculty of the particular program he or she wishes to pursue.

Students who wish to take graduate course work but not pursue a degree program should refer to the section "Enrollment for Graduate Study as a Student-at-Large" in this catalog.

To obtain an "Application for Admission to the Graduate School," applicants may call, e-mail, or write to the Graduate School. The application form may also be printed from www.grad.niu.edu, and an online version is available at www.grad.niu.edu/apply.htm. The completed application form, *with the required application fee*, must be received by the Graduate School no later than June 1 for admission to the fall semester, November 1 for the spring semester, and April 1 for the summer session. All remaining application materials—official transcripts, required test scores, and letters of recommendation—must be received by August 1 for the fall semester, January 1 for the spring semester, and June 1 for the summer session. These application deadlines are waived for a student already enrolled in a graduate program at NIU who wishes to apply for admission to another graduate program, or an NIU undergraduate seeking early admission to the Graduate School. See also "International Students" for application deadlines applicable to such students. For any of these dates occurring on a Saturday, Sunday, or university holiday, the deadline becomes the next day on which university offices are open.

The above deadlines are Graduate School deadlines and represent the dates by which materials must be received by the Graduate School in order for an application to be processed for a given academic term. However, an individual department's admission procedures may involve committee meetings, interviews, or other activities that only occur at certain times, which may be well before the Graduate School 's final application deadline for a given term. Applicants are therefore advised to contact the department or program in which they are interested in order to ascertain any such special deadlines, and to refer to the departmental sections of this catalog for additional information. (The instructions on the application form include all such departmental deadlines of which the Graduate School was aware at the time of printing.)

Payment for the application fee indicated on the application form, or indication that the applicant is exempt from the fee for one of the reasons described below, *must* accompany the submission of the application form. Unless the applicant is exempt from the fee, the official date of receipt of the application is considered to be the date upon which the application form is submitted complete and with the fee; an incomplete application, or an application form submitted without the fee, will be returned, unprocessed, to the applicant. A person who qualifies for the GRE fee waiver is exempt and should include a copy of the fee-waiver form in lieu of the application fee. Also exempt are students who have been enrolled in NIU graduate programs within two years prior to the start of the term for which they are seeking admission. Employed and retired NIU faculty, operating staff, and supportive professional staff are also exempt and must indicate their faculty or staff affiliation when submitting the application form, which will be accepted subject to verification of exempt status. Qualified veterans under the Illinois Veterans' Grant (IVG) Program will be exempted upon presenting a valid copy of their IVG Notice of Eligibility. A McNair Scholar will be exempted if documentation is submitted with the application form.

The applicant must arrange to have letters of recommendation submitted directly to the Graduate School in support of the

application. At least three such letters are required for applicants to doctoral programs, at least two for applicants to all other programs. Some departments require additional letters, as indicated in the corresponding departmental section of this catalog. Care should be exercised in selecting persons to write letters of recommendation. These should be persons in a position to write analytically about the applicant's academic qualifications to pursue graduate studies, and/or professional competence and ability to benefit from advanced study. For an applicant currently pursuing a graduate program, at least one of the letters should be from a faculty member in the department in which the student is enrolled. Applicants uncertain of the suitability of particular individuals as writers of recommendations should consult with the head of the department or program to which they are applying.

Applicants for admission to the Graduate School assume all responsibility for the completion of their admission files; the Graduate School assumes no obligation to inform them about erroneous or missing credentials.

Graduate assistantships are normally awarded to begin in the fall semester. A prospective student wishing to be considered for an assistantship is urged to apply for admission and submit the Application for Graduate Assistantship form and all application materials well in advance of June 1. This application should be submitted directly to the department or other unit in which the applicant wants to work, and not to the Graduate School

An applicant who holds a baccalaureate degree from a college or university other than Northern Illinois University or who has engaged in graduate study elsewhere, must submit official transcripts showing each such degree and all graduate work as part of the application materials. The applicant should request that the appropriate institution(s) send one official copy of each required transcript directly to the Graduate School. Degree transcripts must be from the institution conferring each degree; transcripts of graduate work must be from the institution(s) at which the student was enrolled for such work. Graduate credit is not accepted in transfer from U.S. institutions that are not accredited or from foreign institutions that are not recognized (see "Definitions of Terms Used in This Catalog" for definitions of "accredited institution" and "recognized institution"); therefore, transcripts are not required for work done at such institutions. Some graduate programs may require additional transcripts (such as for associate's degrees), as indicated in the departmental sections of this catalog.

Students submitting credentials written in languages other than English are also required to submit an official English translation. Copies of either originals or translations, even if notarized, are not considered official.

An applicant whose native language is not English must present a satisfactory score for the *Test of English as a Foreign Language* (TOEFL), as indicated below under "Examinations Required for Admission."

A student whose application for admission to a graduate program is denied may request reconsideration at any time prior to the close of admissions for the term for which application was made. If the admission deadline for that term is past, the student must submit a new application form by the deadline applicable to the next term for which admission is sought. At the discretion of the department or program to which the student desires admission, additional materials may be required in support of a reapplication or reconsideration request, and such a request will not normally be considered unless the student presents additional academic information not previously available to the faculty.

Admission Procedures for International Students

For international students, all application material—the application for admission, letters of recommendation, diplomas, mark sheets, and test scores—must be received by the Graduate School no later than May 1 for admission for the fall semester or October 1 for the spring semester. Normally, new international students will not be admitted to begin a degree program in the summer session. The application deadlines are waived for a student already enrolled in a graduate degree program at NIU who wishes to apply for admission to another graduate program. An international student residing in the U.S. may meet the application deadlines specified for domestic students if seeking admission for the fall semester; if seeking admission for the spring semester, such a student must submit the application form by November 1 and all supporting materials by December 1. An international student who is enrolled as an undergraduate at NIU or who has permanent resident alien status in the U.S. is required to meet only the application deadlines specified for domestic students, and may be considered for admission for the summer session. For any deadline date occurring on a Saturday, Sunday, or university holiday, the deadline becomes the next day on which university offices are open. A permanent resident must provide her or his alien registration number on the application form; an international student residing in the U.S. may be required to provide verification of this status.

A student seeking an F-1 or J-1 visa must also submit the financial statement and demonstrate adequate financial resources before an I-20 or IAP-66 form will be issued.

The TOEFL *Bulletin of Information* and registration form can be obtained in a number of cities outside the United States They are often available at American embassies and consulates, or at offices of the United States Information Service (USIS). Students who cannot obtain a TOEFL bulletin and registration form locally should write well in advance to: TOEFL Services, P.O. Box 6151, Princeton, New Jersey 08541-6151, U.S.A., or contact www.toefl.org.

A comprehensive orientation program is provided by the International Student and Faculty Office for new international students. This begins when the student is granted admission to the university, and continues after the student's arrival on campus. The program includes dissemination of information and materials concerning the university, the university community, and U.S. immigration rules and regulations; a week of intensive orientation activities at the beginning of the first semester of attendance; and follow-up activities during the remaining period of residency and study. A one-time orientation fee is charged for this program. As part of this orientation program, new international students may be given further tests of their English language skills.

Examinations Required for Admission

An applicant should plan to take the required tests early enough so that scores can reach the Graduate School before the final application deadline for a given term. Up to eight weeks may be required for the Graduate School to receive scores after the administration of the tests.

Graduate Record Examinations (GRE)

In order to be admitted to the Graduate School, all applicants, other than those applying to programs in the College of Business, the M.F.A. or the M.A. with a specialization in studio art in the School of Art, the M.M. degree or Performer's Certificate programs in the School of Music, the M.F.A. with a specialization in acting or in design and technology in the School of Theatre and Dance, or the M.S. in the School of Nursing, must have provided official scores on all sections of the General Test of the Graduate Record Examinations (GRE) to the Graduate School.

Applicants to graduate programs in adult and higher education, curriculum and instruction, early childhood education, elementary education, foundations of education, instructional technology, and literacy education may submit Miller Analogies Test (MAT) scores in lieu of GRE scores. Applicants to the graduate program in school business management may submit Graduate Management

Admission Test (GMAT) scores in lieu of GRE scores. With approval of the Department of Technology, the GRE scores requirement may be waived for applicants to the M.S. in industrial management on the basis of significant work experience.

Occasionally an applicant's prospective major department may approve waiving the requirement to submit official scores on the GRE for an applicant who has already earned a graduate degree from an accredited institution or for an applicant who is pursuing or has completed a baccalaureate degree at NIU with a major in that department with a cumulative NIU undergraduate GPA of at least 3.00. In special cases, if an applicant who has already taken the Graduate Management Admission Test (GMAT) is applying for admission to a program that requires the GRE, the department may agree to accept the scores on the GMAT.

The Educational Testing Service (ETS), which administers the Graduate Record Examinations program on behalf of the Graduate Record Examinations Board, does not normally report scores more than five years old. Students who are unable to obtain their GRE scores from ETS because of this policy should contact the Graduate School about possible alternative means to satisfy the GRE requirement.

For GRE information, testing dates, and locations, contact www.gre.org. For MAT, contact www.MillerAnalogies.com.

Graduate Management Admission Test (GMAT)

Applicants for graduate study in business must submit official scores on the GMAT to the Graduate School. With the approval of the applicant's prospective major department, the requirement to submit official scores on the GMAT may be waived for an applicant who has already earned a graduate degree from an accredited institution. With the approval of the Department of Accountancy, the GMAT score requirement may be waived for applicants to the M.S.T. program who present satisfactory scores on the LSAT or who provide evidence of passing all parts of the C.P.A. examination. Applicants to programs in the College of Business are not required to take the General Test of the GRE. In special cases, however, if an applicant who has already taken the Graduate Record Examinations (GRE) is applying for admission to a program that requires the GMAT, the department may agree to accept the scores on the GRE.

For GMAT information, contact the Graduate Management Admission Council at www.gmac.com.

Test of English as a Foreign Language (TOEFL)

An applicant whose native language is not English must present a TOEFL score of at least 213 on the scale of 0-300, or at least 550 on the older scale of 310-677 where applicable (in certain countries). The score must be for an examination administered no more than 24 months prior to the beginning of the academic term for which admission is sought. At the discretion of the intended major department, possession of a baccalaureate or higher degree from an accredited institution in the U.S., the U.K., Ireland, Canada, Australia, or New Zealand, at which the language of instruction was English, may serve in lieu of the TOEFL score. The TOEFL requirement is waived for a student already enrolled and in good academic standing in a degree program at NIU. In special circumstances, a department may seek a waiver of this requirement for a student who has demonstrated success in graduate course work at an accredited institution in the U.S.

For TOEFL information, contact www.toefl.org.

Notification of Admission

Admission decisions may be made within a few weeks following the receipt of all credentials. For programs in which space is limited, however, admission decisions may be made only at certain times during the academic year. Accordingly, notification of decisions may not be mailed until some time after the formal deadline for applications has passed. Applicants should consult individual program descriptions or contact departments directly for particular admission decision schedules that may be applicable. A student must be admitted to the Graduate School by the Graduate School and must be admitted to the Graduate School in order to be admitted to a graduate degree program. Therefore, the official notification of admission, and of any conditions attached to that admission, is a letter sent to the applicant by the Graduate School Correspondence from individual departments or programs does not constitute official notice of admission.

When a student already enrolled in the Graduate School is admitted to an additional graduate degree program, any department to which the student is already admitted will be notified of the new admission.

A student must be admitted by the close of the first week of an academic term in order for the admission to be effective for that term. If the admission process is completed after that deadline, whether because the file was not completed or because departmental action was not taken earlier, the admission will be effective for the following academic term. The term for which the applicant is admitted is stated in the official admission letter from the Graduate School

Provisional Admission

A person whose application file is incomplete because certain required application materials have not been received in the Graduate School, but who otherwise meets departmental and Graduate School requirements for admission, may, at the request of the major department, be granted provisional admission, for one term only, pending a final decision on his or her application for admission. Provisional admission may be considered in the absence of such materials as official transcript(s), letter(s) of recommendation, or GRE Subject Test scores; provisional admission will not be granted in the absence of scores from the GRE general test or the GMAT, as applicable. A person admitted provisionally is not a student-at-large. If the conditions of the provisional admission are not satisfied by the end of the term of admission, admission to the Graduate School will be terminated. Students whose provisional admission is terminated for failure to satisfy the conditions of the provisional admission must reapply for admission to the desired degree program, and are required to remedy the previous deficiencies in the application file before admission will be granted.

Provisional status is a courtesy to persons who have not achieved full admission. The degree-seeking applicant who enrolls as a provisional student accepts the risk of termination of admission. Graduate assistantship appointments for students with provisional admission status are limited to the one academic term of that status, though they may be extended if the student subsequently satisfies the terms of the provisional admission.

Provisional admission may not be deferred; the student should instead arrange to provide the missing credentials to permit consideration for unconditional admission in a subsequent term.

Admission with Stipulation

Graduate students may be *admitted with stipulation.* Such a stipulation is specified by the particular department or program to which admission is sought, and most commonly involves deficiency requirements to be met. A student who fails to meet the stipulation may be dropped from the program at the end of the time period specified, at the discretion of the department. Admission to the Graduate School is also terminated, unless the student has been admitted to another graduate program. However, such a student may seek admission to another graduate program and readmission to the Graduate School through the normal processes provided that she or he is in good academic standing. Graduate assistantship appointments for students admitted with stipulation may be limited to the time period specified under the stipulation.

Tentative Admission

The admission of a student who will have completed a baccalaureate degree prior to matriculation as a graduate student at NIU, but who has not yet provided an official transcript verifying completion of that degree, is considered a tentative admission. The same is true of an applicant to a post-master's program that requires the completion of a master's degree prior to matriculation in that post-master's degree program. The student is expected to provide the requisite degree transcript within one month of matriculation in the program to which tentative admission has been granted, and will not be permitted to enroll in that program for more than one term if the required transcript is not provided.

If a student is granted tentative admission upon the presumption of a completed baccalaureate degree, and it is subsequently discovered that the baccalaureate degree was not completed prior to the start of the term for which tentative admission was granted, the student's admission to the Graduate School for that term will be canceled, and any enrollment in graduate course work that term will be dropped. Unless the student is eligible to enroll as an undergraduate, any enrollment in undergraduate course work that term will also be dropped.

Early Admission of NIU Undergraduates

Early admission to the Graduate School is available to seniors in their final term of undergraduate enrollment at NIU who wish to take courses for graduate credit. Students who apply for and receive early admission may take approved 400-level courses and 500- and 600-level courses for graduate credit. The student granted early admission must inform the Graduate School in writing, prior to the start of the final undergraduate term, which such 400-level courses are being taken for undergraduate credit to complete the requirements for the baccalaureate degree, and must be enrolled for all courses necessary to complete the baccalaureate degree (as determined by the undergraduate graduation-evaluations area in the Office of Registration and Records).

Application for early admission is made through the Graduate School. A student applying for early admission must have applied to graduate from the baccalaureate program at the end of the term for which early admission is sought. No student may enroll more than one term under early-admission status. If a student is granted early admission and fails to graduate from the baccalaureate program at the end of the term for which early admission was granted, admission to the Graduate School will be terminated.

Matriculation; Deferral of Admission

In order to establish their admission, graduate students must enroll in the semester or summer session for which they are admitted, indicated in the letter of admission from the Graduate School. At the discretion of the office of the dean of the Graduate School and with permission of the major department, matriculation may be deferred up to but not beyond two calendar years. The request for deferral of admission must be submitted to the Graduate School, in writing, no later than the end of the academic term for which admission has been granted. If students do not request a deferral of admission, and fail to matriculate (enroll in the term of admission) as required, their admission to that program is canceled. If the student was not already admitted to another graduate program, admission to the Graduate School is also canceled as a result. Provisional admission may not be deferred; the student should instead arrange to provide the missing credentials to permit consideration for unconditional admission in a subsequent term.

U.S. Social Security numbers are required for registration purposes. New international students, and any students who cannot initially provide a U.S. Social Security number, are assigned temporary identification numbers by the Graduate School, but should obtain a permanent number from a Social Security office as soon as possible. New international students may obtain Social Security numbers as part of the orientation program prior to the start of the semester.

Change of Major/Specialization

A student who wishes to change from one degree program (major) or specialization to another must submit a completed application for this change to the Graduate School. The faculty of the prospective new program will be given the opportunity to review the student's original Graduate School application and supporting credentials, and any materials relevant to the student's subsequent academic progress at NIU. The prospective new program may request new letters of recommendation and/or a new goals statement specific to the new program the student desires to enter.

If the change of degree program is approved, admission to the original program will be canceled, and the student will be notified of the change. If the student is not admitted to the desired new program, the student's original admission will stand. A person must have matriculated as a graduate student before a change of degree program can be requested. A change of degree or major is subject to regular Graduate School application and admission deadlines, and it is effective when the student enrolls in the academic term specified in the official letter of admission to the new program. A change of specialization, or admission to a specialization, within the same program may be requested during any term in which the student is enrolled and it is effective immediately upon approval by the department. A student must be in good academic standing at the time a change in major or specialization is to take effect.

Concurrent Pursuit of Multiple Graduate Programs

A student may be admitted to two (or more) degree programs concurrently. A new application form must be completed for each degree program to which the student desires admission. Each intended program may review the student's existing Graduate School academic file and may require letters of recommendation pertinent to the particular program. A graduate student must be in good academic standing in order to be admitted to an additional graduate degree program. When a student already enrolled in the Graduate School is admitted to an additional graduate degree program, the department(s) to which the student is already admitted will be notified of the new admission. A student admitted to more than one degree program is considered to be pursuing each one independently in the sense that each degree can be awarded as all requirements for it are satisfied. See also "Dual Credit for Graduate Course Work."

Termination of Admission; Retention

A student failing to maintain good academic standing may be academically dismissed from the Graduate School, as described under "Academic Standing" in the "General Regulations" section of this catalog. Graduate students who are academically dismissed lose their status as graduate students, even if they have previously earned a graduate degree at NIU. In addition, a student in good academic standing may be dismissed from a graduate program for various academic reasons, including falsification of application materials, failure to satisfy stipulations imposed upon admission to the program, and failure to satisfy other program or Graduate School requirements in timely fashion according to established policies.

A student previously enrolled in a graduate degree program at NIU who did not graduate from that program, and who has not been enrolled for 24 consecutive months, will have that admission canceled. See "Readmission/Reentry."

If a student has been admitted to a graduate degree program, and does not complete any course work applicable to that program for 24 consecutive months, then, at the discretion of the department, the student's admission to that program may be terminated. Similarly, if a student is enrolled in a given term, but not in any course work applicable to his or her degree program, then, at the discretion of the department, the student's admission to her or his program may be terminated. (Course work applicable to the program is defined by the requirements on the student's program of courses for that degree, plus any deficiencies listed on the program of courses or in the student's official letter of admission to the program.)

Satisfactory academic progress in a program also involves maintaining the standards of academic and professional integrity expected in a particular discipline or program; failure to maintain these standards will, on recommendation of the student's department, result in termination of the student's admission to the program.

Admission to the Graduate School is contingent on admission to a particular degree program. Therefore, when admission to a program is terminated, the student's admission to the Graduate School is also terminated (unless the student was already admitted to another graduate degree program). A student whose admission to the Graduate School is terminated because of dismissal from or termination of admission to a program may apply for admission to another degree program (if in good academic standing overall), or may apply for permission to register as a student-at-large, in order to continue graduate-level study.

A student who has been academically dismissed while a graduate student or student-at-large at NIU is not eligible for admission or reentry but must petition the Graduate Council Appeals Committee for academic reinstatement.

Readmission/Reentry

A student who earns a graduate degree at NIU retains the status of "graduate student" thereafter, unless academically dismissed from the Graduate School. Such a student may enroll in further course work as a graduate student (rather than as a student-at large) if further course work is desired.

If a student who was previously enrolled in a graduate degree program at NIU but whose admission has been canceled still wishes to undertake a graduate degree program (the same or a different one), she or he must apply for admission to the Graduate School to pursue the desired degree program. If the student no longer wishes to pursue a degree, and did not previously complete a graduate degree at NIU, but does wish to undertake further graduate course work, she or he should apply for permission to register as a student-at-large.

All other graduate students and students-at-large who interrupt their studies for more than ten consecutive years must notify the Graduate School of their intentions to reenter the university by submitting a completed application for reentry prior to registration, or supplying the necessary information during telephone registration. The reentry application serves as a notice of the student's intention to resume registration, so that institutional records can be brought up to date.

Graduate students and students-at-large who have been academically dismissed are not eligible for admission or reentry; they should see the section entitled "Academic Reinstatement" elsewhere in this catalog.

Enrollment for Graduate Study as a Student-at-Large

Persons who have not applied for admission to the Graduate School, who have applied but have not yet been admitted, who were previously admitted but whose admission lapsed or was terminated prior to the completion of a degree, or who have been denied admission may be permitted to register for graduate work as students-at-large. In order to receive permission to register as a student-at-large, an individual must

submit to the Graduate School a completed application for permission to register as a student-at-large (http://www.grad.niu.edu/pdf/stdatlrg.pdf), and

provide to the Graduate School an official transcript showing that the applicant holds a baccalaureate or higher degree from an accredited institution (or the equivalent from a recognized institution outside the United States). The transcript must be provided by the institution conferring the degree.

A graduate student who has been academically dismissed from the Graduate School may not enroll as a student-at-large unless granted academic reinstatement for this purpose by the Graduate Council Appeals Committee.

A student permitted to register as a student-at-large on the presumption of a completed baccalaureate or higher degree as described above is expected to provide the required degree transcript within one month of matriculation as a student-at-large at NIU, and will not be permitted to enroll for more than one term if that transcript is not provided. The student will remain ineligible for further registration, or for issuance of NIU transcripts, until the required degree transcript is received, and cannot expect any credit for work undertaken during the period of ineligibility for registration. If it is subsequently discovered that the necessary degree was not earned prior to the start of the term for which the student enrolled as a student-at-large, the student will lose any graduate credit earned during that term and, unless the student has an undergraduate status at NIU, will have all enrollment for that term dropped.

The student-at-large classification is primarily for the purpose of taking *graduate-level* classes; persons with a baccalaureate degree wishing to take only undergraduate classes or to pursue another baccalaureate degree at NIU should do so through one of the student categories designed for that specific purpose (e.g., the "postgraduate" classification). Information about such categories is available from the Undergraduate Admissions Office.

Permission to register as a student-at-large should not be confused with admission to the Graduate School. A person seriously considering pursuing an advanced degree should apply for admission to the Graduate School as early as possible. Advice should be sought through the appropriate academic department or the Graduate School

A student-at-large is not eligible for appointment to a graduate assistantship.

A student-at-large may apply for admission to the Graduate School. However, even if admission is achieved, the graduate credit accumulated as a student-at-large will not necessarily be counted toward an advanced degree at this university, and certain programs have limits on the number of student-at-large hours that can be applied toward a specific degree. Therefore, a student at-large who intends to pursue a graduate degree should apply for admission as soon as possible. Students-at-large are normally prohibited from registering for graduate business courses.

Students-at-large are under the administrative jurisdiction of the office of the dean of the Graduate School. Inquiries concerning regulations and policies and requests for waivers or exceptions should be addressed to that office.

Unless otherwise indicated, the general provisions of the *Graduate Catalog* apply to students-at-large. In particular, a student-at-large is subject to the same regulations governing probation and dismissal as a student admitted to the Graduate School. These regulations, described under the heading "Academic Standing,"

include the requirement that a student-at-large must maintain a minimum 3.00 GPA in all graduate-level work undertaken at NIU in order to remain in good standing. Students-at-large who are placed on academic probation and fail to regain good standing within the prescribed period of further enrollment, or who accumulate 6 or more semester hours of D, F, U, or WF in graduate-level work, are subject to academic dismissal.

A student-at-large who is on academic probation or has been academically dismissed may not be considered for admission to the Graduate School. Also, if a student-at-large is admitted to the Graduate School but is placed on academic probation prior to matriculation as a graduate student, then that student's admission to the Graduate School is canceled and good academic standing must be regained before the student can again be considered for admission to the Graduate School.

Postgraduate Classification

A postgraduate is a student who has an earned baccalaureate degree and wishes to take additional undergraduate courses or to pursue a second undergraduate degree. Admission as a postgraduate student is granted through the Undergraduate Admissions Office.

A postgraduate is not eligible to enroll in any course for graduate credit. However, postgraduate students may enroll in a limited number of 500- and 600-level courses for undergraduate credit; see "Undergraduates in Graduate Courses for Undergraduate Credit."

Credit earned while a postgraduate is undergraduate credit and, therefore, may not be applied later toward a graduate degree. Conversely, graduate credit earned as a graduate-level student may not be applicable toward an undergraduate degree; the evaluations staff of the Office of Registration and Records should be contacted for further information.

Whether postgraduate or a graduate-level (graduate student or student-at-large) classification is the more appropriate will depend on the student's educational objectives, and students are encouraged to consult with appropriate departmental or other academic advisers in making their choice. The student's classification may also affect eligibility for certain types of financial assistance; students should contact a financial aid counselor in the Student Financial Aid Office for more information. A student wishing to change from postgraduate to a graduate-level classification, or vice versa, must formally resign the original classification before the new classification is granted, and must have the approval of both the appropriate undergraduate college office (determined by the postgraduate major) and the office of the dean of the Graduate School. The change of classification must be requested not later than the first regularly scheduled class day of the academic term for which it is to be effective.

General Regulations

Student Responsibility

It is the responsibility of students to know and observe all regulations and procedures relating to the program they are pursuing, as well as those of the university and Graduate School. In no case will a regulation be waived or an exception granted because students plead ignorance of, or contend that they were not informed of, the regulations or procedures. Questions on regulations and their interpretation pertaining to studies at the graduate level should be addressed to the office of the dean of the Graduate School.

Students planning to graduate should familiarize themselves with the dates relating to application for graduation and other pertinent deadlines. (See the *Graduate School Calendar*, copies of which may be obtained from the Graduate School, www.grad.niu.edu). It is necessary to apply for graduation by the specified deadline in order to graduate in a particular term, whether or not the student plans to attend the commencement ceremonies, if any.

Students must satisfy the degree requirements of the catalog in force during the term for which they have been admitted to and begin course work in the degree program; or they may, with the consent of their advisers, meet graduation requirements by complying with the degree requirements of a later catalog. Students readmitted to a degree program must meet degree requirements of the catalog in force at the time of the later admission (or of a subsequent catalog, as provided above). Aside from degree requirements, all students are subject to the regulations and policies stated in the catalog currently in force. Exceptions to regulations and requirements contained in the *Graduate Catalog* require the written approval of the office of the dean of the Graduate School, unless otherwise stated in the catalog.

Student Responsibility for Obtaining Current University Information

The university reserves the right to make changes in admission requirements, fees, degree requirements, and other specifications set forth in this catalog. Such changes may take precedence over catalog statements. While reasonable effort is made to publicize such changes, students should remain in close touch with departmental advisers and appropriate offices, because responsibility for complying with all applicable requirements ultimately rests with the student. The office of the dean of the Graduate School is the authoritative office for verifying deviations from provisions in this catalog.

Advisory System

Each student is assigned by his or her major department an adviser or advisory committee whose purpose is to guide the student's studies and recommend him or her for the degree when the student is properly qualified. The departmental adviser(s) may be indicated in the student's letter of admission from the Graduate School, or assigned later.

The official program of courses is formulated by the student in consultation with the assigned adviser or advisory committee. See "The Official Program of Courses" for details on the preparation and submission of the program of courses.

Departmental advisers can assist students in understanding and satisfying departmental and university requirements. However, they are not responsible for informing students of published regulations, such as those in this catalog, nor, except as explicitly provided in this catalog, do they have the authority to modify those requirements. See "Student Responsibility" above.

Academic Integrity

Good academic work must be based on honesty. The attempt of any student to present as his or her own work that which he or she has not produced is regarded by the faculty and administration as a serious offense. Students are considered to have cheated, for example, if they copy the work of another or use unauthorized notes or other aids during an examination or turn in as their own a paper or an assignment written, in whole or in part, by someone else. Students are guilty of plagiarism, intentional or not, if they copy material from books, magazines, or other sources without identifying and acknowledging those sources or if they paraphrase ideas from such sources without acknowledging them. Students guilty of, or assisting others in, either cheating or plagiarism on an assignment, quiz, or examination may receive a grade of F for the course involved and may be suspended or dismissed from the university.

A faculty member has original jurisdiction over any instances of academic misconduct that occur in a course which the faculty member is teaching. The student shall be given the opportunity to resolve the matter in meetings with the faculty member and the department chair. If the facts of the incident are not disputed by the student, the faculty member may elect to resolve the matter at that level by levying a sanction no greater than an F for that course. The faculty member shall notify the student in writing whenever such action is taken, and the University Judicial Office shall receive a copy of the *Academic Misconduct Incident Report* indicating final disposition of the case, which will be placed in the student's judicial file. In all matters where the charge of academic misconduct is disputed by the student or if the faculty member feels a sanction greater than an F in the course is appropriate (such as repeated offenses or flagrant violations), the faculty member shall refer the matter to the University Judicial Office, making use of the *Academic Misconduct Incident Report.* Additional sanctions greater than an F in a course can be levied only through the University Judicial System or through the university's research misconduct procedures noted below. Suspension or dismissal from the university for academic misconduct will result in a notation of that action on the transcript of a graduate-level student.

The university has adopted additional policies and procedures for dealing with research misconduct among its students, faculty, and staff. The guidelines, entitled *Research Integrity at Northern Illinois University*, are available in department offices, in the office of the dean of the Graduate School, and online at www.niu.edu/provost2/facpers/appm/I2.htm, and pertain to the intentional commission of any of the following acts: falsification of data, improper assignment of authorship, claiming another person's work as one's own, unprofessional manipulation of experiments or of research procedures, misappropriation of research funds.

If a graduate student fails to maintain the standards of academic or professional integrity expected in his or her discipline or program, the student's admission to the program may be terminated on recommendation of the student's major department.

A statement on students' rights to the products of research is available in department offices, in the office of the dean of the Graduate School, and online at www.niu.edu/provost2/facpers/appm/I11.htm.

Registration

Registration procedures as well as class offerings are published in the *Schedule of Classes* for each academic term. Students will not receive credit for any course for which the registration is not completed according to university procedures. Conversely, it is not legitimate to attend or participate in a course in which one is not registered.

Students who have any obligation to the university (such as unpaid fines, tuition, fees, or residence-hall charges, or missing admission documents) will not be allowed to register for classes in subsequent terms until all obligations are met and should not expect retroactive enrollment for a period of time during which they were not eligible to register. (See "Encumbrances.")

Individuals who have not paid tuition and fees by the applicable deadlines may have their registration canceled. However, nonpayment of tuition and fees does not necessarily result in cancellation of registration, nor is it an appropriate means by which to effect withdrawal. A student wishing to drop or withdraw from a course must do so by following established procedures as described in the *Schedule of Classes* for each term, and by the applicable deadline. Failure to do this by specified deadlines may result in continued registration and/or financial liability.

Registration may also be canceled for students who fail to satisfy admission or registration requirements or requirements for permission to enroll as a student-at-large.

Class Time Conflicts

A graduate-level student wishing to enroll in two courses for which the scheduled class meeting times overlap must obtain, in advance, the written approval of both course instructors and the office of the dean of the Graduate School.

Immunization Policy

The Illinois College Student Immunization Act (110-ILCS 20) and university policy require that all students born on or after January 1, 1957, enrolling in class at the NIU DeKalb campus provide written evidence of current immune status with respect to certain communicable diseases, or evidence of exemption from this requirement, by the tenth calendar day of the first term enrolled.

Students could be exempt from these requirements if they were born prior to January 1, 1957, enrolled at NIU prior to fall term 1989, or are enrolled in a course at a regional site. Some courses offered at regional sites do require immunizations; please consult with your adviser. For medical/religious exemption information, contact the University Health Service.

Failure to provide the required documentation and be in compliance with the state law by the tenth calendar day of the first term enrolled will result in a $25 late processing fee. A registration encumbrance will also be placed on the records of students who are not in compliance.

Immunization information may be obtained from the University Health Service website at www.niu.edu/uhs/immfmlt.asp or at (815) 753-9585.

Encumbrances

A record encumbrance is a restriction placed on a student's official academic record. Academic records may be encumbered under a number of circumstances, examples of which include past-due obligation to the university (such as unpaid tuition, fees, fines, or residence-hall charges); incomplete admission requirements (such as missing transcripts or other academic credentials); and a disciplinary action by the university or the Student Judicial Office.

Students may not be allowed to register or to have transcripts or diplomas issued after an encumbrance has been placed on their academic record. Students who have had an encumbrance placed on their record may direct inquiries to the office that requested the encumbrance or to the Office of Registration and Records. Only the office placing an encumbrance may authorize its removal. Students who are ineligible to register by reason of an encumbrance should not participate in courses and should not expect registration in course work to be effected retroactively for a period during which they were ineligible to register.

For immediate release of monetary encumbrances, all past-due obligations to the university must be paid with a cashier's check, certified check, or money order.

Written English Proficiency

The university expects a reasonable level of English competency in its graduate students, regardless of their discipline. Those students who hold a baccalaureate or higher degree from an accredited institution in the U.S. or a recognized institution in the U.K., Ireland, Canada, Australia, or New Zealand at which the language of instruction was English are considered to have met this requirement. In special circumstances, a student's department may seek a waiver of this requirement based on the student's demonstration of appropriate written English proficiency in other ways (e.g., through employment). Other graduate students are required to take either the standardized Test of Written English (essay portion of the TOEFL), the GRE Analytical Writing Assessment, the GMAT Writing Assessment, or the examination administered for this purpose by the NIU Department of English, to test their written English language competency level. Those whose English appears deficient or marginal for purposes of graduate study and scholarly communication on the basis of their score on one of the aforementioned examinations will be required to improve their competence in the language. They will then be required to take and pass either the two-course sequence of ENGL 451 and ENGL 452, or the single course ENGL 453, depending on the score achieved.

A student who believes that the results of one of these examinations did not accurately reflect his or her English writing proficiency may repeat the test or may take one of the other tests, not later than the student's second semester of Graduate School enrollment, and the score on the second test will determine the student's English course placement. Submission of scores from no more than two attempts will be permitted. If none of these examinations is taken by the end of the student's second semester of Graduate School enrollment, then both ENGL 451 and ENGL 452 will be required. A student's major department may require completion of additional course work in English it deems pertinent to graduate study in the student's chosen field.

ENGL 451. ESL RHETORIC AND COMPOSITION I (3). Only for graduate students whose native language is not English. Exploration of academic discourse in a cross-disciplinary context. The writing and revising of essays with special support for grammar and mechanics. Reading of academic prose. Weekly writing assignments. Not available for graduate credit. PRQ: Placement by testing and consent of department.

ENGL 452. ESL RHETORIC AND COMPOSITION II (3). Only for graduate students whose native language is not English. Exploration of critical strategies and documented writing in the disciplines. Documented writing required in all sections. Special support for grammar and mechanics. Not available for graduate credit. PRQ: ENGL 451 and consent of department.

ENGL 453. ESL RHETORIC AND COMPOSITION (3). Only for graduate students whose native language is not English. A concentrated approach to disciplinary writing with special support for grammar and mechanics. Reading of academic prose. Documented writing required in all sections. Not available for graduate credit. PRQ: Placement into ENGL 453 and consent of department.

Removal of Deficiencies

Courses may be listed as deficiencies either in the letter of admission to the Graduate School or on the program of courses. Students are encouraged to remove such deficiencies as early in the program of study as possible. A schedule for completing courses identified as deficiencies may be established by the adviser or advisory committee.

Course Load

A graduate-level student's course load includes all courses for which the student is registered, graduate or undergraduate, whether taken for credit or audited. A course from which the student has officially withdrawn is no longer part of that student's course load. A full-time load for a graduate student or student-at large in a fall or spring semester is 9 semester hours, and in summer session is 6 semester hours. A graduate-level student on academic probation may not enroll for an overload. A student in good academic standing considering an overload should seek academic advice and must obtain approval to carry more than 12 semester hours in the fall or spring semester or 9 hours in the summer session. For a graduate student in a degree program, this approval must be obtained, in advance, from the student's major department; for a student-at-large, or a graduate student not in a degree program, the prior written approval of the office of the dean of the Graduate School is required.

Graduate students holding assistantships during a fall or spring semester are to carry 9 semester hours of course work throughout the semester. In the summer session, students on such appointments are to carry 6 semester hours. Reductions of up to 3 semester hours in the expected course load, and any overload, must be approved in advance by the appointee's major department. Any greater reduction must be approved in advance, in writing, by the appointee's department chair and the office of the dean of the Graduate School Graduate students holding fellowships, internships, or similar appointments are bound by the above regulations unless the conditions of their appointments specify otherwise and the exception has the written approval of the Graduate School

An international graduate student in F-1 or J-1 student status is required to carry 9 semester hours in the fall and spring semesters. Such a student is not required to be enrolled in the summer session to be in compliance with immigration regulations, but may be required to be registered in the summer under other university regulations, such as these pertaining to graduate assistants; see also "Continuous Enrollment." Permission to take fewer than 9 semester hours in the fall or spring must be obtained in advance from the student's major department and the office of the dean of the Graduate School and can be granted only in particular circumstances defined by U.S. government regulations.

For the purposes of full-time enrollment certification to the U.S. Citizenship and Immigration Services of the United States Department of Homeland Security, international students in F-1 and J-1 status pursuing doctoral degrees registered for 3 semester hours will be considered full-time once a program of courses is received by the Graduate School confirming that all course work except 699 (dissertation) is complete and that continuous enrollment in 699 has begun. Students holding graduate assistantships must register for a minimum of 9 semester hours during fall and spring semesters and 6 semester hours during summer term.

Students may obtain certification that they are pursuing their studies full-time only if they are enrolled in a full course of study as defined above for their particular situation. A student with an approved underload is, by definition, not enrolled for a full course load. Therefore, such a student cannot expect to obtain official verification of full-time status, for purposes such as deferment of educational loans, for example.

Graduate Credit for 400-level Courses

Some 400-level courses are available for graduate credit in a given academic term. These courses are starred in the *Schedule of Classes;* however, graduate students registering for 400-level courses are responsible for ascertaining whether these courses have been approved for graduate credit and whether the particular class section in which they enroll is offered for graduate as well as undergraduate credit.

Undergraduate students may also enroll in starred 400-level courses. When students enrolled for undergraduate credit and students enrolled for graduate credit are in the same course, additional course requirements for the latter group may be imposed. In any section of a 400-level course that is available for graduate credit, graduate students and students-at-large must be enrolled for graduate credit unless otherwise provided for that particular course in the *Graduate Catalog.*

See individual degree requirements for restrictions on the use of 400-level graduate credit towards a degree.

Eligibility to Enroll in Courses Numbered 599 and 699

Thesis and dissertation research, and other scholarly and creative activities offered under courses numbered 599 and 699, are intended as culminating academic experiences in the respective graduate programs. Therefore, in order to be eligible to enroll in a course numbered 599 or 699 a student must be admitted to the corresponding degree program; students-at-large are not eligible to enroll in such courses.

Auditors

With permission of the instructor, a student may enroll in a class as an auditor. In order to have a satisfactory audit (grade of O) recorded on the transcript, the student must satisfy audit requirements as determined in advance between the student and the course instructor. A student who registers to audit a course and fails to meet such requirements may be assigned an unsatisfactory audit (grade of OW) at the discretion of the instructor. A student who enrolls as an auditor cannot expect to submit assignments to be graded by the instructor unless those assignments are part of the audit requirements established when permission to audit was granted. A student enrolled for credit who wishes to change that enrollment from credit to audit after the drop deadline must do so prior to the withdrawal deadline specified in the *Schedule of Classes,* and must have the approval of the instructor, the department, and the office of the dean of the Graduate School.

Tuition and fees are charged for audit hours on the same basis as for hours taken for credit. Audit hours are included in the calculation of the total course load, but a student who enrolls as an auditor will not receive credit for the course. A student enrolled as an auditor who wishes to change that enrollment to registration for credit must do so early in the term, no later than the add/drop deadline specified in the *Schedule of Classes* for that course.

Graduate Students in Undergraduate Courses

Graduate students and students-at-large may enroll in undergraduate courses. Students admitted with undergraduate deficiencies are encouraged to remove these deficiencies at the earliest possible date in their course of study. Tuition for such classes is charged at the same rate as for graduate-level classes.

While undergraduate course grades are not included in the GPA, they are a part of the permanent record of the graduate student or student-at-large and appear on the transcript. Undergraduate hours are included in the calculation of academic load. For graduate students and students-at-large the deadlines and other conditions of enrolling in, dropping, or withdrawing from an undergraduate class are the same as those pertaining to a graduate class, as they are determined by the student's level, not the class level.

Undergraduates in Courses for Graduate Credit

Seniors in their final term at NIU who want to take courses for graduate credit (approved 400-level and any 500- and 600-level courses) must apply for and receive early admission to the Graduate School, which requires the same documents and approvals as regular admission. No student may enroll more than one term under early-admission status. (See "Early Admission of NIU Undergraduates.")

Undergraduates in Graduate Courses for Undergraduate Credit

Northern Illinois University undergraduate students may complete a maximum of 6 semester hours of 500- or 600-level course work for undergraduate credit, if they have completed 90 semester hours of credit towards their baccalaureate degree with a GPA of at least 3.00 or have previously completed a baccalaureate degree. They must also obtain, in advance, written approval from the instructor and from the office of the dean of the Graduate School to enroll in the course for undergraduate credit. In addition, for a 600-level course, the approval of the department offering the course is required.

Law Students in Graduate Courses

A student in the Northern Illinois University College of Law may enroll in graduate courses, provided that he or she has earned a baccalaureate or graduate degree from an accredited institution and has obtained all necessary approval of the College of Law. A law student not also admitted to the Graduate School must obtain permission to register as a student-at-large. Enrollment of a law student in graduate courses will be for graduate credit.

Graduate Students in Law Courses

With the approval of the student's major department and the office of the dean of the Graduate School up to 9 semester hours of course work from the Northern Illinois University College of Law may be applied toward a graduate degree program. A graduate student not simultaneously pursuing a degree in the College of Law must petition the dean of the College of Law for permission to enroll in any law course. Such permission will only be granted in special circumstances. Credit hours in NIU law courses will be counted as transfer credit in the context of transfer-credit limits in, and time limits for completion of, graduate degree programs and will not contribute to the student's graduate GPA.

With the approval of the office of the dean of the Graduate School, up to 9 semester hours of law courses taken at other institutions may be accepted toward meeting the requirements of the M.B.A. program, with approval of the College of Business; the M.A.S. and M.S.T. degrees, with approval of the Department of Accountancy; the M.P.A. program, with approval of the Division of Public Administration; and the Ph.D. in political science, with the approval of the Department of Political Science. These institutions must be regionally accredited, with their law schools accredited by the American Bar Association. Law courses are not graduate courses, and therefore law courses taken at institutions other than NIU are not accepted toward meeting the requirements of any other graduate degree at NIU.

Variable Course Hours; Repeatability of Courses

Following the title of each course is a number in parentheses denoting the number of semester hours of credit available for the course. Where a range is given–e.g., "(1-3)"–the course is a variable-hour course. In such a case the department may offer the course for a fixed number of hours, within that range, in a given academic term or may allow students to select any number of hours within that range. A student enrolling in a variable-hour course should ascertain at the start of the term the number of hours of credit for which that particular offering of the course is available that term.

A course description may indicate that the course may be repeated to a specified maximum number of semester hours. There may be a lower or upper limit to the number of hours in a particular course that may be applied toward meeting the credit-hour requirements for a graduate degree. Unless otherwise specified in this catalog, graduate courses may be repeated for credit only under the following circumstances.

If the student meets the requirements for the special repeat option, the course may be retaken under that option.

In a case where, to satisfy a program requirement, a student must achieve a certain grade as specified in the *Graduate Catalog,* and the student fails to do so, the course may be repeated once. If the student again fails to achieve the required grade, the student's admission to that program will be terminated.

If a course taken to complete the requirements for a graduate degree does not fall within the period of time allowed for that degree, the course may be retaken for credit with approval of the student's major department.

The department in which authority for an approved teacher certification program resides may determine that credit in a course required for that program was obtained too long ago to be acceptable in meeting current requirements for certification. In such a case, that department may approve retaking the course for credit.

Some 400-level undergraduate courses are also offered for graduate credit. (See "Graduate Credit for 400-Level Courses.") Such a 400-level course taken for undergraduate credit may be repeated, by a graduate student or student-at-large, for graduate credit only under one of the following circumstances.

A graduate student in a degree program may retake the course for graduate credit with the approval of the student's major department; or

A student-at-large may retake the course for graduate credit with the approval of the department offering the course and of the office of the dean of the Graduate School ; or

A student pursuing teacher certification who wishes to retake the course for graduate credit to meet a certification requirement may do so with the approval of the department in which authority for that certification resides.

A variable-hour course may be taken only once for credit, unless the catalog description specifies that it may be repeated or unless one of the conditions listed immediately above is met.

Where a course is repeatable, maximum credit limits are stated in the course description. The statement, "May be repeated to a maximum of [number] semester hours," means that the semester hours earned both from the initial enrollment and any permitted subsequent enrollments cannot exceed that maximum.

These limitations on repeatability of courses do not restrict which courses may be taken under the special repeat option described below, for under the special repeat option credit is granted for only one of the two times the course is taken. Restrictions on repeatability of courses apply only to registration for credit, not registration for audit.

If a graduate-level student wishes to repeat an undergraduate course for credit, the student must have the approval of the department offering the course. In addition, if the course is a deficiency for the student's major program, whether specified in this catalog or in the student's letter of admission or program of courses, the student must also obtain the approval of the major department to repeat the course.

Special Repeat Option

The special repeat option is available only for graduate courses in which a grade below B was attained. In order to repeat a course using this option, a student in a graduate program other than a doctoral program must have written approval of the student's major department; students-at-large and others not in degree programs must have written approval of the office of the dean of the Graduate School. When a course is repeated on this basis, only the second of the two grades earned for the course is computed in the GPA. Enrollments resulting in recorded grades of IN, NG, NR, WF, or WP, which are not instructor-assigned, and enrollments for audit (no credit), cannot be counted as "repeats" under this policy. No student may repeat more than 6 semester hours of course work on this basis; no course may be repeated more than once under this option. The special repeat option is not available to a student admitted to a doctoral degree program.

Drop of or Withdrawal form a Course

All drops of or withdrawals from courses must be accomplished before the applicable deadlines. Schedule-change deadlines may be determined by consulting the *Schedule of Classe*s. Drop and withdrawal procedures are also described in each term's *Schedule of Classes;* questions about those procedures should be directed to the Graduate School

It is possible for a student to drop a course prior to the start of or early in the course. When a course is dropped, no record of the enrollment appears on the student's record. After the drop deadline, a period is specified during which the student may withdraw from the course with the course remaining on the student's record with a grade. A student who withdraws from all courses in which he or she enrolled in a given term is considered to have withdrawn from the university for that term. For each graduate course in which a student is doing passing work (C or better in a graduate course) at the time of withdrawal, as assessed by the instructor, a WP will be received; for any course in which the instructor determines that the student is not doing passing work, a WF will be received. If the instructor does not make an assessment of whether the student is passing or failing, a WP will be received. Transcript entries of WP and WF are not included in the computation of the graduate GPA. Transcript entries made in connection with withdrawals from undergraduate courses will be W or F in accordance with the undergraduate grading system; the withdrawal procedures and deadlines, however, will be those applicable to graduate-level students and courses.

Students who fail to notify the Graduate School in writing of their intent to withdraw from the university, when required to do so according to the *Schedule of Classes,* or who fail to withdraw from a course or from the university in accordance with established procedure and by the established withdrawal deadlines, may receive an F in any affected course(s). If withdrawal is accomplished early enough in the term, there may be reduced liability for tuition and fees under the university's refund policies, as described in the *Schedule of Classes.* Later withdrawal may leave the student wholly liable for tuition and fees. Questions about billing and refund policies should be directed to the Bursar's Office.

Continuous Enrollment

Most students, both full- and part-time, prefer to pursue an advanced degree without interruption in time. Those students who interrupt their studies should especially note the maximum time period allowed to fulfill all requirements for the degree sought. (See the sections entitled "Limitation of Time" elsewhere in this catalog.)

A student previously enrolled in a graduate degree program at NIU who did not graduate from that program, and who has not been enrolled for 24 consecutive months, will have that admission canceled. See "Readmission/Reentry."

Students availing themselves of the services of the academic staff or the facilities of the university in any way that directly or indirectly relates to fulfilling degree requirements or receiving course credit must be enrolled. For example, a student must be enrolled in the term in which a comprehensive examination is taken. Also, once a student has begun work on a thesis, dissertation, or other activity under course number 599 or 699, it is expected that such work progress each academic term, and enrollment must be continuously maintained in course number 599 or 699 until a final grade is received for the activity and the required documentation of the activity is formally approved by the Graduate School (if applicable), unless a leave of absence is obtained, as described in the section "Requirements for Graduate Degrees." If such continuous enrollment in courses numbered 599 or 699 is not maintained, and a leave of absence is not granted, then upon recommendation of the department the student is subject to termination of admission to the program. This will also result in termination of admission to the Graduate School unless the student has been admitted to another graduate program.

A student is not required to be registered in the term of graduation simply in order to graduate, if the student is not otherwise required to enroll under the policies of the previous paragraph. However, in order to make use of academic or nonacademic services of the university, a student is required to be enrolled for the corresponding term.

Grading System

The Graduate School grading system applies in graduate courses to all graduate students and students-at-large.

The graduate grade point average (GPA) is computed by dividing the total number of grade points earned by the total number of credit hours that a student has taken in NIU courses earning grade points. The GPA-calculation procedure is the same whether the GPA being calculated is a cumulative (overall) GPA, a GPA for a single term, or the GPA for the student's major program. In no case are either NIU courses taken for undergraduate or law credit or transfer courses included in the computation of the graduate GPA. Grades and their grade point values are as follows.

Grades Earning Graduate Credit	*Level of Performance*	*Grade Points Per Semester Hour*
A	Superior	4.00
B	Satisfactory	3.00
C	Marginal	2.00
S	Satisfactory for courses graded S/U	-

Grades Not Earning Graduate Credit	*Level of Performance*	*Grade Points Per Semester Hour*
D	Deficient	1.00
F	Seriously Deficient	0.00
U	Unsatisfactoy for courses graded S/UI	0.00

Other transcript entries, with their definition, include the following.

I–Temporary Incomplete[1]
IN–Permanent Incomplete[1]
WP–Passing at time of withdrawal
WF–Failing at time of withdrawal
O–Audit; no grade and no credit
OW–Unsatisfactory Audit; requirements not completed
NR–Grade temporarily not reported
NG–Grade permanently not reported

An NR is recorded when an instructor submits the grade roll for the section after the deadline for reporting grades at the end of the term or when a grade is not submitted for a particular student in a course. The NR symbol may be changed to a grade specified by the instructor. A student may not graduate with a transcript entry of NR on his or her record if the resolution of such an occurrence could render the student ineligible for graduation, whether or not the course involved is part of the student's official program of courses. If the instructor does not change the NR to a regular letter grade before the end of the term following that for which the NR was issued, the NR will be recorded permanently as NG. The only exceptions to this rule are NRs in courses numbered 599 and 699 (thesis, dissertation, etc.). These NRs are removed by completing the specific work, and by receiving a grade reflecting this work. (See also under "Incompletes" the discussion of courses numbered 599 and 699.) An NG is not counted in the computation of the grade point average. The NG symbol may not be subsequently changed to a regular letter grade. A student wishing credit in a course for which NG has been recorded must register again and complete the requirements then stipulated.

Students doing less than satisfactory work will be assigned the grade of D, F, or U. Graduate credit is given only for those courses in which a grade of S, or C or better, is earned.

If eligible, undergraduate students may, *with Graduate School approval*, register for graduate course work for graduate or undergraduate credit; see "Undergraduates in Courses for Graduate Credit" and "Undergraduates in Graduate Courses for Undergraduate Credit." Students taking a course for graduate credit will be graded according to the Graduate School grading system; undergraduates taking a graduate course for undergraduate credit will be graded according to the undergraduate grading system; graduate students taking a course for undergraduate credit will be graded according to the undergraduate grading system, except that graduate procedures and deadlines apply to transcript entries of I or NR.

Pass/fail grading does not exist in the graduate grading system at NIU. Therefore, a graduate-level student may not elect to be graded on a pass/fail basis in a course carrying graduate credit. A graduate-level student may elect the pass/fail option in undergraduate courses; however, this option may not be used in required undergraduate deficiency courses identified in a graduate student's letter of admission, on the student's program of courses, or in the program requirements as described in the *Graduate Catalog*, and it may not be used in ENGL 451, ENGL 452, or ENGL 453 if the student is required to take any of these courses. Graduate students and students-at-large may not audit or elect to complete computer science courses on a pass/fail basis without obtaining prior permission from the Department of Computer Science. Some graduate schools and professional schools may require that actual grades earned in courses taken on a pass/fail basis be reported on the official transcript. If a student requests that the Office of Registration and Records restore grades for courses taken pass/fail for such a purpose, this will be done for *all* such courses, and *all* transcripts requested thereafter will report the actual grades earned.

Any change of grade (other than from a transcript entry of I or NR) submitted more than one month after the opening of the next academic term following the assignment of the original grade, and any change from a grade of D, F, or U to a grade carrying graduate credit or to an incomplete, requires a written explanation from the instructor and the approval of the office of the dean of the Graduate School

S/U Grading

Certain graduate courses may be graded as S or U; such grading, however, is restricted to courses titled dissertation, externship, independent study/research, institute, internship, practicum, seminar, thesis, or workshop; courses numbered 599 and 699 that reflect culminating experiences analogous to theses and dissertations; and courses that specify S/U grading in the course description in this catalog. In those courses to which the S/U grading basis is applicable, the use of S and U will apply to all students registered in any class section in which S/U grading is employed. Individual students may not elect S and U grading; S/U grading is not equivalent to the pass/fail option of the undergraduate grading system. In a given term, all students in all sections of each course numbered 599 or 699 shall be graded on the S/U basis, or all will be graded otherwise. If in doubt, graduate-level students should inquire from academic departments as to which of their courses are graded on the S/U grading basis.

Incompletes

When special circumstances prevent a student's completing the requirements of a course, the instructor may, at her or his discretion, direct that the symbol I (indicating temporary incomplete) be entered in the student's record. When the I is assigned, the instructor will file in the departmental office a statement of the work to be completed and will set a deadline for the student to fulfill this requirement. In no case may the deadline be later than the end of the next term, including the summer session as one term, after the term for which the incomplete had been assigned.

The incomplete must be removed within the following term (including summer session) whether or not the student is enrolled. If an extension in time is required to remove an I, an extension of up to one term may be granted on the recommendation of the instructor and with the approval of the office of the dean of the Graduate School. Only one such extension per course may be granted.

If the student does not submit all required work by the deadline established, the instructor may assign a grade that is consistent with the work completed and the grading standards of the course. If the instructor does not change the incomplete to a regular letter grade within the period allowed for resolution, the incomplete (I) will be converted to a permanent incomplete (IN). An IN is not counted in the computation of the grade point average. The IN symbol may not subsequently be changed to a regular letter grade on the basis of additional work submitted after the deadline for resolution of the temporary incomplete. A student wishing credit in a course for which IN has been recorded must enroll in the course again and receive a grade based upon performance in the course during this enrollment.

Incompletes in courses numbered 599 and 699 (thesis, dissertation, and analogous courses) are exempt from the above regulations. These incompletes must be removed by completing the specific work, and by receiving a grade reflecting this work, in accordance with the "Limitation of Time" indicated for each degree program. A student transferring out of a thesis or dissertation program (or other program requiring course 599 or 699) may, at the discretion of the major department, receive credit for some or all of the work already conducted under course number 599 or 699; otherwise, any transcript entry of I (incomplete) or NR in 599 and 699 will be changed to IN (permanent incomplete).

A student may not graduate with a transcript entry of I (temporary incomplete) on his or her record if the resolution of the incomplete could render the student ineligible for graduation, whether or not the course involved is part of the student's official program of courses.

[1]See following section on "Incompletes."

Grade Appeals

A graduate-level student may formally appeal a course grade alleged to have been assigned capriciously. The definition of capricious grading is limited to (a) the assignment of a grade to a particular student on some basis other than performance in the course, (b) the assignment of a grade to a particular student by more exacting or demanding standards than were applied to other students in that course, or (c) the assignment of a grade by a substantial departure from the instructor's standards announced during the first fourth of the course. A grade appeal may not be based upon disagreement with the judgment of an instructor in assessing the quality of a student's work. The student must submit a formal written appeal to the departmental Grade Review Board, through the chair of the department offering the course, by the end of the fourth week of the fall or spring semester immediately following the term for which the course grade was assigned. A full description of procedures governing the appeal of allegedly capricious semester grades for graduate-level students may be obtained from the ombudsman, department offices, college offices, and the office of the dean of the Graduate School and online at www.niu.edu/provost2/facpers/appm/III8.htm; and this should be consulted before appealing a grade.

Instructor Responsibility

An instructor of a graduate course shall inform the enrolled students of the basis for assigning final grades in the course, within the first fourth of the course. In courses other than those involving one-to-one mentorship, this information should be provided in writing and should include a brief description of those assignments, examinations, and other required academic activities that will contribute to the course grade, and the weight to be given to each activity's contribution to that grade. Where possible, the instructor may also indicate the level of academic performance that will earn specific course grades. If, this early in the course, there is uncertainty in the assignments to be given, this should be clearly indicated.

In courses where the academic activity is individually arranged between a student and an instructor–such as thesis or dissertation research, independent study, or individual instruction in music performance or studio art–course expectations should be explained to the student within the first fourth of the course.

Faculty Office Hours

Faculty members who teach maintain regular office hours or provide other means to promote student-faculty consultation, in accordance with department policy. These office hours are included in course syllabi and are posted publicly each academic term. Arrangements more convenient to students than office visits (e.g., e-mail or online chat groups) may be substituted for office hours where provided for by department policy.

Academic Standing

To remain in good academic standing a graduate student must maintain a minimum GPA of 3.00 in all graduate courses required on the student's program of courses (excluding deficiency courses taken for graduate credit) as well as in all graduate courses taken. The GPA is computed on a cumulative basis, by dividing the total number of grade points by the total number of credit hours that a student has taken in courses earning grade points. The GPA includes any course work taken at NIU for which a student earned graduate credit, but not graduate work taken at other institutions that is accepted toward meeting the requirements of an NIU graduate degree or certificate. Courses in which a student has received I, IN, NG, NR, O, OW, S, WF, or WP are not included in this computation.

Following any academic term at the end of which the cumulative graduate GPA falls below 3.00, the student will be considered on academic probation. A student on academic probation who fails to bring the GPA to the required level of 3.00 upon the completion of an additional 9 semester hours of graduate work, excluding S/U course work but including course work for which a grade of IN or NG has been recorded, or upon enrollment in any course work in 3 subsequent terms, will be academically dismissed from the Graduate School. A student on probation who has registered for but not completed 9 or more such additional semester hours, or has enrolled in three terms following the term for which the student was placed on probation, will not be permitted further registration until all grades of I and NR have been removed and the student has achieved good academic standing.

A graduate student or student-at-large who is on academic probation may not carry an overload. A graduate student who has been academically dismissed from the Graduate School may not register as a student-at-large unless granted academic reinstatement as described in the following section.

A graduate-level student who has accumulated 6 or more semester hours of grades of D, F, U, or WF in graduate course work at NIU will be academically dismissed from the Graduate School, regardless of the student's GPA. If a course is repeated, whether under the special repeat option or otherwise, the grades in both attempts will be considered in determining whether this 6-semester-hour total has been reached.

A graduate student who fails to maintain a GPA of 3.00 in his or her required program of courses for a particular degree may, upon recommendation of the department or program, be subject to termination of admission to that degree program.

A student-at-large must maintain a GPA of at least 3.00 in all graduate course work to be in good academic standing and is subject to the provisions of probation and dismissal as described above.

Although undergraduate course work is not included in the computation of the graduate GPA, it is also expected that graduate students achieve certain levels of competence in undergraduate courses pertinent to their graduate studies at NIU. If a graduate student fails to earn a grade of C or better in an undergraduate course specified as a deficiency course for the student's program, or in course work in English that is required as a consequence of the mandatory testing of English-language proficiency, then upon the recommendation of the department, the student's admission to the corresponding degree program will be terminated. Some programs have higher performance expectations for undergraduate deficiency courses, which may be specified in this catalog or in the student's letter of admission to the Graduate School.

Graduate assistants shall be graduate students in good academic standing on the effective dates of their appointments. Assistants will have their appointments terminated if during the term of their appointments they (1) are academically dismissed or (2) fail to achieve good standing after one semester (excluding summer session) on probationary status. If a graduate student is placed on academic probation during the period of appointment, the employing unit may terminate the assistantship at that time.

A student must be in good academic standing in all graduate work taken at NIU at the start of the term for which admission is sought in order to be admitted to any graduate degree program (major) or specialization. A student must be in good academic standing overall and in the degree program in question to be eligible for graduation from the program.

Academic Reinstatement

A graduate student or student-at-large who has been academically dismissed may petition for academic reinstatement. Such petitions are acted upon by the Graduate Council Appeals Committee. To submit a request for reinstatement, or for more information about the appeals process, the dismissed student should contact the office of the dean of the Graduate School.

Graduate students or students-at-large who have been academically dismissed from NIU, and who have been absent from the university for ten years or longer, may request consideration for reinstatement under the returning graduate student/student-at-large reinstatement policy. The cumulative GPA of a student reinstated under this policy will be based only on course work attempted after the date of reinstatement. The reinstated student will be considered to be on final academic probation. If upon completion of 9 or more semester hours of graduate-level course work (exclusive of course work graded on an S/U basis but including course work in which a grade of IN or NG has been recorded), or upon enrollment in any course work in three subsequent terms, the new cumulative GPA is below 3.00, a final academic dismissal will be issued to the student.

The student's status upon reinstatement will be governed by that held at the time of dismissal (i.e., graduate student or student-at-large) and prevailing Graduate School policy on reentering graduate students. A former graduate student reinstated to the Graduate School under this reinstatement policy must apply, or reapply, for admission to a desired degree program. All university regulations and program requirements in force at the time of reinstatement will apply to the reinstated student.

Graduate Council Appeals Committee

The Graduate Council Appeals Committee is authorized to review requests for exceptions to certain rules and certain kinds of appeals. The committee does not hear grade appeals, for which a separate procedure exists. Its primary authority lies in the sphere of Graduate School regulations–for example, admission, matriculation, and retention–but in special cases it may serve as an appellate body for academic matters deriving from the rules and practices of the departments and colleges. One major function of the committee is to review petitions for academic reinstatement from graduate students and students-at-large who have been academically dismissed. It will not review academic decisions that are based upon the disciplinary expertise of faculty in a particular field–for example, judgments of whether or not a student has passed a comprehensive examination, or whether or not a student who meets the university's minimum requirements should be admitted to the Graduate School to pursue a particular program. However, it may examine the equitability of the process(es) by which such academic decisions have been arrived at. Similarly, if a student has requested an exception to a regulation (e.g., policy, procedure, deadline) at the appropriate level (departmental, college, etc.) and the request has been denied, the Appeals Committee may be asked to review the case only to the extent that the denial is alleged to be "capricious"–that the appellant's request was handled in a fashion substantially different from those of other students in similar situations.

A student wishing to bring some matter before the Graduate Council Appeals Committee should address a written request to the office of the dean of the Graduate School. A student whose petition has been denied by the appeals committee may request reconsideration only upon presentation, in writing, of additional relevant evidence not previously available to the committee. There is no further authority to which a decision of the Graduate Council Appeals Committee may be appealed, as it acts on behalf of the Graduate Council, which is the university's policymaking body in matters relating to graduate study.

Dual Credit for Graduate Course Work

For a student completing a doctoral degree at NIU after completing one or more master's degrees and/or an Ed.S. degree in educational administration at NIU, an unlimited number of semester hours of graduate work from those prior NIU programs may be applied to meeting the credit-hour requirements of the doctoral program, provided that the NIU course work was not applied to meeting requirements of a graduate degree at another institution. However, any NIU graduate work already applied toward two graduate degrees (whether at NIU or elsewhere) may not be applied also toward doctoral program requirements. Also, a maximum of 9 semester hours of NIU course work that has been applied toward meeting graduate degree requirements at another institution may be used in an NIU doctoral program. The doctoral program in any case must conform to all other applicable requirements, including approval of the department and the Graduate School. For limitations on graduate transfer work acceptable in doctoral programs, see "Study-Abroad and Transfer Credit" in the doctoral requirements section of this catalog.

Any other student who pursues two distinct graduate degrees at NIU, either simultaneously or consecutively, may have up to 9 semester hours of graduate course work accepted for credit in both degree programs, with the exception of students who have permission for simultaneous pursuit of the M.P.H. and M.S. program in nursing, who may apply a specified 15 semester hours for credit in those two degree programs. A student who pursues a master's or Ed.S. degree at NIU after completing a graduate degree at another accredited institution may have up to 9 semester hours of graduate course work used in that other degree program accepted for credit in the NIU degree program, whether the courses were taken at NIU or at the other institution.

Students pursuing the Master of Music degree and the Performer's Certificate, either simultaneously or consecutively, may have up to 6 semester hours of graduate course work accepted for credit in both programs.

A student who pursues two certificates of graduate study at NIU, either simultaneously or consecutively, may have up to 4 semester hours of graduate course work accepted for credit in both certificate programs.

With the approval of the major department, courses used to satisfy requirements of a concentration or a certificate of graduate study may also be applied toward a graduate degree unless specified otherwise in the catalog description of the degree program.

In taking advantage of these dual-use provisions, the student must complete all the stated requirements for each degree or certificate of graduate study. Further, the provisions concerning limitation of time for degree or certificate completion as described in "Requirements for Graduate Degrees" and "Certificates of Graduate Study" apply independently to each degree or certificate, and the written approval of the office of the dean of the Graduate School is required. In no case may a course be accepted for credit in more than two graduate degree programs or in acquiring more than two certificates of graduate study.

Transfer Credit

With the approval of the student's department and the office of the dean of the Graduate School some graduate courses taken at other accredited (U.S.) or recognized (foreign) institutions may be accepted toward meeting the credit-hour requirements of a graduate degree at NIU. The student must have earned graduate credit in the course according to the institution at which the course was taken (so, for example, courses in which undergraduate credit, medical-school credit, or other professional post baccalaureate credit was earned cannot be accepted in transfer).

No transfer credit accepted from another institution may be in correspondence courses, which are defined as courses other than independent-study courses, delivered via any medium, that do not involve significant real-time interaction between students and faculty.

A grade of B- or better must have been earned in each graduate course accepted in transfer toward meeting NIU graduate degree requirements, and the overall GPA in all graduate transfer courses thus accepted must be 3.00 or higher. Courses for which grades of S, Pass, Credit, or the like have been earned will be accepted in transfer only if the Graduate School can officially verify that the student's performance was at a level equivalent to a grade of B or better.

To receive consideration for graduate work done elsewhere, the student must submit to the Graduate School an official transcript showing the course work in question. Transfer credit is considered to be accepted toward meeting degree requirements only at the time a student is cleared to graduate from the program.

In transfer, three quarter hours are considered to be equivalent to two semester hours. Therefore, if the graduate credit earned in a course accepted in transfer from another institution was reported in quarter hours, the transfer credit will be granted at the ratio of two semester hours per three quarter hours.

Students should consult the "Requirements for Graduate Degrees" section of this catalog for more specific information on limitations on transfer credit and the combined total of transfer and other courses applicable to individual degree programs.

The Official Program of Courses

Upon receiving the official letter of admission to the Graduate School students should plan their course selection for their first term at NIU. Care should be taken that such selections conform with the requirements of the specific program they wish to pursue in their major department.

Students are urged to consult early in or prior to their first term with their academic advisers (named in the letter of admission) to plan an official program of courses. The program of courses must be approved by both the student's major department and the Graduate School Prior to registering each term, students should consult with their advisers for the purpose of review and approval of all course selections.

The *Graduate Catalog* outlines the minimum course requirements for each degree program, for a student fully prepared to begin that program. Departments may, and often do, require additional course work of individual students as necessary to address deficiencies of background or other specific needs for proper academic or professional preparation. And, a department is not obligated to accept any particular course for inclusion in a student's program of courses, whether it was taken at NIU as a graduate student or as a student-at-large, or was taken at another institution. Some degree programs also have a limitation on the amount of credit from courses taken at NIU as a student-at-large, and/or on the combined total of student-at-large and transfer hours, that may be applied toward meeting degree requirements; such limitations are described below or in individual program descriptions in this catalog.

At least 50 percent of the credit for graduate course work required on the program of courses, excluding courses identified as deficiencies, must be in the student's major. Individual degree programs may require a program even more closely focused on the major field. For a student in a doctoral program who has a master's degree, the requirement of 50 percent of graduate work in the major applies only to courses beyond the master's degree. The official program of courses to be taken for the degree should be submitted to the Graduate School for review for conformity with departmental and university requirements as early in the student's graduate studies as possible.

The official program of courses form, approved by the major department, must be submitted to the Graduate School no later than the graduation-application deadline for the term for which the student applies for graduation. Until a student's program of courses is approved, in writing, by both the major department and the Graduate School the student cannot be assured that the proposed plan of study will be accepted as fulfilling the degree requirements. When the program of courses has been fully approved, a copy will be sent to the student and to the adviser. Any changes subsequently made to an approved program of courses must also be submitted to and approved by the Graduate School

Graduate Concentrations

The university offers a limited number of graduate concentrations, which are listed in this catalog under "Graduate Concentrations and Certificates of Graduate Study." A concentration is a course of study, typically interdisciplinary, linked to the pursuit of a specific graduate degree. Completion of the requirements for a concentration will result in an appropriate notation on the student's academic record. The "Directory for Correspondence" in this catalog indicates which academic unit administers each concentration. Unless otherwise stated, the time period for the completion of course work for a concentration is the same as that for the degree to which it is linked.

See the individual concentration for other specific requirements.

Certificates of Graduate Study

The university offers several certificates of graduate study, which are listed in this catalog under "Graduate Concentrations and Certificates of Graduate Study." A certificate of graduate study is a course of study, not linked to the pursuit of a degree, consisting of a coherent set of courses addressing a specific theme. Completion of the requirements for a certificate of graduate study will result in an appropriate notation on the student's academic record. The "Directory for Correspondence" in this catalog indicates whichacademic unit administers each certificate of graduate study.

To pursue a certificate of graduate study, a student must be admitted to the Graduate School or to the graduate-level classification of student-at-large, and must have the approval of the individual responsible for administration of that certificate. Only courses taken at NIU for graduate credit may be applied toward a certificate, and a GPA of at least 3.00 must be earned in the course work used toward the certificate, all of which must be completed within the six years immediately preceding awarding of the certificate. With the approval of the student's major department, courses used to satisfy requirements of a certificate may also be applied toward a graduate degree, unless this catalog indicates otherwise under the description of the specific degree or certificate.

See the individual certificate for other specific requirements.

Attendance, Religious Observances, and the Academic Schedule

Students are encouraged to attend classes regularly, but individual instructors determine attendance policies for their own classes. The university recognizes that on occasion examinations or other scheduled academic activities may conflict with the religious observances of some members of the academic community, and accordingly encourages the instructional and administrative staff to make reasonable accommodations to minimize the resulting difficulties for individuals concerned. Students faced with such conflicts should notify the appropriate instructor or administrative area as much in advance of the examination or other activity creating the conflict as possible. Students believing that they have been unreasonably denied an educational benefit due to

their religious beliefs or practices may bring the matter to the attention of the department chair for resolution; if for any reason this route would not be appropriate, the matter may be brought to the college dean or dean's designee.

Accommodations for Students with Disabilities

A student who believes that special accommodations with respect to course work or other academic requirements may be appropriate in consideration of a disability must (1) inform the faculty in charge of the academic activity either at the start of the course or as soon as the student becomes aware of the activity or requirement in connection with which accommodation is sought, (2) provide the required verification of the disability to the Center for Access-Ability Resources, and (3) inform the latter office from which faculty member accommodations have been requested. If contacted by the faculty member, the staff of the Center for Access-Ability Resources will provide advice about accommodations that may be indicated in the particular case.

A wide range of services can be obtained by students with disabilities, including housing, transportation, adaptation of printed materials, and advocacy with faculty and staff. Students with disabilities who need such services or want more information should contact the Center for Access-Ability Resources, University Health Service, at (815) 753-1303.

Protective Standards in Research

Protection of Human Subjects

Any Northern Illinois University student or faculty or staff member who proposes to undertake research involving human subjects is required by federal and university regulations to seek approval for the project from the Graduate School's research compliance office. Examples of human-subject research include collection of data from humans or their body tissues or fluids (e.g., data from muscle, hair, saliva; or on height, weight, or pulse); collection of data on human behavior, emotional conditions, or responses, including data from questionnaires, tests, interviews, or observations; use of human-subjects data previously collected that now reside in private records or public sources. All such research must be reviewed by the Institutional Review Board or its chair. Each research project involving human subjects must receive formal approval or exemption from the Board or its chair, even if other persons have received approval for the same or a similar project.

The student must submit a completed departmental review form to the chair of the academic department under whose jurisdiction the research would be undertaken. The student should also ascertain from the department whether completion of the longer Application for Approval to Use Human Subjects in Research form is required. The department chair, or a designee, will review the submitted human-subjects form to determine if the project falls into a category requiring the approval of the NIU Institutional Review Board on the Protection of Human Subjects.

Departmental review forms and the Application for Approval to Use Human Subjects in Research may be obtained from most departmental offices or from the research compliance office within the Graduate School. Applicants are responsible for providing the information requested on the forms, for securing the required approval signatures, and for seeing that the completed, signed forms are received by the Graduate School. If research involving human subjects is part of a student's degree requirements, then to ensure eligibility for graduation, the student is urged to complete these required forms as soon as possible after the topic and protocols of the research have been determined. *In no case should research involving human subjects begin before all necessary institutional approvals have been given.* Questions concerning human subjects review may be directed to the student's faculty adviser or department chair, or to the research compliance office in the Graduate School

Facilities for Experimental Animals or Recombinant DNA

A student or member of the faculty or staff who proposes to engage in research utilizing living animals or recombinant DNA should consult first with her or his academic department or the research compliance office in the Graduate School to determine the federal and university requirements for facilities in which such research subjects are to be housed and to obtain the approval forms required by the Institutional Animal Care and Use Committee or the Institutional Biosafety Committee, respectively.

Use of Radioactive Substances

A student who proposes to use substances emitting ionizing radiation must be supervised by a faculty member and must use such materials in a facility approved by the University Radiation Safety Committee; and such radioactive substances may be purchased only with the approval of the University Radiation Safety Officer.

Graduation

A student who intends to graduate at the end of a particular term must have submitted to the Graduate School a completed graduation application, including the receipt for payment in the Bursar's Office of the graduation fee, by the graduation-application deadline for that term. This deadline is published in the *Graduate School Calendar* and in the *Schedule of Classes* for each term. The application form must be submitted and the fee paid only once for each degree earned; each application is specific to a particular degree program.

All requirements for a graduate degree must be completed no later than the date of Commencement of a particular term in order for the student's degree to be conferred as of that graduation date. There are earlier deadlines for meeting some degree requirements; these are given in the *Graduate School Calendar*. It is the student's responsibility to be aware of these deadlines.

If a student applies for graduation in a particular term and fails to graduate at the end of that term, the application will automatically be transferred once, to the next academic term. If the student also fails to graduate at the end of that next term, no further automatic transfer of application will occur. Thereafter, the student must notify the Graduate School in writing, in order to reactivate his or her application for the anticipated graduation date, and must do so by the graduation-application deadline for the expected term of graduation in order to graduate at the end of that term.

After a student has applied for graduation and it has been verified that all degree requirements have been completed, an official "certificate of completion" can be issued by the Graduate School to the student or to another party designated in writing by the student. Such a certificate is commonly accepted as proof of completion in advance of issuance of the diploma and degree transcript.

Requirements for Graduate Degrees

The following are general university requirements for the various degree programs as established by the graduate faculty. Individual departments and programs may have established additional or more restrictive requirements, which are described in the corresponding departmental sections of this catalog. Students should consult those sections to determine such requirements and must meet all requirements specific to their own major/specialization in addition to the general requirements of the university.

Graduation

See previous page.

Requirements for the Degrees
Master of Accounting Science
Master of Arts
Master of Music
Master of Physical Therapy
Master of Public Administration
Master of Public Health
Master of Science
Master of Science in Education
Master of Science in Taxation

The following regulations apply to students in programs leading to the degrees listed above. Detailed requirements for specific degrees appear in the departmental sections of this catalog. Regulations for the Master of Business Administration are in the College of Business section of this catalog, and regulations for Master of Fine Arts degrees are in the School of Art and School of Theatre and Dance sections of this catalog.

Admission

The Graduate School admission requirements for all of the above-listed master's degrees except for those in the College of Business are indicated in the section on "General Requirements for Admission to the Graduate School." The admission requirements for graduate programs in the College of Business are described in that college's section of this catalog.

There are additional admission requirements and earlier application dates for several programs; the catalog sections for individual programs should be consulted.

Credit Requirements

Students in master's degree programs must earn a minimum of 30 semester hours of graduate credit with a minimum GPA of 3.00. This average must be earned over all NIU graduate courses required in the student's program of courses (excluding deficiency courses taken for graduate credit) as well as over all graduate work taken at NIU. The minimum number of required semester hours is greater than 30 in some programs, as indicated in the respective major department sections.

Limitation of Time

The student must fulfill all requirements for a degree within the six consecutive years immediately preceding the date of the student's graduation from that degree program. This time limit applies to enrollment in all graduate course work in the student's program including work for which transfer credit is allowed.

If an NIU course taken to complete the requirements for the master's degree does not fall within the six-year period allowed for the degree program, the student's major department may require the student to retake the course for credit or may allow the student to demonstrate current knowledge of the subject matter. In the latter case, currency must be demonstrated to the satisfaction of the department offering the course through successful completion of an appropriate examination or other assessment if available from the department. Otherwise, the outdated course work must be deleted from, and other course work must be substituted in, the program of courses. Transfer courses falling outside the limitation of time cannot be used in a graduate program.

In the College of Business, the six-year time limitation for course work applies only to Phase Two courses.

Courses for Which Graduate Credit is Allowed

At NIU only courses which are numbered 400-499, 500-599, and 600-699 carry credit toward the master's degree. At least 50 percent of the minimum number of semester hours required for the master's degree in the student's major (and specialization, if any) must be earned in courses numbered 500 and above.

Some courses numbered in the 400s carry only undergraduate credit. See "Graduate Credit for 400-level Courses."

Northern Illinois University does not offer correspondence courses, which are courses other than independent-study courses that do not involve significant real-time interaction between students and faculty, when such interaction would normally be a part of the same course offering on campus.

Student-at-Large, Study-Abroad, and Transfer Credit

With the approval of the student's major department and the office of the dean of the Graduate School, a maximum combined total of 15 semester hours of credit for courses taken for graduate credit that are accepted in transfer from other accredited or recognized institutions, plus NIU graduate courses taught outside the United States, may be counted toward meeting the requirements for an advanced degree. Some degree programs also have limitations on the amount of credit from courses taken at NIU as a student-at-large, and/or on the combined total of student-at-large, study-abroad, and transfer hours, that may be applied toward meeting degree requirements; such limitations are described below or in individual program descriptions in this catalog.

In the Department of Operations Management and Information Systems, no more than 9 semester hours of transfer course work plus credit earned as a student-at-large may be applied to the master's degree. In the School of Nursing no more than 9 semester hours earned from courses taken as a student-at-large and no more than 6 semester hours of transfer credit may be applied to the master's degree. In the School of Art no more than 9 semester hours of transfer credit may be counted toward meeting the requirements for a master's degree. In the Department of English no more than 15 semester hours of transfer course work and/or credit earned as a student-at-large may be appplied toward a graduate degree.

The above semester-hour limits may be exceeded on a program of courses only by the use of transfer courses and only if the total number of semester hours required on the program of courses exceeds the minimum requirements for that major (and specialization, if any) by at least the same number of hours.

Language and Research-Tool Requirement

Certain departments require proficiency in a foreign language or a research tool for the master's degree. The departmental sections of this catalog should be consulted for such requirements. Proficiency in these skills is determined in the same fashion as described under "Requirements for Doctoral Degrees," unless specified otherwise in the program descriptions in this catalog.

Comprehensive Examination

Successful completion of a comprehensive examination is required in all master's degree programs described in this section except the M.A.S., the M.S.T., the M.S.Ed. in counseling, and the M.S. programs in industrial engineering, in industrial management, in management information systems, and in nursing. The comprehensive examination may be either written or oral, or both, at the option of the department. These examinations are given by the major department. The number of semester hours of course work which a student must complete before taking this examination shall be determined by the department. A student planning to take a comprehensive examination may be required to file a letter of intent with his or her department, and should consult the department concerning applicable procedures and deadlines for such notification.

A student must be enrolled in the term in which a comprehensive examination is taken. A student must be in good academic standing, and must have departmental approval, to be eligible to take this comprehensive examination. The department may allow a student who fails this examination to repeat it after a period of time determined by the department. A student who fails this examination a second time, or is not permitted a second attempt, will not be permitted to continue work toward the master's degree in that program, and admission to that program will be terminated.

If the comprehensive examination is to be given to a group of students rather than being scheduled individually for each student, the department should post notices of the date, time, and place for each examination at least two weeks before it is to be administered.

Thesis

The thesis will be a scholarly contribution to knowledge. Its subject must be in the area of the student's major and be approved by the student's thesis director and, ultimately, by the thesis committee. The thesis presents research that has been conducted under the supervision of a graduate faculty member from the student's major department approved as the thesis director. The document may not have been published previously, and the research must be successfully defended in an oral examination.

In special situations, and only with the approval of the faculty director(s) and committee(s), students may collaborate on some aspects of the work contributing to their theses. However, each thesis submitted to the Graduate School for approval must be a unique product with the degree candidate as the sole author and with due acknowledgment of the contributions of collaborators; and the author must demonstrate to his or her committee satisfactory command of all aspects of the work presented.

A student intending to write a thesis should identify a prospective faculty director for the thesis, who must be willing to serve as thesis director, meet Graduate School qualifications, and be approved by the department (department chair or designee). The thesis director and thesis committee will judge the acceptability of the work. A faculty member may decline to serve as director of any particular thesis project, in which case the department will assist the student in seeking a thesis director. If a student, with department approval, changes thesis director, the student may need to undertake additional work, or to change research projects, in accordance with the expectations and expertise of the new thesis director.

When thesis research involves human subjects, experimental animals, recombinant DNA, or the use of radioactive substances, special approval is required before the research is undertaken, as explained under the heading "Protective Standards in Research."

A student following a thesis program shall submit three copies of the thesis and four abstracts thereof, after approval by the appointed departmental committee. The thesis must be submitted according to the instructions in *The Graduate School Manual for Theses and Dissertations*, available at campus bookstores and online at www.grad.niu.edu/thesis/index.html, and must be approved by the Graduate School.

After the thesis has received final Graduate School approval, the three approved copies are distributed one each to the Founders Memorial Library, the University Archives, and the student's major department.

Course Number 599

A student who has formally begun the thesis or its equivalent must register in course number 599 in each subsequent term until the thesis or equivalent is submitted to and formally approved by the Graduate School. Registration for this purpose may be in absentia. If circumstances prohibit continuing progress on the work, a graduate student may request a leave of absence from the office of the dean of the Graduate School. If a student interrupts registration in a course numbered 599 without obtaining a leave of absence, then, upon recommendation of the major department, the student's admission to the degree program will be terminated. After a student has registered for the maximum number of hours of credit that can be earned in a course numbered 599, he or she should register as an auditor in 599 each term until the thesis receives final Graduate School approval.

A student must be in good academic standing, both overall and in the degree program, to be eligible to submit a thesis for review and acceptance by the Graduate School.

Composition of Examination and Thesis Committees

The thesis committee and the final comprehensive examination committee shall each consist of at least three voting members approved by the department (department chair or designee). The majority of the voting members of the committee must be regular faculty members at Northern Illinois University; a majority of the voting members must be members of the graduate faculty; and ordinarily at least one-half of the voting members, including the committee chair, must be graduate faculty members in the student's major.

Application for Graduation

When nearing completion of requirements for a graduate degree, a student must submit an application for graduation to the Graduate School. See "Graduation."

Requirements for the Degree Master of Business Administration

See "Master of Business Administration" in the College of Business.

Requirements for the Educational Specialist Degree

See "Educational Specialist in Educational Administration" in the Department of Leadership, Educational Psychology and Foundations.

Requirements for the Performer's Certificate

See "Performer's Certificate" in the School of Music.

Requirements for the Degree Master of Fine Arts

See "Master of Fine Arts in Art" in the School of Art and "Master of Fine Arts in Theatre Arts" in the School of Theatre and Dance.

Requirements for the Degree Doctor of Audiology

See "Doctor of Audiology" in the Department of Communicative Disorders.

Requirements for the Degrees Doctor of Education Doctor of Philosophy

The research doctorate is the highest degree granted by the university and is conferred only for work of distinction in which the student displays powers of original scholarship and the ability to conduct independent research.

Doctor of Education (Ed.D.) degrees are offered in adult and higher education, counseling, curriculum and instruction, educational administration, educational psychology, and instructional technology through various departments in the College of Education. Doctor of Philosophy (Ph.D.) degrees are offered in biological sciences, chemistry, economics, English, geology, history, mathematical sciences, physics, political science, and psychology, through the corresponding departments.

Admission

Normally a student applying for admission to a doctoral program will be expected to have completed both baccalaureate and master's degrees. A student with a baccalaureate degree may, with the approval of the department, be admitted directly into a doctoral program unless otherwise specified in the appropriate departmental section of this catalog. No student will be admitted to doctoral work unless the undergraduate and graduate records indicate ability to do work of high quality in the field chosen. See also "General Requirements for Admission to the Graduate School."

Admission to doctoral work in a specific department may also require passing whatever entrance tests, screening devices, or interviews are required by the individual department. Some programs have earlier application dates than those of the Graduate School; consult the sections of this catalog describing the individual programs.

Credit Requirements

Graduate students working for a doctoral degree must complete at least 90 semester hours of graduate work beyond the baccalaureate degree with a minimum GPA of 3.00. This will include formal course work, independent study, research, and the dissertation, as specified on the student's program of courses. Some doctoral programs require more than 90 semester hours.

The minimum GPA requirement applies to all graduate courses required on the student's program of courses (excluding deficiency courses taken for graduate credit) as well as to all graduate course work taken at NIU. Transfer credit will be allowed at the discretion of the department concerned and the office of the dean of the Graduate School, subject to the limitations described below. For a student whose program of courses includes only graduate work taken at NIU, not more than 24 semester hours subsequent to the baccalaureate degree shall be in graduate courses numbered 400-499. For a student applying graduate work from another institution toward the semester-hour requirements of a doctoral degree, the sum of the credit from NIU graduate course work numbered 400-499, plus one-half the number of hours of transfer credit, may not exceed 24 semester hours. Although most of the work will be in the student's major field, at the discretion of the major department some course work may be taken in related fields. The departmental sections of this catalog should be consulted for other requirements.

Limitation of Time

Except as indicated below, the student must fulfill all requirements for a doctoral degree within nine consecutive years immediately preceding the date of the student's graduation from that degree program.

At the discretion of the student's major department, the nine-year limit need not apply to some or all of the earliest 30 postbaccalaureate semester hours of credit included in the student's doctoral program of courses.

At the discretion of the department, Ph.D. language/tool requirements may be satisfied with course work and/or examinations falling outside the limitation of time for the doctoral degree.

The time limit applies to enrollment in all graduate course work on the student's program of courses for the doctoral degree, excluding deficiency courses, but including work for which transfer credit is allowed. If any such NIU course does not fall within the time limit defined above, the student's major department may require the student to retake the course for credit or may allow the student to demonstrate current knowledge of the subject matter. In the latter case, currency must be demonstrated to the satisfaction of the department offering the course through successful completion of an appropriate examination or other assessment if available from the department. Otherwise, the outdated course work must be deleted from, and other course work must be substituted in, the program of courses. Transfer courses falling outside the limitation of time cannot be used in a graduate program unless exempted by the department as part of the earliest 30 semester hours under the provision above.

Study-Abroad and Transfer Credit

Up to a total of 30 semester hours of transfer credit from master's degree programs completed at other accredited institutions may be applied to meeting the credit-hour requirements of the doctoral degree. A grade of B- or better must have been earned in each such graduate course accepted in transfer from a master's-degree program, and the overall GPA for all such master's work accepted must be at least 3.00. In addition, with the approval of the student's committee chair, major department, and the office of the dean of the Graduate School, up to 15 semester hours of credit for NIU graduate study-abroad courses, plus courses taken subsequent to the master's degree and completed with grades of B or better from departments offering graduate programs above the master's level at other accredited institutions, may be accepted as credit toward a doctoral degree at NIU.

For any other student, the total credit transferred from accredited institutions, plus credit for NIU graduate study-abroad courses, may not exceed 30 semester hours.

The above semester-hour limits may be exceeded on a program of courses only by the use of transfer courses and only if the total number of semester hours required on the program of courses exceeds the minimum requirements for that major by at least the same number of hours.

Ph.D. Language and/or Research-Tool Requirements

Specific language and/or research-tool requirements for the Ph.D. degree vary by department. These requirements may be found in the description of the doctoral program under each departmental heading.

The general Graduate School requirement for proficiency in foreign language(s) and/or research tool(s) for the Ph.D. degree may be met by one of the following.

Two foreign languages with average reading proficiency.

One foreign language with a high level of proficiency.

One foreign language with average reading proficiency and one research tool with average proficiency.

Two research tools with average proficiency.

One research tool with a high level of proficiency.

Students wishing to demonstrate average proficiency in French, German, Italian, or Spanish may do so by achieving a grade of S (satisfactory) in FLFR 382, Reading Expository French II; FLGE 382, Reading Expository German II; FLIT 382, Reading Expository Italian II; or FLSP 382, Reading Expository Spanish II, respectively. These courses and their prerequisite courses are described at the end of this section.

Translation examinations in these and other languages are arranged through the Office of Testing Services. Such examinations are available for languages taught by the faculty of the NIU Department of Foreign Languages and Literatures. Details on the nature of the foreign language examination and how it is administered are available from the Office of Testing Services.

Average proficiency in a foreign language may also be demonstrated by the possession of a degree from a college or university at which that language was the language of instruction.

Course work to be used to satisfy research-tool requirements must be approved by the student's major department and the office of the dean of the Graduate School. Unless the major department specifies a higher grade, an undergraduate grade of C or better, or a graduate grade of B or better, must be received in each such course. If course work from another university is to be applied toward meeting research-tool requirements, an official transcript showing satisfactory completion of the course(s) must be provided to the Graduate School.

Students should work closely with their advisers in coordinating efforts to satisfy the Graduate School and departmental language and research-tool requirements with their doctoral research objectives.

FLFR 381. READING EXPOSITORY FRENCH I (3). Development of reading skills through the study of grammar and vocabulary. Translation and discussion of representative texts in the humanities, sciences, and social sciences as appropriate. Open only to graduate students with no prior knowledge of French. S/U grading.

FLFR 382. READING EXPOSITORY FRENCH II (3). Continuation of FLFR 381. Open only to graduate students with credit for FLFR 381. S/U grading.

FLGE 381. READING EXPOSITORY GERMAN I (3). Development of reading skills through the study of grammar and vocabulary. Translation and discussion of representative texts in the humanities, sciences, and social sciences as appropriate. Open only to graduate students with no prior knowledge of German. S/U grading.

FLGE 382. READING EXPOSITORY GERMAN II (3). Continuationof FLGE 381. Open only to graduate students with credit for FLGE 381. S/U grading.

FLIT 381. READING EXPOSITORY ITALIAN I (3). Development of reading skills through the study of grammar and vocabulary. Translation and discussion of representative texts in the humanities, sciences, and social sciences as appropriate. Open only to graduate students with no prior knowledge of Italian. S/U grading.

FLIT 382. READING EXPOSITORY ITALIAN II (3). Continuation of FLIT 381. Open only to graduate students with credit for FLIT 381. S/U grading.

FLSP 381. READING EXPOSITORY SPANISH I (3). Development of reading skills through the study of grammar and vocabulary. Translation and discussion of representative texts in the humanities, sciences, and social sciences as appropriate. Open only to graduate students with no prior knowledge of Spanish. S/U grading.

FLSP 382. READING EXPOSITORY SPANISH II (3). Continuation of FLSP 381. Open only to graduate students with credit for FLSP 381. S/U grading.

Qualifying Examination

The student may be required, at the discretion of the major department, to take a qualifying examination. This may be written or oral, or both, testing the competence of the student in the major and related fields. The department may allow a student who fails this examination to repeat it after a period of time determined by the department. A student who fails this examination a second time, or is not granted permission for a second attempt, will not be permitted to continue work toward the doctorate, and admission to that doctoral program will be terminated. A student must be registered in the term in which the qualifying examination is taken.

Candidacy Examination

When students have completed most or all of the doctoral course work (except dissertation research), they will take written candidacy examinations. Departments may also require an oral examination. These examinations will cover work in the student's major department and related fields. The examining committee may allow a student who fails a candidacy examination to repeat it after a period of time determined by the committee. A student who fails a candidacy examination a second time, or is not granted permission for a second attempt, will not be permitted to continue work toward the doctorate, and admission to that doctoral program will be terminated.

A student must be admitted to the doctoral program and must be enrolled in the term in which the candidacy examination is taken. A student must be in good academic standing, both overall and in the degree program, to be eligible to take the candidacy examination. Some departments have alternative formats for the candidacy examination; see the departmental sections in this catalog.

Admission to Doctoral Degree Candidacy

A student must be admitted to doctoral degree candidacy before the doctoral degree can be awarded. The student is admitted to candidacy by the Graduate School following successful completion of the candidacy examination in the student's major department and upon the recommendation of that department, which may have established additional requirements that must be satisfied before admission to candidacy is recommended.

Dissertation Requirements

The dissertation will be a substantial contribution to knowledge in which the student exhibits original scholarship and the ability to conduct independent research. Its subject must be in the area of the student's major and be approved by the student's dissertation director and, ultimately, by the dissertation committee. The dissertation presents research that has been conducted by the student under the supervision of a senior member of the graduate faculty from, and nominated by, the major department and approved as the dissertation director by the dean of the Graduate School. The document may not have been published previously, and the research must be successfully defended in an oral examination. The author must demonstrate to his or her committee satisfactory command of all aspects of the work presented.

Credit-hour requirements for the dissertation and research are determined by the major department. The dissertation is to be submitted in accordance with the Graduate School regulations found in *The Graduate School Manual for Theses and Dissertations.*

A student intending to write a dissertation should identify a prospective faculty director for the dissertation, who must be willing to serve as dissertation director and must be approved by the department, college, and Graduate School. The dissertation director and dissertation committee will judge the acceptability of the work. A faculty member may decline to serve as director of any particular dissertation project, in which case the department will assist the student in seeking a dissertation director. If a student, with department approval, changes dissertation director, the student may need to undertake additional work, or to change research projects, in accordance with the expectations and expertise of the new dissertation director.

When dissertation research involves human subjects, experimental animals, recombinant DNA, or the use of radioactive substances, special approval is required, as explained under the heading "Protective Standards in Research."

Once a student has begun registration in course number 699 (doctoral dissertation), the student must continue to register in course number 699 in each subsequent term until the dissertation is submitted to and formally approved by the Graduate School. Registration for this purpose may be in absentia. The designation of a dissertation adviser should be approved by the conclusion of the term in which a student first registers for 699. A student who fails to complete this procedure will, upon recommendation of the department, have all accumulated hours in the dissertation course converted to audit (no credit). After the student has registered for the maximum number of hours of credit that can be earned in dissertation research (course number 699), he or she should register as an auditor in 699 each term until the dissertation receives final Graduate School approval.

If circumstances prohibit continuing progress on the dissertation, a graduate student must request a leave of absence from the office of the dean of the Graduate School. If a student interrupts registration in course number 699 without obtaining a leave of absence then, upon recommendation of the major department, the student's admission to the degree program will be terminated.

After the dissertation has received final Graduate School approval, the three approved copies are distributed one each to the Founders Memorial Library, the University Archives, and the student's major department. Arrangements have also been made for all NIU doctoral dissertations to be microfilmed by UMI Dissertation Publishing (UMI). The student is required to complete either the UMI microfilming contract or the UMI publish-abstractonly contract (both available from the Graduate School) and pay the applicable fee. This is a graduation requirement for all doctoral students. In most cases, the student is advised to enter into the full-microfilming contract, under the provisions of which the whole dissertation is microfilmed and made available for distribution through UMI and the abstract is published in *Dissertation Abstracts International (DAI)*. This facilitates wide dissemination of the scholarship to other interested parties. In the event that the nature of the work is such that the student may wish to pursue its publication in unit form such as a monograph, the student may, following consultation with the major department, elect to enter into the abstract-only contract, under which the abstract alone is submitted to UMI, for publication in *DAI.*

Oral Defense of Dissertation

After the student has completed all other requirements for the doctorate, including the writing of a dissertation, an oral defense of the dissertation will be scheduled. The defense will consist of two parts, in either order in accordance with department policy: a public presentation with opportunity for questions from any interested parties, and a restricted examination session with the dissertation defense committee. At the discretion of the department, members of the university's graduate faculty and/or graduate students from the candidate's department may be permitted to be present at the restricted session. The examining committee will inform the dean of the Graduate School, at least two weeks in advance, of the date, time, place, and dissertation title for the public presentation, and the dean will publicize this on campus, inviting attendance of interested persons.

The presentation and defense of the dissertation are culminating scholarly activities of the doctoral program. They provide the candidate with the opportunity to present, and other interested parties the opportunity to examine and respond to, the results of the finished dissertation research. Therefore, the dissertation presentation and defense should be scheduled only when both the student and the dissertation committee are satisfied that the scholarly work and its analysis are substantially complete, and believe that they reflect a level of rigor appropriate to a doctoral degree. Further research, analysis, or rewriting may be required by the committee as a result of discussions arising during the defense.

A student must be registered in the term of the oral defense of the dissertation. A student must be in good academic standing, both overall and in the degree program, to be eligible to submit a dissertation to the Graduate School or to have a dissertation defense.

Composition of Committees

Committees to conduct the candidacy examination and the oral defense of the dissertation will be nominated by the chair of the student's major department and appointed by the dean of the Graduate School. Membership of candidacy and dissertation examining committees will include representatives of major and minor fields. The number of voting members on such committees normally will be three to five, and at least three are required. The majority of the voting members of the committee must be regular faculty members at Northern Illinois University; a majority of the voting members must be members of the graduate faculty; ordinarily at least one-half of the voting members, including the committee chair, must be graduate faculty members in the student's major; and at least one-half of the voting members, including the committee chair, must be senior members of the graduate faculty. A person who is not a member of the Northern Illinois University faculty may be a member, but no more than one voting member may be without NIU graduate faculty status. In addition, the dean of the Graduate School will serve as an ex officio, nonvoting member of all committees to conduct the oral defense of the dissertation. The dean or a dean's designee is to participate in both parts of the defense.

Application for Graduation

When nearing completion of requirements for a degree, a student must submit an application for graduation to the Graduate School. See "Graduation."

Teacher Certification Information

The following information is provided as a service to students; teacher certification requirements and procedures are not under the jurisdiction of the Graduate School. Students seeking initial teacher certification should contact the academic department offering the certification program (see below). NIU's Office of the University Coordinator of Teacher Certification answers general questions about state certification requirements and refers students to the appropriate academic department for specific advising. General NIU teacher certification information is available at www.teachercertification.niu.edu.

To teach in a public school in the state of Illinois an individual must possess an Illinois teaching certificate. NIU offers initial teacher certification entitlement programs which are approved by the Illinois State Board of Education (ISBE). NIU is accredited by the National Council for Accreditation of Teacher Education (NCATE).

Requirements for NIU teacher-certification programs are developed by the faculty in the context of state, national, disciplinary standards and requirements. Because students *must* meet the requirements of state law to be recommended for certification, a student may find his or her certification requirements changed for reasons beyond the university's control.

A student pursuing certification should meet with his or her adviser to develop a plan of study that will satisfy the certification requirements as they then exist. Once that plan of study is formally approved by the adviser, the requirements that that student must meet in order to be recommended for certification will not be changed by the adviser except to the extent that it may be necessary to satisfy changes in state certification requirements. However, if other aspects of applicable departmental or university requirements are changed, the student may, with the approval of the adviser, modify the plan of study to conform to the new requirements. Because there may be delays in physical publication of new requirements as they are developed, departments and programs will make efforts to disseminate information about changes in requirements by other, more immediate means, including electronic media. A student who becomes aware of discrepancies between an approved certification plan of study and other published descriptions of certification requirements is responsible for contacting his or her adviser to ascertain whether there have been changes in state requirements that will necessitate changes in the plan of study.

Following is a list of ISBE-approved initial teacher certification entitlement programs together with the academic department (or departments) at NIU with responsibility for administering each program.

Entitlement Program	**Academic Department/ School**
Early Childhood Certificate (birth through grade 3)	Family, Consumer, and Nutrition Sciences; Teaching and Learning
Standard Elementary Certificate (K-9)	Teaching and Learning
Standard High School Certificate (6-12)	
Biological Science	Biological Sciences
Chemistry	Chemistry and Biochemistry
English	English
Family and Consumer Sciences	Family, Consumer, and Nutrition Sciences
French	Foreign Languages and Literatures
German	Foreign Languages and Literatures
Health Education	Allied Health Professions
History	History
Mathematics	Mathematical Sciences
Physical Education	Kinesiology and Physical Education
Physics	Physics
Social Science including economics, geography, political science, psychology, sociology, and anthropology	History
Spanish	Foreign Languages and Literatures
Standard Special Certificate (K-12)	
Art[1]	Art
Blind and Partially Seeing	Teaching and Learning
Deaf and Hard of Hearing	Literacy Education
Learning Behavior Specialist I	Teaching and Learning
Music	Music
Physical Education	Kinesiology and Physical Education

Students who wish to pursue more than one teaching certificate must complete the NIU program requirements for each certificate. Endorsements (see "Definitions of Terms Used in This Catalog") are available for persons interested in broadening their qualification as teachers in conjunction with certain initial teacher certification programs.

Admission to Teacher Certification Programs

Each department has determined whether enrollment in a degree program is necessary to pursue the teacher certification program(s) administered by that department.

Admission to the university or to a degree program in an academic department, school, or college does not necessarily constitute acceptance into a certification program. Candidates for admission to a teacher certification program should apply directly to the academic department responsible for administering the program regarding information about admission.

All candidates for admission to teacher certification programs must demonstrate competence in reading, communication, and mathematical skills. Candidates should contact the department responsible for administering the certification program regarding specific procedures for demonstrating this competence.

[1] Students with an undergraduate degree must be admitted to the M.S. program in art with a specialization in art education to enter the certification program.

University Requirements for Teacher Certification

These are the minimum university-wide requirements for teacher certification. See also the individual academic departments, because some programs exceed these requirements. Departmental coordinators for teacher certification may require additional course work of individual students to address identified deficiencies in the students' preparation for teaching.

Common Requirements for Teacher Certification

Upon satisfactory completion of one or more of the above initial teacher certification programs, students will be recommended for certification. In order to be certified to teach or supervise in Illinois public schools, a person must be of good character, in sound health, a citizen of the United States, and at least 19 years of age. The following general requirements must be satisfied by all candidates for certification. (See the academic department for specific information on other requirements.)

An overall GPA of 2.50 or above in all course work taken at NIU for admission to and retention in a certification program. A passing grade is required in all course work taken for teacher certification. Some programs have higher GPA and/or course grade requirements. (See the academic department about specific requirements.)

Successful completion of designated clinical experiences, including a minimum of 100 clock hours of approved clinical experience prior to student teaching. These experiences must be gradual and sequential throughout the preparation period.

Completion of the requirements for the Illinois State Board of Education approved "Major Area of Specialization" for which the certificate is sought.

An earned baccalaureate degree from a recognized institution.

Successful completion of a basic skills test and a test of subject matter knowledge administered by the Illinois Certification Testing System.

Successful completion of course work and/or experience which contributes directly to an awareness of cultural diversity. (See the academic department about meeting this requirement.)

General Education Requirements for Teacher Certification

The university's general education requirements for teacher certification are met when the general education requirements for an NIU baccalaureate degree have been met. A student who already holds a baccalaureate degree from an accredited institution, or the equivalent from a recognized foreign institution, is considered to have met the university's general education requirements for certification.

Professional Education Requirements for Teacher Certification

Each type of certificate requires the student to complete professional education courses.

Early Childhood Certificate
Standard Elementary Certificate
Standard High School Certificate
Standard Special Certificate

The course requirements for the Early Childhood, the Standard Elementary, the Standard High School, and the various Standard Special Certificates are listed in the department sections of this catalog.

Endorsements

Middle Grades Endorsements

Students seeking an elementary or secondary teaching certificate who wish to teach in the middle school grades (5-8) must have a middle grades endorsement on their certificates. Depending on a student's major, this could mean additional courses or a specific course sequence. Students should see the discipline coordinator in the area of the intended endorsement for specific information on how to become eligible for the middle grades endorsement upon being recommended for certification.

Secondary Endorsements

Students seeking a secondary teaching certificate who wish to be endorsed to teach additional subjects must have secondary subject-matter endorsements on their certificates. Students will be required to take additional course work. Students should see the discipline coordinator in the area of the intended endorsement for specific information on how to become eligible for secondary endorsements upon being recommended for certification.

Student Teaching

Students must apply in advance for student teaching. (See the department adviser regarding the time to apply for placement.) Transportation to the student teaching site is the responsibility of the student. In addition to having completed the NIU certification program requirements, *prior to student teaching* the graduate student or student-at-large must (a) have earned a minimum of 14 semester hours at NIU and (b) make all arrangements for student teaching through the appropriate department. Students may not make their own arrangements for student teaching sites nor may they request a change once an assignment has been confirmed by the cooperating school. For additional requirements students should see the appropriate department adviser.

Retention in Teacher Certification Programs

Admission to teacher certification programs does not guarantee continued acceptance unless the student maintains satisfactory grades and other qualifications. A candidate for a student teaching assignment or certification must have good character, sound mental and physical health, and must demonstrate the skills, attitudes, and behaviors necessary for working with children and/or adolescents, as applicable.

Specific requirements for retention in an initial teacher certification program are determined by the faculty offering that program; students should consult the academic department for information.

Appeals

A graduate student or student-at-large who wishes to appeal a grade or grades should utilize the current NIU Procedures for Use in Appealing Allegedly Capricious Semester Grades of Graduate-Level Students (Grade Appeal Policy). A student who wishes to appeal a decision regarding admission to, retention in, or completion of an initial teacher certification program should consult with the appropriate college advising office regarding the procedures to be followed.

Criminal Background Check

Illinois law requires Illinois school boards to conduct a criminal background investigation on applicants for employment. This law also prohibits the employment of any person who has been convicted of committing or attempting to commit any one or more of a number of offenses. At present, offenses include first degree murder; any Class X felony; juvenile pimping; soliciting for a juvenile

prostitute; exploitation of a child; obscenity; child pornography; harmful material; criminal sexual assault; aggravated criminal sexual assault; criminal sexual abuse; aggravated criminal sexual abuse; offenses set forth in the Cannabis Control Act; and crimes defined in the Illinois Controlled Substances Act. Employment must be denied whether the offenses and/or conviction occurred inside or outside the state of Illinois.

All candidates for Illinois teacher certification through programs under the purview of NIU's Committee on Initial Teacher Certification are required to submit to a criminal background check by the Illinois State Police prior to their initial field experience in the schools. A student convicted of an aforementioned offense may not be placed in any schools, and NIU will not recommend for certification a person convicted of an aforementioned offense.

Persons whose criminal background check reveals an offense other than the foregoing may be recommended for clinical placement if, in the judgment of the discipline coordinator, the offense should not disqualify the individual from such placement. In making this judgment, the discipline coordinator will consult with the college certification office, and will take into account the nature and circumstances of the offense, the lapse of time since it occurred, whether there are repeated offenses, and the nature of the certification program and of the students that it prepares candidates to teach. An adverse decision may be appealed through the appeal procedure approved by the Committee on Initial Teacher Certification.

Out-of-State Employment in Public Schools

Other states have similar or additional certification, licensing, or employment requirements. NIU is not responsible for informing any student of statutes, rules, or regulations which might affect the future certification or employment of teachers. Students wishing admission to any NIU teacher certification program are responsible for determining their own eligibility for eventual certification in another state.

Tuition and Fees

Tuition and fees are subject to change at any time. The official charges are those billed by the Bursar's Office for each term. For the most recent tuition and fee rates, see the Bursar website at www.niu.edu/bursar.

General Student Fees

Activity and athletic fees may be used to support services and privileges such as the use of the University Health Service; use of gymnasium facilities and participation in intramural activities; admission to athletic events, concerts, dramatic productions, lectures, and speeches; and subscriptions to certain student publications. Additional charges for such services and privileges may be imposed as necessary.

Special Fees

Application fee (nonrefundable): $30.00
Doctoral dissertation (microfilming) fee: $55.00[1]
Enrollment certification fee: $3.50
Examination fees
- Graduate Record Examinations
  - General Test (computer-based): $200.00[1]
  - Subject Test (paper and pencil): $130.00[1]
  - Writing Assessment (computer-based): $50.00[1]
- Graduate Management Admission Test (computer-based) $200.00[1]
- Miller Analogies Test
  - NIU student: $40.00
  - Non-NIU student: $55.00
- Foreign language translation examinations
  - Average proficiency: $40.00
  - High proficiency: $60.00

Graduation fee (nonrefundable): $35.00
(If a student fails to graduate at the close of the term for which the application for graduation has been submitted and the fee paid, the application can be transferred to a subsequent term. See section entitled "Graduation" elsewhere in this catalog.)
New international student fee: $125.00
Nursing thesis (microfilming) fee: $45.00[1]
Regional site course delivery fee: $40.00-$265.00 per semester hour
Replacement identification card (after the first is issued): $15.00
Technology surcharge
- $50.00 for 6 or fewer semester hours
- $100.00 for more than 6 semester hours

Transcript fee: $5.00

Class material fees, where applicable, will be billed as part of the total billing. See the appropriate *Schedule of Classes* regarding those courses that require additional fees.

Room and Board Rates

Costs for housing for 2005-06 varied from $2,742 per semester for a gold meal plan in a double room in one of the "low rise" residence halls to $4,309 for a single room and a titanium meal plan in a recently renovated "high rise" residence hall. Charges for the 2006-07 academic year are expected to increase.

Room and board, tuition, and fees may be paid each semester in one payment or by a credit plan. Students who elect to pay on the credit plan will be charged an interest rate to be determined by the university. (See "Payment of Fees.")

Regional and Workshop Courses

Courses taught at regional sites are included in the calculation of tuition charges, but are excluded from total hours in the assessment of general student fees. Workshop hours are included in the assessment of general student fees. Tuition charges are applicable to the total enrolled hours, with an additional delivery fee for each regional course. (See "Special Fees.")

Tuition Waivers for Senior Citizens

Anyone 65 years of age or older whose annual income is under $21,218 is eligible to take credit courses tuition free. The student must pay all general university fees and any course-related fees. Available classroom space must exist and tuition-paying students enrolled must constitute the minimum number of required students for the particular class except for credit courses designed specifically for senior citizens. Interested senior citizens should contact the Student Financial Aid Office.

[1] This fee is established by an outside agency; in the case of microfilming fees, or examinations administered through NIU, the fee is collected by NIU for transmission to that agency.

Payment of Fees

It is the policy of Northern Illinois University to open an account for each of its students for the purpose of charging tuition and fees, room and board, textbooks and school supplies (purchased through plans limited to financial aid recipients), and residence hall long distance telephone calls. Other charges incurred by a student such as parking fines, child care fees, and pharmacy charges may be added to the student's account. These charges, payments, other debits, and credits for financial aid, will appear on the monthly statement of account. Students are responsible for payment-in-full of their student account at NIU, plus any additional costs which may be incurred by the university in collection of their debt to NIU.

The amount due the university must be settled no later than the payment due date shown on the monthly statement of account. Through the NIU Credit Plan, the student is allowed to make up to three monthly payments for fall and spring semester costs charged to the student's account. For fall semester, the three payments are due in August, September, and October. For a spring semester, the three payments are due in January, February, and March. For a summer session, only two payments are allowed and are due in June and July. All students who choose to make such payments will be assessed a finance charge based on the terms and conditions of the NIU Credit Plan disclosed below.

The information about the NIU Credit Plan is accurate as of February 1, 2006. This information may have changed after that date. You should contact the Bursar's Office, Northern Illinois University, DeKalb, Illinois 60115 regarding any changes to the plan.

Students should understand the important information about the NIU Credit Plan that follows.

Annual percentage rate	13%
Minimum finance charge	$.50 whenever a finance charge is imposed
Grace period	If the new balance is paid in full by the payment due date indicated on your account statement, no finance charge will be assessed.[1]
Method of computing balance	Average daily balance (including current transactions during the last interest cycle)[2]
Late payment fee	25.00[3]
Returned check fee	$25.00

[1]The exact number of days is determined each month by the Bursar. The payment due date will appear on each monthly statement of account.

[2] The finance charge is calculated by applying the periodic rate to the average daily balance of an account (including current transactions during the last interest cycle). The average daily balance is determined by dividing the sum of all daily balances from the interest cycle by the number of days in the interest cycle. The daily balance is computed by adding the new charges and other debits to the account's beginning balance and subtracting any payments, credits, and unpaid finance charges for that day of the interest cycle. The interest cycle begins the day following the assessment of finance charges and ends the day finance is assessed.

[3]If you reside in university housing, refer to your housing contract for additional information pertaining to penalties and assessments. Refer elsewhere in this catalog for other information pertaining to your enrollment at the university.

Refund Policies[1]

In the following discussion of policies governing refunds of tuition and fees it should be understood that "refund" refers to "refund of monies paid" only in cases in which a student has already paid the full balance due. Where payment in full has not yet been made, an equivalent adjustment may be made on the total amount due. If only a partial reduction in tuition or fee liability occurs, a student who had a balance due may still owe an additional amount beyond that already paid. If no reduction in liability occurs, not only will funds paid not be refunded, but the student will be liable for the unpaid balance.

Tuition and fees, due at the time of registration, include tuition, general student fees, material fees, the technology surcharge, outreach delivery fees, regional course fees, and health insurance fees. Refunds can be applied for at the Bursar's Office, unless otherwise noted. The following provisions govern refunds of tuition and fees.

A student who has registered and officially withdraws from the university may receive a refund of tuition and fees including any advance deposit thereon, according to the following schedule.

If withdrawal is prior to the first regularly scheduled class day - all tuition and fees.

If withdrawal is within the 60 percent point in time of the period of enrollment - a refund equal to the portion of the period of enrollment remaining, rounded downward to the nearest 10 percent, less an administrative fee not to exceed the lesser of 5 percent of the tuition, fees, and other charges assessed the student or $100.00.

If withdrawal is after the 60 percent point in time of the period of enrollment - no refund.

The university may designate shorter refund periods for special courses, short courses, and other enrollments of a limited nature.

Students may receive a refund of tuition and fees if the university declares them ineligible for enrolled status prior to the first day of regularly scheduled classes.

Students who reduce the number of semester hours carried (but remain enrolled in some course work) within the first 15 calendar days beginning with the first regularly scheduled class day may receive a refund of tuition and all fees not applicable to their new status, excluding student medical insurance. If the number of semester hours is reduced to fewer than 6, the student medical insurance may be refunded.

Students who reduce the number of semester hours carried (but remain enrolled in some course work) after the 15th day but no later than the 30th calendar day may receive a refund of 25 percent of the difference in tuition only. If the number of semester hours is reduced to fewer than 6, the student medical insurance may be refunded.

Part or all of a student's tuition and fees may be refunded because of a student's death, disability, or extreme hardship. The student, or in the event of a student's death, his or her family, must contact the Vice President for Student Affairs to request an adjustment of charges for tuition and fees and to receive a partial or full refund when university withdrawal is the consequence of one of the aforementioned circumstances. The student or his or her family will be required to provide documentation supporting the request. In the event of disability (medical withdrawal), medical documentation is to be sent to the University Health Service. In the event of a student's death or extreme hardship, documentation should accompany the request sent to the Vice President for Student Affairs. (Note that university withdrawal, i.e., withdrawal from courses, is an academic procedure that must be completed by the student's college advisement office. Contact with the Vice President for Student Affairs should be only for the purpose of seeking an adjustment of tuition and fees charges.)

Students who have paid tuition and fees may receive a refund if they later receive scholarships which cover tuition and fees. The application for refund must be made no later than 60 days after the close of the term.

Students enrolled in courses of study over 15 miles from the campus which require their absence from the campus for the entire semester and who are residing over 15 miles from the campus may receive refunds of activity, student bus, health service, and athletic fees. To receive such a refund, students must apply to the Bursar within the first 15 calendar days beginning with the first regularly scheduled class day. Refunds will be processed after the sixth week of the semester.

Students who receive financial assistance and withdraw from the university or reduce the number of credit hours carried may be required to repay a portion of their award(s) from any university refunds which they may have been eligible to receive. The exact amount to be repaid to financial aid accounts will be determined by the amount of aid received, the educational costs incurred, and the length of time attended during the semester.

Students enrolled in foreign study programs must adhere to the refund regulations stipulated by the Division of International Programs.

For answers to questions on tuition and fee payment refunds call (815) 753-1885, 8:15 a.m. to 4 p.m., or e-mail bursar@niu.edu.

The above refund policies are subject to change.

Illinois Residence Regulations

The tuition fee for in-state students is charged according to the definitions of residence below. Length of university attendance or continued presence in DeKalb during vacation periods is not considered proof of Illinois residence.

Students who take exception to the residence status assigned shall pay the tuition assessed, but may file a petition in writing to the Office of Registration and Records for a reconsideration of residence status.

The written claim must be filed within 30 calendar days from the date of assessment of tuition, or the first class day of the term for which tuition is payable, whichever is later, or the student loses all right to a change of status and adjustment of the tuition assessed for the term in question.

The following is based on *Regulations of the Board of Trustees*, a copy of which is available on the Internet at www.niu.edu/board/regs/sectionIV.html.

Adult students. Students 18 years of age and over are considered residents for tuition purposes, if they have been bona fide residents of the state for at least six consecutive months preceding the first class day of the term and continue to maintain that residence. An adult student whose parents are Illinois residents and who lives with them or elsewhere in the state also will be regarded as a resident.

Minor students. The residence of a student under 18 years of age is considered to be and follow that of the parents. Self supporting minors are subject to the same regulations as adults.

Exceptions

Marriage. If a nonresident student marries a resident, the nonresident can request reclassification as a resident.

[1]Note that in this section, the term "refund" is strictly applicable *only if all charges for which the student is liable have already been paid.* Otherwise, any refund due will take the form of a corresponding reduction in the total liability on the bill.

Armed forces personnel. The nonresident portion of the tuition will be waived for a person on active duty who is stationed and present in the state in connection with that service and who submits evidence of that service and station. Spouses and dependent children who live in the state are also eligible for waivers.

University staff and faculty members. Staff members of the university and faculty members of Illinois state-supported institutions of higher education, employed at least one-quarter time, and their spouses and dependent children are considered residents. The term “staff members” does not include graduate assistants or student hourly workers.

Teachers. Teachers in the public and private elementary and secondary schools of Illinois are considered residents if they are employed at least one-quarter time.

International students. To be considered a resident, a student who is not a United States citizen must have “Permanent Resident” status or “Refugee” status with the U.S. Immigration and Naturalization service and must also comply with all other requirements of these regulations.

Financial Support

Assistantships

Graduate assistantships supplement students' graduate studies with experiences appropriate to their academic pursuits. Graduate teaching assistantships, graduate research assistantships, and graduate staff assistantships are available to qualified graduate students. Teaching assistants aid in the instructional mission of the university. Research assistants participate in projects that advance the institution's research mission. Staff assistants perform professional duties in roles other than teaching or research. To be eligible for a graduate assistantship, students must be admitted to the Graduate School and be in good academic standing. Assistantship stipends vary among the units offering them, but they all are accompanied by a full tuition-waiver scholarship. Assistantships may be extended through the summer session with additional remuneration. Application forms are available from the Graduate School and online at www.grad.niu.edu/pdf/apgrdast.pdf.

The 1986 Immigration Reform and Control Act mandates that any person beginning employment at Northern Illinois University after November 6, 1986, must either be a U.S. citizen or Lawful Permanent Resident, or possess *current* employment authorization from the Bureau of Citizenship and Immigration Services (BCIS). Graduate assistants in F-1 (student) status are eligible to accept the assistantship without BCIS authorization but must be maintaining the conditions of their status in order to continue to be eligible. All such employees, including graduate assistants, must be prepared to present original documentation to the employing department/cost center within three days of the reporting date on their employment contract or risk cancellation of the contract. Specific terms of employment and verification procedures must be included in the assistantship offering letter. Further information is available from the Graduate School.

In accordance with State statute, teaching assistants engaged in oral instruction in the classroom shall be persons who possess adequate competence in spoken English (unless the language of instruction is not English). For students whose native language is not English, this competence may be demonstrated by achieving a score of at least 50 on either the Speaking Proficiency English Assessment Kit (SPEAK) administered at Northern Illinois University or on the Test of Spoken English (TSE), or a higher score if required by the employing department. Information on the TSE is available at www.toefl.org.

State law also prohibits a person from accepting or retaining a graduate assistantship if that person is in default on the repayment of any educational loan from any public source for a period of six months or more and in the amount of $600 or more, unless a satisfactory loan repayment arrangement is made no later than six months after the start of employment.

The Rhoten A. Smith Assistantship Program has been established at Northern Illinois University to help provide graduate assistantships to minorities and white women enrolled in graduate programs in which these groups are underrepresented. The program, named in honor of the university's sixth president, represents part of the institution's commitment to increasing access to graduate education. A Rhoten A. Smith assistantship typically pays a stipend and provides a full waiver of tuition. Only U.S. citizens and permanent residents are eligible.

Assistantships are normally awarded to begin in the fall semester. Prospective students wishing to be considered for assistantships are urged to complete their applications for admission to the Graduate School and submit the "Application for Graduate Assistantship" form well in advance of the June 1 deadline, preferably prior to February 15, since many departments make their assistantship offers early in the spring for the following academic year. Further information should be sought from the department in which students wish to major or from any other area in which they wish to work. Students who have received provisional admission to the Graduate School, or tentative admission, early admission, or admission with stipulation, may hold an assistantship during the time of that admission status. Consult the section of this catalog on academic standing for information on how academic probation and dismissal affect assistantship appointments.

Tuition is waived, via a tuition-waiver scholarship, for students during the period of their appointment to assistantships. In addition, tuition is waived for the summer session adjacent to (immediately preceding or following) the assistantship appointment period providing the student is an admitted graduate student during that summer.

Assistantships do not provide payment of students' fees. Students who hold assistantship appointments should be prepared to pay the full amount of fees in accordance with published university procedures.

A graduate assistant is obligated to provide up to 20 hours per week of service if appointed full time, up to 15 hours per week if three-quarter time, and up to 10 hours per week if half time. A student may hold two graduate assistantships for which the terms of appointment overlap only if each of the assistantships is a half-time appointment during the period of overlap.

A student who accepts and later resigns a graduate assistantship (whether or not the term of appointment has begun) may accept another assistantship only if its term of appointment begins no sooner than the start of the academic term following the effective date of the resignation or at least one month after the effective date of the resignation, whichever is the later date, unless the written consent of the former employing unit is submitted to the Graduate School. A resignation should be submitted in writing to the employing unit and to the Graduate School. The effective date of resignation is considered to be the date on which the written resignation is received by the Graduate School. For purposes of this policy the fall term is considered to begin on August 16; the spring term is considered to begin on January 1; and the summer term is considered to begin on May 16.

An appointment to a graduate assistantship shall be for a specified period of time and is accepted by the graduate assistant with the understanding that such an appointment entails no assurance or implication that it will be renewed or extended. The employing unit or the Graduate School may terminate a graduate assistantship appointment for cause, in which case it will then notify the student of this action in writing. Failure to report for work on the reporting date specified in the offering letter constitutes grounds for immediate termination of the assistantship by the employing unit, unless that unit has agreed, in writing, to a later starting date. If an assistantship appointment is terminated during an academic term, the student should expect that there will be a proration of any associated tuition waiver scholarship with a concomitant

tuition payment liability. Detailed procedures for the termination of a graduate assistantship, and for appealing such termination, are available from the office of the dean of the Graduate School.

Graduate assistantships are intended to support students pursuing graduate degrees. A student may hold a graduate assistantship for not more than the one academic term immediately following graduation from a graduate degree program, unless the student is admitted to and enrolled in an additional graduate program. Such a student is expected to satisfy the enrollment requirements for graduate assistants; if he or she does not wish to take further course work, appointment as a graduate assistant is not appropriate.

All employees of the university must conform with the ethics policies as set forth in the university's "Conflict of Interest Document" available in department offices and at the Graduate School. This document requires that all employees of the university, including students employed on a part-time basis or as graduate assistants, report on specified forms all real, potential, and apparent conflicts of interest.

Fellowships and Other Awards

Graduate School Fellowships are available to a limited number of outstanding students. They pay stipends of $6000 over ten months. Full tuition (whether in-state or out-of-state) is waived for recipients via a tuition-waiver scholarship. Selection is based on academic achievement and departmental recommendation–not financial need. Recipients must enroll for at least 9 semester hours each semester. Students in programs other than doctoral programs are eligible. A student seeking nomination for one of these awards must apply through her or his major department and should contact the chair of the major department. NIU Graduate School Fellowships are awarded in the spring for the following academic year.

The Graduate School Minority/Jeffrey T. Lunsford Fellowships are awarded to superior minority students fully admitted to the Graduate School. (Provisionally admitted students, students admitted with stipulation, and students-at-large are ineligible.) These fellowships enable minority students to pursue a degree other than a doctoral degree. The stipend for this fellowship is $6000, and the fellowship includes a tuition-waiver scholarship. Support is available only to U.S. citizens and permanent residents who are members of the following underrepresented groups: African Americans, Latinos, and Native Americans. Awards are made by the Graduate School with the concurrence of the students' major departments.

Dissertation Completion Fellowships are available for a limited number of doctoral students finishing their dissertations. For fulltime students, these nine-month awards carry a stipend of $8000 plus a tuition-waiver scholarship and modest funds to defray the costs of the student's research. For part-time students, the awards carry a tuition-waiver scholarship and research-support funds, but no stipend. A student applies for one of these awards by submitting a dissertation research proposal to her or his major department, which may recommend the student to the Graduate School for this support.

Carter G. Woodson Scholars are outstanding minority students enrolled in full-time study in doctoral programs in which minorities are underrepresented. The Carter G. Woodson Scholars Program enables current minority teachers/scholars to undertake study for doctoral degrees and in the process achieve greater recognition in their fields and develop professional associations for more effective and productive academic careers. The stipend for these scholars is $14,300 per year plus a one-time $500 travel and relocation allowance; and a full tuition-waiver scholarship is granted for the duration of the award. Renewal for a second year of funding is based on academic progress toward degree completion. A student may not hold a Carter G. Woodson scholarship for more than two academic years. Support is available only to U.S. citizens and permanent residents. Awards are made by the Graduate School with the concurrence of the students' major departments.

For information on externally funded fellowships, the graduate student should contact the Office of Sponsored Projects' Grants and Fellowships Office which has organized files on hundreds of federal, state, and private funding programs, as well as on each of the internally funded programs listed above; detailed synopses of these have been compiled into a grants and fellowship directory. Individual descriptions include the name, type of support, purpose, eligibility requirements, award amounts, application information, and deadline dates of the granting institution or agency. Directories are currently available for review in the Graduate School and in each department and college office. Staff members of the Grants and Fellowships Office are available to assist students in using the directory and in preparing and submitting applications for externally based fellowships. In addition, some academic departments maintain information on external fellowship and student grant support in their specific fields of study.

Loans

Information on student loan programs may be obtained from the Student Financial Aid Office. Students should particularly be aware that their classification (graduate, student-at-large, or postgraduate) and the nature of their course load (graduate or undergraduate courses, and whether courses are taken for credit or audited) may affect their eligibility for certain types of financial assistance, and are encouraged to seek advice about their individual situation prior to enrolling each term.

Federal Stafford Loan Program

Eligibility for the Federal Subsidized Stafford Loan Program is based on financial need as determined through application to the Federal Student Aid Programs. Eligible students may borrow from $100 to $8500 per year, up to a $65,500 combined undergraduate and graduate maximum.

A student applicant must be a citizen of the United States or eligible non-citizen; attending school at least half time (4.5 graduate-level semester hours or more, not including audits); capable of recognizing and accepting the responsibility of ultimate repayment of any loan indebtedness; and not in default on any previous loans and not owing a refund on any Title IV financial aid.

All applicants must file the FAFSA with the Federal Student Aid Programs. The NIU financial aid verification form must be submitted along with copies of the prior year's tax returns to the Student Financial Aid Office. Students will be notified when eligibility has been determined. Students must identify an Illinois lender by code number on the back of the NIU award notification form. If other than an Illinois lender is preferred, a separate loan application must be obtained from that lender. Application should be made by March 1 to receive priority. Loan funds will not be disbursed until the beginning of each semester.

Federal Unsubsidized Stafford Loan

A Federal Unsubsidized Stafford Loan has been established, with the same terms and conditions as the Federal Stafford Loan Program except that the borrower is responsible for paying interest which accrues during the in-school period. This program is open to students who do not qualify for fully subsidized Federal Stafford Loans. Borrowers may receive both subsidized and unsubsidized Federal Stafford Loans, totaling up to the applicable Federal Stafford Loan limit (if they do not qualify for the full amount permitted under the subsidized Federal Stafford Loan).

The maximum loan amount that can be borrowed per year through both Subsidized and Unsubsidized Federal Stafford Loan programs is $18,500 up to a total borrowing of $138,500 (including undergraduate loans) for a graduate student. The amount of the loans and all other financial aid cannot exceed the cost of education. Interest on loans must be paid every quarter while the student is in school.

Graduate Student Standards of Satisfactory Academic Progress for Financial-Aid Purposes

In accordance with the Higher Education Act of 1965, as amended by Congress, NIU has established a satisfactory academic progress policy for graduate students.

Federal and state financial aid programs covered by this policy are the following: Perkins Loan, Federal Work Study (FWS), Stafford Loan (subsidized and unsubsidized), and certain alternative loans.

Students will be considered to be making satisfactory academic progress if they meet all of the following requirements. Failure to comply with any one may result in a loss of financial-aid eligibility.

Rate of Completion Requirement

A student must successfully complete 67 percent of the credit hours attempted after two terms of enrollment and subsequently each academic year after spring-semester grades are posted. Courses in which grades of A, B, C, or S have been earned are considered successfully completed. Enrollments resulting in withdrawals, incompletes (grades of I or IN), audits, and courses in which grades of D, F, U, P, NR, or NG have been received are not considered successfully completed. NIU courses resulting in withdrawals, incompletes, or NR or NG grades, and courses being repeated, will be counted in the calculation of hours attempted. Audits are not included in the total number of semester hours attempted. Undergraduate courses (except audits) count in hours attempted; they may be counted as completed hours only if the courses are required (for example, as deficiencies) to meet degree requirements.

Grade Point Average Requirement

A student must maintain a cumulative graduate GPA of 3.00 or higher after two terms of enrollment and subsequently each academic year.

Maximum Time Frame Requirement

Graduate students are expected to complete degree requirements after having attempted not more than 150 percent of the number of hours of course work required for the degree program, including required deficiency courses. Student-at-large hours and credit accepted in transfer courses are part of the hours attempted, as are all terms of enrollment at NIU, whether or not financial aid was received. Example: A master's degree in political science requires 30 semester hours. Students may receive financial aid for no more than 45 attempted semester hours if they are pursuing this degree.

Students who exceed this 150 percent credit-hour limit are immediately ineligible for financial aid. Such students may formally appeal their ineligibility for financial aid by following the guidelines under the "Appeals Procedures" section of this policy.

Evaluation

The satisfactory academic progress policy is in effect for each academic year of a student's enrollment. Satisfactory academic progress is evaluated after the completion of each term of enrollment. Students who have an unsuccessful term or terms will receive written notification of their current status.

Failure to Meet the "Rate of Completion Requirement" or "Grade Point Average Requirement"

Students who are not making satisfactory academic progress after two terms of enrollment will be placed on financial aid warning and will be sent a letter notifying them of their financial aid warning status. Students on financial aid warning may continue to receive financial aid for the next term of enrollment.

If the deficiency is not remedied by the end of this term, the student becomes ineligible for financial aid; the student's awards are placed on hold and he or she will receive a second written notification of lack of progress. Students at this stage should consult with their graduate academic adviser. Financial aid will not be released unless the Student Financial Aid Office is notified in writing by the Graduate School that consultation has occurred.

If the deficiency is not remedied by the end of the next term of enrollment, a student again becomes ineligible for financial aid and will be so notified. Students may formally appeal their ineligibility for financial aid. If the appeal is approved, a student will regain eligibility for financial aid.

Appeals Procedures

Appeals must be submitted in writing to the Student Financial Aid Office and must include a written review from the student's graduate academic adviser and the Graduate School. Note that federal regulations restrict those circumstances that may enable an appeal to be successful; the university does not have full discretion in this regard. The Student Financial Aid Office considers the student's written appeal, the written evaluations, and these regulations when making a final determination.

Scholarships

The Student Financial Aid Office supervises the awarding of a limited number of scholarships for graduate students, many of which have specific requirements for major academic classification and grade point average. Information for private scholarships can be obtained in the Student Financial Aid Office (SFAO). Scholarship funds are disbursed in two equal amounts, half for the fall semester and the other half for the spring semester, unless the donor indicates in writing that the funds should be disbursed differently. To qualify for NIU awarded endowment scholarships, an applicant must be currently admitted as an NIU student and have a minimum 3.00 GPA. An NIU Financial Aid Application must be submitted to SFAO, and a Free Application for Federal Student Aid (FAFSA) must be mailed to the address listed on the application by March 1. Students must also submit an individual scholarship card to the SFAO (which is available from the SFAO) by April 1 prior to the academic year for which the scholarship is desired. Students will be notified by mail in June.

Student Employment

A variety of part-time employment is available to NIU students, including employment in the Federal Work-Study Program for persons who are eligible on the basis of financial need. Jobs on campus are available in many academic departments as well as in the University Libraries, the Holmes Student Center, residence halls, and university offices. All students who wish to work on campus must register through the Student Employment Office, Swen Parson 245. Assistance in finding part-time off-campus employment is also provided by the Job Location and Development Office which is located in the Campus Life Building, Room 230.

Veterans' Educational Benefits

The Veterans Assistance Office provides a liaison between the Veterans Administration and student veterans and the dependents of deceased veterans regarding their educational benefits. The office assists veterans, their widows or widowers, and their minor dependents in the processing of their applications and certification of their enrollment. Assistance is also provided when difficulties arise concerning receipt of the benefits for which students are eligible. Applications are also available for the Illinois Veterans' Grant, the Illinois National Guard Grant, and the Illinois MIA/POW Scholarship.

Incoming veterans are advised to contact the Veterans Assistance Office 60 days prior to the start of the semester to complete paperwork to receive their benefits. Veterans receiving benefits must complete a program card each semester and notify the Veterans Assistance Office of all changes in enrollment. Inquiries concerning educational benefits for veterans and their dependents may be directed to the Veterans Assistance Office, Northern Illinois University, DeKalb, Illinois 60115-2872. Telephone: (815) 753-0691. Office hours are noon-4:00 p.m., Monday through Friday, and 4-6:00 p.m., Tuesday and Wednesday when classes are in session.

Scholarly Activities at Northern Illinois University

Creative Work: Research and Artistry

Original research and artistic endeavors are integral to the intellectual life at Northern Illinois University. Members of the graduate faculty are scholars who are expected to engage in research or artistry as part of their regular responsibilities, and thus be aware of, and contribute to, advancements in their fields of expertise. Graduate students, through theses, dissertations, and other independent studies, become introduced to the processes of scholarly inquiry and expression in their academic disciplines. These activities continually confirm the university as an institution dedicated to the pursuit and transmission of knowledge, both basic and applied. The Graduate School is responsible for the general encouragement of research and artistry.

Presidential Research Professorships and Distinguished Research Professorships

The NIU Presidential Research Professorships were established in 1982 in recognition and support of the research and artistic mission of the university. Recipients of this award are selected on the basis of significant and sustained scholarly or creative work, including the achievement of national or international reputation in their individual fields. Up to three such professorships are granted each year, providing budgetary support and released time for research or artistic activities. After four years as a Presidential Research Professor, each of these eminent faculty members is designated a Distinguished Research Professor. Distinguished Research Professors and Presidential Research Professors are identified in the faculty listings of their respective academic departments.

Presidential Teaching Professorships and Distinguished Teaching Professorships

The NIU Presidential Teaching Professorships were established in 1991 to recognize and support faculty who excel in the practice of teaching. Recipients of this award have demonstrated over time their commitment to and success in the many activities associated with outstanding teaching. Up to three such professorships are granted each year, providing budgetary support and released time for the enhancement of their teaching activities. After four years as a Presidential Teaching Professor, each of these eminent faculty members is designated a Distinguished Teaching Professor. Distinguished Teaching Professors and Presidential Teaching Professors are identified in the faculty listings of their respective academic departments.

External Support for Research and Development

The Office of Sponsored Projects provides a wide range of assistance in the development of proposals for external project funding. The office staff is available by appointment to discuss research projects and to advise applicants concerning strategies and procedures for obtaining grant or contract support. A Graduate Student Grants and Fellowships Office website specifically provides information on external support available for graduate students. See www.grad.niu.edu/gsgfo/index.html.

The Technology Commercialization Office is the university's intellectual property office. The office provides assistance in the assessment and screening of new technology and in the protection and commercialization of intellectual property by administering institutional policies pertaining to patents, copyrights, and licensing.

Resources for University Research and Public Service

The university maintains a wide range of research facilities, offices, and resources to facilitate a variety of research and public service activities. These include the following.

Information Technology

At NIU students can access more than 1,500 computers for research, instruction, and individual use in academic departments, classrooms, and student computing labs. The many platforms represented include Windows, Macintosh, NetWare, OS/390, Linux, and Unix. The Information Technology Services and ResTech helpdesks provide end-user support for many technologies. The ITS Mobility Support Team assists users with wireless devices, smartphones, and personal digital assistants (PDAs).

General access computing labs feature PIV 1.8 GHz or faster computers, CD ROM, and/or CD burners, networked laser printers, and full-color scanners with document feeders and optical character recognition (OCR) software. All feature front/side USB, headphone, and microphone access. Most student computing labs feature Windows XP, office productivity software, Internet browsers, and various adaptive technologies for students with disabilities. In addition, statistical analysis packages such as SAS and SPSS are provided. Macintosh computers running OSX are available in labs that support the graphic arts programs. Mainframe computing is offered in an OS/390 environment. Volume purchasing of software extends savings to the university community.

NIUNet puts NIU in touch with the Abilene network: the North American proving ground for high bandwidth technologies. NIU Information Technology Services manages this 175-mile ultra-fast, fiber-optic communications network that accesses Internet2, as well as more than 50 worldwide networks. Inside, a layer-3 switched environment ensures the local network facilitates information rapidly. Wireless network connectivity is available in most public buildings and residence halls.

NIU's telephone systems include standard and advanced calling features and services such as roaming authorization codes, caller ID, voice mail, plus many more. Call tracing and caller ID blocking are offered for enhanced security.

For more information, call Information Technology Services at (815) 753-8100, or visit www.its.niu.edu.

Historical Scenic Collection

Housed in the Arts Annex of NIU's College of Visual and Performing Arts, the Lyric Opera of Chicago/Northern Illinois University Historical Scenic Collection includes elements from the settings

of almost 90 operas, with an excess of 5 million square feet of painted surfaces, and represents a comprehensive depository of primary scenic materials from the American operatic theatre at the end of the 19th and beginning of the 20th centuries. The contents include almost the entire repertoire of operas produced by Oscar Hammerstein's Manhattan Opera Company and traces the inception, rise, and development of resident opera in Chicago, culminating with the demise of the Civic Opera Company in 1932. The collection preserves for the historian, designer, practitioner, and public a magnificent period of opera design and scene painting.

Interdisciplinary Academic Centers

Several centers encourage and coordinate multidisciplinary research and graduate study. The following are described in the "Interdisciplinary Academic Centers and Courses" section in the back of this catalog.

Center for Biochemical and Biophysical Studies
Center for Burma Studies
Center for Governmental Studies
Center for Latino and Latin American Studies
Center for Southeast Asian Studies
Plant Molecular Biology Center

Illinois Council on Economic Education

The Illinois Council on Economic Education coordinates the continuing education activities of seven university centers for economic education throughout the state. The council's activities involve inservice and preservice teacher training in economics and personal finance and the development, distribution, and evaluation of economic education materials. The council also offers services for students, adults, employee groups, and other interested community and professional groups.

The NIU regional Office for Economic Education is one of seven centers in the Illinois Council network. The NIU office provides services, materials, and consultation to school systems throughout 15 counties in northern Illinois. Thirty-six school systems in this region are formally committed to economic literacy through the Economics America Schools Program. Graduate-level courses for teachers, workshops and awareness programs, curriculum review, and classroom materials for teaching economics are among the offerings available through the Office for Economic Education.

Inter-University Consortium for Political and Social Research (ICPSR)

Northern Illinois University is a member institution in the Inter-University Consortium for Political and Social Research (ICPSR). The Consortium was founded in 1962 as a partnership between the Center for Political Studies of the University of Michigan and some 190 other universities, colleges, and nonprofit research organizations in the United States and abroad. It is committed to interdisciplinary inter-university research and training for the social sciences. Its objectives are to maintain archives of machine-readable social and political data sets that will serve a variety of research and training needs; to develop and distribute computerbased systems for the analysis of these data sets; and to conduct training in the use of quantitative methods for social science investigations.

ICPSR is based at the Institute for Social Research at the University of Michigan. A liaison office in the Social Science Research Institute (SSRI) at NIU provides a link for the campus to Consortium archives and other services. Research areas are international in scope. The data sets range from U.S. election returns and U.S. Census data to public opinion surveys. A substantial number of data files on social structure, public policy, economics, health, and political life in over 130 other countries are also available. These data sets lend themselves to comparative research, particularly on modernization processes and social change in many nations. Access to these data is generally via Superwylbur; however, some data files are now available for PC use. For detailed holdings of data available from ICPSR, faculty and students are encouraged to consult copies of the ICPSR *Guide to Resources and Services* that the SSRI provides to chairs of all social sciences departments on campus or the ICPSR home page at www.icpsr.umich.edu.

The Roper Center

Established in 1946, the Roper Center is the oldest and largest archive of sample survey data in the world. The raw data and supporting documentation from thousands of individual studies, carried out in more than 70 countries, have been deposited in the center through the cooperative efforts of the world's major survey research organizations. Center services include data set duplication, information retrieval, and computer data analysis.

Northern Illinois University is a member institution of the International Survey Library Association, which is an active partnership between the Roper Center and the academic community. This affiliation provides NIU faculty and students with access to center data services.

Included in the center's holdings are surveys by Gallup, Harris, Roper, Yankelovich Clancy Shulman, the National Opinion Research Center (NORC), the Opinion Research Corporation, CBS News/*New York Times*, ABC News/*Washington Post*, NBC News/*Wall Street Journal*, CNN/*USA Today, Los Angeles Times,* Canadian Gallup, Social Surveys LTD (Gallup) in the UK, and Brule Ville Associes in France. Questions and marginals from the surveys archived at the center can be accessed on-line and frequently the data sets themselves can be obtained.

Regional History Center and University Archives

The Regional History Center has as its basic goal to acquire, preserve, and make available to the public the most significant historical records of the northern Illinois region. The center actively collects historical material from the 18 northernmost counties of Illinois, excluding Cook County. Since 1964 the center has evolved from a small university archival unit to a multi-faceted research center containing three related sets of historical records available to researchers: Regional Collections, University Archives, and Local Government Records.

Holdings in the Regional Collections include original manuscripts and records generated by private individuals, institutions, and organizations from throughout the area, with particular emphasis on several major themes in the region's history: agriculture, politics, ethnic heritage, commerce and industry, the role of women, and urban expansion. University records that have permanent historical or administrative value are housed in the University Archives. These materials include Illinois Board of Higher Education and governing board proceedings, records of university administrative offices, faculty papers, records of student government and organizations, a range of publications, and extensive photographs of campus life. The Local Government Records collection, as part of the Illinois Archives Depository system administered by the Illinois State Archives, has the responsibility of preserving local public records and making them available to researchers.

University Libraries

The Northern Illinois University Libraries system consists of Founders Memorial Library and branch libraries which include Faraday Library, the Map Library, the Music Library, NIU Hoffman Estates Library, NIU Naperville Resource Center, NIU Rockford Library, and the Regional History Center/University Archives. The University Libraries collections contain over 2 million volumes as well as numerous periodicals, government publications, microforms, maps, recordings, audiovisual materials, and electronic databases.

Founders Memorial Library, the main library, has five levels with 290,000 square feet of space and seating capacity for 1,600 students. Faraday Library serves faculty and students in the disciplines of chemistry and physics. Similarly, the Music Library serves the music curriculum and the Map Library contains maps and atlases important to research in geography and geology. NIU Hoffman Estates Library, NIU Naperville Resource Center, and NIU Rockford Library service the information needs of library users at those sites.

For further information, see “University Libraries” in the “Other Academic Units” section of this catalog.

University Press

Founded in 1965, the Northern Illinois University Press publishes scholarly work and books of general interest. Most of its books are in the humanities and social sciences, but it also publishes in various fields of science and the arts. Regional topics are a special focus. Seeking to advance knowledge about its region, the press has published a wide range of books on the archaeology, history, literature, and culture of northern Illinois and Chicago. At present, there are about 300 titles in print.

The publication of any book through the NIU Press must be approved by the University Press Board, a faculty committee made up of representatives of the colleges and chaired by the vice president for research and graduate studies. The main function of the board is to assure high standards of quality in all the publications of the university press.

One of three state-supported presses in Illinois, the NIU Press has been a member of the Association of American University Presses since 1972.

SummerNITE

SummerNITE [Northern Illinois Theatre Ensemble] is the professional Equity company of NIU’s School of Theatre and Dance which performs in Chicago, throughout the northern Illinois region, and internationally. The goals of the company are to produce new works of distinction, to present Chicago-area premieres, to bring quality professional theatre to northern Illinois, and to provide an opportunity for Northern Illinois University theatre arts students to work with Equity artists, on and off stage, while working toward full membership in Actor’s Equity.

University Services

University Office Hours

Most administrative offices are open Monday through Friday from 8 a.m. to 12 noon, and from 1 to 4:30 p.m. University office hours are subject to change. For information consult the *Schedule of Classes.* All offices are closed on legal holidays.

Holmes Student Center

The Holmes Student Center provides recreational facilities, informal gathering places, eating places, meeting and conference rooms, and an 80-room hotel for members of the university community and their guests. Included are the Duke Ellington Ballroom and Sandburg Auditorium for major performances and lectures; Diversions, a multipurpose facility for coffeehouse and club-style live entertainment; the Center Gallery, which displays art works of many student artists; the University ID Office; two computer laboratories which are available for use by all NIU students; the Huskies Den, which offers electronic games, billiard tables, and a 16-lane bowling center; and the University Bookstore which sells textbooks, general books, school and art supplies, and personal items.

Tickets to most campus events may be acquired or purchased in the center. The facility provides copy machines, a full-service bank, and Automatic Teller Machines. Students can cash checks, study in the gallery lounge, or relax in the television lounge. At the Holmes Center information desk, students can purchase newspapers and get directions and information on events and activities in the center.

Housing

Campus Living

NIU offers accommodating living arrangements for graduate students in its university residence halls and apartments. Living on campus gives students quick access to the Huskie Bus line, hot meals seven days a week, a variety of living options, as well as a supportive academic environment.

The university residence halls are an affordable option for graduate students. The residence halls include every utility, including cable, Internet, heat, gas, water, garbage, electric, and a university-wide phone (caller ID, voice mail). Each residence hall has a computer lab open 24/7 to meet the needs of students. Lobbies and common areas are equipped with wireless Internet and each residence hall room has its own high-speed Internet connection. Other amenities available to hall residents include quiet study lounges, 24-hour security, on-site laundry, vending machines, and photocopiers.

A contract to live in the residence halls comes complete with a meal plan for the semester in three incremental weekly amounts. Residents can choose to eat in any of the dining units in the halls, including à la carte food courts, all-you-care-to-eat buffets, and grab-'n-go stores. There is a dining option available to residents from 7:00 a.m. until 11:00 p.m. five days a week, with weekend hours varying. Each residence hall room also comes equipped with a refrigerator/freezer/microwave for in-room meal preparation.

Residence hall contracts cover the entire academic year with optional interim contracts available during the winter and spring break periods. Summer housing is also available. Applications are available from Housing and Dining, located in East Neptune Hall. Housing and Dining can be reached at (815) 753-1525 or online at www.housing-dining.niu.edu.

NIU also provides housing options at University Apartment Complex, located at 501 North Annie Glidden Road, near Lincoln Hall. The University Apartments are an excellent alternative to the residence halls without the hassle of a third-party landlord. There are 80 units—40 efficiency and 40 one-bedroom units—available for graduate students, nontraditional-aged undergraduates, married students, and single parents.

The University Apartments offers a 9-month lease, which begins in August, with an option to extend it through the summer. Rent includes gas, water, electricity, TV/FM cable, stove, refrigerator, and air conditioner. A telephone is also provided at each unit but the tenant is responsible for all incurred telephone charges. For more details, please contact the Residential Administration Office, (815) 753-1525.

Off-Campus Housing Services

The Office of Off-Campus Housing Services, East Neptune Hall lobby, acts as a clearinghouse for information on rental properties in the DeKalb area. Staff is available from 12-4 p.m. weekdays to assist in locating a roommate or a place to live. Rental listings are also available on the Internet at www.och.niu.edu, or call (815) 753-7407.

University Health Service

The University Health Service (UHS) offers a wide variety of high quality, out-patient health care services to NIU students to assist with maintaining and improving their health. The UHS also provides general and preventive health education programs as well as services for persons with disabilities. The UHS physicians, nurse practitioners, nurses, and other professional and support staff have extensive experience in college health and are sensitive to the special needs of the college community. UHS physicians are trained and experienced in primary care specialties. The high quality of UHS services is recognized through accreditation by the Accreditation Association for Ambulatory Health Care.

The Health Service is available to all full- or part-time students who are currently enrolled on the DeKalb campus and have been assessed on-campus student (activity) fees. There are no charges for physician or provider services, x-rays, most laboratory tests, physical therapy, and most other services. There are charges for medications, immunizations, specialized medical procedures and supplies, selected laboratory tests, and missed appointments. Students may use the UHS without being enrolled in the university's Student Injury and Sickness Insurance Plan or a private health insurance plan.

The UHS services include the following.
Acute Care–services for injuries and acute illnesses including selected minor surgical procedures.
Allergy Injections–using the schedule and serum provided by the student's allergist.

Center for Access-Ability Resources (CAAR)–advocacy and support services for persons with a variety of disabilities.
General Medical–assessment and treatment of acute and chronic medical conditions.
Health Enhancement Services (HES)–resources, workshops, presentations, web-based educational programs, and other educational services to promote health and to prevent disease.
Laboratory–a full range of laboratory testing available.
Nutrition– counseling regarding general and specialized nutrition needs including weight management and eating disorders.
Pharmacy–filling of prescriptions from physicians, advanced practice nurses, physician assistants, dentists, or oral surgeons.
Physical Therapy–treatment and rehabilitation of acute injuries and chronic disabilities upon physician referral.
Preventive Medicine–immunizations (including hepatitis B and meningococcal meningitis vaccines), HIV testing, travel immunizations and information, and tuberculosis testing.
Psychiatry–individual out-patient psychiatric evaluation, medication therapy, and/or referral.
Radiology–general diagnostic including x-ray examinations, fluoroscopic, and sport medicine studies, as well as spirometry and electrocardiography (EKGs) ordered by UHS physicians.
Women's Health–thoughtful, private care and management of women's health issues with emphasis on prevention and personal responsibility.

Appointments are required for medical, nutrition, physical therapy, psychiatry, and women's health visits. Appointments are needed for some services in preventive medicine including HIV testing and travel information/immunizations. Fees are charged for missed appointments. To schedule or cancel an appointment in advance, call (815) 753-1311. For preventive medicine appointments, call 753-9759.

Students are responsible for the cost of all health care services received outside the UHS, including referrals. The university offers an affordable Student Injury and Sickness Insurance Plan that assists students with paying these medical expenses. For more information regarding this insurance plan, call the Student Insurance Office at (815) 753-0122. For additional information regarding the Health Service, call (815) 753-1311.

Student Health Insurance

Students who register for 9 or more semester hours on-campus in DeKalb by the 30th calendar day of the semester are automatically assessed the fee for student insurance on their tuition account through the Bursar's Office. The student insurance plan provides coverage for hospitalization and/or medical treatment for injury and sicknesses 24 hours a day anywhere in the world.

Students enrolled for 6-8 semester hours may elect to purchase student insurance. Student insurance is also available by application to students enrolled for 6 or more semester hours at regional sites. Students wanting this option must apply in person to the Student Insurance Office by the 15th calendar day of the semester to enroll for coverage.

All international students and students studying abroad are required to carry the student insurance. These students are automatically charged the fee for student insurance if they register for at least one semester hour by the 30th calendar day of the semester.

Eligible dependents of insured students, including spouse and unmarried children, may also be insured. The insured student may apply for dependent coverage at the Student Insurance Office on or before the 15th calendar day of the semester.

Students who have been assessed the student insurance fee may apply for cancellation by completing the on-line Academic Year Waiver Process on or before the 15th calendar day of the semester. Reinstatement is available during open enrollment periods or within 60 days of being removed from alternate coverage. Contact the Student Insurance Office for information.

Students (and their dependents) who are insured for the spring semester are automatically covered through the summer whether or not they enroll in the summer session. New students entering the university for summer session who are registered for 6 or more semester hours may elect to purchase student insurance for themselves and their dependents by making application at the Student Insurance Office during the first five days of the summer session.

Students who withdraw from the university due to medical reasons must immediately contact the University Health Service and the Office of Student Affairs as well as their college advisement office if they have paid for and wish to retain their student insurance coverage. For information regarding refunds, see "Refund Policies."

Information concerning the health insurance may be obtained from the Student Insurance Office located in Health Services, Room 201 (753-0122).

Service Centers, Offices, and Agencies

Center for Access-Ability Resources

In concordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act, the university provides support services for students with a variety of disabilities. A wide range of services can be obtained including, but not limited to, housing, transportation, adaptation of printed materials, testing accommodations, sign language interpreters, and advocacy with faculty and staff. Students wishing to request services or who want more information should contact the Center for Access-Ability Resources, fourth floor, Health Services Building, (815) 753-1303 (voice) or (815) 753-3000 (TTY). Verification of disability and the request for service need to be received in a timely manner so that services may be arranged and provided.

Students desiring consideration of special accommodations with respect to course work or other academic activities should see "Accommodations for Students with Disabilities."

Counseling and Student Development Center

The Counseling and Student Development Center supports the academic, vocational, emotional, social, and cultural development of students by offering assessment, counseling, outreach, consultation, training, and educational services. These services help students resolve personal difficulties and acquire the attitudes, abilities, and knowledge that will enable them to take full advantage of their college experience and be successful. The center provides an atmosphere that is welcoming and comfortable for all individuals, regardless of race, gender, ethnic background, age, sexual orientation, religion, citizenship, or disability, and embraces diversity and strives to foster and promote awareness, empathy, and cultural competence within a multicultural environment.

- Individual, group counseling, crisis intervention, and referral
- Substance abuse assessments, eating disorder assessments, and anger interventions
- Coaching for academic success (learning and study skills assistance)
- Workshops (in residence halls, classes, and other settings)
- Consultation (concerning mental health issues, programming, and organizations)
- Training for graduate students

Other Campus Human Service Agencies

The **Child Development Laboratory** (Gabel Hall, Rooms 169-170, 753-1150) provides child care programs for children ages 6 weeks to 6 years. Enrollment in all programs is open to the university and DeKalb communities, with half-day and full-day enrollments during academic terms. Children are enrolled based on available space, time of request, and their age. Assessment of each child's readiness for a group experience is made in early contacts. The facility is licensed by the Illinois Department of Children and Family Services for 45 children, and is a research and training facility for students in the child development emphasis offered by the School of Family, Consumer, and Nutrition Sciences. For more information, contact the Child Development Laboratory.

The **Counseling Laboratory** (Graham Hall, Room 416; 753-9312) offers counseling services to persons who want assistance improving their personality development, modifying self-defeating behavioral characteristics, or resolving personal, career, or educational dilemmas. Counselors are advanced graduate students in counseling. Services are free, except that a nominal fee may be charged for some psychological or career interest testing.

The **Family Center** (Wirtz Hall, Room 146, 753-1684) provides individual, couple, family, and group therapy services to students of NIU, and to all residents of DeKalb and the greater northern Illinois area. Therapists are advanced graduate students under the direct supervision of licensed marriage and family therapist faculty, who are also Approved Supervisors through the American Association for Marriage and Family Therapy. The graduate program in marriage and family therapy is accredited by the Council on Accreditation for Marriage and Family Therapy Education. The facility and program are part of the School of Family, Consumer, and Nutrition Sciences in the College of Health and Human Sciences.

The **Psychological Services Center** (Psychology Building, Room 86, 753-0591) offers a wide variety of psychological evaluation and psychotherapy. Clients range in age from young children to older adults. Most therapy is free of charge to full-time NIU students. A sliding fee scale is available for clients from the local community. The center is staffed by faculty and doctoral students in clinical psychology in the Department of Psychology.

The **Speech-Language-Hearing Clinic** (Lucinda Avenue, 753-1481) offers a comprehensive program of evaluation, rehabilitation, and counseling services for any student with a hearing loss and/or speech-language disorder. Hearing aids, accessories, and repairs are available. The clinic is a unit of the Department of Communicative Disorders.

Campus Child Care

Campus Child Care is a licensed facility which offers NIU students, faculty, and staff full- and part-time child care for their children ages 2 months - 5 years. In addition, school-age childcare is available during the summer session. The center is accredited by the National Academy of Early Childhood Programs, which serves as an indicator of a high-quality program. The center is staffed with qualified teachers along with student workers who serve as teacher aides in the classrooms. The center is open Monday through Friday, 7:15 a.m. to 5:45 p.m. during the fall, spring, and summer sessions. Full-time child care is also available between semesters for those who need year-round child care. For more information, contact Campus Child Care at 753-0125.

Career Services

Career Services helps graduate students secure internships and full-time employment through a centralized department serving all the colleges, departments, and majors. Career counselors are available to assist NIU graduate students make career decisions, discuss career transitioning and develop plans to build "experience" into their educational program through internships, and search for full-time employment.
Besides offering individual career counseling about career and job-related concerns, the following services are offered through Career Services.

- Help with career decision making including a website for majors, with corresponding career options, at www.niu.edu/careerservices/Weblinks/
- Online postings for internships and full-time positions through Victor eRecruiting at www.niu.edu/careerservices
- Walk-in and online resume and cover letter reviews
- Career testing
- University-wide job fairs, internship fairs, and Educators' Job Fair
- Assistance in the application process for graduate/professional school
- Permanent credential files for students in the field of education
- A Career Resource Center containing a library of books, brochures, and directories describing various careers, as well as computers that can be used in job search and resume/cover letter preparation

Career Services is located in the Campus Life Building, Room 220, and is open all year from 8:00 a.m. to 4:30 p.m., Monday through Friday. Staff members are available for graduate students on an individual basis during these hours. More information about Career Services may be obtained online at www.niu.edu/careerservices or by calling 815-753-1641.

Recreation Services

Recreation Services, located in the Student Recreation Center, provides exceptional opportunities for students to participate in a variety of recreational and sport activities.

The Student Recreation Center offers state-of-the-art exercise equipment and an abundance of court space. The 150,000 square-foot facility houses a 6,000 square-foot cardiovascular exercise room; 11 racquetball courts; eight multipurpose courts used for basketball, volleyball, tennis, and badminton; table tennis; a free weight room; a jogging track; two activity/aerobics rooms; an Outing Centre; and locker rooms with saunas.

The renovated Chick Evans Field House provides approximately 80,000 square feet of additional space for exercise, recreation programs, and academics. Two multipurpose courts for basketball and volleyball, and two boarded courts for indoor soccer and floor hockey compose the majority of the field house space. A three-lane run/walk track, two activity rooms for group exercise classes and martial arts training, two smart classrooms for various academic courses, and locker rooms are also available. The fitness center provides more than 20 pieces of cardiovascular exercise equipment including treadmills, elliptical trainers, recumbent bikes, stretch trainers, and a 12-station multi-trainer for strength workouts.

A variety of fitness opportunities are available to those students interested in keeping fit. Students can join group exercise classes including step, yoga, spinning, and kickboxing, to name a few. Students can receive nutritional as well as weight training consultations, and have a personal trainer develop a complete fitness program to suit their needs.

Competitive individual, dual, and team sports activities are available to all students through the intramural sports program. Students can enjoy competition in basketball, volleyball, soccer, flag football, and much more.

The Student Recreation Center houses a large Outing Centre with a variety of equipment available for student checkout. Cross-

country skis, camping equipment, roller blades, ice skates, and much more can be enjoyed. Backpacking, canoeing, kayaking, rock climbing, skiing, and other trips are scheduled throughout the year through the Outing Centre.

The Sport Clubs program within Recreation Services provides opportunities to develop individual skills in special activities and offers competition with similar clubs at other institutions. NIU offers an abundance of sport clubs including lacrosse, hockey, fencing, soccer, rugby, and more.

Recreation Services offers student employment opportunities in the areas of facility supervision, sport officiating, fitness instruction, outdoor trip leading, and clerical support.

Parking

Parking permits are required on campus unless pay parking is utilized. Parking facilities are limited and controlled. Parking lots are color-coded; all vehicles, including motorcycles and mopeds, must display an appropriate permit. Special parking privileges are extended to handicapped persons and to individuals who are temporarily disabled. For further information, contact Campus Parking Services, located on the corner of Normal Road and Lincoln Terrace, at (815) 753-1045.

Fifteen-minute loading and unloading spaces are scattered throughout campus and require no special identification other than the use of the vehicle's emergency flashers.

Campus Transportation

NIU maintains the largest student-run university bus system in Illinois. The 13-bus system, governed by the Student Association Mass Transit Board, provides free transportation for all fee-paying students to campus and the DeKalb community. The Huskie buses are in operation seven days a week while school is in session during the fall and spring semesters, during winter and spring break, and for limited hours during summer school. All Huskie buses are equipped with chair lifts to provide all students easy access to and from campus, shopping, and entertainment areas. For more information, call the Student Association at (815) 753-9922.

In conjunction with the University Police, the Mass Transit Board runs Late Nite Ride Service, which provides free safe passage home for students. The service operates Friday and Saturday nights from 2 a.m. to 6 a.m. and can be reached at 753-2222.

Through the Mass Transit Board and the Center for Access-Ability Resources, the NIU Student Association operates the FREEDOMMOBILE which provides transportation around the campus and vicinity for students with disabilities. During winter months class-to-class transportation is available for students with a qualifying disability. For more information, call the Center for Access-Ability Resources at (815) 753-1303.

Students' Legal Assistance Office

Two Illinois attorneys and their staff provide legal information and assistance to eligible fee-paying NIU students. The office handles a large variety of cases including landlord-tenant, criminal misdemeanor, traffic, consumer, discrimination, tort, public benefits, employment, and domestic relations. It is preferred that appointments be made. The offices are located in the Holmes Student Center and can be reached by calling 753-1701.

The office is funded by the NIU Student Association. The attorneys are prevented by their contracts and the Code of Professional Ethics from handling matters relating to NIU and matters between NIU students. Persons able to procure private counsel are not eligible for litigational representation.

In addition to direct legal services, the lawyers have instituted a mediation service to handle problems between students and have developed an extensive "preventative-law" program designed to prevent problems through community education. Handout materials include a *Dispute Resolution Handbook, Tenant/ Landlord Handbook, Roommate Survival Guide, Preventing Sexual Assault Handbook, Used Car Buyer's Guide, Traffic Ticket Handbook*, and legal forms including subleases, room condition reports, and roommate agreements.

Office of the Ombudsman

The Office of the Ombudsman provides members of the university community neutral and confidential assistance and advice regarding university-related concerns. Any type of concern may be discussed: academic, financial, housing, consumer, work related, or personal. Members of the office staff will listen to concerns, discuss options, and offer suggestions and advice from a neutral and objective point of view that may assist in the resolution of the concern. Distinctive services of the office include clarification of university policies and procedures, advice regarding appropriate strategic approaches, and specific direction and referral to appropriate individuals and offices on campus.

As designated neutrals, staff members in the office are prohibited from advocating on behalf of any individual but can suggest others who can serve as potential advocates if necessary. Due to the strictly confidential nature of communications with the Office of the Ombudsman, disclosures to the office do not constitute notice to the university.

Mediation services, direction and referral to appropriate individuals and offices, and clarification of university policies and procedures are distinctive services of the office. All communications with the Office of the Ombudsman are held in strict confidence.

The Office of the Ombudsman is located in the Holmes Student Center, Room 601. Appointments may be made by calling 753-1414.

International Student and Faculty Office

The International Student and Faculty Office provides a variety of services for international (foreign) students and faculty. For further information see "International Programs."

Center for Black Studies

The Center for Black Studies is an academic and research center that collects and analyzes data on all aspects of minority experiences, particularly those of people of African descent. The center also coordinates an interdisciplinary undergraduate minor in black studies. In addition, the center seeks to stimulate students' professional and career interests through the sponsorship of various distinguished speakers and cultural events.

Latino Resource Center

The Latino Resource Center offers a variety of services to assist, encourage, and inspire Latino NIU students to engage and succeed in their pursuit of learning and to grow as campus and community leaders. Some of the services available include retention programs such as the Latina Assistance Program, Supporting Opportunities for Latinos, and Mentoring for Academic Success. The Latino Resource Center also provides cultural programming and makes referrals to appropriate offices for information and assistance with academic, social, and career opportunities. The center houses a top-of-the-line computer laboratory, library, and meeting rooms for student use.

Women's Resource Center

The Women's Resource Center offers information, programs, and services to NIU's community of women, including students,

faculty, and staff. The office is especially interested in serving women returning to school, students who have dependents, and nontraditional students. The staff provides workshops and group and individual consultations on career development, life transitions, personal effectiveness, academic skills, and leadership development. The office maintains an up-to-date listing of services available to students from campus and community service providers, and provides short-term counseling, referrals for more extensive services, and information resources related to women's special concerns. Located at 105 Normal Road, the office is accessible to disabled persons. For more information call (815)753-0320.

Office of Testing Services

The Office of Testing Services, located in Adams Hall, provides a variety of services to students and faculty. This office administers many of the tests associated with course placement, departmental qualification requirements, university graduation requirements, and admission to graduate and professional schools. Testing Services maintains files of test scores and serves as the campus location to which scores on tests taken at other institutions or test centers may be directed.

Regional Programs

Graduate credit courses are offered at regional sites by the Colleges of Business, Education, Engineering and Engineering Technology, Health and Human Sciences, Liberal Arts and Sciences, and Visual and Performing Arts. For a list of regional course locations, students should consult the spring, summer, and fall *Schedule of Classes* or the "campuses and courses" quick link off the NIU home page (www.niu.edu). In addition, the Illinois Board of Higher Education has authorized several NIU graduate degree programs to be offered in their totality in the Hoffman Estates, DuPage, and Rockford areas.

- College of Business: M.A.S., M.B.A., M.S.T., and M.S. in Management Information Systems
- College of Education: M.S.Ed. in adult and higher education, counseling, curriculum and instruction, early childhood education, educational administration, elementary education, instructional technology, literacy education, school business management, and special education
- College of Engineering and Engineering Technology: M.S. in electrical engineering and mechanical engineering
- College of Health and Human Sciences: M.P.H. and M.S. in nursing
- College of Liberal Arts and Sciences: M.P.A. and M.S. in computer science

Students admitted to the NIU Graduate School or accepted as students-at-large may enroll in courses offered at regional sites for graduate credit. Adult students who are exploring various disciplines before formal commitment to a degree program may enroll under the student-at-large status in these courses. Students should consult with graduate advisers in their chosen field, and should become familiar with the regulations in this catalog, to determine the amount of credit earned as a student-at-large that may be applied to their graduate degree programs.

The university also provides experiences for personal and professional development in a variety of appropriate formats, such as one-day workshops, seminars, conferences, training programs, short courses, distance-learning courses, guided individual study courses, and consultations. Enlisting the instructional and research expertise of a diverse faculty, the university matches these resources with the articulated needs of practicing professionals. Many of these short courses are tailored to meet the professional needs of a particular agency or business. Others are offered more broadly, attracting participants from across professions, communities, and employers.

NIU Hoffman Estates, NIU Naperville, and NIU Rockford

The NIU centers at Hoffman Estates, Naperville, and Rockford function both as after-hours locations for NIU programs for adult learners and as facilities for corporate clients. As regional sites, the Hoffman Estates, Naperville, and Rockford centers provide evening and Saturday classroom and computer laboratory space for NIU's academic programs. The credit courses typically available at the centers are offered at the graduate level with a few at the upper-division, undergraduate level. All three facilities provide daytime space to businesses, organizations, and associations in a professional environment ideal for training sessions, meetings, and special events.

Offices on NIU's DeKalb campus handle all admissions, registration, advising, class scheduling, class materials, and specific information regarding classes offered at all regional locations.

University Advancement

The Division of University Advancement is responsible for increasing interest in and awareness and support of NIU. Programs within the division are responsible for building strong relationships with NIU alumni and friends, managing philanthropy to benefit the university, and marketing the university through print communications.

The Office of the Vice President for University Advancement provides administrative direction for the Offices of Alumni Relations, Development, and Publications, as well as being the ex officio liaison from the university to its two major volunteer boards: the NIU Alumni Association and the NIU Foundation.

Each year, alumni and friends of NIU make gifts that benefit scholarships, academic programs, facilities, libraries, athletics, and Northern Public Radio, as well as other endeavors. This support is in the form of direct gifts, bequests, insurance plans, trust funds, or property. Gifts to the university from private sources are channeled through the Office of Development and the Northern Illinois University Foundation.

Alumni Association

The mission of the NIU Alumni Association is to build lifelong relationships with NIU alumni and friends by communicating the message of excellence and creating opportunities for alumni and friends of the university to connect and interact with the university community. Alumni Association programs and activities include publication of *Northern Lights* and *Northern Now*; Alumni Scholarship Programs for current and incoming students which are funded by Alumni Association gifts and endowments; Homecoming; the NIU Student Alumni Association; the Senior Challenge fundraising program; the Alumni Awards Program; alumni travel programs; the alumni web pages and Internet portal page (www.myniu.com); Alumni Weekend and class reunions, the Huskie-2-Huskie mentoring program; alumni chapter and outreach programs; pre-game alumni receptions; new student Move-In Day activities; and Commencement Kick Off activities for graduating seniors.

For further information, contact the Alumni Association at (815) 753-1452, www.myniu.com.

Northern Illinois University Foundation

The Northern Illinois University Foundation is a nonprofit, tax-exempt corporation that secures and manages gifts of money, property, works of art, or other material having educational and historical value. It receives and administers such gifts to support university programs with supplemental resources where state funding is non-existent or inadequate. The foundation is governed by a board of directors consisting of elected representatives of alumni and friends. The foundation provides educational fundraising for the university. In addition to donor-restricted funds, the foundation awards grants to select faculty through its Opportunity Grants program and Strategic Initiatives Grants program.

For further information, contact the NIU Foundation at (815) 753-1048, www.niufoundation.org.

College of Business

Interim Dean: William J. Tallon, Ph.D.
Interim Associate Dean: Daniel R. Wunsch, Ph.D.

Department of Accountancy
Department of Finance
Department of Management
Department of Marketing
Department of Operations Management and Information Systems

College Mission Statement

The College of Business provides higher education and professional outreach in northern Illinois, participates in relevant activities at the national level, and is committed to raising students' awareness about the implications of international and global business operations. The college offers outstanding educational programs and academic services to students, faculty, business, and other stakeholders. The college endorses a balance between teaching and research while engaging in partnerships with the business community. The college focuses its efforts to continually improve the quality of instruction and scholarship to advance its disciplines and the success of all learners.

The College of Business is committed to preparing learners to succeed in the global business environment by delivering a dynamic and innovative curriculum that is technologically at the forefront; preparing a foundation for learners to engage in lifelong learning and achievement in a rapidly changing, increasingly diverse society; building partnerships both internal and external to the university to create mutual value; recruiting high quality undergraduate and graduate students and supporting their development towards achieving excellence in their careers; recruiting, supporting, and maintaining high quality faculty and staff in support of excellence in teaching, research, and operations.

Admission to Graduate Programs in Business

Admission to the various graduate programs in business is competitive and limited to those candidates who can demonstrate high promise of success in a graduate business degree program. In addition to compliance with the policies of the Graduate School, the College of Business considers several indicators of potential for success in graduate business studies including, but not limited to, the following.

- A minimum cumulative GPA of 2.75 (based on a 4.00 system) at the baccalaureate institution, or a minimum cumulative GPA of 2.75 in the last 60 hours of the baccalaureate program, or the completion of 15 or more semester hours of graduate work at an accredited institution with a minimum GPA of 3.20.
- The total score and verbal and quantitative percentiles, and where available the analytical writing assessment (AWA) score, on the GMAT standards set by the individual graduate programs in business.
- Work experience at the post-baccalaureate level, where applicable.
- Leadership and communication skills as documented in a goals statement and resume.
- A minimum of two letters of recommendation.
- Submission of results on the Test of English as a Foreign Language (TOEFL) for all applicants whose native language is not English.

At the discretion of the respective program directors, candidates may be required to come in for an interview or to submit additional materials deemed important in assessing potential for success in graduate business studies.

Graduate Study in Business

The College of Business offers the Master of Business Administration (M.B.A.), the Master of Accounting Science (M.A.S.) with an area of study, the Master of Science in Taxation (M.S.T.), and the Master of Science (M.S.) in management information systems. These programs are accredited by AACSB International–The Association to Advance Collegiate Schools of Business.

All master's degree programs consist of two phases. Phase One course work is considered to be the foundation for Phase Two graduate course work. All students must have access to business library material and a personal computer with World Wide Web, spreadsheet, and word processing software.

Limitation of Time

All Phase Two requirements must be met within six consecutive years. This time limitation commences with entry into the first Phase Two course, including work for which transfer credit is allowed. If a course taken to complete the requirements for Phase Two does not fall within the six-year period allowed for the degree, the student must demonstrate currency by examination or by repeating the course.

Students-at-Large

Students-at-large are normally prohibited from registering for graduate business courses.

Phase One

The Phase One foundations consist of nine 2-semester-hour courses. Phase One foundation courses will be included in a student's program of study unless she or he has earned a C or better in corresponding undergraduate courses or a B or better in equivalent graduate courses elsewhere, or has passed the first and only attempt of the Phase One exemption examination. The student's program director will determine which Phase One graduate courses will be included in each student's program of courses. Phase One courses may not be used as Phase Two electives; credit earned in Phase One will not count toward the Phase Two requirements.

Phase One consists of 18 semester hours.

ACCY 505 - Financial Accounting Concepts (2)
FINA 500 - Survey of Business Economics (2)
FINA 505 - Fundamentals of Financial Management (2)
MGMT 505 - Principles of Management (2)
MGMT 511 - Legal Aspects of Business (2)
MKTG 505 - Graduate Survey of Marketing (2)
OMIS 505 - Principles of Operations Management (2)
OMIS 507 - Business Information Systems (2)
OMIS 524 - Business Statistics (2)

The Phase One prerequisite of finite mathematics or a first course in calculus should be completed prior to entering a graduate program in business.

Phase Two

See the master's degree program requirements in the appropriate department section for specific Phase Two requirements. Students must file and follow an approved program of courses.

Master of Business Administration

The M.B.A. program is designed to serve business and other organizations by preparing students to be leaders. The themes of a global view of business, leadership, ethics, and communication are important and integral parts of the program. Students are encouraged to integrate these themes into term papers, case presentations, and classroom discussions.

Admission

Admission to the M.B.A. program is competitive and limited to those who can demonstrate high promise of success. The College of Business considers several indicators of success including, but not limited to, previous academic accomplishments, demonstrated leadership, communication skills, letters of recommendation, and scores on the verbal and quantitative sections of the GMAT. All candidates are expected to have some minimal competencies in computer, mathematics, and communications skills. The College of Business requires other material in addition to that required by the Graduate School for the admission process. Contact the Office of M.B.A. Programs for details.

Credit Requirements

For those with the minimum competencies mentioned above but without prior preparation in the business area, the M.B.A. may require a maximum of 48 semester hours. However, an individual student's program may require fewer semester hours depending on the student's previous education in business and economics.

In addition to maintaining a minimum GPA of 3.00 in all graduate course work completed in the program at NIU, the student must maintain a minimum GPA of 3.00 in all graduate course work completed in Phase Two.

Limitation of Time

The student must fulfill all Phase Two requirements for the M.B.A. within the six consecutive years immediately preceding the date of the student's graduation from that degree program. This time limit applies to all Phase Two graduate course work in the student's program including work for which transfer credit is allowed.

If an NIU course taken to complete the requirements of Phase Two does not fall within the time limitation indicated in the preceding paragraph, the student may be required to retake the course for credit or may be allowed to demonstrate current knowledge of the subject matter. In the latter case, currency must be demonstrated to the satisfaction of the department offering the course through successful completion of an appropriate examination or other assessment if available from the department. Otherwise, the outdated course work must be deleted from, and other course work must be substituted in, the program of courses. Transfer courses falling outside the limitation of time cannot be used in a graduate program.

Courses for Which Graduate Credit is Allowed

At NIU only courses which are numbered 400-499, 500-599, and 600-699 carry credit toward the master's degree. See "Graduate Credit for 400-level Courses." No more than 6 semester hours of credit earned in courses numbered 400-499 may be applied to Phase Two of the M.B.A. program.

Student-at-Large, Study-Abroad, and Transfer Credit

Students-at-large are normally prohibited from registering for graduate business courses.

The total Phase Two credit accepted in transfer from other accredited institutions may not exceed 9 semester hours. The total Phase Two credit earned from NIU graduate study-abroad courses may not exceed 9 semester hours. The Phase Two combination of transfer credit and credit earned from NIU graduate study-abroad courses may not exceed 15 semester hours. These semester-hour limits may be exceeded on a program of courses only by the use of transfer courses and only if the total number of semester hours required on the program of courses exceeds the minimum requirements for that major by at least the same number of hours.

Phase One Requirements

See Phase One requirements listed under "Graduate Study in Business" above.

Phase Two Requirements

Phase Two consists of a total of 30 semester hours. Students are required to take a minimum of 24 semester hours of Phase Two course work in classes reserved exclusively for admitted graduate students. Upon approval of the Office of M.B.A. Programs, a maximum of 6 semester hours of 400-level courses offered for graduate credit may be included in a student's Phase Two program of courses.

Attendance in three College of Business colloquia as designated by the Office of M.B.A. Programs is required prior to graduation. Exception to this requirement may be approved by the Office of M.B.A. Programs.

Course Requirements

ACCY 630 - Managerial Accounting Concepts (3)
FINA 607 - Financial Analysis (3)
MGMT 635 - Organizational Behavior (3)
MGMT 672 - Strategic Management and Policy (3)
MKTG 654 - Marketing Management (3)
OMIS 627 - Operations Analysis (3)
OMIS 640 - Management of Information Systems Technology (3)
Elective courses may be selected from among the graduate course offerings in the College of Business, or elsewhere in the university with the prior approval of the student's M.B.A. academic adviser, and should be used to meet particular career objectives.

Course Sequencing

All Phase One course work must be completed prior to enrollment in FINA 607, MGMT 635, MKTG 654, and OMIS 627.

FINA 607, MGMT 635, MKTG 654, and OMIS 627 must be completed prior to enrollment in MGMT 672.

Application for Graduation

When nearing completion of requirements for a degree, a student must file an application for graduation with the Graduate School. See “Graduation.”

Executive Master of Business Administration

The executive M.B.A. program is designed to meet the needs of working executives who desire to earn the degree while continuing to work full time in an organization. Students must have had five or more years of previous managerial experience and be sponsored by their employer. While participating in the executive M.B.A., students continue working full time. Courses are offered on Saturdays for four semesters. Students may begin the executive M.B.A. only in the fall semester. For further information contact the executive M.B.A. office, (815) 753-0257.

Professional Master of Business Administration

The one-year professional M.B.A. is designed for working professionals who desire to earn the degree in an accelerated evening format while continuing to work full time in an organization. Students must have completed an undergraduate degree in business and have had five or more years of work experience prior to starting the professional M.B.A. Courses are offered in the evening, meeting two nights per week. Students may begin the professional M.B.A. only in the spring semester. For further information contact the office of M.B.A. programs at (866) 648-6221.

International Business

The College of Business, through its courses dealing with international marketing, international finance, international management, travel seminars, and similar topics, is prepared to meet the needs of students who have interest and aptitude in the broad area of international business.

Interdisciplinary Courses Offered by the College of Business

UBUS 485. BUSINESS CONSULTING PROJECT (3). Supervised student team projects conducted with selected business organizations. Emphasis on collaborative efforts among students, faculty, and business representatives in a project management setting and the delivery of cross-functional business solutions. Implications for further research are also considered. PRQ: Consent of college.

UBUS 490. TOPICS IN BUSINESS (1 to 3). Selected topics from the various business disciplines. Course content includes an integration of the functional areas of business administration and topics of current importance. May be repeated to a maximum of 6 semester hours. PRQ: Consent of instructor.

UBUS 595. INTERNSHIP IN BUSINESS (3 to 6). Designed primarily for students lacking full-time business experience. Full-time work for a summer or a semester as an intern in a business firm under the supervision of a coordinator from the College of Business. No more than 3 semester hours may be applied to Phase Two program requirements. The only grades awarded are S, U, and I. PRQ: Consent of department.

Department of Accountancy (ACCY)

Chair: James C. Young

Graduate Faculty

Natalie T. Churyk, assistant professor, C.P.A., Ph.D., University of South Carolina
B. Douglas Clinton, associate professor, C.P.A., Ph.D., University of Texas at Arlington
C. William Cummings, associate professor, C.D.P., C.P.A., Ph.D., University of Missouri
Chih-Chen Lee, assistant professor, C.P.A., Ph.D., Southern Illinois University at Carbondale
Katrina L. Mantzke, assistant professor, C.P.A., Ph.D., University of Wisconsin
Rebecca T. Shortridge, assistant professor, C.P.A., Ph.D., Michigan State University
David H. Sinason, associate professor, C.P.A., C.F.E., C.F.S.A., C.I.A., Ph.D., Florida State University
Pamela A. Smith, associate professor, KPMG Professor of Accountancy, C.P.A., Ph.D., University of North Texas
Donald Tidrick, associate professor, Deloitte Professor of Accountancy, C.I.A., C.M.A., C.P.A., Ph.D., Ohio State University
Sally Ann Webber, associate professor, HSBC Professor of Accountancy, C.P.A., Ph.D., University of Texas at Arlington
James C. Young, associate professor, Crowe Chizek Professor of Accountancy, C.P.A., Ph.D., Michigan State University

Master of Accounting Science

The objective of the M.A.S. program is to provide its graduates with the professional skills, knowledge, and competencies necessary to be successful, professional accountants in today's complex business environment.

The program focuses on broad-based accounting knowledge; knowledge in other business disciplines that complements a professional accounting career; the ability to integrate this knowledge to make business decisions; the development of research, communication, technology and team-building skills; and an understanding of ethical issues and expectations for professional conduct.

In addition to the College of Business standards listed above under "Graduate Study in Business," the admission standard for the Department of Accountancy is a minimum 3.00 GPA in undergraduate accountancy courses. Candidates may also be asked by the department graduate adviser to complete an interview either in person or by phone.

Phase One

See Phase One Requirements listed under "Graduate Study in Business."[1]

Required Accountancy Courses

ACCY 510 - Accounting Information Systems (3)
ACCY 531 - Financial Reporting I (4)
ACCY 532 - Financial Reporting II (3)
ACCY 550 - Principles of Taxation (3)
ACCY 560 - Assurance Services (3)
ACCY 630 - Managerial Accounting Concepts (3)

The graduate Phase One requirements must be included in the student's program unless a grade of C or better has been earned in corresponding undergraduate courses, or the student has passed the first and only attempt of the Phase One exemption examination. A student with a baccalaureate degree in accountancy and acceptable undergraduate grades may have already satisfied Phase One requirements.

A student must have a C or better in each Phase One accountancy course. A student enrolled in Phase One courses may take Phase Two courses at the discretion of the graduate adviser provided the student has successfully completed all prerequisites for the Phase Two courses and has maintained a 3.00 GPA in Phase One courses. However, any student who has not completed all Phase One courses must maintain a 3.00 GPA or above in all Phase One accountancy courses in order to register for any Phase Two course.

None of the required Phase One accountancy courses may be counted as accountancy electives in Phase Two.

The writing of a thesis is optional. It is recommended that calculus be taken in addition to finite math (equivalent to MATH 210).

Phase Two

The M.A.S. student must select specific courses leading to an area of study in financial reporting and assurance, managerial accounting systems, or taxation, or may work with the director to tailor a program of study for the student's specific academic and career goals.

The student is required to complete a minimum of 30 semester hours of work beyond Phase One and the baccalaureate degree. Of these 30 semester hours, 21 must be in classes reserved exclusively for admitted graduate students and 15 of the 21 hours must be in accounting. Nine of the 30 semester hours must be in graduate-level courses in related areas outside the Department of Accountancy with the approval of the adviser. The total Phase Two credits accepted in transfer from other institutions may not exceed 9 semester hours.

Financial Reporting and Assurance Area of Study

ACCY 633 - Advanced Financial Reporting (3)
ACCY 650 - Advanced Issues in Taxation (3)
ACCY 664 - Financial Statement Auditing (3)
ACCY 670 - Accounting Research (3)
ACCY 690 - Accountancy Capstone (3)

[1]ACCY 310, or its equivalent, will be accepted as meeting the Phase One requirement of OMIS 507 for entering M.A.S. students.

Two of the following (6)
- ACCY 462 - Internal Auditing (3)
- ACCY 480 - Governmental and Not-For-Profit Accounting (3)
- ACCY 611 - Advanced Accounting Information Systems (3)
- ACCY 622 - Managerial Accounting Information Systems (3)
- ACCY 634 - Financial Accounting Theory (3)
- ACCY 640 - Financial Statements Analysis (3)
- ACCY 645 - Professional Tax Research (3), OR ACCY 647 - Corporate Taxation (3)
- ACCY 667 - Information Systems Auditing (3)
- ACCY 673 - Internship in Accountancy (3)

Course work in related areas outside the Department of Accountancy with approval of adviser (9)

Managerial Accounting Systems Area of Study

ACCY 611 - Advanced Accounting Information Systems (3)
ACCY 622 - Managerial Accounting Information Systems (3)
ACCY 650 - Advanced Issues in Taxation (3)
ACCY 670 - Accounting Research (3)
ACCY 690 - Accountancy Capstone (3)
Two of the following (6)
- ACCY 421 - Advanced Cost Management (3)
- ACCY 462 - Internal Auditing (3)
- ACCY 640 - Financial Statements Analysis (3)
- ACCY 664 - Financial Statement Auditing (3)
- ACCY 667 - Information Systems Auditing (3)
- ACCY 673 - Internship in Accountancy (3)

Three of the following (9)
- FINA 560 - Financial Markets and Investments (3)
- MGMT 650 - Strategic Environmental Analysis (3)
- OMIS 525 - Business Information Systems Technologies (3)
- OMIS 627 - Operations Analysis (3)
- OMIS 640 - Management of Information Systems Technology (3)
- OMIS 642 - Quality Management (3)
- OMIS 643 - Continuous Improvement Systems in Business (3)
- OMIS 649 - Business Computing Environments (3)
- OMIS 651 - Business Systems Analysis and Design (3)
- OMIS 652 - Business Applications of Database Management Systems (3)
- OMIS 660 - Business Telecommunications (3)
- OMIS 661 - Business Decision Technologies (3)
- OMIS 680 - Supply Chain Management (3)
- OMIS 697 - Strategic Information Systems (3)

Course work in related areas outside the Department of Accountancy with approval of adviser

Taxation Area of Study

ACCY 645 - Professional Tax Research (3)
ACCY 647 - Corporate Taxation (3)
ACCY 649 - Partnership Taxation (3)
ACCY 656 - Tax Concepts and Property Transactions (3)
ACCY 690 - Accountancy Capstone (3)
Course work in business or accountancy with approval of adviser (6)
Course work in related areas outside the Department of Accountancy with approval of adviser (9)

Internships in Accountancy

The internship (ACCY 673) consists of work experience in an accounting function for 10 to 13 weeks and the completion of written and oral reports. Applications are reviewed by the internship coordinator and approved on the basis of professional promise, instructor recommendation, and credit in specified courses. Permanent employment may not be used for ACCY 673, and ACCY 673 may not be taken as the last course in the program. The Department of Accountancy coordinates all academic internships. More detailed information is available in the departmental office.

Master of Science in Taxation

The M.S.T. program provides advanced study in taxation to prepare students for the challenges of the practice of professional taxation. The program is designed to meet the needs of working professionals who desire to earn the degree while continuing to work full time. The program provides opportunities to develop knowledge related to federal, state, and local, and international tax laws. The program also focuses on the development of communication, research, and technology skills and an understanding of ethical issues and expectations of the business community and regulators for professional conduct.

Admission

An applicant is required to have a baccalaureate degree or a master's degree from an accredited institution with at least 15 semester hours in accounting (including a course equivalent to ACCY 450) or department approval (prior work experience will be given consideration); or a law degree (J.D.) from an institution accredited by the American Bar Association (ABA).

If applicants do not have a law degree from an ABA-accredited institution or a graduate business degree from an AACSB-accredited institution, they must have a minimum GPA of 2.75 (on a 4.00 scale) in the last 60 semester hours of the baccalaureate program or a minimum cumulative GPA of 2.75 (on a 4.00 scale) at the baccalaureate institution. These applicants must also present satisfactory scores on the GMAT or LSAT unless they have passed all parts of the C.P.A. examination (applicants must attach appropriate documentation to their application materials).

A maximum of 9 semester hours earned as a student-at-large at NIU may be applied toward the M.S.T. degree.

Requirements

ACCY 645 - Professional Tax Research (3)
ACCY 647 - Corporate Taxation (3)
ACCY 649 - Partnership Taxation (3)
ACCY 651 - Federal Estate and Gift Taxation (3)
ACCY 656 - Tax Concepts and Property Transactions (3)
Course work from the following (15)
- ACCY 605 - Independent Study in Taxation (1- 3)
- ACCY 646 - Tax Administration and Practice (3)
- ACCY 648 - Advanced Corporate Taxation (3)
- ACCY 652 - Taxation of Estates and Trusts (3)
- ACCY 654 - Special Tax Topics (1-6)
- ACCY 655 - International Taxation (3)
- ACCY 657 - Taxation of Compensation and Benefits (3)
- ACCY 658 - State and Local Taxation (3)
- ACCY 659 - Tax Accounting Methods and Periods (3)
- ACCY 660 - Advanced Partnership Taxation (3)
- ACCY 673 - Internship in Accountancy (3)

Course List

421. ADVANCED COST MANAGEMENT (3). Advanced study of the information required in management planning and control systems. Theory and application of product costing, operational control, cost allocation, and performance evaluation for manufacturing and service organizations. Topics include transfer pricing, competitive costing, division performance measurement, regression analysis, statistical quality control, activity-based costing, automation and cost management, target costing, and Japanese cost management. PRQ: ACCY 320 with a grade of C or better and MGMT 346, or consent of department. CRQ: UBUS 311 or consent of department.

433. FINANCIAL REPORTING III (3). Study of financial accounting theory and practice relating to accounting for business combinations under the purchase and pooling methods, consolidated financial statements, international operations, segment and interim reporting standards, debt restructure, corporate insolvency, partnership accounting, and accounting for specialized industries such as banking, construction, franchising, and real estate. Coverage of SEC reporting standards. Use of data bases in researching accounting issues and in analyzing and preparing disclosures. Extensive use of group projects. PRQ: ACCY 432 with a grade of C or better and MGMT 346, or consent of department.

456. ADVANCED FEDERAL TAXES (3). Study of federal taxes imposed on business entities with emphasis on corporations, partnerships, and S corporations. Also includes an overview of tax research techniques. Students may not receive credit for both ACCY 456 and ACCY 644. PRQ: ACCY 455 or consent of department.

462. INTERNAL AUDITING (3). Topics include internal audit standards, internal controls, risk assessment, evidence and documentation, and communications. Auditing techniques including sampling and use of systems-based audit techniques. Review of ethics, emerging issues, and industry specific matters. PRQ: ACCY 360 with a grade of C or better and MGMT 346, or consent of department.

480. GOVERNMENTAL AND NOT-FOR-PROFIT ACCOUNTING (3). Basic introduction to state and local government accounting, federal government accounting, not-for-profit organization accounting; GAO audit standards and the single audit act, and not-for-profit tax issues. PRQ: ACCY 331 with a grade of C or better and MGMT 346, or consent of department.

505. FINANCIAL ACCOUNTING CONCEPTS (2). Introduction to the nature, uses, and limitations of financial accounting information. Financial accounting concepts presented from the viewpoint of the user. Problems and cases used to emphasize the kinds of financial accounting information relevant for decision making. Open to students with fewer than 6 semester hours in accounting, or by consent of department.

509. FEDERAL TAXATION: PLANNING AND CONTROL (3). Study of the basic rules of federal income taxation as they relate to the planning and control opportunities that exist in the conduct of business and nonbusiness transactions. Not open to students with credit in either ACCY 309 or ACCY 455. PRQ: ACCY 505 or equivalent completed within the past five years with a grade of A or B, or consent of department.

510. ACCOUNTING INFORMATION SYSTEMS (3). Handling of accounting data within the modern enterprise with focus on maintaining the integrity of the data as well as developing relevant and reliable accounting information for use in decision making. Emphasis on systems development, internal control, and the use of technology to enhance and improve the flow of accounting information. Projects required in the area of accounting cycles, accounting documentation, and accounting application software. Not available for Phase Two credit in the M.A.S., M.B.A., or M.S.T. programs.

531. FINANCIAL REPORTING I (4). In-depth study of financial reporting standards including the contemporary economic and political forces that lead to the development of standards relating to statement of cash flows, financial statement analysis, foreign currency translation, conceptual framework, revenue recognition, conversion from cash to accrual basis, time value of money, monetary assets, inventories, plant assets, research and development costs, current liabilities, and long-term debt. Use of data bases in researching accounting issues and in analyzing and preparing financial statement disclosures. Not available for Phase Two credit in the M.A.S., M.B.A., or M.S.T. programs.

532. FINANCIAL REPORTING II (3). In-depth study of financial reporting standards including the contemporary economic and political forces that lead to the development of standards relating to accounting for income taxes, pension and other benefit plans, leases, earnings per share, accounting changes, stockholders' equity, and investments including equity method; and an introduction to consolidated financial statements. Use of data bases in researching accounting issues and in analyzing and preparing financial statement disclosures. Not available for Phase Two credit in the M.A.S., M.B.A., or M.S.T. programs. PRQ: ACCY 531 or consent of department.

533. FINANCIAL REPORTING III (3). In-depth study of financial reporting standards including the contemporary economic and political forces that lead to the development of standards relating to business combinations and for consolidated financial statements, for companies operating internationally, for interim financial reporting, and the disclosure standards for disaggregated operations. Study and evaluation of the special accounting and reporting required for entities going through corporate insolvency, including the restructuring and impairment of financial instruments, for partnership forms of business entities, for publicly held companies that must meet SEC reporting standards, and for specialized industrial reporting. Research projects include the use of accounting data and literature bases; electronic bases such as the Internet. Team projects used throughout the course. Students may not receive credit for both ACCY 433 and ACCY 533. PRQ: ACCY 532 or consent of department.

550. PRINCIPLES OF TAXATION (3). Study of the principles of federal income taxation with focus on learning taxation concepts related to income, deductions, and property transactions for businesses and individuals. These concepts applied to common transactions and issues encountered by individuals, corporations, partnerships, S corporations, and limited liability companies. Not available for Phase Two credit in the M.A.S., M.B.A., and M.S.T. programs. PRQ: ACCY 531 or consent of department.

555. INDIVIDUAL TAXATION (3). Comprehensive study of the concepts of federal income taxation and the tax rules that apply to individuals. Examination of the principles that provide the framework for the federal income tax system, including income, deductions, basic business operations, and property transactions. Not available for Phase Two credit in the M.A.S., M.B.A., or M.S.T. programs. PRQ: ACCY 531 or consent of department.

557. ACCOUNTING FOR PUBLIC ADMINISTRATION (3). *Crosslisted as PSPA 557X.* Survey of governmental and other public sector accounting for nonaccounting majors. Topics include an introduction to accounting, budgeting, auditing, and financial statement analysis as applied to state and local governments, hospitals, colleges, universities, and other nonprofit organizations. Designed for M.P.A. students, but other graduate students may be admitted with consent of department.

560. ASSURANCE SERVICES (3). Study of the accumulation and evaluation of information and data in order to provide assurance to decision-makers. Overview of the variety of assurance services including auditing, attestation, operational, and compliance services. Practices and procedures of assurance services including planning, assessing risk, testing controls, and obtaining and documenting evidence. Focus on analysis of business processes and decisions (both financial and nonfinancial) and analytical skills needed to evaluate evidence, develop recommendations, and communicate findings. Not available for Phase Two credit in the M.A.S., M.B.A., and M.S.T. programs. PRQ: ACCY 510 or consent of department.

580. GOVERNMENTAL AND NOT-FOR-PROFIT ACCOUNTING (3). In-depth study of accounting and financial reporting for the federal government, state and local governments, and not-for-profit organizations. Financial statement oriented approach. Unique aspects of governmental auditing, including GAO Audit Standards and the Single Audit. Unique ethical situations arising in governments. Students may not receive credit for both ACCY 480 and ACCY 580. PRQ: ACCY 531 or consent of department.

599. MASTER'S THESIS (1 to 6). Open to students writing a thesis under the M.A.S., M.S., or M.B.A. program. The student enrolls with the faculty member directing the thesis. May be repeated to a maximum of 6 semester hours.

604. INDEPENDENT STUDY IN ACCOUNTING (1 to 3). Open to students qualified to do individual study in accounting. Not for credit on the thesis. May be repeated to a maximum of 6 semester hours. Not available for S/U grading. PRQ: 21 semester hours of accounting and consent of department.

605. INDEPENDENT STUDY IN TAXATION (1 to 3). Independent study and writing under supervision of a member of the graduate taxation faculty in an area (or areas) of special interest to students. May be repeated to a maximum of 6 semester hours. Not available for S/U grading. PRQ: ACCY 645 and consent of department.

611. ADVANCED ACCOUNTING INFORMATION SYSTEMS (3). In-depth study of advanced accounting information system concepts and applications with emphasis on impact of database systems and advanced technology in accounting systems. Hands-on individual and small group projects with accounting applications in real-world settings. Students may not receive credit for both ACCY 411 and ACCY 611. PRQ: Both ACCY 310A and ACCY 310S with at least a C or consent of department.

622. MANAGERIAL ACCOUNTING INFORMATION SYSTEMS (3). Study of concepts and practice related to management planning and control systems. Examination of systems that integrate financial and managerial accounting information. Emphasis on enterprise resource planning systems and related issues. PRQ: ACCY 320 and 6 semester hours of accounting course work, or consent of department.

630. MANAGERIAL ACCOUNTING CONCEPTS (3). Uses of accounting information in interpreting, coordinating, and implementing management's policies, in measuring and evaluating performance, and in tactical and strategic planning for future business activity. Not open to students with more than 9 semester hours of accounting except by consent of department. PRQ: ACCY 505 or consent of department.

633. ADVANCED FINANCIAL REPORTING (3). Study and evaluation of special accounting and reporting requirements for entities going through business combinations and restructurings, and of financial reporting relating to consolidated entities, international operations, interim financial reporting, and disaggregated disclosures. Analysis of effect of financial instruments and hedging activities on financial statements. Research and team projects requiring use of literature data bases and the Internet. Students may not receive credit for ACCY 433/ACCY 533 and ACCY 633.

634. FINANCIAL ACCOUNTING THEORY (3). Study of the conceptual and theoretical aspects of financial accounting and the economic environment of accounting. Students analyze the existing conceptual framework of accounting and apply that framework to current significant accounting problems. PRQ: 21 semester hours of accounting or consent of department.

640. FINANCIAL STATEMENTS ANALYSIS (3). Analysis and interpretation of financial reports with particular reference to the construction of statements, the meaning of accounts, ratios, and other evaluating indices. PRQ: ACCY 630 or consent of department.

644. ADVANCED TAXATION (3). Study of the federal income taxation of business entities. Emphasis on corporations, partnerships, and S corporations and includes an introduction to tax research. Students may not receive credit for both ACCY 456 and ACCY 644. Not available for credit in the M.A.S. area of study in taxation. PRQ: ACCY 450 or consent of department.

645. PROFESSIONAL TAX RESEARCH (3). Examination of tax research methodologies with emphasis on the legal research methodology. Includes several independent research projects designed to emphasize the evaluation of various tax authorities. PRQ: ACCY 450 or consent of department.

646. TAX ADMINISTRATION AND PRACTICE (3). Study of the structure, powers, and procedures of the Internal Revenue Service, including the IRS audit process. Examination of rules governing tax practice and professional ethics. PRQ: ACCY 450 or consent of department.

647. CORPORATE TAXATION (3). Study of federal income taxation of corporations and shareholders with emphasis on transactions between the corporation and its shareholders. Topics include corporate contributions, distributions to shareholders, stock redemptions, corporate liquidations, penalty taxes, and special rules for S corporations. PRQ: ACCY 450 or consent of department.

648. ADVANCED CORPORATE TAXATION (3). Study of the federal income taxation of corporate reorganizations, including mergers, acquisitions, corporate divisions, carryover of tax attributes, and tax rules concerning consolidated tax returns. PRQ: ACCY 647 or consent of department.

649. PARTNERSHIP TAXATION (3). Study of the federal income taxation of partnerships, with emphasis on the tax laws related to the formation, operation, and liquidation of partnerships. PRQ: ACCY 450 or consent of department.

650. ADVANCED ISSUES IN TAXATION (3). Continuation of ACCY 450. Study of advanced concepts of federal taxation as it applies to a broad range of taxpayers. Application of advanced concepts of taxation to individuals and business entities including corporations, partnerships, and S corporations. Introduction to international and state tax issues, gift and estate tax, fiduciary tax accounting, and tax issues for not-for-profit organizations. PRQ: ACCY 450 or consent of department.

651. FEDERAL ESTATE AND GIFT TAXATION (3). Study of the federal estate and gift tax laws with emphasis on tax-planning techniques designed to minimize transfer taxes and ensure the orderly transfer of assets to succeeding generations. PRQ: ACCY 450 or consent of department.

652. TAXATION OF ESTATES AND TRUSTS (3). Study of federal taxation of income from estates and trusts, and the use of trusts in tax planning to minimize income, estate, and gift taxes. PRQ: ACCY 450 or consent of department.

654. SPECIAL TAX TOPICS (1 to 3). Intensive study of selected topics of current interest. May be repeated to a maximum of 6 semester hours when topic varies. PRQ: ACCY 450 or consent of department.

655. INTERNATIONAL TAXATION (3). Study of U.S. laws that have tax implications for international transactions. Emphasis on U.S. taxation of multinational operations and taxation of foreign persons in the U.S. PRQ: ACCY 450 or consent of department.

656. TAX CONCEPTS AND PROPERTY TRANSACTIONS (3). Conceptual foundations of the federal income tax system, focusing on key federal tax statutes, regulations, rulings, and cases. Property transactions with emphasis on real estate transactions (e.g., like-kind exchanges, involuntary conversions, installment sales, passive loss rules, and depreciation). PRQ: ACCY 450 or consent of department.

657. TAXATION OF COMPENSATION AND BENEFITS (3). Study of tax rules and reporting requirements related to current compensation; fringe benefits; qualified plans, including pension plans, profit-sharing plans, and stock bonus plans; non-qualified deferred compensation; stock options; individual retirement accounts; and retirement plan distributions. PRQ: ACCY 450 or consent of department.

658. STATE AND LOCAL TAXATION (3). Nature and purpose of state and local taxation including examination of income, property, and excise taxes imposed at the state level. Covers constitutional, jurisdictional, apportionment, multistate, and other issues. PRQ: ACCY 450 or consent of department.

659. TAX ACCOUNTING METHODS AND PERIODS (3). Timing issues related to federal income taxation including adoption of changes in accounting periods, cash and accrual methods of accounting, and tax consequences of changing accounting methods. Examination of accounting methods on an overall basis along with specific methods (e.g., inventory accounting, installment sales, long-term contracts, and original issue discount/time value of money). Planning techniques integrated throughout course. PRQ: ACCY 450 or consent of department.

660. ADVANCED PARTNERSHIP TAXATION (3). Study of advanced topics and planning issues related to federal income taxation of partnerships and partners. Advanced issues related to the operation of and distributions from partnerships; investigation of limited liability companies, section 704(c) allocations, family partnerships, disguised sales, payments to retiring partners, and the use of partnerships by corporations in joint ventures. PRQ: ACCY 649 or consent of department.

664. FINANCIAL STATEMENT AUDITING (3). In-depth analysis of financial statement auditing topics with attention to audit theory and professional standards. Topics include professional responsibilities of financial statement auditors, impact of the SEC on auditing, objectives in planning an audit, and preparation of the final audit report. PRQ: ACCY 331, ACCY 360, and ACCY 432, or consent of department.

667. INFORMATION SYSTEMS AUDITING (3). Study of the practical aspects of information systems auditing (ISA). Includes assurance services, internal control assessments, and evidence-gathering activities in advanced accounting information systems. PRQ: ACCY 360 or consent of department.

670. ACCOUNTING RESEARCH (3). Examination of the methods of inquiry and research and development of competence in professional writing. Includes outside readings in those areas and written critiques of selected accounting literature. Major paper required. PRQ: 18 semester hours of accounting or consent of department.

673. INTERNSHIP IN ACCOUNTANCY (3). Full-time work during the fall, spring, or summer, in the accountancy/financial function of a sponsoring organization. Students submit periodic reports to the Department of Accountancy internship coordinator. No more than 3 semester hours may be applied to Phase Two requirements. PRQ: Completion of both college and department Phase One requirements and consent of department.

679. SEMINAR IN ACCOUNTING (3). Study of theories, principles, practices, and procedures in all areas of accounting. Independent and group investigation of problems of special interest in the field of accounting. May be repeated to a maximum of 6 semester hours with departmental approval. PRQ: 21 semester hours of accounting or consent of department.

680. ADVANCED GOVERNMENTAL AND NOT-FOR-PROFIT ACCOUNTING (3). Designed for students interested in careers in federal, state, or local governmental units, or in not-for-profit organizations. Internal management of government and not-for-profit organizations, budgeting/financial management, systems applications, internal controls, GNP audit issues, not-for-profit tax issues, and financial statement analysis. PRQ: ACCY 480 or consent of department.

690. ACCOUNTANCY CAPSTONE (3). Synthesis and integration of knowledge and skills learned throughout M.A.S. program. Case-based approach integrating accounting issues with other business issues to help students learn how to use accounting information when developing strategies and making business decisions. PRQ: Consent of department.

Department of Finance (FINA)

Chair: Richard J. Dowen

Graduate Faculty

John C. Banko, assistant professor, Ph.D., University of Florida
Diane S. Docking, associate professor, C.P.A., Ph.D., University of Kansas
Richard J. Dowen, professor, C.F.A., Ph.D., State University of New York, Binghamton
Gerald R. Jensen, professor, Ph.D., University of Nebraska at Lincoln
James M. Johnson, professor, Ph.D., Ohio State University
Robert E. Miller, professor, Ph.D., University of Kansas

Course List

430. TREASURY AND CREDIT MANAGEMENT (3). Application of major issues in working capital and short-term financial management. Integration of financial concepts and financial models through electronic spreadsheets and other relevant technology to provide expertise in the area of short-term financial management while enhancing the student's analytical skills. Topics include cash budgeting, pro forma statements, and other techniques of analyzing current assets and liabilities. PRQ: Consent of department.

455. ANALYSIS OF DERIVATIVE SECURITIES (3). Risk allocation function of options and futures markets from the perspective of market users. Hedging strategies and equilibrium pricing models. Roles of government regulation and international developments. PRQ: Consent of department.

465. INTERNAL REVIEW FOR FINANCIAL INSTITUTIONS (3). Introduction to the methodology of internal auditing for financial institutions. Topics include monitoring and verification of financial, operational, and control procedures. PRQ: Consent of department.

475. FINANCIAL DATA ANALYSIS (3). Uses and limitations of financial data bases including CRSP, COMPUSTAT, DISCLOSURE, MorningStar, and various resources available through the Internet and the World Wide Web. Application of contemporary statistical methodology in analyzing this data for decision making purposes. PRQ: Consent of department.

500. SURVEY OF BUSINESS ECONOMICS (2). Business economic concepts relevant to an analysis of the environment within which the business firm operates and those economic concepts basic to an analysis of a broad scope of business problems.

505. FUNDAMENTALS OF FINANCIAL MANAGEMENT (2). For graduate students with little formal background in finance. Financial theory and activities connected with the organization and operation of a business enterprise. Relationship of these financial activities to other aspects of business administration. Financial planning and control, working capital considerations, capital budgeting, sources and use of funds, valuation of enterprise, and the financial environment in which the firm operates. PRQ: ACCY 505 and OMIS 524, or consent of department.

560. FINANCIAL MARKETS AND INVESTMENTS (3). Emphasis on the behavior and determinants of interest rates, valuation and hedging concepts of fixed-income securities, common instruments of money and capital markets, equity valuation and portfolio theory, and introduction to the valuation of derivative securities. PRQ: FINA 500 and FINA 505, or consent of department.

595. INTERNSHIP IN FINANCE (1 to 6). Designed primarily for students lacking full-time experience in finance. Student works for a summer or a semester as an intern in a business firm. No more than 3 semester hours may be applied to Phase Two program requirements. S/U grading. PRQ: Consent of department.

599. MASTER'S THESIS (1 to 6). Open to students writing a thesis under the M.S. or M.B.A. program. Student enrolls with the faculty member directing the thesis. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

603. SEMINAR IN FINANCIAL RESEARCH (3). Review and evaluation of current research in finance giving consideration to the implication of findings for the improvement of business practices. Not for thesis credit. PRQ: OMIS 524 or consent of department.

604. INDEPENDENT STUDY IN FINANCE (1 to 3). Open to students qualified to do individual study in business. Not for credit on the thesis. May be repeated to a maximum of 3 semester hours. Not available for S/U grading. PRQ: Consent of department.

607. FINANCIAL ANALYSIS (3). Analysis of current and future financial position that serves as the foundation for decision making by creditors, managers, and owners. Includes ratio analysis, sources and uses of funds, operating and financial leverage, capital budgeting under risk and uncertainty, the cost of capital, and the financial structure. A problem-oriented course, but cases and readings may be utilized. PRQ: FINA 320, FINA 505, or UBUS 310, or consent of department.

613. READINGS IN FINANCE (1 to 3). Special readings useful to a student's individual program and objectives, but not available in regular course offerings. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

620. INVESTMENT FUNDAMENTALS (3). Conceptual foundations and strategies for investment analysis and management. Focus on functions, structure, and efficiency of securities markets; an overview of risk and return; introduction to analysis and valuation of common stocks, fixed-income securities, and other alternative investments; and an introduction to the portfolio management process. PRQ: FINA 607 or consent of department.

622. SECURITY ANALYSIS (3). Detailed study of the methods utilized in analyzing the major types of securities. Emphasis on equities. Due consideration given to economic, corporate, financial, and management factors. PRQ: FINA 620 or consent of department.

623. INVESTMENT MANAGEMENT (3). Investment management decision-making process from the viewpoint of individual and institutional investors. Topics include forecasting trends in the stock and bond markets, formulating objectives for various types of investors, applying modern portfolio theory, analyzing active and passive investment strategies, selecting specific classes of investment, analyzing the effectiveness of investment management organizations including pension and mutual funds, and evaluating portfolio performance. Attention given to theories and their practical application to problem situations. PRQ: FINA 620 or consent of department.

650T. FUNDAMENTALS OF FINANCIAL MARKETS (3). Structure, operations, goals, and strategies of banking and nonbanking financial intermediaries. Attention given to the financial markets with emphasis directed to financial instruments including futures contracts. PRQ: FINA 607 or consent of department.

651. SEMINAR IN FINANCIAL INSTITUTION MANAGEMENT (3). Topics include contemporary developments in the management of financial institutions; management problems of different classes of institutions including banks, thrift institutions, insurance companies, investment banks and companies; and effects of increased concentration of government regulation. PRQ: FINA 350 or FINA 650T, or consent of department.

662. FINANCIAL MANAGEMENT STRATEGIES (3). Current developments in financial management, including critical evaluation of selected topics dealing with theoretical and applied aspects of the decision-making process in business finance. PRQ: FINA 607 or consent of department.

685. INTERNATIONAL BUSINESS FINANCE (3). Methods, practices, and institutions for financing international and foreign business firms including direct and indirect investments. Current developments relating to specific finance and monetary problems. PRQ: FINA 607 or consent of department.

695. SEMINAR IN FINANCE TOPICS (3). Critical analysis and discussion of financial topics, empirical research, and applications. Review of evolving topics in the scholarly literature, including contemporary issues and controversies. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

Department of Management (MGMT)

Chair: Sarah J. Marsh

Graduate Faculty

Madan Annavarjula, assistant professor, Ph.D., Temple University
Terrence R. Bishop, associate professor, Ph.D., University of Iowa
Jon P. Briscoe, associate professor, D.B.A., Boston University
Paula E. Brown, associate professor, Ed.D., Northern Illinois University
Luis G. Flores, associate professor, Ph.D., Texas Tech University
Charles R. Gowen, professor, Ph.D., Ohio State University
Marvin F. Hill, professor, J.D., Ph.D., University of Iowa
Sarah J. Marsh, associate professor, Ph.D., University of North Carolina
C. Lynn Neeley, professor, Ph.D., University of Tennessee
Devaki Rau, assistant professor, Ph.D., University of Minnesota
David R. Wade, associate professor, J.D., University of Iowa
Daniel R. Wunsch, professor, Ph.D., University of California at Los Angeles

Course List

412. BUSINESS LAW (3). Commercial transactions, basic legal concepts of commercial paper, sales, secured transactions, and related topics. Uses case materials and problems. PRQ: MGMT 217 and accountancy major, or consent of department.

505. PRINCIPLES OF MANAGEMENT (2). Introduction to the role of manager in interaction with superiors, subordinates, associates, and staff; theories of leading, organizing, planning, and controlling; and skills in communicating, coordinating, and directing.

511. LEGAL ASPECTS OF BUSINESS (2). Seminar in legal problems affecting business in the areas of contracts, personnel, taxation, property, and government regulation of business.

512. ADVANCED TOPICS IN BUSINESS LAW (3). Study of law relating to contracts, sales, negotiable instruments, bankruptcy, and related topics. Students are required to critically analyze cases and apply legal principles. PRQ: MGMT 217 or MGMT 511 and graduate standing or consent of department.

528. EQUAL OPPORTUNITY AND EMPLOYMENT (3). In-depth presentation of management, union, and individual perspectives of the causes and remedies of employment-based discrimination. Topics discussed include recruiting, promoting, seniority, discrimination, affirmative action, and testing. Students may not receive credit for both MGMT 498 and MGMT 528. PRQ: MGMT 505 or consent of department.

538. EMPLOYMENT LAW (3). Review, analysis, and evaluation of the National Labor Relations Act as amended. Emphasis on in-depth analysis of employment law; rights to organize and undertake concerted activity; legal framework of labor-management relations; selection and representation of unions; and union member rights. Current legislative and judicial developments as well as an extensive review and analysis of court and NLRB decisions. PRQ: MGMT 505 or consent of department.

601. INTERNATIONAL STUDY IN MANAGEMENT (3). Short-term study abroad experience to study cultural differences, problems, issues, trends, and practices in management within the international environment. Activities include visits to foreign organizations, presentations by organizational managers and executives, and discussions with foreign and domestic international faculty. Supervised by department faculty member. PRQ: All Phase One courses or consent of department.

604. INDEPENDENT STUDY IN MANAGEMENT (1 to 3). Available to graduate students of demonstrated capability for specialized independent study in management. May be repeated to a maximum of 6 semester hours. Not available for S/U grading. PRQ: MGMT 505 and consent of department.

611. CORPORATE SOCIAL RESPONSIBILITY (3). Responses of organizations to environmental expectations and analysis of external and internal variables affecting the legal and ethical implications of strategic decisions. Role of general managers as mediators between organizational and societal interests and study of the firm as a corporate citizen. PRQ: All Phase One courses or consent of department.

615. SEMINAR IN MANAGERIAL LEADERSHIP (3). Examination of new ideas and current trends in leadership and its role in a rapidly changing business environment. Discussion focused on leadership as it is recognized, developed, and applied in current business situations. PRQ: All Phase One courses and MGMT 635, or consent of department.

619. NEGOTIATION AND CONFLICT MANAGEMENT (3). Examination of negotiation techniques and strategies relevant to managerial positions. Application of negotiation as a principled method of achieving fair and mutually satisfying agreements with specific applications to resolving personal and professional conflicts. PRQ: All Phase One courses and MGMT 635, or consent of department.

620. HUMAN RESOURCE MANAGEMENT (3). Management's problems, opportunities, and policy alternatives in personnel management and labor relations. Examination of recruiting, selection, compensation, training, and career development and day-to-day personnel issues. PRQ: All Phase One courses or consent of department.

630. PROFESSIONAL BUSINESS COMMUNICATION (3). Development of skills necessary to be an effective communicator within the business environment. Emphasis on oral and written presentation skills using state-of-the-art technology and presentation software, interpersonal skills, and problem solving skills. PRQ: All Phase One courses or consent of department.

633. ORGANIZATION THEORY (3). Traces historical development of organization theory from preclassical through contemporary theories. Analysis of organizational structure and behavior ranging from systems in the steady state to complex, dynamic social systems concerned with adaptation, growth, and conflict. PRQ: All Phase One courses or consent of department.

635. ORGANIZATIONAL BEHAVIOR (3). Identifying, understanding, and managing individual and group behavior in organizational settings. Topics include motivation, teamwork, culture, leadership, and other concepts that influence individual, group, and organizational effectiveness. PRQ: All Phase One courses or consent of department.

637. ENTREPRENEURSHIP AND VENTURE MANAGEMENT (3). Entrepreneurship creation and problems faced by entrepreneurs in the early growth stages of business ventures. A systemic problem-solving approach with an emphasis on "live" studies and plans for new business ventures. PRQ: All Phase One courses or consent of department.

638. SEMINAR IN HUMAN RESOURCE MANAGEMENT (3). Synthesis of existent diverse philosophies relating to the growth of organized labor, with focus on the patterns of relationships between labor and management and the impact of these relationships on the socio-political environment of the community and the nation. Emphasis on research and the use of current literature. PRQ: All Phase One courses or consent of department.

645. SEMINAR FOR EXECUTIVES (1 to 3). Offers executives the opportunity to broaden their interest in general problems of management as well as to enrich the background of participants. May be repeated to a maximum of 3 semester hours. PRQ: Consent of department.

647. INTERNATIONAL MANAGEMENT (3). Identifying, understanding, and managing the cultural components of organizational and business dynamics present in global business enterprises. Focus on strategic issues involved in international expansion, international competition, international organizational relationships, and international human resource utilization. PRQ: All Phase One courses or consent of department.

648. STRATEGIC HUMAN RESOURCE MANAGEMENT (3). Management of organizational human resources in the context of comprehensive strategic planning. Coverage of critical strategic human resource management topics, including strategic human resource planning, managing organizational change and adaptation, strategic compensation, management of organizational culture, identifying requisite human resource competencies for long-term success, and managerial succession planning. PRQ: All Phase One courses and MGMT 635, or consent of department.

650. STRATEGIC ENVIRONMENTAL ANALYSIS (3). Concepts, analytical tools, and research methods for analyzing the external environments of firms. Examination of general, industry, and specific environments. Industry and competitor analysis, dynamics of industry structure, competitive interaction, and industry evolution. PRQ: All Phase One courses or consent of department.

661. STRATEGIC MANAGEMENT PROCESSES (3). Development and analysis of the strategic management function. Analytical, informational, and behavioral characteristics of the strategic processes. Design and organization of strategic planning systems. Design of strategic organizational structures and processes for proper strategy formulation and implementation. Coordination and integration of strategic management processes and systems. Study of the main concepts and methodologies that could help to manage strategic change in business organizations. PRQ: MGMT 505 or consent of department.

672. STRATEGIC MANAGEMENT AND POLICY (3). Capstone course to develop strategic thinking skills necessary to identify strategic issues, analyze key internal and external factors influencing firm performance, develop strategic alternatives, and identify critical implementation issues. Integrates functional knowledge, behavioral and ethical concepts, and analytical tools for effective formulation and implementation of strategies and policies. Must be taken in final semester or last 9 semester hours of master's program. PRQ: All Phase One courses, FINA 607, MGMT 635, MKTG 654, and OMIS 627, or consent of department.

Department of Marketing (MKTG)

Chair: Denise D. Schoenbachler

Graduate Faculty

Timothy W. Aurand, associate professor, Ph.D., Northern Illinois University
Elisa Fredericks, assistant professor, Ph.D., University of Illinois, Chicago
Geoffrey L. Gordon, professor, OTA/Off the Record Research Professor of Investment Research, Ph.D., University of Kentucky
Kimberly M. Judson, assistant professor, Ph.D., University of Illinois
Rick E. Ridnour, Presidential Teaching Professor, Ph.D., Iowa State University
Denise D. Schoenbachler, professor, OTA/Off the Record Research Professor of Marketing Research, Ph.D., University of Kentucky
Tanuja Singh, associate professor, D.B.A., Southern Illinois University
Jay S. Wagle, professor, Ph.D., University of Nebraska
Dan C. Weilbaker, professor, McKesson Pharmaceutical Group Professor of Sales, Ph.D., University of South Carolina
Debra L. Zahay, assistant professor, Acxiom Corporation Professor of Interactive Marketing, Ph.D., University of Illinois

Course List

425. SERVICES MARKETING (3). Analysis of how services marketing differs from goods marketing and how services marketers can effectively manage the elements of service delivery to enhance service quality and customer satisfaction. Topics include the distinct elements of services marketing, service quality determination, understanding customer expectations, designing service standards to meet customer expectations, managing contact personnel's delivery to service standards, and matching service communications with service delivery. PRQ: MKTG 310 or UBUS 310, and MKTG 325 or FCNS 468, or consent of department.

467. GLOBAL MARKETING MANAGEMENT (3). Examination of the strategic aspects of global marketing, with focus on developing and analyzing marketing strategies for multinational corporations using an experiential learning approach. PRQ: UBUS 310 and UBUS 311, or consent of department.

505. GRADUATE SURVEY OF MARKETING (2). Comprehensive survey of marketing functions, institutions, policies, and problems designed specifically to serve the needs of graduate students with no previous formal marketing education.

550. PERSONAL SELLING FOR MANAGERS (3). Includes basic theories and strategies for the selling of self, ideas, and proposals within the firm as well as externally to major customers and prospects; selling skills for both dyadic and group situations; and presentations by students in a variety of business related selling situations. PRQ: MKTG 505 and consent of department.

595. INTERNSHIP IN MARKETING (3). Designed primarily for students lacking full-time marketing experience. Student works for a summer or a semester as an intern in an organization. No more than 3 semester hours may be applied to M.B.A. Phase Two program requirements. S/U grading. PRQ: Completion of M.B.A. Phase One requirements and consent of department.

599. MASTER'S THESIS (1 to 6). Open to students writing a thesis under the M.S. or M.B.A. program. Student enrolls with the faculty member directing the thesis. May be repeated to a maximum of 6 semester hours.

603. MARKETING RESEARCH AND ANALYSIS (3). Review, evaluation, and analysis of current marketing research. Development of research design, data collection, and analysis methods, and using research results to improve managerial decisions. Ethical issues involving marketing research. PRQ: MKTG 505 and OMIS 524, or consent of department.

604. INDEPENDENT STUDY IN MARKETING (1 to 3). Available to graduate students of demonstrated capability for intensive independent study in marketing. May be repeated once to a maximum of 6 semester hours when the topic varies. Not available for S/U grading. PRQ: MKTG 505 and consent of department.

625. BUYER BEHAVIOR (3). Examination of factors that influence the consumer decision-making process for purchase, use, and disposition of goods and services. Emphasis on how concepts from psychology, sociology, economics, and related social sciences influence design and development of marketing strategies. PRQ: MKTG 505 or consent of department.

626. BRAND MANAGEMENT (3). Comprehensive survey of strategies and tactics that enhance corporate brand equity. Topics include brand equity valuation, internal branding, co-branding, brand communication, and brand leveraging. Successful and unsuccessful applied brand initiatives. PRQ: MKTG 654 or consent of department.

646. SALES ADMINISTRATION (3). Strategic planning, analysis, policy development, implementation, and coordination of corporate-level sales responsibilities. Topics include sales organizational structures and supervision of the recruiting, selecting, testing, training, and managing of salespersons. Emphasis on considerations at the field sales manager, sales director, and vice president level. PRQ: MKTG 505 or consent of department.

654. MARKETING MANAGEMENT (3). Analysis of the strategic marketing problems confronting managers in the evaluation of marketing opportunities, selection of target markets, development of marketing strategies, planning of marketing tactics, and implementation and control of the marketing effort. PRQ: All Phase One courses or consent of department.

655. PROMOTIONAL STRATEGY (3). Design, implementation, and control of promotional policies, including the elements of personal selling, sales management, advertising, sales promotion, publicity, public relations, and direct marketing. Planning and coordinating complete marketing campaigns. PRQ: MKTG 505 or consent of department.

656. GLOBAL MARKETING STRATEGY (3). Role of global marketing operations in a firm's overall competitive strategy. Integration of global marketing responsibility with other functions of the firm. Emphasis on current issues in global competitive environment as they pertain to marketing strategy. PRQ: MKTG 505 or consent of department.

660. MARKETING SEMINAR (3). Topics vary but usually focus on current issues in managing marketing functions or recent developments in knowledge or skills for marketing professionals. May be repeated to a maximum of 6 semester hours. PRQ: MKTG 505 or consent of department.

665. MARKETING STRUCTURES AND PRICE POLICIES (3). Comprehensive guidance for formulating pricing strategy. Emphasis on the actual pricing decision process and the procedures used for pricing consistent with the economics of profit maximization. Incorporates the psychological aspects of price sensitivity and acknowledges that managers have only limited, imprecise information as a basis for their pricing decisions. PRQ: MKTG 505 or consent of department.

Department of Operations Management and Information Systems (OMIS)

Chair: Nancy L. Russo

Graduate Faculty

Gerald R. Aase, associate professor, Ph.D., Indiana University
Robert C. Beatty, assistant professor, D.B.A., Mississippi State University
Richard G. Born, associate professor, Ph.D., Illinois Institute of Technology
Charles E. Downing, associate professor, Ph.D., Northwestern University
Thomas M. Galvin, associate professor, Ph.D., Illinois Institute of Technology
Gyu Chan Kim, professor, Ph.D., University of Nebraska
Chang Liu, associate professor, D.B.A., Mississippi State University
Brian G. Mackie, assistant professor, Ph.D., University of Iowa
Jack T. Marchewka, associate professor, Ph.D., Georgia State University
Kathleen L. McFadden, professor, Ph.D., University of Texas, Arlington
Charles G. Petersen II, associate professor, Ph.D., Indiana University
Nancy L. Russo, professor, Ph.D., Georgia State University
Gregory N. Stock, associate professor, Ph.D., University of North Carolina
William J. Tallon, associate professor, Ph.D., University of Iowa

Master of Science in Management Information Systems

The M.S. program in management information systems prepares students to assume leadership roles in the area of business information systems. The program effectively integrates the technical area of computer technology with business administration. The purpose of the program is to expose students to current information technologies and contemporary information management theories as means to maximizing organizational performance in the new economy.

Phase One

See requirements listed under “Graduate Study in Business.”

In addition to Phase One requirements, the student must demonstrate proficiency in an acceptable applications- oriented computer programming language by either the satisfactory completion of approved course work or appropriate work experience. Any course that satisfies this programming proficiency may not be counted as an elective in Phase Two of the program.

Phase Two

The student is required to complete a minimum of 30 semester hours of approved graduate work beyond Phase One and the baccalaureate degree. Of these 30 semester hours, 21 must be in classes reserved exclusively for admitted graduate students. Students-at-large are prohibited from registering for graduate business courses without departmental approval. The total credit from courses taken for graduate credit at other accredited institutions which are accepted in transfer plus credit earned at NIU as a student-at-large may not exceed 9 semester hours.

Required Courses

OMIS 649 - Business Computing Environments (3)
OMIS 651 - Business Systems Analysis and Design (3)
OMIS 652 - Business Applications of Database Management Systems (3)
OMIS 660 - Business Telecommunications (3)
OMIS 675 - Technologies and Applications of Electronic Business (3)
OMIS 690 - Information Technology Project Management (3)
OMIS 697 - Strategic Information Systems (3)
With approval of the academic program coordinator, other courses may be substituted for a maximum of 9 semester hours of Phase Two course work.

Electives (9)

Electives may be selected with the approval of the academic program coordinator from among relevant graduate offerings in the department or elsewhere in the university. OMIS 695, Internship in Management Information Systems, may not be taken as the last course in the program.

Certificate of Graduate Study

Management Information Systems (15)

This certificate provides working professionals with the opportunity to add value to their positions through advanced course work, to obtain credentials necessary to support their current position, and to increase employability within the field of information technology. Courses used to satisfy the requirements for the certificate may also be applied toward a graduate degree in management information systems. OMIS 507, Business Information Systems, is a prerequisite course that must be completed prior to enrollment in the certificate courses. OMIS 507 may be waived by passing an exemption examination.

Students interested in this certificate should contact the management information systems graduate program coordinator for admission procedures and other information.

OMIS 651 - Business Systems Analysis and Design (3)
OMIS 652 - Business Applications of Database Management Systems (3)
OMIS 660 - Business Telecommunications (3),
OR OMIS 661 - Business Decision Technologies (3)
OMIS 690 - Information Technology Project Management (3),
OR OMIS 697 - Strategic Information Systems (3)
One of the following (3)
OMIS 621 - Computer Simulation in Business (3)
OMIS 649 - Business Computing Environments (3)
OMIS 675 - Technologies and Applications of Electronic Business (3)
OMIS 679 - Business Geographics (3)
OMIS 694 - Advanced Topics in Information Systems (3)

Course List

505. PRINCIPLES OF OPERATIONS MANAGEMENT (2). Examination of the issues, problems, and possible solutions for operations managers in the manufacturing and service environments. Topics include product planning, facility location, process design, capacity planning, quality management, inventory management, and operations planning and control systems. PRQ: OMIS 524 or consent of department.

507. BUSINESS INFORMATION SYSTEMS (2). Introduction to business information systems concepts, uses, and issues, including functional management information systems, end-user computing, technology, platforms, and systems analysis and design. Emphasis on the effective utilization of information system technology by business professionals.

524. BUSINESS STATISTICS (2). Descriptive statistics: probability, random variables, and probability distributions; sampling and sampling distributions; estimation and hypothesis testing; simple regression and correlation analysis. Applications to industry and business. PRQ: MATH 210 or consent of department.

525. BUSINESS INFORMATION SYSTEMS TECHNOLOGIES (3). Study of current information systems technologies used by business professionals responsible for managing business transaction processing systems. Emphasis on selection of hardware platforms, operating systems, application development solutions, and integration of these areas to maximize organizational effectiveness. PRQ: OMIS 507 or consent of department.

600. INTERNATIONAL STUDY IN MANAGEMENT INFORMATION SYSTEMS (3). Short-term study-abroad experience to study significant concepts, tools, and methodologies of management information systems in the international environment. Analysis of global information systems issues through visitation and study of foreign organizations under supervision of a department faculty member. S/U grading. PRQ: Consent of department.

604. INDEPENDENT STUDY IN OPERATIONS MANAGEMENT (1 to 3). Available to graduate students who have demonstrated the capability for specialized independent study in operations management. May be taken a maximum of two times. Not available for S/U grading. PRQ: Consent of department.

605. INDEPENDENT STUDY IN INFORMATION SYSTEMS (1 to 3). Available only to candidates for the M.S. degree in management information systems who have demonstrated the capability for specialized independent study in information systems. May be taken a maximum of two times. Not available for S/U grading. PRQ: Consent of department.

621. COMPUTER SIMULATION IN BUSINESS (3). Concepts and techniques of computerized models. Emphasis on practical application of computer simulation to business problem solving. Laboratory exercises and projects focusing on the design, construction, documentation, and application of computer simulation models. PRQ: OMIS 505 and OMIS 524, or consent of department.

624. EXPERT SYSTEMS IN BUSINESS (3). Examination of the new generation of expert systems and their impact on management information technologies and business applications. Topics include a review of expert systems in use, the application of these expert systems to business decision making, and the structure of an expert system in business. Students design and program a prototype expert system for business decisions. CRQ: OMIS 651 or consent of department.

627. OPERATIONS ANALYSIS (3). Analysis of the conceptual and analytical approaches to the solution of significant operations problems. Emphasis on case analyses and quantitative solutions within a global competitive environment. PRQ: All Phase One courses or consent of department.

628. MANAGEMENT SCIENCE TECHNIQUES FOR MANAGERIAL ANALYSIS (3). Development and application of quantitative methods such as linear programming, inventory, waiting line theory, simulation, and model building to provide a basis for rational decision-making in the allocation of resources within the various functional areas of the firm, with emphasis on production. PRQ: OMIS 505 and OMIS 524, or consent of department.

640. MANAGEMENT OF INFORMATION SYSTEMS TECHNOLOGY (3). Applications of information systems in strategic decision making and organizational leadership, management of information as an organizational resource, and global and ethical issues relating to information systems technology. PRQ: OMIS 507 or consent of department.

642. QUALITY MANAGEMENT (3). Detailed examination of the issues, techniques, and methodologies for planning and controlling continuous quality improvement in manufacturing and service organizations. A student project in continuous quality improvement required. PRQ: OMIS 505 and OMIS 524, or consent of department.

643. CONTINUOUS IMPROVEMENT SYSTEMS IN BUSINESS (3). Focus on continuous improvement in both service and manufacturing firms, with emphasis on quality improvement and business process reengineering. Topics include continuous improvement methodologies, business process analysis, business process redesign, and process change implementation. PRQ: OMIS 524 or consent of department.

649. BUSINESS COMPUTING ENVIRONMENTS (3). Includes client/server, peer-peer, and Internet-based. Review of key literature in the area and analysis of current problems and trends. Laboratory experience with a variety of business computing environments. Emphasis on collaborative work. PRQ: OMIS 507 or consent of department.

651. BUSINESS SYSTEMS ANALYSIS AND DESIGN (3). Comparison of various methodologies and techniques used in the analysis and design of business systems with emphasis on selecting appropriate techniques for evolving development contexts. Projects utilize these analysis and design techniques to identify business problems and design appropriate solutions. Emphasis on teamwork and communication skills. PRQ: OMIS 507 or consent of department.

652. BUSINESS APPLICATIONS OF DATABASE MANAGEMENT SYSTEMS (3). Critical examination of the design, implementation, and management of database systems. Topics include the relational database model, entity-relationship modeling, normalization, the logical implementation of databases, transaction management, distributed databases, object-oriented databases, client/server systems, data warehousing, database administration, and the use of databases in Website design. Laboratory experience with current database software. PRQ: OMIS 507 or consent of department.

660. BUSINESS TELECOMMUNICATIONS (3). Examination of the field of business telecommunications from the perspective of business applications. Evaluation of hardware needed for effective business telecommunication. Includes projects that require examination of communications systems requirements and selection of techniques suitable for meeting the system requirements. Not available to students with credit in OMIS 460 or equivalent. PRQ: OMIS 507 or consent of department.

661. BUSINESS DECISION TECHNOLOGIES (3). In-depth study of the major components used to create and manage information systems to support business decisions: the human decision-making process; data access and analysis; decision algorithms; and relevant hardware and software. Focus on development and use of decision support systems, expert systems, executive information systems, and group decision support systems. PRQ: OMIS 507 or consent of department.

671. BUSINESS FORECASTING (3). Principles, techniques, and applications of forecasting for the business enterprise. Topics include ARIMA (Box-Jenkins) models, exponential smoothing models, and regression models. PRQ: OMIS 505 or consent of department.

675. TECHNOLOGIES AND APPLICATIONS OF ELECTRONIC BUSINESS (3). In-depth examination of application of electronic commerce technology and development tools to support business-to-business and business-to-consumer commerce. Focus on the strategic impact of technology decisions in the electronic commerce marketplace. Extensive computer laboratory work required to design advanced electronic commerce applications. PRQ: OMIS 652 or consent of department.

679. BUSINESS GEOGRAPHICS (3). Examination of geographic information systems development and use from the perspective of contemporary business. Extensive computer laboratory work designing business geographic systems using commercially available software. CRQ: OMIS 652 or consent of department.

680. SUPPLY CHAIN MANAGEMENT (3). Examination of concepts, issues, and methodologies related to design and administration of supply chain systems. Emphasis on executive-level decision making and the impact of supply chain management on organizational performance. Includes supply chain strategy, strategic alliances, supplier and customer relationships, use of technology, and the integration of logistical operations in the attainment of organizational objectives in a global competitive environment. PRQ: OMIS 505 or consent of department.

682. ADVANCED BUSINESS NETWORKING (3). Complete examination of the design, implementation, and management of network systems for business communications. In-depth analysis of current business telecommunications hardware and software in the Intranet and Internet environments with emphasis on hands-on laboratory experience with design, implementation, configuration, and management of business network systems using multiple technologies. PRQ: OMIS 660 or consent of department.

684. ADVANCED DATABASE MANAGEMENT (3). In-depth examination of the database administration function, including advanced SQL and PL/SQL. Laboratory experience in database administration and programming, with emphasis on creating database applications in the Web environment. Opportunity to take a database administration certification examination at conclusion of course. PRQ: OMIS 652 or consent of department.

685. OPERATIONS STRATEGY (3). Study of operations strategy within the context of manufacturing and service organizations. Emphasis on the use of case analysis in strategy development and policy formulation. PRQ: OMIS 627 or consent of department.

687. OBJECT-ORIENTED BUSINESS APPLICATIONS DEVELOPMENT (3). Object-oriented analysis and design techniques used to develop Web-based business applications. Laboratory experience including development with object-oriented technologies. PRQ: OMIS 651 or consent of department.

690. INFORMATION TECHNOLOGY PROJECT MANAGEMENT (3). Application and integration of the project management body of knowledge areas to managing information technology projects. Focus on project management tools and techniques for defining and managing the project goal, scope, schedule, and budget. Other topics include quality management, risk management, and knowledge management as they relate to information technology projects. PRQ: OMIS 651 or consent of department.

694. ADVANCED TOPICS IN INFORMATION SYSTEMS (3). In-depth study of some of the advanced topics of contemporary interest related to management information systems including alternative business systems design methodologies, advanced data base systems, architectures, and systems quality. May be repeated to a maximum of 6 semester hours provided no repetition of topic occurs. PRQ: Consent of department.

695. INTERNSHIP IN MANAGEMENT INFORMATION SYSTEMS (3). Designed primarily for students lacking full-time business experience. Full-time work for a summer or a semester as an intern in a business firm under the supervision of a coordinator from the Department of Operations Management and Information Systems. Should not be permanent employment or taken as last course in program. PRQ: Consent of department.

697. STRATEGIC INFORMATION SYSTEMS (3). Study of issues related to the leadership of the information systems function. Emphasis on strategic thinking and alignment of information technology with business objectives. Models and techniques of strategic information management illustrated through case studies. Topics include strategies for application portfolios, technical infrastructure, redesign of business processes, change management, information economics, and other organizational issues related to information systems. PRQ: OMIS 651 and OMIS 652, or consent of department.

698. PROJECTS IN MANAGEMENT INFORMATION SYSTEMS (3). Instruction focused on supervised student team projects conducted within the information systems area of selected business organizations. PRQ: Consent of department.

College of Education

Dean: Christine K. Sorensen, Ph.D.
Associate Dean: Diane H. Jackman, Ph.D.

Department of Counseling, Adult and Higher Education
Department of Educational Technology, Research and Assessment
Department of Kinesiology and Physical Education
Department of Leadership, Educational Psychology and Foundations
Department of Literacy Education
Department of Teaching and Learning

Admission

Specific admission requirements are described in the departmental and program sections in the following pages. To be assured of consideration for admission, a prospective student must submit an application to the Graduate School no later than June 1 for the fall semester, November 1 for the spring semester, and April 1 for the summer session. Only complete applications containing all required data (application forms, official transcripts, GRE General Test Scores, and letters of recommendation) are considered.

Applicants denied admission may request reconsideration on the basis of additional evidence and/or information not previously submitted. Such requests shall be in writing and directed to the appropriate program admissions committee. Decisions of program admissions committees may be appealed to the Admissions, Retention, and Professional Standards Committee of the department. Such appeals shall be in writing and should explain the basis for the appeal.

Retention

Students are responsible for meeting the professional standards of the College of Education and its respective departments and programs of study. The following requirements apply to all students.

Students must remain in good academic standing in the Graduate School, are required to maintain high ethical standards, and must demonstrate evidence of functional competency in fulfilling the professional roles required by the discipline.

Doctoral students must pass a candidacy examination which requires an ability to deal with more than individual course content. Satisfactory completion of comprehensive examinations requires analysis, synthesis, and integration of the content within a discipline. Doctoral students must also develop, complete, and defend an acceptable dissertation following the guidelines of the Graduate School and the program in which they are enrolled.

Consult specific program sections of this catalog for additional requirements.

Basic Skills Testing

Successful completion of the Illinois Certification Testing System (ICTS) Basic Skills Test is required for entry into most teacher certification programs and is listed as a prerequisite for many professional courses. The PPST and Praxis I bulletins and applications are available at the Office of Testing Services. Students who intend to enter a teacher certification program and need to take this test should register for and take the ICTS Basic Skills Test as soon as possible.

Teacher Certification

In order to be certified to teach or supervise in the public schools of the state of Illinois, a person must be of good character, in sound health, a citizen of the United States, and at least 19 years of age. The Illinois certification law also requires that an individual complete an approved teacher preparation program at a recognized institution.

The dean of the College of Education, as the university's certification officer, is responsible for reviewing the record of each graduate of an approved teacher education program and for recommending or withholding recommendation of that individual for certification by entitlement and endorsement. Certification is not an automatic procedure. In order to qualify for certification, each student in an entitlement program must complete an application for certification and provide evidence of having completed the general requirements; courses in professional education appropriate to the program being followed, including a minimum of 100 clock hours of approved pre-student-teaching clinical experience prior to student teaching; and a teacher education approved field of study: early childhood, elementary, special education, secondary (6-12), or special (K-12–art, music, physical education).

The following certification and endorsement programs are available at the graduate level only and are approved by the Illinois State Board of Education.

Special K-12
- Media
- Reading

School Service Personnel
- Guidance

Administrative
- General Administrative
- Superintendent
- Chief School Business Official

Questions about these endorsement programs should be addressed to the appropriate department.

Also see "Teacher Certification Information."

Student Teaching in the College of Education

Regulations Governing Student Teaching Assignments

All assignments are limited by the programs and facilities available in the cooperating schools, and the amount of credit given is determined by the type of assignment. Students must be recommended for an assignment by the chair of their department or the designated departmental representative. Graduate applicants must be approved by the department offering their graduate degree and the department in which they will be doing their student teaching.

Graduate students must have been admitted to the Graduate School, have earned a minimum of 12 semester hours at NIU, and have an overall NIU minimum 3.00 GPA.

A student must have been admitted to teacher education, have satisfactorily completed pre-student-teaching clinical experiences, and apply for a student teaching assignment in advance. A student must also have met the specific requirements in the subject matter department and maintained the required departmental GPA or better.

A student may not request a change once an assignment is confirmed by the cooperating school.

Retention

Admission to the program does not guarantee continued acceptance unless the student maintains satisfactory grades and other qualifications. In recognition of its responsibility to the schools in which its graduates teach, the university maintains a program of selective retention of candidates for the teaching profession. Thus, the university seeks to avoid recommending a candidate for a student teaching assignment or certification unless the candidate has good character, sound mental and physical health, and academic competence in his or her overall studies, teaching field(s), and professional studies. Instructors involved in any of the professional sequence of courses may request that a student be dropped from teacher education for deficiencies in grades, attitudes, or professional skill.

Retention in a student teaching assignment depends on the student teacher's ability to demonstrate those competencies associated with effective teaching, including factors such as organization of materials, motivational techniques, classroom management, interpersonal relationships, and professional ethics. Assessment will be made by the student teacher's supervisors through observation and conferences with the student teacher in a clinical situation.

Office of Human Resource Development and Workforce Preparation

The mission of the Office of Human Resource Development and Workforce Preparation is to interpret as well as create knowledge that connects the realms of education and work. The mission is closely aligned with NIU's role–the pursuit of excellence in teaching, research, and service. These complementary functions are the responsibility of the office as it strives to serve the continuing educational needs of human resource development professionals. Personnel in this office conduct research, disseminate findings, and provide other services to the human resource development community. Services provided by the office will regularly evolve to reflect the changing nature of the United States' workforce–one that is being redefined with increasing levels of complexity, uncertainty, and diversity.

Department of Counseling, Adult and Higher Education (CA--)

Chair: Lemuel W. Watson

Graduate Faculty

Lisa Baumgartner, associate professor, Ed.D., University of Georgia
Phyllis M. Cunningham, Distinguished Teaching Professor, emeritus, Ph.D., University of Chicago
Teresa A. Fisher, associate professor, Ph.D., University of Illinois
Francesca Giordano, associate professor, Ph.D., University of Virginia
LaVerne Gyant, associate professor, Ed.D., Pennsylvania State University
Brian Hemphill, assistant professor, Ph.D., University of Iowa
Sharon Holmes, associate professor, Ph.D., Iowa State University
Jorge Jeria, professor, Ph.D., Iowa State University
Laurel Jeris, associate professor, Ed.D., Northern Illinois University
Margaret MBilizi, assistant professor, Ph.D., Indiana University
Carole W. Minor, Distinguished Teaching Professor, Ph.D., University of Maryland
William R. Molasso, assistant professor, Ph.D., Michigan State University
Richard A. Orem, professor, Ed.D., University of Georgia
Allen J. Ottens, professor, Ph.D., University of Illinois
Amy D. Rose, professor, Ed.D., Columbia University Teachers College
Gene L. Roth, Distinguished Teaching Professor, Ph.D., Southern Illinois University
Christine K. Sorensen, associate professor, Ph.D., Iowa State University
Toni R. Tollerud, professor, Ph.D., University of Iowa
Lemuel W. Watson, professor, Ed.D., Indiana University
Scott Wickman, assistant professor, Ph.D., Southern Illinois University
Leann Wyrick-Morgan, assistant professor, Ph.D., University of Northern Colorado
Wei Zheng, assistant professor, Ph.D., University of Minnesota

The Department of Counseling, Adult and Higher Education offers graduate courses leading to the degree Master of Science in Education and the degree Doctor of Education. The department advances scholarly activity for faculty and students and supports individual and collaborative efforts in institutional and noninstitutional settings.

Students interested in teacher certification should also see "Teacher Certification Information."

Master of Science in Education[1]
Adult and higher education
Counseling

Doctor of Education[1]
Adult and higher education
Counseling

Admission

The faculty in the Department of Counseling, Adult and Higher Education selects the best-qualified applicants for admission to its programs. When the number of applicants exceeds a program's capacity, qualified applicants may be denied admission and encouraged to reapply at a later date. Decisions about admissions are ordinarily made each academic term.

Any applicant who is denied admission to a program in the department may submit to the appropriate program admissions committee a written request for reconsideration that includes information not previously submitted. Final decisions of program admissions committees may be appealed to the department's Committee on Admissions, Retention, and Professional Standards. Appeals to this committee must be in writing and must explain the basis for the appeal.

Master of Science in Education in Adult and Higher Education

This 36-semester-hour program offers theoretical and methodological bases for professional development, while providing comprehensive preservice education for persons seeking careers in this field. A required core of learning experiences is supplemented by course work in areas of instruction, administration, and research to prepare both generalists and specialists. The program provides opportunities for individualization to take into account the student's goals and needs and usually includes a faculty-supervised internship in programming, teaching, counseling, or evaluating. It prepares professionals for work in such areas as human resource development, higher education, schools, business and industry, and other social agencies concerned with community problem solving.

Admission

Applicants may submit scores on the Miller Analogies Test (MAT) in lieu of GRE scores. Two letters of recommendation are required from professors or supervisors who can provide supportive evidence of an applicant's professional qualifications and potential for success in graduate study.

Student-at-Large, Study-Abroad, and Transfer Credit

A maximum of 15 student-at-large and transfer semester hours in combination may be applied toward the master's degree in adult and higher education. See "Requirements for Graduate Degrees" for limitation on study-abroad credit. The faculty adviser and the office of the dean of the Graduate School have final authority in determining course credit applicable toward the master's degree in adult and higher education.

Requirements

Students may focus their study in several professional areas such as human resource development, community education, adult English as a second language, and student affairs in higher education. In each case, students must work with an adviser to make sure that they have completed an acceptable program. Ordinarily, students without a sufficient background in adult and higher education will be required to complete an internship as part of their program of study.

[1] All courses with the CAHE designator may be counted toward a student's program in adult and higher education or in counseling.

In no case will a master's degree student be allowed to register for CAHA 598, Issues in Adult and Higher Education, or CAHA 599, Master's Thesis, or write the comprehensive examination without an official program of courses approved by the department and the Graduate School.

Non-Thesis Option

CAHA 400 - The Nature of Adult and Higher Education (3)
CAHA 501 - Adult Learning: Maturity Through Old Age (3)
A research course approved by adviser (3)
Course work approved by adviser (27)

Thesis Option

Same as the non-thesis option except that 6 semester hours of program course work must be in CAHA 599, Master's Thesis.

Comprehensive Examination

Students in the non-thesis option fulfill the comprehensive examination requirement by successfully completing either a comprehensive writing assignment while enrolled in CAHA 598 or a proctored essay examination. Students in the thesis option fulfill this requirement in conjunction with the thesis defense.

Master of Science in Education in Counseling

The M.S.Ed. in counseling is a nationally accredited (CACREP) program, requiring a minimum of 48 semester hours, that provides preparation in the theory, techniques, and information needed by the professional counselor. The academic requirements as set forth by the Illinois State Board of Education and the National Board for Certified Counselors are fully met by graduates of this program. Through individualized planning, a program may be designed to focus on one of the following areas of professional counselor preparation: school counseling, counseling in community, and career counseling.

Admission

An applicant must demonstrate satisfactory academic and professional progress as indicated by data included in the application for admission to the Graduate School.

Applicants to the program in counseling must attend a preadmission workshop and be selected by the faculty on the basis of aptitude, ability, and personal qualifications requisite for the field. Prior to the pre-admission workshop, applicants must complete the supplementary data forms and take the required tests. Applicants are to obtain the forms from the department office, Gabel Hall 200, (815) 753-1448. Applications and the other required material must be received by the Graduate School by April 1 for summer and fall admissions and by November 1 for spring admission. Applicants are usually notified of an admission decision within three weeks of the pre-admission workshop.

Prospective students who fail to satisfy either the Graduate School's GPA requirement or the department's GRE score expectation may request special consideration of their applications. Such a request must be in writing, must include compensatory evidence related to the deficiencies, and should accompany the application for admission to the Graduate School.

Any applicant who is denied admission to the program may submit to the admissions committee a written request for reconsideration that includes information not previously submitted. Final decisions of program admissions committees may be appealed to the department's Committee on Admissions, Retention, and Professional Standards. Appeals to this committee must be in writing and must explain the basis for the appeal.

Retention

Students are responsible for meeting the professional standards of the College of Education and undergo periodic evaluation by the counseling faculty.

Advisement

A student is assigned an adviser when admitted to the program. The adviser is a faculty member in the area of interest which the student intends to pursue. Courses of study are developed for each student. It is always the responsibility of the student to be aware of university policies and regulations affecting his or her program.

Requirements

Students are required to take a minimum of 36 semester hours in common requirements and 12 semester hours in an area of professional preparation as follows.

Non-Thesis Option
CAHC 500 - Orientation to the Counseling Profession (3)
CAHC 511 - Career Counseling (3)
CAHC 525 - Counseling Skills and Strategies (3)
CAHC 530 - Counseling Theories and Practices (3)
CAHC 533X - Standardized Testing (3),
OR CAHC 575 - Assessment in Career Counseling (3) with adviser's approval
CAHC 540 - Group Counseling Theories and Procedures (3)
CAHC 550 - Practicum in Counseling (3)
CAHC 586 - Internship in Counseling (6)
EPFE 500 - Social Foundations of Education (3)
EPS 501 - Psychological Foundations of Education (3)
ETR 520 - Introduction to Educational Research (3)
One of the following areas of professional preparation (12)

Community Counseling
CAHC 524 - Community Agency Counseling: Programs, Issues, and Practices (3)
CAHC 501 - Mental Health (3)
CAHC 684X - Theoretical Foundations of Family Therapy (3)
Elective chosen in consultation with adviser (3)

School Counseling
CAHC 501 - Mental Health (3)
CAHC 521 - Counseling with Children (3)
CAHC 523 - School Counseling: Programs, Issues, and Practices (3)
CAHC 570 - Consultation and Management in Developmental School Counseling Programs (3)

Career Counseling
CAHC 512 - Organization and Administration of Career Counseling Programs (3)
CAHC 610 - Theory in Career Development (3)
CAHE 544 - Alternatives in the Counseling and Placement of Adults (3),
OR CAHC 595 - Women and Careers (3)
Elective chosen in consultation with adviser (3)

Thesis Option

In addition to the requirements above, a thesis is required, with enrollment in CAHC 599, Master's Thesis, for the number of semester hours specified on the student's official program of courses.

Doctor of Education in Adult and Higher Education

The Ed.D. program in adult and higher education provides a flexible system of professional study with course work in areas of instruction, administration, and research to prepare both generalists and specialists in the field. Graduate students in adult and higher education prepare for leadership roles in a variety of adult and higher education endeavors. Students learn how to assist adults to enhance their present roles or to prepare for new roles in society. Adult and higher education can be formal or informal, traditional or non-traditional, and embraces such areas as adult basic education, adult English as a second language, human resource development, continuing professional education, community education, and higher education.

Application Deadlines

To be assured of consideration for admission to the doctoral program in adult and higher education completed applications and all supporting credentials must be received by the Graduate School no later than June 1 for admission for the fall semester, November 1 for admission for the spring semester, and April 1 for admission for the summer session.

Admission

Admission to the doctoral program requires a master's degree either in adult and higher education or in another discipline acceptable to the admissions committee. Three letters of recommendation are required from professors, employers, or supervisors who can provide supportive evidence of an applicant's professional qualifications and potential. Each applicant must complete a writing sample to be administered by the adult and higher education faculty office. Ordinarily, an interview with the adult and higher education admissions committee is required. The faculty reserves the right to request additional evidence of potential such as assessment letters from adult and higher education faculty. Applicants must contact the admissions committee chair about additional requirements.

An applicant may submit MAT scores in lieu of the GRE scores. Students who have successfully completed a master's degree at an accredited institution may have the GRE requirement waived upon successfully completing two NIU adult and higher education courses and having an assessment letter written by each instructor.

Student-at-Large, Study-Abroad, and Transfer Credit

A maximum of 15 student-at-large semester hours of post-master's course work taken at NIU or at another university may be transferred into a student's doctoral degree program. See "Requirements for Graduate Degrees" for limitation on study-abroad credit.

Deficiencies

Students whose master's degree is in a field other than adult and higher education will be required to take CAHA 400 and CAHA 501 as deficiency courses. These courses do not count toward the 63 semester hour minimum required in the doctoral program of study.

Requirements

Upon admission, a student is expected to form a doctoral program advisory committee. In general, this committee will consist of a chair from the adult and higher education faculty and at least two other faculty members, one of whom must be from outside the faculty of adult and higher education.

The doctoral program in adult and higher education requires a minimum of 93 semester hours of graduate work beyond the baccalaureate degree, including the dissertation. With the approval of the department and the office of the dean of the Graduate School, a master's degree may be accepted in lieu of 30 of the 93 semester hours. Ordinarily a student's program will consist of the following.

Course work constituting the common requirements in research methodology, learning and development, and sociocultural analyses (15). These requirements may not be met through independent study. At least 9 semester hours must be in research methodology, not including ETR 520 or its equivalent.

Adult and higher education (CAHA) course work, excluding dissertation hours (18)

A cognate area outside of adult and higher education in a professional area such as human resource development, community education, English as a second language, gerontology, or higher education.

CAHA 699, Doctoral Research and Dissertation (15-30)

A typical doctoral program includes study in a variety of disciplines within the university. Ordinarily, a minimum of 9 semester hours of course work is pursued in other colleges within the university. These credits may be taken within the common requirements or the cognate.

Examinations

Qualifying examination. Before attempting the candidacy examination, students pursuing the Ed.D. in adult and higher education are required to pass a qualifying examination. This examination must be taken after completion of at least 15, but not more than 29, semester hours of an approved official program of courses, not including deficiency courses or courses taken as part of a master's program.

Candidacy examination. A written candidacy examination is scheduled and administered at least twice each year. This is offered in several formats, to be decided in conjunction with the program committee. A graduate student eligible to take this examination, with the permission of the chair of the doctoral committee, will have completed at least two-thirds of his or her courses, exclusive of dissertation research, but including the common requirements. This examination encompasses major areas of professional knowledge.

Once a student has successfully completed all examinations and is admitted to candidacy, she or he must assemble a dissertation committee. This committee ordinarily includes a chair from the adult and higher education faculty with at least two other members, one of whom is from outside the adult and higher education faculty. The committees must also meet all Graduate School requirements.

Doctor of Education in Counseling

The doctoral program in counseling offers advanced professional preparation for those intending to become university professors of counseling and advanced-level clinical counselors and/or supervisors. This program is nationally accredited by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP).

Admission

An applicant for admission must have

a master's degree in counseling or the equivalent.

a GPA of at least 3.20 in previous graduate work; 3.50 or higher preferred.

GRE General Test scores with a minimum of 500 verbal and 500 quantitative preferred.

three letters of recommendation from individuals holding a doctoral degree which provide supportive evidence of an applicant's academic and professional qualifications. All letters must be dated no more than one year prior to the application deadline.

satisfactory academic and professional progress as indicated by data included in the application for admission to the Graduate School.

a minimum of one year of work experience as a counselor preferred.

demonstration of writing competencies as prescribed by the department and submission of a scholarly paper or professional report of which the applicant is sole author.

evidence of potential for professional leadership.

following screening based on the above criteria, a preadmission interview.

Prospective students who fail to satisfy either the GPA or the GRE criterion may request special consideration of their applications. Such a request must be in writing, must include compensatory evidence related to the deficiencies, and should accompany the application for admission to the Graduate School. Final decisions regarding admissions are made by program committees of the department on the basis of a total profile of an individual's qualifications. Where deficiencies exist, the department's Doctoral Admissions Committee may prescribe additional courses and recommend admission with stipulation.

Admission to the doctoral program in counseling is competitive and takes place twice a year. To be considered for admission in the summer session or fall semester, all materials must be received by the Graduate School by April 1; to be considered for spring semester admission, all materials must be received by November 1.

Advisement

As soon as possible after admission, the graduate student should make an appointment with the interim faculty adviser in counseling, who assists the student in selecting a program advisory committee. This committee consists of a chair and two other graduate faculty members, who advise the student in program planning. Advisement is given regarding courses in the major, area of study, additional courses, prerequisites, and the comprehensive examinations. The student's departmentally approved program of courses is forwarded to the Graduate School for approval.

Course Requirements

The Ed.D. in counseling requires a minimum of 105 semester hours including a maximum of 30 semester hours from the master's degree plus a minimum of 75 additional semester hours normally distributed as follows.

CAHC 592[1] - Special Topics in Counseling (3),
  OR CAHC 595[2] - Women and Careers (3),
  OR CAHC 666[2] - Human Sexuality Counseling (3)
CAHC 600 - Professional Seminar in Counseling (3)
CAHC 630 - Theories of Counseling (3)
CAHC 640 - Group Leadership (3)
CAHC 650 - Advanced Practicum in Individual Counseling (3)
CAHC 652 - Supervision in Counseling (3)
CAHC 664[2] - Personality Testing (3)
CAHC 665 - Multicultural Counseling (3)
CAHC 686 - Internship in Counseling (12)
CAHC 690 - Seminar on Research in Human Services (3)
CAHC 699 - Doctoral Research and Dissertation (15)
CAHE 561 - Human Resource Development (3),
  OR CAHE 665 - Consultation in Human Services (3)
EPS 605 - Advanced Seminar in Child Development (3),
  OR EPS 608 - Advanced Research Seminar in Adolescent Development (3),
  OR EPS 610 - Seminar in Lifespan Human Development (3),
  OR other course in human development approved by adviser (3)
Two of the following[2] (6)
  ETR 521 - Educational Statistics I (3)
  ETR 522 - Educational Statistics II (3)
  ETR 525 - Qualitative Research in Education (3)
  ETR 622 - Methods of Multivariate Analysis (3)
Area of study [3] (9)

In addition, prior to approval of the dissertation proposal, the student must present evidence and/or documentation of computer technology competence, professional association involvement, submission of an article for publication, a presentation at a professional conference, and research-team involvement. Details regarding this requirement are available from the student's adviser.

Internship

An approved internship is a required part of the doctoral program. Opportunities exist for internships in a wide variety of settings. The internship is planned in consultation with the chair of the student's program advisory committee and approved by the internship coordinator. It consists of a minimum 1200 clock hours, including one semester full time or two semesters half time.

Examinations

All doctoral students in counseling are required to pass two examinations prior to admission to candidacy.

The general examination includes the basic competencies in counseling theories; human development, learning, and behavior; research; cultural diversity; group counseling; consultation; supervision; assessment; and professional issues, including ethics. A student may apply to the program director to take this examination as soon as course work in the basic competencies is completed. This examination must be successfully completed prior to the candidacy examination.

The candidacy examination includes the student's selected area of study and, where applicable, the cognate area. A student may apply to the program advisory committee chair to take this examination on the completion of most or all of the course work in the area of study. A student has eight weeks to provide a 25-page typewritten response to student- and faculty-generated questions prior to an oral examination related to the contents of the paper.

Satisfactory completion of the candidacy examination admits the student to candidacy for the doctoral degree. A student who fails the candidacy examination may be granted the opportunity to retake it. Failure on the second attempt denies the student admission to candidacy.

A final oral examination related to the dissertation is required and is conducted in accordance with the general requirements of the Graduate School.

Dissertation

The dissertation represents a substantial contribution to knowledge in the candidate's major field of study. Candidates are expected to conduct original scholarship and independent research appropriate to their major and communicate the results of their research effectively.

The student's dissertation committee is selected by the student in consultation with the faculty chair. The committee represents

[1]Only if topic is counseling women or counseling men.
[2]Or other course work with the consent of the student's program committee.
[3]Course work selected in consultation with the student's program committee.

graduate faculty of the university with knowledge in the area of the candidate's topic. The number of committee members, including the chair, is normally three to five. At least two members of the committee must be senior members of the graduate faculty; no more than one member may be without graduate faculty status.

Certificates of Graduate Study

Career Development (18)

This certificate is designed to prepare professionals in educational settings, public service agencies, and the private sector to assist individuals of all ages with career planning, decision making, changes, and development. It is available to any graduate-level student in good standing. Students who want to pursue this certificate must file an application with the certificate coordinator and develop a plan of studies with that coordinator.

CAHC 512 - Organization and Administration of Career Counseling Programs (3)
CAHC 575 - Assessment in Career Counseling (3)
CAHC 610 - Theory in Career Development (3)
Three of the following (9)
- CAHE 544 - Alternatives in the Counseling and Placement of Adults (3)
- CAHC 595 - Women and Careers (3)
- CAHC 586 - Internship in Counseling (3), OR CAHC 686 - Internship in Counseling (3)
- Career development elective approved by coordinator (3)

Higher Education (18)

The certificate of graduate study in higher education allows students seeking professional careers in higher education to pursue graduate-level study in one or more of the following areas related to two- and four-year institutions of higher education: higher education administration, student personnel services, curriculum development, and teaching.

This certificate of graduate study is available to any graduate-level student in good standing. Students who are enrolled in a master's, educational specialist, or doctoral degree program at NIU may pursue additional study in the area of higher education by enrolling in 18 semester hours of prescribed higher education course work as part of, or in addition to, their department's graduate degree program or required studies.

Students who wish to pursue this certificate of graduate study must complete an application with the coordinator of the certificate of graduate study in higher education specifying those 18 semester hours from the list below which will comprise the course work for the certificate. Graduate students enrolled in a degree program should consult with their major adviser before completing an application with the higher education certificate coordinator.

CAHA 657 - Seminar in Higher Education (3)
CAHE 602 - Student Development in Higher Education: Theory and Practice (3), OR CAHE 670 - The Administration of Higher Education (3)
EPFE 623 - History of Higher Education (3)
Three of the following (9)
- CAHA 555 - Seminar in the Community College (3)
- CAHA 560 - Nontraditional Adult Higher Education (3)
- CAHA 568 - Continuing Higher Education (3)
- CAHA 590[1] - Workshop in Adult and Higher Education (3)
- CAHE 509 - Culture of the College Student (3)
- CAHE 522 - Student Development in Higher Education: Programs, Issues, and Practices (3)
- CAHE 572 or ETR 572X - Assessment Methods in Higher Education (3)
- CAHE 601 - Personnel Services in Higher Education Credits:
- CAHE 602[2] - Student Development in Higher Education: Theory and Practice (3)
- CAHE 651 - Community College Student Personnel Services (3)
- CAHE 670[2] - The Administration of Higher Education (3)
- CAHE 671 - Legal Aspects of Higher Education Administration (3)
- CAHE 672 - Business Management in Higher Education (3)
- LTRE 619 - Principles and Methods of Teaching Postsecondary Reading (3)
- Individualized study (3)[3]

Certification in School Counseling

As of June 1, 2004, a teaching certificate is no longer required in order to become a school counselor in Illinois. At NIU, students must still complete the accredited master's degree in school counseling. Students who are not teacher credentialed must complete the master's degree in school counseling and additional course work in education including the following.

- the structure, organization, and operation of the educational system, with emphasis on P-12 schools;
- the growth and development of children and youth, and their implications for counseling in schools;
- the diversity of Illinois students and the laws and programs that have been designed to meet their needs; and
- the effective management of the classroom and the learning process.

Students work with their adviser to determine appropriate courses. Candidates who successfully fulfill the program requirements are eligible to receive faculty recommendation for State of Illinois school counseling certification.

Course List

General (CAHE)

CAHE 509. CULTURE OF THE COLLEGE STUDENT (3). Concepts of culture, subculture, and societal participation with reference to college students.

CAHE 522. STUDENT DEVELOPMENT IN HIGHER EDUCATION: PROGRAMS, ISSUES, AND PRACTICES (3). Focus on current programs, issues, practices, research, and trends in student development programming in higher education. Exploration of historical, philosophical, and theoretical foundations of student development related to practice.

CAHE 544. ALTERNATIVES IN THE COUNSELING AND PLACEMENT OF ADULTS (3). Examination and identification of promising alternatives in the facilitation of adult career development through guidance, counseling, and vocational placement.

CAHE 561. HUMAN RESOURCE DEVELOPMENT (3). *Crosslisted as ETT 561X.* Nature and function of programs for developing human resources in business, education, industry, government, social services, and voluntary organizations.

CAHE 572. ASSESSMENT METHODS IN HIGHER EDUCATION (3). *Crosslisted as ETR 572X.* Basic concepts and procedures in the assessment of applicants for admission and retention and use of assessment methods for counseling to support retention in institutions of higher education.

CAHE 601. PERSONNEL SERVICES IN HIGHER EDUCATION (3). Comprehensive study of the organizational structure and administrative relationships of personnel services in the collegiate setting. Includes admission, testing, records, housing, scholarships and loans, health and counseling, student activities, discipline, student government, and placement.

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[1] Workshop must be directly related to higher education and approved by the higher education certificate coordinator.
[2] If not taken to fulfill requirements above.
[3] Students may take up to 3 semester hours of individualized study toward the certificate with the approval of the higher education certificate coordinator. These hours should be compatible with the student's career goals and must be directly related to higher education and may not include thesis or dissertation hours.

CAHE 602. STUDENT DEVELOPMENT IN HIGHER EDUCATION: THEORY AND PRACTICE (3). Theories of late adolescent and adult development in relation to their usefulness and application in designing student development programs and environments that support and are interactive with academic disciplines. PRQ: CAHE 522 or consent of department.

CAHE 615. STRATEGIC HUMAN RESOURCE DEVELOPMENT (3). *Crosslisted as ETT 615X.* Advanced study emphasizing complex skills, concepts, and strategies relating to the adult teaching/learning component of human resource development in business, industry, government, and voluntary organizations.

CAHE 651. COMMUNITY COLLEGE STUDENT PERSONNEL SERVICES (3). Seminar on student personnel services and problems peculiar to the community (junior) college. Analysis of current practice and research in the field with emphasis on personnel practices and instruments, orientation procedures, counseling and record keeping, registration, testing and test interpretation, placement, student activity programs, and institutional research on student characteristics. PRQ: CAHA 555 and 6 semester hours of guidance and/or measurement, or consent of department.

CAHE 665. CONSULTATION IN HUMAN SERVICES (3). *Crosslisted as ETT 665X.* Application of consultation strategies in working with individuals and groups. Topics and problems taken from the fields of counseling, adult education, and instructional technology. PRQ: Consent of department.

CAHE 670. THE ADMINISTRATION OF HIGHER EDUCATION (3). Various executive roles common to higher education administration. Decision theory, role analysis, accountability models, and principles of organizational behavior as applied to the administration of higher education institutions.

CAHE 671. LEGAL ASPECTS OF HIGHER EDUCATION ADMINISTRATION (3). Legal principles, legislation, and court rulings in such areas as employment, dismissal, contracts, tenure, civil rights, due process, student rights, and other issues of concern to higher education administrators.

CAHE 672. BUSINESS MANAGEMENT IN HIGHER EDUCATION (3). Analysis of issues and problems of business management in colleges and universities.

Adult and Higher Education (CAHA)

CAHA 400. THE NATURE OF ADULT AND HIGHER EDUCATION (3). Designed for students studying in various departments and areas who wish to explore the field as it exists in basic education, high schools, community colleges, universities, private schools, businesses, governmental agencies, nonprofit organizations, and churches. Historical, philosophical, and sociological bases of adult education with emphasis on present roles and future trends in the field.

CAHA 431X. TECHNIQUES OF TUTORING AND LEARNING ASSISTANCE (3). *Crosslisted as LTRE 431.* Methods and techniques for peer tutoring, supplemental instruction, learning assistance, or literacy tutoring. Development of tutorial resource materials. Basic assessment and remedial or developmental processes in content area tutoring, study strategies, and learning assistance. Experiences with tutorial programs, learning assistance programs, or supplemental instruction groups.

CAHA 490. WORKSHOP IN ADULT CONTINUING EDUCATION (1 to 3). Opportunity provided to work cooperatively under guidance and supervision of an experienced adult educator. Intensive analysis of specific programs of adult education. Literature of the field and techniques of studying agency problems. Special projects assigned to each student for intensive study. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

CAHA 492. SPECIAL TOPICS IN ADULT CONTINUING EDUCATION (1 to 3). Topics announced. May be repeated to a maximum of 9 semester hours when subject varies.

CAHA 501. ADULT LEARNING: MATURITY THROUGH OLD AGE (3). Inquiry into learning theories and their relationships to mature and aging adults. Emphasis on the problems of changes in learning capacities, incentives, emotional development and their implications for adult educators.

CAHA 502. EDUCATING CULTURALLY DIVERSE ADULTS (3). Analysis and critique of economic, educational, sociological, cultural, and professional issues having an impact on the education of culturally diverse adults. Focus on the development of educational programs and classes which address these issues.

CAHA 530. INSTRUCTIONAL THEORY AND PRACTICE IN TEACHING ADULTS (1 to 3). Development of methods, techniques, and strategies for the instruction of adults.

CAHA 533. LEARNING HOW TO LEARN: APPLIED THEORY FOR ADULTS (3). Understandings and skills that enable adults to learn effectively in classrooms, small groups, and individually. Participation training and self-directed education in a laboratory setting. Implications for adult education agencies.

CAHA 540. CURRICULUM AND PROGRAM DEVELOPMENT IN ADULT CONTINUING EDUCATION (3). Application of curriculum development and program planning principles to education and training programs designed specifically for the adult learner.

CAHA 545. PLANNING AND PROMOTING NONCREDIT ADULT CONTINUING EDUCATION (1 to 3). Strategies for needs assessment and marketing for noncredit adult continuing education; program models and techniques for reaching specific target audiences. Student-identified programming concerns considered through a practicum-workshop approach. May be repeated to a maximum of 3 semester hours.

CAHA 550X. TEACHING ADULTS ENGLISH AS A SECOND LANGUAGE: METHODS AND MATERIALS FOR TEACHING ORAL SKILLS (3). *Crosslisted as LTIC 550.* Examination and application of methods and materials used to teach oral communication skills (listening and speaking) to English-language learners in adult education settings.

CAHA 551X. TEACHING ADULTS ENGLISH AS A SECOND LANGUAGE: METHODS AND MATERIALS FOR TEACHING LITERACY SKILLS (3). *Crosslisted as LTIC 551.* Examination and application of methods and materials used to teach literacy skills (reading and writing) to English-language learners in adult education settings.

CAHA 552X. TEACHING ADULTS ENGLISH AS A SECOND LANGUAGE: ORGANIZING INSTRUCTION OF ENGLISH LANGUAGE SKILLS (3). *Crosslisted as LTIC 552.* Examination of current practices in teaching English language learners in adult education settings with focus on issues in program and curriculum design, including the curriculum as process, student and teacher assessment, teaching methodology, and professional development.

CAHA 553X. TEACHING ADULTS ENGLISH AS A SECOND LANGUAGE: INFLUENCE OF CULTURAL BACKGROUNDS ON ENGLISH LANGUAGE DEVELOPMENT (3). *Crosslisted as LTIC 553.* Examination of cultural differences and their influences on adults learning English language skills and acquiring general perceptions of their social environment.

CAHA 555. SEMINAR IN THE COMMUNITY COLLEGE (3). Development of the community college, its present status, purposes, functions, organization, and curriculum; and emerging issues in the community college.

CAHA 560. NONTRADITIONAL ADULT HIGHER EDUCATION (3). Historical background, conceptual base, and literature of alternative approaches to the education of adults within higher education settings. Includes nontraditional approaches such as open learning systems, the free university, portfolio development and experiential learning, folk schools, and field studies of current nontraditional adult higher education programs, their structure and content.

CAHA 565. CONTINUING EDUCATION FOR PROFESSIONAL GROUPS (3). Explication and critique of frameworks for understanding the goals, processes, and outcomes of continuing education. Exploration of the design and development of continuing education programs for adults in professional roles.

CAHA 568. CONTINUING HIGHER EDUCATION (3). Analysis and critique of the current practices of continuing education in institutions of higher education with application to organization and administration, programmatic thrusts and intended audiences, financial management, marketing and promotion, delivery systems, and collaboration among higher education institutions.

CAHA 570. ORGANIZATION AND ADMINISTRATION OF ADULT CONTINUING EDUCATION (3). Organizing, financing, staffing, promoting, and evaluating programs of adult education. Teaching resources and the role of the adult education administrator.

CAHA 575. POLICY STUDIES IN ADULT CONTINUING EDUCATION (3). Critical analysis of the formation and implementation of adult continuing education policy within educational and other social institutions. Use of a variety of theoretical perspectives to examine selected case studies from the comparative adult continuing education literature and the students' own work experience, as well as alternative adult continuing education policies.

CAHA 581. COMMUNITY PROJECT DEVELOPMENT AND ADULT EDUCATION (3). Role of philosophical, theoretical, and methodological bases in people's participation, empowerment, and transformation in community-based project development. Relationship of these bases to social change in adult education settings.

CAHA 586. INTERNSHIP IN ADULT AND HIGHER EDUCATION (3 to 9). Work individually or in small groups in a practical situation under the guidance of a staff member from that setting and a university supervisor. May be repeated to a maximum of 15 semester hours, although typically only 9 semester hours may be applied to the program of study.

CAHA 590. WORKSHOP IN ADULT AND HIGHER EDUCATION (1 to 3). Designed for teachers, counselors, and administrators to study contemporary issues in adult and higher education. May be repeated to a maximum of 12 semester hours when content varies. PRQ: Consent of department.

CAHA 597. INDEPENDENT RESEARCH IN ADULT AND HIGHER EDUCATION (1 to 6). Independent research at the master's degree level under faculty supervision. May be repeated to a maximum of 6 semester hours. PRQ: Admission to master's degree program and consent of faculty member who will direct research.

CAHA 598. ISSUES IN ADULT AND HIGHER EDUCATION (3). Integration and synthesis of the concepts, principles, trends, and issues in adult and higher education. Not open to doctoral students in the field of adult and higher education. PRQ: Completion of 24 semester hours in an approved master's level program, or consent of department.

CAHA 599. MASTER'S THESIS (1 to 6). Open only to students who elect to write a thesis for the M.S.Ed. degree. Student enrolls with the faculty member directing the thesis. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department. Recommended: ETR 520.

CAHA 600. SEMINAR IN ADULT CONTINUING EDUCATION (1 to 6). Advanced study and discussion of important issues relating to the field and profession of adult continuing education. Group and individual interests contribute to the design of the course. May be repeated to a maximum of 21 semester hours when topic varies. PRQ: Consent of department.

CAHA 603. HUMOR AND ADULT LEARNING (3). Analyses of theory and practice of humor in adult continuing education. Exploration of methods and techniques for integrating humor into adult teaching and learning transactions.

CAHA 610. EVALUATING ADULT CONTINUING EDUCATION PROGRAMS (3). Advanced study of program design and evaluation methods necessary to analyze and improve programs in adult continuing education effectively.

CAHA 616. ADULT LEARNING IN THE WORKPLACE (3). Research, theory, and practice. Exploration of adult learning theory as it applies to workplace learning of individuals, teams, and organizations. Global issues relating to formal, informal, and incidental learning in the workplace. PRQ: CAHE 561 or ETT 561X, or consent of department.

CAHA 620. REVIEW OF RESEARCH IN ADULT AND HIGHER EDUCATION (3). Comprehensive study of research literature in adult and higher education and related social science fields.

CAHA 622. ADULT AND HIGHER EDUCATION IN SOCIAL CONTEXT (3). *Crosslisted as EPFE 622X*. Critical analysis of the relationships existing between adult and higher education and its various social contexts. Clarification of present and future purposes and practices of adult and higher education in light of trends in social science research.

CAHA 633. THEORY BUILDING FOR LEARNING HOW TO LEARN IN ADULT EDUCATION (3). Analyses of theory building for learning how to learn with emphasis on understanding theories and the application of learning how to learn in varied adult education contexts. PRQ: CAHA 533.

CAHA 657. SEMINAR IN HIGHER EDUCATION (3). Overview of American higher education and analysis of selected problems and issues.

CAHA 659. CRITICAL AND FEMINIST PEDAGOGIES IN ADULT EDUCATION (3). Analysis of critical practice in the education of adults leading to personal and social transformation from the perspective of critical and feminist/womanist pedagogical theory.

CAHA 660. INTERNATIONAL ADULT EDUCATION (3). Examination of the present status of adult continuing education in selected foreign countries. Emphasis on scope, purposes, and development of adult continuing education institutes and programs internationally.

CAHA 661. ADULT LEARNING IN SOCIAL MOVEMENTS: BUILDING CIVIL SOCIETY (3). Examination of social movements, with focus on adult learning; grassroots participation in creating public policy through adult education.

CAHA 670. LEADERSHIP IN ADULT CONTINUING EDUCATION (3). Administrative theory and research related to current practice of leadership in the field of adult continuing education. Additional emphases include strategic planning; the development of public, institutional, or agency support; and the evolving roles of the adult education leader.

CAHA 686. INTERNSHIP IN ADULT AND HIGHER EDUCATION (3 to 12). Work individually or in small groups in a practical situation under the guidance of a staff member from that setting and a university supervisor. Open only to doctoral students, or by consent of department. May be repeated to a maximum of 18 semester hours, although typically only 12 semester hours may be applied to the program of study.

CAHA 697. INDEPENDENT RESEARCH IN ADULT AND HIGHER EDUCATION (1 to 6). Independent research at post-master's degree levels under faculty supervision. May be repeated to a maximum of 12 semester hours, although typically only 6 semester hours are applied to the program of study.

CAHA 698. RESEARCH SEMINAR IN ADULT AND HIGHER EDUCATION (1 to 3). Designed for the advanced doctoral student interested in planning and conducting research studies in adult and higher education. Research project may be an exploratory or pilot study related to the doctoral dissertation. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

CAHA 699. DOCTORAL RESEARCH AND DISSERTATION (1 to 15). May be repeated to a maximum of 60 semester hours, but no more than 30 semester hours may be applied toward the Ed.D. degree in adult and higher education. PRQ: Candidacy for the doctoral degree and consent of chair of doctoral committee

Counseling (CAHC)

CAHC 410. FOUNDATIONS OF CAREER EDUCATION (3). Concepts, evaluation, overview, and programs in career education.

CAHC 490. WORKSHOP IN COUNSELING (1 to 3). Contemporary issues and problems in the provision of human services. May be repeated to a maximum of 6 semester hours when subject varies.

CAHC 500. ORIENTATION TO THE COUNSELING PROFESSION (3). The profession of counseling in a variety of settings, study of current trends and practices, and survey of developmental needs and current problems of clients within a changing society.

CAHC 501. MENTAL HEALTH (3). Study of mental health concepts, research, and the dynamics of human behavior with emphasis on the use of these data by counselors. PRQ: CAHC 500 or consent of department.

CAHC 511. CAREER COUNSELING (3). Career theory and counseling techniques for those intending to be counselors in schools, agencies, colleges and universities, and organizational settings. PRQ: CAHC 500 or consent of department.

CAHC 512. ORGANIZATION AND ADMINISTRATION OF CAREER COUNSELING PROGRAMS (3). Development, organization, management, and evaluation of career counseling programs in educational, work, and community settings. Field visits and individualized projects. PRQ: CAHC 500 or consent of department.

CAHC 521. COUNSELING WITH CHILDREN (3). Principles, assessment, and methods of counseling pertinent to working with children in schools, mental health facilities, and hospitals. PRQ: CAHC 500 or consent of department.

CAHC 523. SCHOOL COUNSELING: PROGRAMS, ISSUES, AND PRACTICES (3). Effective school counseling programming to include developmental curriculum, academic program planning, motivation, retention, consultation, and referral. Current issues and practices related to the concerns of K-12 students.

CAHC 524. COMMUNITY AGENCY COUNSELING: PROGRAMS, ISSUES, AND PRACTICES (3). Principles of service delivery in community agencies including roles and functions of counselors, trends and problems, and specialized settings and populations.

CAHC 525. COUNSELING SKILLS AND STRATEGIES (3). *Crosslisted as COMD 505X*. Clinical preparation in counseling skill development. Overview of role of counselor and counseling process. Emphasis on practice in counseling skills and techniques. PRQ: CAHC 500 and admission to the master's program in counseling, or consent of department.

CAHC 530. COUNSELING THEORIES AND PRACTICES (3). Constructs, principles, and techniques of major counseling theories. PRQ: CAHC 525 or consent of department.

CAHC 533X. STANDARDIZED TESTING (3). *Crosslisted as ETR 533*. Principles of measurement as applied to group standardized measures of achievement, special aptitude, intelligence, personality and interest for use in educational personnel work. Administering, scoring, and interpreting these measures.

CAHC 540. GROUP COUNSELING THEORIES AND PROCEDURES (3). Constructs, principles, and techniques of major group counseling theories. Group dynamics and developmental programming. Practice with selected techniques. PRQ: CAHC 500 or consent of department.

CAHC 550. PRACTICUM IN COUNSELING (1 to 6). The practice of counseling in laboratory and field settings. Cases, tapes, role playing, and analysis of counseling process and counselor responses. May be repeated up to a maximum of 6 semester hours. PRQ: CAHC 500, CAHC 511, CAHC 525, CAHC 530, CAHC 533X, CAHC 540, and consent of department.

CAHC 551. SUPERVISED PRACTICE IN GROUP COUNSELING (3). The practical aspects of group counseling and developmental programming. Leadership and participatory experiences in the formation, maintenance, development, and closing stages of groups. PRQ: CAHC 540 or consent of department. PRQ or CRQ: CAHC 550 or consent of department.

CAHC 567. DRUG DEPENDENCY COUNSELING (3). The pharmacologic and psychosocial effects of various drugs. Emphasis on counseling skills and techniques in working with problems of drug dependency and in the prevention of dependency. PRQ: CAHC 530 or consent of department.

CAHC 570. CONSULTATION AND MANAGEMENT IN DEVELOPMENTAL SCHOOL COUNSELING PROGRAMS (3). Role of the school counselor as a consultant and manager in the design, implementation, and evaluation of a comprehensive developmental school counseling program.

CAHC 575. ASSESSMENT IN CAREER COUNSELING (3). Individual and group assessment techniques and instruments used in career counseling and development activities with individuals over the lifespan. PRQ: CAHC 511 or consent of department.

CAHC 586. INTERNSHIP IN COUNSELING (1 to 15). Work individually or in small groups in a practical situation under guidance of a staff member of that setting and a university supervisor. May be repeated to a maximum of 15 semester hours. PRQ: CAHC 550 or consent of department.

CAHC 590. WORKSHOP IN COUNSELING (1 to 3). Study of contemporary issues and problems in the provision of human services. May be repeated to a maximum of 30 semester hours when subject varies, but no more than 9 semester hours may be applied toward the Ed.D. degree in counseling.

CAHC 592. SPECIAL TOPICS IN COUNSELING (1 to 3). Topics announced. May be repeated to a maximum of 30 semester hours when subject varies, but no more than 9 semester hours may be applied toward the Ed.D. degree in counseling.

CAHC 593. CRISIS INTERVENTION (3). Role and responsibilities of counselors in crisis intervention. Assessment and case management for crisis situations.

CAHC 595. WOMEN AND CAREERS (3). Examination of the psychological, demographic, sociocultural, and interpersonal influences on the career development of women.

CAHC 597. INDEPENDENT RESEARCH IN COUNSELING (1 to 3). Independent research at the master's degree level under faculty supervision. May be repeated to a maximum of 3 semester hours. PRQ: Admission to master's degree program and consent of faculty member who will direct research.

CAHC 599. MASTER'S THESIS (1 to 6). Open only to students who elect to write a thesis for the M.S.Ed. degree. Student enrolls with the faculty member directing the thesis. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department. Recommended: ETR 520.

CAHC 600. PROFESSIONAL SEMINAR IN COUNSELING (3). Philosophical and historical roots of the counseling profession, systems which affect its functioning, and ethical and legal standards which guide it. Orientation to the expectations of advanced graduate study in counseling and the responsibilities of professionals in the field.

CAHC 610. THEORY IN CAREER DEVELOPMENT (3). Thorough grounding in current career development theories. PRQ: Master's degree in counseling or consent of department.

CAHC 630. THEORIES OF COUNSELING (3). Critical evaluation of theories of counseling. Review of research in the application of theoretical counseling constructs. PRQ: Master's degree in counseling or consent of department.

CAHC 631. SEMINAR IN COUNSELING AND PSYCHOTHERAPY (1 to 3).
A. Adlerian Counseling
B. Behavioral Counseling
C. Gestalt Therapy
D. Psychosynthesis
E. Rational-Emotive Psychotherapy
Advanced graduate seminars with focus on specific theories of counseling and psychotherapy. Separate sections, each focusing on a single theory. Credit is limited to a total of 3 semester hours per topic. PRQ: CAHC 630 or consent of department.

CAHC 640. GROUP LEADERSHIP (3). Study of leadership styles in task-oriented and personal growth groups. Emphasis on the analysis and attainment of leadership behaviors that are most facilitative of individual and group purposes and goals. PRQ: CAHC 540, CAHC 630, or consent of department.

CAHC 650. ADVANCED PRACTICUM IN INDIVIDUAL COUNSELING (3). Supervised practice of counseling. Focus on development of skills in working with individual clients. PRQ: Master's degree in counseling or consent of department.

CAHC 652. SUPERVISION IN COUNSELING (3). Theory and practical experience relating to supervision of counselors-in-training. PRQ: Master's degree in counseling and consent of department.

CAHC 661. OUTREACH IN HUMAN SERVICE PROGRAMS (3). Application of outreach strategies in working with individuals and groups. PRQ: Master's degree in counseling or consent of department.

CAHC 664. PERSONALITY TESTING (3). Application of personality assessment instruments, including projective tests, in working with individuals. PRQ: Master's degree in counseling or consent of department.

CAHC 665. MULTICULTURAL COUNSELING (3). Alternate counseling strategies for counselors in a multicultural society. Analysis of traditional and contemporary experiences of ethnocultural and other population groups with emphasis on counseling skills and techniques in working with clients of diverse backgrounds. PRQ: CAHC 530 or consent of department.

CAHC 666. HUMAN SEXUALITY COUNSELING (3). Alternate counseling strategies to be applied to sexual concerns and problem areas. Emphasis on counseling skills and techniques in working with persons with differing sexual values, needs, and backgrounds. PRQ: Master's degree in counseling or consent of department.

CAHC 667. COUNSELING OLDER PERSONS (3). Gerontological counseling models and techniques. PRQ: Master's degree in counseling or consent of department.

CAHC 684X. THEORETICAL FOUNDATIONS OF FAMILY THERAPY (3). *Crosslisted as FCNS 684.* Examination and discussion of the historical development and theoretical foundations of family therapy, with a focus on the traditional and current models of therapy in the field. PRQ: Consent of department.

CAHC 686. INTERNSHIP IN COUNSELING (1 to 15). Work individually or in small groups in a practical situation under guidance of a staff member of that setting and a university supervisor. Open only to doctoral students, or by consent of department. May be repeated to a maximum of 30 semester hours. PRQ: CAHC 600, CAHC 650, and 3 semester hours of required doctoral course work, or consent of department.

CAHC 690. SEMINAR ON RESEARCH IN HUMAN SERVICES (3). Research in counseling, career development, and other human services. PRQ: Master's degree in counseling or consent of department.

CAHC 697. INDEPENDENT RESEARCH IN COUNSELING (1 to 6). Independent research at post-master's degree levels under faculty supervision. May be repeated to a maximum of 12 semester hours but no more than 6 semester hours may be applied toward an Ed.D. degree in counseling. PRQ: Master's degree in counseling or consent of department.

CAHC 699. DOCTORAL RESEARCH AND DISSERTATION (1 to 15). May be repeated to a maximum of 60 semester hours, but no more than 30 semester hours may be applied toward the Ed.D. degree in counseling. PRQ: Candidacy for doctoral degree and consent of chair of doctoral committee.

Department of Educational Technology, Research and Assessment (ETR, ETT)

Chair: Jeffrey B. Hecht

Graduate Faculty

Rebecca P. Butler, associate professor, Ph.D., University of Wisconsin
Cynthia S. Campbell, associate professor, Ph.D., Southern Illinois University
Vicki L. Collins, assistant professor, Ph.D., University of Oregon
Corenna C. Cummings, associate professor, Ph.D., University of Pittsburgh
Barbara Fiehn, assistant professor, Ed.D., St. Cloud University
Jeffrey B. Hecht, professor, Ph.D., University of California, Riverside
Janet K. Holt, associate professor, Ph.D., Southern Illinois University
Pi-Sui Hsu, assistant professor, Ph.D., Pennsylvania State University
Wei-Chen Hung, assistant professor, Ph.D., Indiana University
Paul J. Ilsley, professor, Ed.D., Northern Illinois University
James A. Lockard, Distinguished Teaching Professor, Ph.D., Iowa State University
Lara M. Luetkehans, associate professor, Ph.D., University of Georgia
Hayley J. Mayall, assistant professor, Ph.D., University of Connecticut
Rhonda S. Robinson, Distinguished Teaching Professor, Ph.D., University of Wisconsin
Kenneth Silber, associate professor, Ph.D., University of Southern California
Sharon E. Smaldino, professor, Ph.D., Southern Illinois University
Thomas J. Smith, associate professor, Ph.D., University of Illinois
David A. Walker, associate professor, Ph.D., Iowa State University
Brent E. Wholeben, professor, Ph.D., University of Wisconsin
Lisa Yamagata-Lynch, assistant professor, Ph.D., Indiana University

The Department of Educational Technology, Research and Assessment offers graduate courses and research opportunities leading to the Master of Science degree in educational research and evaluation and to the Master of Science in Education and the Doctor of Education degrees in instructional technology. The department also offers two certification programs in school library media. The certification programs are fully accredited by the state of Illinois and by appropriate professional associations. The department works to advance the development and use of technology, research methodology, and assessment in a variety of settings to enhance teaching, learning, and scholarship. Through course work in the department, opportunities are provided for students to develop core knowledge and competence in assessment and evaluation and research methodology to support programs in the College of Education, as well as programs in other disciplines.

Students interested in teacher certification should also see "Teacher Certification Information."

Master of Science
Educational research and evaluation

Master of Science in Education
Instructional technology

Doctor of Education
Instructional technology

Admission

The faculty in the Department of Educational Technology, Research and Assessment select the best-qualified applicants for admission to its programs. When the number of applicants exceeds a program's capacity, qualified applicants may be denied admission and encouraged to reapply at a later date. Decisions about admissions are ordinarily made each term.

Any applicant who is denied admission to a program in the department may submit to the appropriate program admissions committee a written request for reconsideration that includes information not previously submitted. Final decisions of program admissions committees may be appealed to the department's Committee on Admissions, Retention, and Professional Standards. Appeals to this committee must be in writing and must explain the basis for the appeal.

Master of Science in Educational Research and Evaluation

This 36-semester-hour program is designed to prepare professionals in the fields of educational assessment, evaluation, and qualitative and quantitative research. Students learn to plan and design educational evaluations, implement and interpret qualitative and statistical data analytic procedures, and relate the findings to educational and social science policy. Students pursue this degree either in a general track or with an area of study in advanced quantitative methods, in assessment, or in program evaluation. Study in the general track allows students to focus on a specific discipline of the department, e.g., evaluation and technology or qualitative research. The area of study in advanced quantitative methods prepares students for careers as data analysts/statisticians in educational, business, and professional settings, as well as in governmental agencies. The area of study in assessment furthers students' knowledge of the theory and practice of assessment; this specialization also provides opportunities for teacher professional development. The area of study in program evaluation prepares students for careers as evaluators for school districts, business and professional organizations, culturally based institutions, and military and government agencies.

Admission

An applicant must submit GRE or GMAT scores.

Student-at-Large, Study-Abroad, and Transfer Credit

A maximum of 15 student-at-large and transfer semester hours in combination may be applied toward the master's degree in educational research and evaluation, with the exception that a maximum of 18 student-at-large semester hours from the certificate of graduate study in advanced quantitative methodology in education may be applied towards this master's degree. See "Requirements for Graduate Degrees" for limitation on study-abroad credit.

Requirements

ETR 501 - Proseminar in Educational Research and Evaluation (3)
ETR 520 - Introduction to Educational Research (3)
ETR 521 - Educational Statistics I (3)
ETR 525 - Qualitative Research in Education (3)
ETR 528[1] - Educational Assessment (3),
OR ETR 529[1] - Principles of Educational Measurement (3)
ETR 586 - Internship in Research and Evaluation (3),
OR ETR 587 - Practicum in Educational Research and Evaluation (3)
ETR 599A - Master's Thesis (6),
OR ETR 599B - Master's Project (6)
Course work selected in consultation with program adviser including a minimum of 6 semester hours in the department (12),
OR one of the following areas of study (12)

Advanced Quantitative Methods[1]
ETR 522 - Educational Statistics II (3)
ETR 560 - Computer Data Analysis (3)
ETR 562 - Applied Categorical Data Analysis (3)
One statistics-related course (3)

Assessment
ETR 531 - Program Evaluation in Education (3)
ETR 534 - Dynamic Assessment for Students with High-incidence Disabilities (3)
ETR 536 - Assessment Design (3)
One additional course in major (3)

Program Evaluation
ETR 522 - Educational Statistics II (3)
ETR 526 - Advanced Technologies in Qualitative Research (3)
ETR 531 - Program Evaluation in Education (3)
One additional course in major (3)

Comprehensive Examination

The comprehensive examination is based on the student's program of study and typically focuses on examination of an issue or problem in educational research and evaluation. Students should contact the department office no later than the semester prior to anticipated program completion and graduation to obtain an application for the comprehensive examination.

Master of Science in Education in Instructional Technology

This 39-semester-hour program prepares students to be competent practitioners and creative leaders in all major areas of the field. Students develop competencies in such areas as performance technology, instructional software design and development, media administration, program evaluation, and instructional design, development, and evaluation.

Admission

An applicant may submit GMAT or MAT scores in lieu of GRE scores.

Student-at-Large, Study-Abroad, and Transfer Credit

Students-at-large are normally prohibited from registering for graduate courses in instructional technology unless they are pursuing an approved certification or endorsement in school library media. A maximum of 15 student-at-large and transfer semester hours in combination may be applied toward the master's degree in instructional technology. See "Requirements for Graduate Degrees" for limitation on study-abroad and transfer credit. With the approval of the student's faculty adviser, a student who has completed endorsement and/or certification requirements in school library media at NIU as a student-at-large may apply some or all of those student-at-large hours towards the master's degree in instructional technology.

Requirements

The M.S.Ed. in instructional technology requires a minimum of 39 semester hours of graduate course work, determined jointly by the student and adviser. An approved program of courses includes general requirements in research and foundations, courses in instructional technology, and electives as follows.

A research course approved by adviser (3)
An educational foundations course approved by adviser (3)
Additional instructional technology (ETT) courses approved by adviser (24-33)
Electives (0-9)

Students focusing on performance technology, instructional design and development, or school library media certification may be required to include internship or practicum courses as part of the required course work.

Comprehensive Examination

The comprehensive examination is based on the student's program of study and usually focuses on the solution of an instructional problem. Students should contact the department office during the semester prior to anticipated program completion and graduation to obtain an application for the comprehensive examination.

Doctor of Education in Instructional Technology

The Ed.D. program in instructional technology prepares students for positions of leadership in research and the development of new knowledge and applications in instructional technology. Students may explore issues and advances in performance, instruction, and computer-based and distance-learning environments. Graduates are prepared for technology leadership roles in diverse settings including all levels of education, industry, government, and not-for-profit agencies. The doctoral program builds on the practical competencies of the master's program to prepare the student for the integration of theory and skills as the base for original research.

Application Deadlines

To be assured of consideration for admission to the doctoral program in instructional technology, completed applications and all supporting materials must be received by the Graduate School no later than June 1 for admission for the fall semester, November 1 for admission for the spring semester, and April 1 for admission for the summer session.

Admission

Admission to the doctoral program requires a master's degree in either instructional technology or another discipline acceptable to the admissions committee. If review of all application materials supports further consideration of the application, the applicant will be expected to submit a writing sample that demonstrates research and writing skills and to participate in a personal interview with the doctoral admissions committee.

[1]Students in the advanced quantitative methodology area of study must take ETR 529.

Program Planning and Advisement

Following admission to the doctoral program in instructional technology, each new student is assigned an advisory committee of three faculty members. The chair of the committee is the major adviser and works with the student to develop a proposed program of courses. The remaining members review the proposal before departmental approval and submission to the Graduate School for final approval. Students are urged to maintain close contact with their major adviser throughout the program. Changes in the program of courses must be approved by the adviser, who is responsible for submitting such changes to the Graduate School for final approval.

Student-at-Large, Study-Abroad, and Transfer Credit

Students-at-large are normally prohibited from registering for graduate courses in instructional technology unless they are pursuing an approved certification or endorsement in school library media. A maximum of 15 post-master's student-at-large and transfer semester hours in combination may be applied towards the doctoral degree in instructional technology. See "Requirements for Graduate Degrees" for limitation on study-abroad and transfer credit. With the approval of the student's faculty adviser, a student who has completed endorsement and/or certification requirements in school library media at NIU as a student-at-large may apply some or all of those student-at-large hours towards the doctoral degree in instructional technology. The faculty adviser has the authority to refuse any course credit he or she judges to be irrelevant to the doctoral degree in instructional technology.

Requirements

Program requirements are flexible to best complement the individual student's background and professional goals. The student has significant input into the selection of specific courses for his or her program, in consultation with the advisory committee. The doctoral degree requires a minimum of 63 semester hours beyond the master's degree as follows.

Course work in research design and methods, learning and development theory, and sociocultural analyses of education (15)

Additional instructional technology (ETT) courses, excluding dissertation hours (18)

Cognate course work agreed upon by student and advisory committee

ETT 699, Doctoral Research and Dissertation (15)

Students focusing on performance technology, instructional design and development, or school library media certification may be required to include internship or practicum courses as part of the required course work.

Students entering the doctoral program with a master's degree in instructional technology will generally complete 48 semester hours of course work beyond the master's (including a cognate), plus 15 semester hours of dissertation credit. Students whose master's degree is in another field normally take three or four additional courses to gain background in their new field; they may also complete additional hours for a cognate. The student's advisory committee makes the final determination of additional courses to be completed.

Candidacy Examination

The candidacy examination, administered each term by the faculty in instructional technology, includes sections on research skills and learning theory as well as on the major area of study. Early contact with the program adviser to discuss the examination is highly recommended.

If the first attempt at the candidacy examination is unsuccessful, the advisory committee will determine what remediation appears to be warranted and when the student may again attempt the examination.

Certificate of Graduate Study

Advanced Quantitative Methodology in Education (18)

This certificate prepares graduate-level students in advanced quantitative methods for conducting or evaluating research. Students completing the certificate will gain the necessary skills for formulating quantitative research studies and conducting and interpreting data analyses.

ETR 520 - Introduction to Educational Research (3),
OR ETR 620 - Educational Research Planning and Interpretation (3)
ETR 521 - Educational Statistics I (3),
OR another quantitative methodology course approved by adviser (3)
ETR 522 - Educational Statistics II (3)
ETR 697 - Independent Research in Research and Assessment (3)
Two of the following (6)
ETR 531 - Program Evaluation in Education (3)
ETR 560 - Computer Data Analysis (3)
ETR 621 - Nonparametric Statistics (3)
ETR 622 - Methods of Multivariate Analysis (3)
ETR 625 - Bayesian Approach to Educational Statistics and Decision Making (3)

Illinois Certification and Endorsement

Library Information Specialist

This is an advanced certification or endorsement aimed at preparing individuals with an initial teaching certificate for positions in Illinois school library media centers. Individuals interested in becoming a library information specialist (endorsement or Type 10 certificate) should contact the department office for details.

Technology Specialist

This is an advanced certification aimed at preparing individuals with an initial teaching certificate for a position as a teacher or specialist of technology programs in school-based settings. Individuals interested in obtaining the technology specialist certificate should contact the department office for details.

Course List

Instructional Technology (ETT)

429. COMPUTERS IN CLASSROOM TEACHING (3). Survey of educational uses of computers. Emphasis on role of computers in the educational environment, hardware, review and evaluation of available educational software, software applications, and technology implementation. No previous experience with computers required. Designed for students entering an educational environment. Not open to students with previous experience in data processing or information systems without permission of their major department.

430. SURVEY OF INSTRUCTIONAL TECHNOLOGY (3). Overview of media and technology in education; an introduction to the field of instructional technology. Issues of integration of technology and learning including selection, production, utilization, and evaluation of a wide variety of instructional media and technology.

439. DEVELOPING EDUCATIONAL SOFTWARE FOR COMPUTERS (3). Design and develop educational software for computers. Experience with design methodologies for educational software and authoring systems commonly used in education. PRQ: ETT 429 or consent of department.

450. INSTRUCTIONAL VIDEO I (3). *Crosslisted as COMS 450X.* Practical methods for the production and use of video in educational settings. Preparation and presentation of televised instructional materials. Not open to students with credit in COMS 357 or COMS 358 or equivalent.

501. PROSEMINAR IN INSTRUCTIONAL TECHNOLOGY (3). Overview of history, definitions, theoretical issues, career options, professional organizations, and required competencies in the field of instructional and performance technology.

504. ORGANIZATION OF SCHOOL LIBRARY MATERIALS: CATALOGING, CLASSIFICATION, AND AUTOMATION (3). Introduction to descriptive cataloging, classification, and subject analysis used in school library media centers. Includes basics of cataloging and classifying print and non-print materials using MARC format.

507. COLLECTION DEVELOPMENT FOR SCHOOL LIBRARY MEDIA CENTERS (3). Principles of building and maintaining school library media center collections; selection aids, including national and trade bibliographies; current issues in intellectual freedom, collection mapping, and collection policies and procedures.

508. REFERENCE THEORY AND PRACTICE (3). Evaluation and use of basic reference materials and information resources in school media centers. Introduction to the theory and practice of professional reference services including the reference interview, electronic searching, and information literacy instruction.

510. INSTRUCTIONAL MEDIA AND TECHNOLOGY (3). Overview of theoretical issues and trends in instructional technology and their impact on the effective selection, design, utilization, and evaluation of instructional media.

511. ADVANCED INSTRUCTIONAL MEDIA DESIGN (3). Advanced design of mediated instruction, script writing, photography, audio and video production, and computer presentation systems. Recommended: ETT 510.

523. MEDIA FOR YOUNG ADULTS (3). Evaluation and selection of print and non-print materials appropriate for middle school/junior high and high school students (ages 12-19 years) with emphasis on uses of current media to meet students' needs, interests, and learning styles.

525. READING INTERESTS OF ADULTS (3). *Crosslisted as LTRE 525X.* Exploration of reading interest of adults, including demographic aspects; popular nonfiction and fiction (bestsellers, genre fiction) books and periodicals; media tie-ins; reading promotion and readers advisory services in libraries.

527. LIBRARY MATERIALS FOR CHILDREN (3). Evaluation, selection, and management of library media appropriate for children with emphasis on uses of library media to meet students' needs, interests, and learning styles.

529. THEORIES OF COMPUTER-BASED EDUCATION (3). Emerging theories and models relating to computer-assisted instruction (CAI), computer-based training, computer literacy, and other uses of computers as instructional media. Topics include intelligent CAI, expert systems, implementation models, and simulation and gaming. PRQ: ETT 429 or consent of department.

530. INSTRUCTIONAL TECHNOLOGY TOOLS (3). Advanced use of common as well as new and emerging instructional technology software and hardware tools. PRQ: ETT 429 or consent of department.

531. VISUAL LITERACY (3). Exploration of the historical background, conceptual base, and research involved in visual literacy. Review of the use and design of various instructional media communications and develops understanding of the interpretation and creation of visual images in education.

533. ADMINISTRATION OF SCHOOL LIBRARY MEDIA CENTERS (3). Philosophy, functions, objectives, and current methods of developing and administering curriculum-integrated media programs in elementary and secondary schools. PRQ: ETT 504, ETT 507, ETT 508, ETT 523, ETT 527, and ETT 542, or consent of department.

535. DISTANCE EDUCATION: DESIGN AND DELIVERY (3). Evaluation and design of various types of distance delivery systems including video/audio, telecommunications, and computer networks, with emphasis on the supportive roles of instructional media and instructional design. Theoretical and practical applications of distance delivery.

536. WEB-BASED LEARNING (3). Theory, research, and applications of Web-based learning, researching computer-mediated communication tools, and issues surrounding management and implementation, including designing of Web-based learning environments.

539. COURSEWARE SYSTEMS DEVELOPMENT (3). Advanced design techniques for team development of educational software. A systems view of topics such as creative design, graphics and animation, data tracking and file management, and product documentation. PRQ: ETT 439 or consent of department.

540. SEMINAR IN LIBRARY/INFORMATION STUDIES (1 to 6). Specific content varies. Representative topics include current trends or issues, storytelling, international and comparative librarianship, and services to specialized populations. A maximum of 6 semester hours may be applied toward the master's degree.

541. LIBRARY SERVICES FOR CHILDREN AND YOUNG ADULTS (3). Objectives, planning, organization, and evaluation of programs and services for children and young adults in school library media centers with focus on collaboration with public libraries.

542T. INFORMATION ACCESS AND SOCIAL RESPONSIBILITIES FOR LIBRARY INFORMATION SPECIALISTS (3). In-depth coverage of policies, procedures, and teaching of intellectual properties, intellectual freedom, and ethical issues of information access and use in K-12 education.

549. ONLINE SEARCHING (3). Translation of reference questions into formal search statements; laboratory practice in online access to information; emphasis on online databases and the Internet.

550. ROLES OF THE INSTRUCTIONAL TECHNOLOGIST (3). Various roles of instructional technologists in both school and nonschool environments; to include field trips.

551. INSTRUCTIONAL TECHNOLOGY FOR THE FUTURE (3). Planning for educational technologies and futures; educational forecasting strategies; new and potential instructional media or processes; and educational models based on low and/or high technology. PRQ: Consent of department.

552. INSTRUCTIONAL TECHNOLOGY FOR DIVERSE CULTURES (3). Development, utilization, and evaluation of instructional media for varied cultures and countries. Topics include appropriateness of standard instructional media for diverse audiences, creation of media for instructional environments with localized requirements, and evaluation of innovative teaching technologies for multiethnic and multicultural learners. PRQ: Consent of department.

553. PROFESSIONAL STANDARDS IN INSTRUCTIONAL TECHNOLOGY (3). Awareness, understanding, and appreciation of issues related to instructional technology with focus on professional standards.

554T. COPYRIGHT AND OTHER INTELLECTUAL PROPERTIES FOR EDUCATION PROFESSIONALS (3). Exploration of intellectual properties as found in a variety of educational settings, with focus on instructional technology issues dealing with copyright, plagiarism, patents, trademarks, logos, and piracy.

555. MEDIA DESIGN: MULTI-MEDIA (3). Design and development of advanced instructional software incorporating interactive digital video and external video interfacing. PRQ: ETT 539 or consent of department.

556. MEDIA DESIGN: AUDIO MATERIALS (3). Designing presentations for instruction. Emphasis on audio format. PRQ: ETT 455 or ETT 511, or consent of department.

559. INSTRUCTIONAL TELEVISION II (3). *Crosslisted as COMS 559X.* Application of television production techniques to instructional activities. PRQ: ETT 450 or consent of department.

560. INSTRUCTIONAL DESIGN I (3). Systematic design of instructional materials. Students design a blueprint for an instructional module by applying an instructional design model. PRQ: ETT 430 or ETT 510, or consent of department.

561X. HUMAN RESOURCE DEVELOPMENT (3). *Crosslisted as CAHE 561*. Nature and function of programs for developing human resources in business, education, industry, government, social services, and voluntary organizations.

562. INSTRUCTIONAL DESIGN II (3). Development and evaluation of an instructional module using systematic development models and established principles of instructional design. PRQ: ETT 560 or consent of department.

564. TRAINING AND PERFORMANCE TECHNOLOGY (3). Analysis of educational/training problems. By conducting an instructional needs assessment and performance audit, students plan solutions to training problems including various forms of training, job aids, and non-training recommendations. PRQ: ETT 560 or consent of department.

565. ADVANCED INSTRUCTIONAL DESIGN (3). Advanced problems in the design, development, evaluation, and management of instructional programs for education and corporate environments.

567X. PORTRAYAL OF TEACHERS IN FILM (3). *Crosslisted as TLCI 567.* Examination of the portrayal of teachers in movies with emphases on trends, related education issues and topics, and connections between practicing teachers' professional lives and those of teacher characters.

569. PRACTICUM: INSTRUCTIONAL DESIGN (3). Instructional design methodology in an applied setting. May be repeated to a maximum of 6 semester hours. PRQ: ETT 560 and either ETT 562 or ETT 564, or consent of department.

570. INSTRUCTIONAL TECHNOLOGY ADMINISTRATION (3). Management of instructional technology services. PRQ: ETT 430 or ETT 510, or consent of department.

571. INSTRUCTIONAL TECHNOLOGY PROGRAM DEVELOPMENT (3). Theories and methods for developing and managing instructional technology programs in educational settings.

573. INSTRUCTIONAL TECHNOLOGY FACILITIES (3). Design and construction of instructional technology facilities.

586. INTERNSHIP IN INSTRUCTIONAL TECHNOLOGY (6). Work in a practical situation under guidance of a staff member from that setting and a university supervisor. May be repeated to a maximum of 12 semester hours.

590. WORKSHOP IN INSTRUCTIONAL TECHNOLOGY (1 to 3). Study of current issues related to media. May be repeated to a maximum of 12 semester hours.

592. SPECIAL TOPICS IN INSTRUCTIONAL TECHNOLOGY (1 to 3). Topics announced. May be repeated to a maximum of 9 semester hours when topic varies.

597. INDEPENDENT RESEARCH IN INSTRUCTIONAL TECHNOLOGY (1 to 3). Independent research at the master's degree level under faculty supervision. May be repeated to a maximum of 6 semester hours. PRQ: Consent of faculty member who will direct research.

599. MASTER'S THESIS (3 to 6). Open only to students who elect to write a thesis for the M.S.Ed. degree. Student enrolls with the faculty member directing the thesis. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department. Recommended: ETR 520.

615X. STRATEGIC HUMAN RESOURCE DEVELOPMENT (3). *Crosslisted as CAHE 615.* Advanced study emphasizing complex skills, concepts, and strategies relating to the adult teaching/learning component of human resource development in business, industry, government, and voluntary organizations.

640. SEMINAR: INSTRUCTIONAL TECHNOLOGY CURRICULA (3). Development of courses and programs at the college level.

641. SEMINAR: INSTRUCTIONAL TECHNOLOGY THEORY (3). Applying concepts of educational communication, models, and theories to problem solving, attitude formation, and teaching.

642. SEMINAR: INSTRUCTIONAL TECHNOLOGY RESEARCH (3). Research in organization, administration, and application of instructional technology.

643. SEMINAR: INSTRUCTIONAL TECHNOLOGY PROBLEMS (3). Problems involved in the administration of instructional technology programs and services at all levels, and in areas such as finance, management of personnel, and facilities.

655. MEDIA DESIGN PROJECT (3). Designing presentations for instruction with emphasis on individual student project. May be repeated to a maximum of 9 semester hours.

664. ADVANCED TRAINING AND PERFORMANCE TECHNOLOGY (3). Analysis of advanced performance problems at the process and organizational level, including design, development, implementation, and evaluation of appropriate Human Performance Technology (HPT), and design of an internal organization structure to support HPT work. PRQ: ETT 564 or consent of department.

665X. CONSULTATION IN HUMAN SERVICES (3). *Crosslisted as CAHE 665*. Application of consultation strategies in working with individuals and groups. Topics and problems taken from the fields of counseling, adult education, and instructional technology. PRQ: Consent of department.

670. PRACTICUM: INSTRUCTIONAL TECHNOLOGY (3). Instructional media administration techniques in an applied setting. May be repeated to a maximum of 6 semester hours.

686. INTERNSHIP IN INSTRUCTIONAL TECHNOLOGY (6). Work in a practical situation under guidance of staff member from that setting and a university supervisor. May be repeated to a maximum of 12 semester hours. PRQ: Admission to doctoral program or consent of department.

697. INDEPENDENT RESEARCH IN INSTRUCTIONAL TECHNOLOGY (1 to 3). Independent research at post-master's degree level under faculty supervision. May be repeated to a maximum of 6 semester hours. PRQ: Consent of faculty member who will direct research.

698. RESEARCH SEMINAR IN INSTRUCTIONAL TECHNOLOGY (1 to 3). Designed for the advanced student interested in planning and conducting research studies in instructional technology. Research project may be an exploratory or pilot study related to the doctoral dissertation. May be repeated to a maximum of 6 semester hours.

699. DOCTORAL RESEARCH AND DISSERTATION (3 to 15). May be repeated to a maximum of 60 semester hours. Student must accumulate 15 semester hours prior to graduation. PRQ: Candidacy for the doctoral degree and consent of chair of doctoral committee.

Research and Assessment (ETR)

501. PROSEMINAR IN EDUCATIONAL RESEARCH AND EVALUATION (3). Current issues and topics in research presentation, manuscript preparation, data presentation, and information retrieval, emphasizing technology-oriented applications. Examination of historical and future trends, ethical/legal issues in educational research and evaluation, and exploration of career options in the field.

520. INTRODUCTION TO EDUCATIONAL RESEARCH (3). Basic course in methods of research in education; planning and conducting a research study; developing skills in problem identification, data collection, analysis, interpretation, and preparation of research reports.

521. EDUCATIONAL STATISTICS I (3). Techniques necessary for understanding, analyzing, and interpreting data. Concepts and applications of basic descriptive methods, correlation, and simple linear regression. Introduction to probability theory and sampling. Discussion of various inferential tests of means, correlations, proportions, variances, and one-factor analysis of variance.

522. EDUCATIONAL STATISTICS II (3). Concepts and techniques necessary for intermediate inferential methods. Analysis of variance (factorial, repeated measures, and nested designs), analysis of covariance, multiple regression, and multiple comparison procedures. PRQ: ETR 521 or consent of department.

525. QUALITATIVE RESEARCH IN EDUCATION (3). Introduction to the role of qualitative research in education, with emphasis on actual, hands-on research. Basic principles and focus of qualitative research will be discussed. Research methods will include case studies, ethnography, and interpretive research.

526. ADVANCED TECHNOLOGIES IN QUALITATIVE RESEARCH (3). Use of e-mail and Web-based data gathering techniques, digital video, transcription approaches, computer-based transcription analysis programs, and electronic dissemination for data collection and analysis. PRQ: ETR 525 or consent of department.

528. EDUCATIONAL ASSESSMENT (3). Conceptual examination of theoretical foundations for assessment in education: classroom, diagnostic, placement, problem-solving. Emphasis on appraising assessment methods through reliability, validity, usability, and normative data consideration.

529. PRINCIPLES OF EDUCATIONAL MEASUREMENT (3). Study of psychometric properties of assessments used in the field of education, with emphasis on theory and calculation of reliability and validity indices from a classical test theory perspective. PRQ: ETR 521 or consent of department.

530. TEST CONSTRUCTION AND EVALUATION (3). Modern concepts of evaluation; preparation and use of teacher-made tests. Techniques of item analysis and concepts of reliability and validity. Procedures for assessing relatively intangible outcomes, through observational and judgmental techniques.

531. PROGRAM EVALUATION IN EDUCATION (3). Methods of evaluating educational programs using accepted models and data-gathering procedures. The rationale for and nature of educational evaluation, planning evaluation, evaluation models, large-scale assessment programs, implementing and sampling strategies, data-gathering tools and techniques, data analysis, and reporting and interpreting evaluation results. PRQ: ETR 520 or consent of department.

532. EVALUATION OF TEACHERS AND TEACHING (3). *Crosslisted as EPS 532X.* Examination of major components of a comprehensive system for evaluating teachers and teaching and the related issues and teacher effectiveness literature.

533. STANDARDIZED TESTING (3). *Crosslisted as CAHC 533X*. Principles of measurement as applied to group standardized measures of achievement, special aptitude, intelligence, personality, and interest for use in educational personnel work. Administering, scoring, and interpreting these measures.

534. DYNAMIC ASSESSMENT FOR STUDENTS WITH HIGH-INCIDENCE DISABILITIES (3). Assessment of students with high-incidence disabilities within a problem-solving framework with attention given to the identification of students with high-incidence disabilities and recommendations for special education procedures including nondiscriminatory testing. PRQ: ETR 434, or ETR 528, or ETR 529, or consent of department.

536. ASSESSMENT DESIGN (3). Purpose and methods of formal and informal classroom assessment for guiding and communicating educational decisions. Techniques for designing, using, and evaluating curriculum-aligned assessments through traditional and alternative methods. Emphasis on both theory and practical applications. PRQ: ETR 528 or ETR 529, or consent of department.

560. COMPUTER DATA ANALYSIS (3). Survey of common statistical packages used for conducting quantitative data analyses. Data coding, data entry, variable transformation, use of various data analytic techniques, and interpretation of results contrasted among personal computer statistical packages such as SAS and SPSS. PRQ: ETR 521 or consent of department.

562. APPLIED CATEGORICAL DATA ANALYSIS (3). Applications of categorical and related data analysis techniques to education and social problems. Analysis of measurement issues, prediction, classification, scaling, instrument validation, and rater reliability using categorical techniques. Focus on interpretative and consequential aspects of analysis. PRQ: ETR 521 or consent of department.

572X. ASSESSMENT METHODS IN HIGHER EDUCATION (3). *Crosslisted as CAHE 572*. Basic concepts and procedures in the assessment of applicants for admission and retention and use of assessment methods for counseling to support retention in institutions of higher education.

586. INTERNSHIP IN RESEARCH AND EVALUATION (3 to 15). Work in a practical situation under guidance of staff member from that setting and a university supervisor. May be repeated to a maximum of 15 semester hours, although typically only 3 semester hours may be applied to the program of study. PRQ: Consent of site and university supervisors.

587. PRACTICUM IN EDUCATIONAL RESEARCH AND EVALUATION (1 to 6). Applications of educational research and evaluation approaches through practical in-class exercises and supervised participation in field-based activities. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

590. WORKSHOP IN RESEARCH AND ASSESSMENT (1 to 3). Workshop designed for teachers, administrators, supervisors, and evaluators to study issues related to research and assessment. May be repeated to a maximum of 12 semester hours.

592. SPECIAL TOPICS IN RESEARCH AND ASSESSMENT (1 to 3). Topics announced. May be repeated to a maximum of 9 semester hours when topic varies.

597. INDEPENDENT RESEARCH IN RESEARCH AND ASSESSMENT (1 to 3). Independent study under direction of faculty member. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

599A. MASTER'S THESIS (1 to 6). Investigation of an issue or problem related to educational research and evaluation. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

599B. MASTER'S PROJECT (1 to 6). Applied project serving as the capstone experience of the degree. Designed to address the needs of an identified issue or problem in educational research and evaluation. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

620. EDUCATIONAL RESEARCH PLANNING AND INTERPRETATION (3). Advanced course dealing with problems in criterion definition and various handicaps in deriving valid inferences. Analysis of how these handicaps can be resolved by study design and tool, data, and sample selection. PRQ: ETR 520 and ETR 521, or consent of department.

621. NONPARAMETRIC STATISTICS (3). Application, computation, and interpretations of nonparametric statistical tests and correlation measures. Comparison of these tools and techniques with their parametric counterparts. PRQ: ETR 521 and ETR 522, or consent of department.

622. METHODS OF MULTIVARIATE ANALYSIS (3). Introduction to methods appropriate for analyzing multivariate relationships. Canonical correlation, discriminant cluster, and factor analysis; multivariate analysis of variance and structural equation modeling. PRQ: ETR 522 or consent of department.

625. BAYESIAN APPROACH TO EDUCATIONAL STATISTICS AND DECISION MAKING (3). Subjective probabilistic assessments of data using Bayesian analysis and inference. Implications for research problems, designs and interpretations. Computer applications. PRQ: ETR 521 and ETR 522, or consent of department.

633. ORGANIZATION AND ADMINISTRATION OF THE SCHOOL TESTING PROGRAM (3). Procedures of establishing goals for the school testing program, selecting tests appropriate to stated goals, coordinating the testing program with other members of the school's professional staff, and using test results in curriculum analyses and in administrative decisions. PRQ: ETR 530 or ETR 533, or consent of department.

634. CONSTRUCTION OF SCALING INSTRUMENTS (3). Techniques of scale construction for use in assessing attitudinal, interest, temperament, personality variables, and psychomotor skills; reliability and validity of each technique. PRQ: ETR 522 or consent of department.

635. THEORY OF MEASUREMENT (3). Analysis of theoretical approaches to reliability, validity, item analysis, and factor analysis. Exploration of related measurement problems. PRQ: ETR 521 and either ETR 530 or ETR 533, or consent of department.

636. EDUCATIONAL ASSESSMENT FOR THE HANDICAPPED (3). Advanced study of symptomatology in relation to the nondiscriminatory diagnostic process, with attention to its significance for educational planning. PRQ: ETR 534 or consent of department.

639X. FIELDWORK METHODS IN EDUCATIONAL RESEARCH (3). *Crosslisted as EPS 639.* Emphasis on studying examples of educational fieldwork and actual hands-on research. PRQ: ANTH 460 or ETR 525, or consent of department.

640X. INTERPRETIVE METHODS IN EDUCATIONAL RESEARCH (3). *Crosslisted as EPF 640.* Emphasis on structuralist, poststructuralist, and semiotic theories and techniques in education to develop systematic hands-on interpretive projects. PRQ: ETR 525 or consent of department.

644. SEMINAR: RESEARCH AND ASSESSMENT (3). Investigation of problems and practices in research and assessment.

686. INTERNSHIP IN RESEARCH AND ASSESSMENT (3 to 15). Work in a practical situation under guidance of staff member from that setting and a university supervisor. May be repeated to a maximum of 15 semester hours, although typically only 3 semester hours may be applied to the program of study. PRQ: Consent of site and university supervisors.

690. WORKSHOP IN RESEARCH AND ASSESSMENT (1 to 3). Designed for teachers, administrators, supervisors, and evaluators. May be repeated to a maximum of 12 semester hours.

692. SPECIAL TOPICS IN RESEARCH AND ASSESSMENT (1 to 3). Topics announced. May be repeated to a maximum of 9 semester hours when topic varies.

697. INDEPENDENT RESEARCH IN RESEARCH AND ASSESSMENT (1 to 3). Independent study under direction of faculty member. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

Department of Kinesiology and Physical Education (KNDN, KNPE, LESM)

Chair: Paul Carpenter

Graduate Faculty

Jason Brandenburg, assistant professor, Ph.D., University of Victoria
Paul Carpenter, associate professor, Ph.D., University of California, Los Angeles
Charles Carter, associate professor, Ed.D., West Virginia University
Rodney Caughron, associate professor, Ph.D., University of Iowa
Constance Fox, associate professor, Ed.D., University of Georgia
Clersida Garcia, associate professor, Ph.D., Michigan State University
Luis E. Garcia, assistant professor, Ph.D., Michigan State University
Danielle M. Jay, professor, Ph.D., Texas Woman's University
Keith W. Lambrecht, professor, Ph.D., Oregon State University
Marilyn A. Looney, professor, P.E.D., Indiana University
Paul Luebbers, assistant professor, Ph.D., Virginia Commonwealth University
Pamela Macfarlane, professor, Ph.D., University of Iowa F.
Jenny Parker, associate professor, Ph.D., University of Massachusetts
William A. Pitney, associate professor, Ed.D., Northern Illinois University
Janet A. Rintala, professor, Ph.D., University of Iowa
Gretchen Schlabach, associate professor, Ph.D., University of Maryland
Moira Stuart, assistant professor, Ph.D., Oregon State University
Yoshiaki Takei, professor, Ph.D., University of Southern California
Lauriece Zittel, associate professor, Ph.D., Oregon State University

Master of Science in Sport Management

This 36-semester-hour program is designed to prepare students for a management career in the sport industry. Students attain theoretical knowledge and practical skills in preparation for various sport managerial careers in athletic and sport clubs, interscholastic and intercollegiate athletics, professional and amateur sports, equipment merchandising, and sport consulting.

Non-Thesis Option

LESM 538 - Managing the Sport Enterprise (3)
LESM 539 - Sport and the Law (3)
LESM 542 - Sport Promotions (3)
LESM 543 - Seminar in Sport Management (3)
LESM 544 - Sport Finance (3)
LESM 586 - Internship in Sport Management (3),
OR LESM elective with approval of graduate program adviser (3)
LESM 598 - Master's Paper (3),
OR LESM 599B - Master's Project (3)
Electives with approval of graduate program adviser (6)
One graduate-level research methodology course approved by adviser (3)
Course work from the College of Business selected in consultation with adviser (6)

Thesis Option

Same requirements as the non-thesis option except that LESM 599A, Master's Thesis (6), and one 3-semester-hour graduate-level course in quantitative or qualitative analytical techniques approved by the adviser are taken in place of LESM 598 (3) or LESM 599B (3) and the electives (6).

Master of Science in Education in Physical Education

Admission

To be considered for admission to the M.S.Ed. program in physical education, an applicant is expected to have a baccalaureate degree which included courses in kinesiology, physical education, health, recreation, dance, or equivalent courses.

Applicants to the master's degree program in physical education are normally notified of an admission decision as soon as administratively feasible following receipt of all credentials to complete the applicant's file by the Graduate School.

Deficiencies

Student transcripts and life experiences will be evaluated to determine if deficiencies exist. If they do exist, any undergraduate deficiencies, as determined by the department, must be satisfied prior to the completion of 15 semester hours of graduate study.

Retention

Students who violate the standards of the profession may be eliminated from the program after review by a properly constituted committee of the graduate faculty.

Requirements

The M.S.Ed. in physical education requires a minimum of 33 semester hours. Students select either the general program of study or a specialization in adapted physical education, exercise physiology/fitness leadership, or pedagogy and curriculum development in physical education. Students must successfully complete a thesis, project, or interdisciplinary inquiry for 6 semester hours of graduate credit. In consultation with an adviser, the student selects one of these three options, and the research topic must be approved by the student's graduate committee.

General Physical Education

The student must successfully complete a minimum of 21 semester hours of graduate credit in the department. Nine semester hours of graduate credit in courses related to the student's degree objectives may be taken outside the Department of Kinesiology and Physical Education. In consultation with the adviser, students will select a minimum of 9 semester hours in one of the following areas of interest: curriculum/instruction, sport biomechanics, coaching, dance education, motor learning/motor development, sociocultural aspects of sport/physical education, or psychology of sport and exercise. One course may be used to satisfy more than one program requirement; in this case, the number of elective hours will be increased.

KNPE 545[1] - Assessment in Kinesiology and Physical Education (3),
OR KNPE 645[2] - Application of Statistics to Research in Kinesiology and Physical Education (3)
KNPE 552 - Methods of Research in Kinesiology and Physical Education (3)
One of the following (3-4)
KNPE 452 - Applied Physiology of Exercise (4)
KNPE 514 - Neuromuscular Aspects of Physical Performance (3)
KNPE 535 - Mechanical Analysis of Motor Skills (3)
KNPE 578 - Seminar in Motor Development (3)
KNPE 635 - Biomechanics (3)
KNPE 652 - Exercise Bioenergetics (3)
KNPE 653 - Cardiac Rehabilitation (3)
KNPE 686 - Seminar in Motor Learning (3)
One of the following (3)
KNPE 507 - History of Physical Education (3)
KNPE 509 - Philosophy of Physical Education (3)
KNPE 582 - Psychology of Sport and Exercise (3)
KNPE 583 - Psychology of Coaching (3)
KNPE 586 - Sport in Society (3)
Course work related to the student's degree objectives selected in consultation with adviser (6)
A minimum of 9 semester hours in an area of interest selected in consultation with adviser (9)
KNPE 599A - Master's Thesis (6),
OR KNPE 599B - Master's Project (6),
OR KNPE 599C - Master's Interdisciplinary Inquiry (6)

Specialization in Adapted Physical Education

This specialization is designed to prepare teachers to deliver physical education services to students with special needs. Persons are trained to assume roles related to adapted or special physical education including teaching, assessment, Individualized Educational Program development, consulting, program planning, and research. Certified physical education teachers completing this specialization meet Illinois State Board of Education recommended guidelines for personnel reimbursement as an "approved" adapted physical education instructor for students with disabilities. KNPE 490, Adapted Physical Education, or equivalent, is a prerequisite for this specialization.

KNPE 545[1] - Assessment in Kinesiology and Physical Education (3),
OR KNPE 645[2] - Application of Statistics to Research in Kinesiology and Physical Education (3)
KNPE 552 - Methods of Research in Kinesiology and Physical Education (3)
KNPE 589 - Inclusion Strategies for Special Populations: Theory and Practice (3)
KNPE 590 - Physical Education for Individuals with Physical and Sensory Disorders (3)
KNPE 591 - Assessment and Program Planning in Adapted Physical Education (3)
At least one of the following (3-4)
KNPE 452 - Applied Physiology of Exercise (4)
KNPE 514 - Neuromuscular Aspects of Physical Performance (3)
KNPE 535 - Mechanical Analysis of Motor Skills (3)
KNPE 578 - Seminar in Motor Development (3)
KNPE 635 - Biomechanics (3)
KNPE 652 - Exercise Bioenergetics (3)
KNPE 653 - Cardiac Rehabilitation (3)
KNPE 686 - Seminar in Motor Learning (3)
At least one of the following (3)
KNPE 507 - History of Physical Education (3)
KNPE 509 - Philosophy of Physical Education (3)
KNPE 582 - Psychology of Sport and Exercise (3)
KNPE 583 - Psychology of Coaching (3)
KNPE 586 - Sport in Society (3)
Course work related to the student's degree objectives selected in consultation with adviser (6)
KNPE 599A - Master's Thesis (6),
OR KNPE 599B - Master's Project (6),
OR KNPE 599C - Master's Interdisciplinary Inquiry (6)

Specialization in Exercise Physiology/Fitness Leadership

This specialization is designed to provide knowledge and skills to students in the area of exercise physiology and/or fitness leadership. Students with such a professional background are prepared to assume various roles related to exercise physiology: research, teaching, and fitness leadership in hospitals, corporations, and health clubs. Applied exercise physiology, chemistry, and a human anatomy and physiology course are prerequisites for this specialization.

KNPE 514 - Neuromuscular Aspects of Physical Performance (3)
KNPE 545[1] - Assessment in Kinesiology and Physical Education (3),
OR KNPE 645[2] - Application of Statistics to Research in Kinesiology and Physical Education (3)
KNPE 552 - Methods of Research in Kinesiology and Physical Education (3)
KNPE 652 - Exercise Bioenergetics (3)
KNPE 653 - Cardiac Rehabilitation (3)
At least one of the following (3)
KNPE 507 - History of Physical Education (3)
KNPE 509 - Philosophy of Physical Education (3)
KNPE 582 - Psychology of Sport and Exercise (3)
KNPE 583 - Psychology of Coaching (3)
KNPE 586 - Sport in Society (3)
Course work related to the student's degree objectives selected in consultation with adviser (9)
KNPE 599A - Master's Thesis (6),
OR KNPE 599B - Master's Project (6),
OR KNPE 599C - Master's Interdisciplinary Inquiry (6)

Specialization in Pedagogy and Curriculum Development in Physical Education

This specialization is designed to provide relevant theoretical knowledge and experience in contemporary best practices in the discipline of physical education including methodology/instructional strategies, supervision, program development, and the use of technology and assessment in educational settings. Individuals completing this specialization will be able to assume leadership roles in pedagogy and curriculum development in physical education and related fields.

KNPE 545[1] - Assessment in Kinesiology and Physical Education (3),
OR KNPE 645[2] - Application of Statistics to Research in Kinesiology and Physical Education (3)
KNPE 552 - Methods of Research in Kinesiology and Physical Education (3)
KNPE 620 - Seminar in Physical Education Curriculum (3)
Two of the following (6)
KNPE 568 - Principles of Supervision of Physical Education (3)
KNPE 569 - Instructional Skills for Physical Education (3)
KNPE 577 - Physical Education in the Elementary School (3)
One of the following (3-4)
KNPE 452 - Applied Physiology of Exercise (4)
KNPE 514 - Neuromuscular Aspects of Physical Performance (3)
KNPE 535 - Mechanical Analysis of Motor Skills (3)
KNPE 578 - Seminar in Motor Development (3)
KNPE 635 - Biomechanics (3)
KNPE 652 - Exercise Bioenergetics (3)
KNPE 653 - Cardiac Rehabilitation (3)
KNPE 686 - Seminar in Motor Learning (3)

[1]Project or interdisciplinary inquiry project option.
[2]Thesis, project, or interdisciplinary inquiry option.

One of the following (3)
KNPE 507 - History of Physical Education (3)
KNPE 509 - Philosophy of Physical Education (3)
KNPE 582 - Psychology of Sport and Exercise (3)
KNPE 583 - Psychology of Coaching (3)
KNPE 586 - Sport in Society (3)
Course work related to student's degree objectives selected in consultation with adviser (6)
KNPE 599A - Master's Thesis (6),
OR KNPE 599B - Master's Project (6),
OR KNPE 599C - Master's Interdisciplinary Inquiry (6)

Certificate of Graduate Study

Adapted Physical Education

This certificate is designed to provide physical education teachers with the skills and knowledge necessary to design and deliver individualized movement programs for children and young adults with disabilities.

KNPE 578 - Seminar in Motor Development (3),
OR KNPE 686 - Seminar in Motor Learning (3)
KNPE 589 - Inclusion Strategies for Special Populations: Theory and Practice (3)
KNPE 590 - Physical Education for Individuals with Physical and Sensory Disorders (3)
KNPE 591 - Assessment and Program Planning in Adapted Physical Education (3)
TLSE 565 - Collaboration and Consultation Skills for School Professionals (3),
OR KNPE 549 - Independent Study in Kinesiology and Physical Education (3)

Secondary Certification in Physical Education

The physical education entitlement program is designed for students interested in teaching physical education in Grades 6 to 12. The student plans a program of study in consultation with the adviser for teacher certification. Upon completion of physical education deficiencies, the physical education professional program, and professional education requirements for secondary certification, the student may be recommended for admission to teacher education.

Deficiencies in Undergraduate Work

Candidates for the M.S.Ed. degree and 6-12 teacher certification must show proficiency in the following courses, or their equivalent, through transcript evaluation.

Minimum of 1 semester hour in each of the areas of fitness, dance, individual sports, and team sports (9)
BIOS 311 - Functional Human Anatomy (4)
KNPE 262 - Standard First Aid (2)
KNPE 313 - Mechanical Kinesiology of Motor Skills (3),
OR KNPE 314 - Applied Kinesiology (4)
KNPE 446 - Measurement and Evaluation in Physical Education School Settings (2)
KNPE 452 - Applied Physiology of Exercise (4)
KNPE 490 - Adapted Physical Education (3)

Physical Education Professional Course Requirements

Minimum of 1 semester hour in each of the areas of fitness, dance, individual sports, and team sports[3]
BIOS 311[3] - Functional Human Anatomy (4)
KNPE 344 - Field Experience in the Elementary School (1)
KNPE 452[3] - Applied Physiology of Exercise (4)
KNPE 465 - Methods of Teaching Middle and High School Physical Education (3)
KNPE 466T - Field Experience at Outdoor Environments (1)
KNPE 467 - Field Experience in the Middle School (1)
KNPE 468 - Field Experience in the High School (1)
KNPE 490[3] - Adapted Physical Education (3)
KNPE 545 - Assessment in Kinesiology and Physical Education (3)
KNPE 569 - Instructional Skills for Physical Education (3)
KNPE 577 - Physical Education in the Elementary School (3)
KNPE 578 - Seminar in Motor Development (3)
KNPE 592 - Clinical Experience in Special Physical Education (1)
KNPE 620 - Seminar in Physical Education Curriculum (3)

Professional Education Requirements

Students seeking secondary teaching certification must contact the adviser for teacher certification regarding professional education and should also see "Teacher Certification Information."

Following completion of course work in the professional program in physical education and the professional education requirement, students are eligible to attempt the Illinois Teacher Certification Examination. Students may earn the M.S.Ed. degree by completing the additional hours required for the degree (normally 9-18 semester hours).

Course List

Dance Education (KNDN)

KNDN 473. DANCE AS ART IN EDUCATION (3). Development of aesthetic and cultural theories of dance as an art form in education. Opportunity for the practical application of the elements of dance and related art forms in education to the elementary, secondary, or higher education levels and/or to students of various intellectual and physical abilities.

KNDN 474. HISTORY OF DANCE: PRIMITIVE THROUGH RENAISSANCE (3). Historical development of dance from primitive to the renaissance period through the world focusing on cultural and religious trends.

KNDN 475. HISTORY OF DANCE: 18TH CENTURY TO MODERN TIMES (3). Historical development of dance from the 18th century to modern times, considering cultural and artistic implications.

KNDN 574. SEMINAR IN RHYTHMS AND DANCE (3). Rhythms and dance as a basic educational technique. Designed to assist in planning, teaching, and supervising rhythmic dance programs. PRQ: Consent of department.

Physical Education (KNPE)

KNPE 452. APPLIED PHYSIOLOGY OF EXERCISE (4). Cardiovascular, respiratory, metabolic, and neuromuscular aspects of human function at rest, during exercise, and as a result of training. Three hours per week of lecture plus arranged laboratory experience. PRQ: BIOS 311, BIOS 357, or consent of department.

[3]These courses may be met through undergraduate deficiency requirements.

KNPE 453. EXERCISE PROGRAMS FOR ADULT SPECIAL POPULATIONS (3). Examination of characteristics, physiological responses, and exercise adaptations of adult special populations. Includes exercise testing, physical activity prescription, and clinical experiences. Emphasis on exercise limitations, responses, and adaptations which differ from the nondisabled. PRQ: KNPE 452 or consent of department. CRQ: KNPE 555 for 1 semester hour.

KNPE 454. EXERCISE GERONTOLOGY (3). Examination of the characteristics, physiological responses to exercise, and adaptations to exercise of older adult populations. Includes exercise testing and prescription, programmatic concerns, and exercise limitations for older adults. PRQ: BIOS 357 or KNPE 452, or consent of department. CRQ: KNPE 555 for 1 semester hour.

KNPE 458. STRESS TESTING (3). Theory, techniques, and procedures of graded exercise stress testing for diagnostic and functional assessment of individuals. PRQ: KNPE 452 with a grade of C or better and consent of department.

KNPE 459. PHYSICAL FITNESS PROGRAMMING (3). Development, organization, implementation, and administration of physical fitness programs. Includes field experience. PRQ: KNPE 458 or consent of department.

KNPE 491. THERAPEUTIC EXERCISE (3). Principles and application of exercises for selected skeletal and muscular dysfunction. Not available for graduate credit for NATABOC certified athletic trainers. PRQ: BIOS 311 or consent of department.

KNPE 507. HISTORY OF PHYSICAL EDUCATION (3). Historical background of physical education in relation to the cultural patterns of civilization and educational movements.

KNPE 509. PHILOSOPHY OF PHYSICAL EDUCATION (3). Development of philosophical concepts paralleling educational philosophy. Current philosophical positions of physical educators with application to present day educational programs.

KNPE 514. NEUROMUSCULAR ASPECTS OF PHYSICAL PERFORMANCE (3). Acute and chronic responses to short-term and intermittent physical activity, including prescription of resistance exercise. Focus on physiology of nervous and muscular systems. PRQ: KNPE 452 or consent of department.

KNPE 524. PREVENTION OF ATHLETIC INJURIES (3). Scientific approaches to the preventive aspects of trauma in athletics. PRQ: BIOS 311 or consent of department.

KNPE 535. MECHANICAL ANALYSIS OF MOTOR SKILLS (3). In-depth study of mechanical principles operative in the performance of motor skills. PRQ: KNPE 313 or KNPE 314, or consent of department.

KNPE 540. PLANNING AND USE OF FACILITIES FOR PHYSICAL EDUCATION (3). Principles, terminology, standards, functional layout, design, and construction features for indoor and outdoor facilities. Maintenance, use, scheduling, and supervision of facilities in terms of functional needs.

KNPE 541X. ORGANIZATION AND ADMINISTRATION OF INTERSCHOLASTIC ATHLETICS (3). *Crosslisted as LESM 541.* Organization and administration of interscholastic athletics with special reference to national, state, and local control. Consideration of philosophies of athletics, the place of athletics in the educational curriculum, the relationship between boys' and girls' programs, athletic budgeting and finance, facilities and equipment, personnel administration, contest management, athletics and the law, and public relations.

KNPE 545. ASSESSMENT IN KINESIOLOGY AND PHYSICAL EDUCATION (3). Application of measurement and evaluation theory to measures of human performance. Development of effective assessment programs for more objective decision-making in kinesiology and physical education. PRQ: KNPE 445 or KNPE 446, or consent of department.

KNPE 549. INDEPENDENT STUDY IN KINESIOLOGY AND PHYSICAL EDUCATION (1 to 3). Individual investigation of special problems, areas, or topics in kinesiology and physical education planned in consultation with a department adviser. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department following approval of written proposal.

KNPE 552. METHODS OF RESEARCH IN KINESIOLOGY AND PHYSICAL EDUCATION (3). Introduction to methods and techniques, research design and development, resources, and the research project. Student develops a research project or thesis prospectus. PRQ: Admission to master's program in physical education or consent of department.

KNPE 555. CLINICAL EXPERIENCE IN EXERCISE GERONTOLOGY (1 to 3). Assessing, planning, implementing, and evaluating exercise programs for older adults. Includes practicum and directed study. May be repeated to a maximum of 3 semester hours. PRQ: KNPE 452 or consent of department.

KNPE 565. SEMINAR IN CURRENT ISSUES IN PHYSICAL EDUCATION AND SPORT (3). Study of current issues and problems in physical education and sport through examination and critical analysis of recent literature and research findings.

KNPE 566. PUBLIC RELATIONS FOR PHYSICAL EDUCATION (3). Purposes, materials, and methods relevant to keeping the public informed and interested in various aspects of physical education and related programs. Term project for a real or simulated situation required.

KNPE 568. PRINCIPLES OF SUPERVISION OF PHYSICAL EDUCATION (3). Techniques and procedures of supervision in physical education programs, including responsibilities of those involved in clinical and preclinical experiences.

KNPE 569. INSTRUCTIONAL SKILLS FOR PHYSICAL EDUCATION (3). Teaching/learning process, developing/maintaining a productive learning environment, developing/analyzing content, and obtaining tools for the analysis of instruction.

KNPE 575. SEMINAR IN MOVEMENT EDUCATION (3). Theories of movement education as the core of physical education. Designed for teachers of kindergarten through college, including classroom teachers and specialists in physical education. PRQ: KNPE 342 or KNPE 343, or consent of department.

KNPE 576. SEMINAR IN ELEMENTARY SCHOOL PHYSICAL EDUCATION (3). Present-day programs and problems related to elementary school physical education.

KNPE 577. PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL (3). Planning and conducting physical education experiences for children, derived from the study of human movement and developmental needs of children. Designed for graduate students seeking elementary certification.

KNPE 578. SEMINAR IN MOTOR DEVELOPMENT (3). Survey of research on motor behavior and development with emphases on findings pertaining to growth patterns, adaptability, and specificity. Factors influencing the development of motor abilities with implications for physical education.

KNPE 582. PSYCHOLOGY OF SPORT AND EXERCISE (3). Investigation of psychological theory and methods relative to involvement in sport and exercise.

KNPE 583. PSYCHOLOGY OF COACHING (3). Application of psychological principles of behavior to individuals and groups in competitive sports. Attention given to motivation and team compatibility.

KNPE 586. SPORT IN SOCIETY (3). Sport and physical activity as a sociological phenomenon stressing the importance of various dimensions of sport and their social significance.

KNPE 589. INCLUSION STRATEGIES FOR SPECIAL POPULATIONS: THEORY AND PRACTICE (3). Examination of factors, including litigation, legislation, and societal attitudes, influencing the successful inclusion in physical education and sport of children and adults with and without disabilities. PRQ: KNPE 490 or consent of department.

KNPE 590. PHYSICAL EDUCATION FOR INDIVIDUALS WITH PHYSICAL AND SENSORY DISORDERS (3). Study of the physical and motor characteristics resulting from chronic and/or permanent physical and sensory disabilities. Curricular and teaching strategies for physical education and sport/recreation programs. PRQ: KNPE 490 or consent of department.

KNPE 591. ASSESSMENT AND PROGRAM PLANNING IN ADAPTED PHYSICAL EDUCATION (3). Application of psychomotor testing procedures and program planning in adapted physical education. PRQ: KNPE 445 and KNPE 490, or consent of department.

KNPE 592. CLINICAL EXPERIENCE IN SPECIAL PHYSICAL EDUCATION (1 to 2). Planning, implementing, and evaluating individualized development/adapted physical activity programs for individuals and groups of individuals with disabilities and/or developmental delays in the areas of fundamental gross motor skill development, physical fitness, leisure/recreation skill, sport skill, and aquatics. Previous experience teaching children with disabilities required. May be repeated to a maximum of 3 semester hours. PRQ: KNPE 490, KNPE 492, or consent of department.

KNPE 595. WORKSHOP IN KINESIOLOGY AND PHYSICAL EDUCATION (1 to 3). Content varies and may focus attention on professional issues in the discipline. May be repeated; however, credit does not count toward the M.S.Ed. in physical education.

KNPE 596. SPECIAL TOPICS IN KINESIOLOGY AND PHYSICAL EDUCATION (1 to 3). Topics announced. May be repeated to a maximum of 6 semester hours when subject varies.

KNPE 597A. INTERNSHIP: PHYSICAL EDUCATION (1 to 6). Internship for students in the M.S.Ed. program in physical education. Supervised participation in field-based professional development activities to supplement theoretical background. May be repeated to a maximum of 6 semester hours. PRQ: Acceptance into graduate program and consent of department.

KNPE 597K. INTERNSHIP: ADAPTED PHYSICAL EDUCATION (3). Supervised practicum experience for students in the adapted physical education specialization of the M.S.Ed. program. Planning, implementing, and evaluating adapted physical education for individuals with handicapping conditions. PRQ: KNPE 490 and consent of department.

KNPE 599A. MASTER'S THESIS (1 to 6). Investigation of an area or problem relating to kinesiology and physical education. Student must show ability to address successfully a genuine research question in kinesiology and physical education and to draw valid and significant conclusions from the data. May be repeated to a maximum of 6 semester hours. PRQ: KNPE 552 or consent of department.

KNPE 599B. MASTER'S PROJECT (1 to 6). Investigation of an area or problem relating to kinesiology and physical education. Student must show ability to identify a unique problem or area of need in kinesiology and physical education and design a plan based on current literature, which includes goals, objectives, and evaluation criteria. May be repeated to a maximum of 6 semester hours. PRQ: KNPE 552 or consent of department.

KNPE 599C. MASTER'S INTERDISCIPLINARY INQUIRY (1 to 6). Investigation of an area of problem relating to kinesiology and physical education. Student must show ability to identify a question or area of need in kinesiology and physical education which integrates and synthesizes appropriate interdisciplinary bodies of literature and evaluate potential solutions to the original problem. May be repeated to a maximum of 6 semester hours. PRQ: KNPE 552 or consent of department.

KNPE 620. SEMINAR IN PHYSICAL EDUCATION CURRICULUM (3). Students recognize, study, and propose solutions to immediate issues in physical education curriculum. Areas in which such problems may exist include curriculum construction, curriculum statutes, liability possibilities, and administrative problems related to curriculum development.

KNPE 635. BIOMECHANICS (3). Biomechanical principles in the analysis of human motion. Use of cinematography and other techniques. PRQ: KNPE 535 or consent of department.

KNPE 640. ADMINISTRATIVE PROCEDURES OF PHYSICAL EDUCATION (3). Administration of physical education in schools and colleges. Includes case studies and consideration of group and individual administrative problems.

KNPE 645. APPLICATION OF STATISTICS TO RESEARCH IN KINESIOLOGY AND PHYSICAL EDUCATION (3). Application of descriptive and inferential statistics to research problems in physical education. PRQ: Admission to master's program in physical education or consent of department.

KNPE 652. EXERCISE BIOENERGETICS (3). Processes involved in the production and utilization of energy in the human as these relate to exercise and training. Laboratory. PRQ: KNPE 452 or consent of department.

KNPE 653. CARDIAC REHABILITATION (3). Development and administration of cardiac rehabilitation programs, with emphasis on exercise prescription and exercise training of cardiac patients. PRQ: KNPE 452, KNPE 458, KNPE 459, or consent of department.

KNPE 671. DIRECTED RESEARCH IN KINESIOLOGY AND PHYSICAL EDUCATION (1 to 3). Topic must be approved by supervisor prior to registration. May be repeated to a maximum of 6 semester hours. PRQ: KNPE 552 and consent of department.

KNPE 686. SEMINAR IN MOTOR LEARNING (3). Evaluation of current motor learning research in kinesiology and physical education and the development of a specific motor learning topic for discussion. PRQ: KNPE 486 or consent of department.

Sport Management (LESM)

LESM 536. SPORT INDUSTRY AND ORGANIZATIONS (3). Study of sport-related industries and organizations. Examination of dimensions of structure, design processes, theories, and behaviors, as each relates to the sport organizational environment. Implications of sport organizational goals, effectiveness, size, technology, communication, conflict, change, politics, and culture.

LESM 538. MANAGING THE SPORT ENTERPRISE (3). Analysis of the sport industry with emphasis on the sport manager's role and functions. Emphasis on planning, organizing, leading, and controlling functions as they apply to the sport manager. PRQ: Consent of department and a 3-semester-hour course in sport or physical education administration or management.

LESM 539. SPORT AND THE LAW (3). Study of the court and legal systems as they relate to sport. Analysis of administrative, antitrust, constitutional, contract, tort, labor, and collective bargaining laws as each applies to various sport management enterprises.

LESM 541. ORGANIZATION AND ADMINISTRATION OF INTERSCHOLASTIC ATHLETICS (3). *Crosslisted as KNPE 541X.* Organization and administration of interscholastic athletics with special reference to national, state, and local control. Consideration of philosophies of athletics, the place of athletics in the educational curriculum, the relationship between boys' and girls' programs, athletic budgeting and finance, facilities and equipment, personnel administration, contest management, athletics and the law, and public relations.

LESM 542. SPORT PROMOTIONS (3). Comprehensive study of promotions as they relate to the sport industry. Analysis of activities designed to meet the needs and wants of sport consumers, including the promotion of sport services and products directly and indirectly to the sport consumer.

LESM 543. SEMINAR IN SPORT MANAGEMENT (3). Investigation and analysis of current issues and trends in sport management. May be repeated to a maximum of 6 semester hours when topic varies.

LESM 544. SPORT FINANCE (3). Conceptual and theoretical aspects of financial accounting management practices associated with the organization and operation of a sport enterprise. Interaction of financial activities and management roles and functions. PRQ: LESM 538 or consent of department.

LESM 550. SPORT SPONSORSHIP AND RETENTION (3). Application of sponsorship acquisition methods to the sport industry. Examination of sport sponsorship retention strategies and sponsorship evaluation methods in sport.

LESM 555. SPORT GLOBALIZATION AND INTERNATIONAL GOVERNANCE (3). Analysis of the impact of globalization on the sport industry. Examination of policy analysis and governance in the global sport community.

LESM 560. SPORT FACILITIES AND EVENT MANAGEMENT (3). Comprehensive planning for developing new sport/multipurpose facilities. Design, construction, maintenance, use, scheduling, and supervision of facilities. Event and crowd management at sport and related events. PRQ: LESM 538, LESM 542, and LESM 544, or consent of department.

LESM 565. SPORT COMMUNICATIONS (3). Application of communication theories to the sport industry. Examination of public and media relations with focus on message development, image building, and crisis management for sport organizations.

LESM 585. PRACTICUM IN SPORT MANAGEMENT (3). Supervised management experience for students in the specialization in sport management. PRQ: KNPE 552, LESM 538, and consent of department.

LESM 586. INTERNSHIP IN SPORT MANAGEMENT (1 to 6). Supervised full-time management experience for students in a sports management setting. May be repeated to a maximum of 6 semester hours. PRQ: Completion of all course work.

LESM 592. SPECIAL TOPICS IN SPORT MANAGEMENT (1 to 3). Topics announced. May be repeated to a maximum of 6 semester hours when topic varies. PRQ: Consent of department.

LESM 597. INDEPENDENT STUDY IN SPORT MANAGEMENT (1 to 3). Individual investigation of special issues, problems, areas, and topics in sport management. May be repeated to a maximum of 3 semester hours. PRQ: Admission to master's degree program in sport management and consent of department.

LESM 598. MASTER'S PAPER (3). Investigation, integration, and application of the body of knowledge areas relative to the field of sport management. PRQ: Completion of 21 semester hours in the approved degree program which must include a research methodology course.

LESM 599A. MASTER'S THESIS (1 to 6). Investigation of an issue or problem relating to sport management. Enrollment by arrangement with graduate adviser. May be repeated to a maximum of 6 semester hours. PRQ: A graduate-level research methodology course and a quantitative or qualitative analytical technique course, or consent of department.

LESM 599B. MASTER'S PROJECT (1 to 3). Applied project designed to meet the needs of an identified issue or problem in sport management. May be repeated to a maximum of 3 semester hours. PRQ: A graduate-level research methodology course or consent of department.

Department of Leadership, Educational Psychology and Foundations (EPF, EPFE, EPS, LEEA)

Chair: Wilma R. Miranda

Graduate Faculty

Kerry Burch, assistant professor, Ph.D., University of Hawaii at Manoa
Jon Crawford, assistant professor, J.D., Ph.D., Iowa State University
Andrea E. Evans, assistant professor, Ph.D., University of Illinois, Chicago
Donald J. Hunt, assistant professor, Ph.D., University of Albany
John W. Jacobson, assistant professor, Ed.D., Illinois State University
Christine Kiracofe, assistant professor, Ed.D., University of Georgia
Rosita Lopez, associate professor, Ed.D., Northern Illinois University
Wilma R. Miranda, professor, Ph.D., State University of New York, Buffalo
John Murphy, assistant professor, Ed.D., Northern Illinois University
Diann Musial, Distinguished Teaching Professor, Ed.D., Northern Illinois University
Linda O'Neill, assistant professor, Ed.D., Northern Illinois University
Jean W. Pierce, professor, Ph.D., Northwestern University
Thomas B. Roberts, professor, Ph.D., Stanford University
Joseph Saban, assistant professor, Ed.D., Northern Illinois University
Leslie A. Sassone, associate professor, Ph.D., Purdue University
Jennifer Schmidt, assistant professor, Ph.D., University of Chicago
David Shernoff, assistant professor, Ph.D., University of Chicago
Hidetada Shimizu, associate professor, Ed.D., Harvard University
Lee B. Shumow, professor, Ph.D., University of Wisconsin
M Cecil Smith, professor, Ph.D., University of Wisconsin
Susan J. Stratton, adjunct assistant professor, Ph.D., University of Iowa
Lucy F. Townsend, professor, Ph.D., Loyola University of Chicago
Marc VanOverbeke, assistant professor, Ph.D., University of Wisconsin
Teresa Wasonga, assistant professor, Ed.D., University of Missouri

The Department of Leadership, Educational Psychology and Foundations offers programs leading to degrees in educational administration, educational psychology, foundations of education, and school business management. The department engages students in the critical study of educational theory and practice, developing reflective educators who base their teaching, research, and policy decisions on historical, philosophical, psychological, and social-cultural perspectives. In addition, the department facilitates the development of leaders who actively shape organizational cultures, are sensitive to moral and equity issues, and can manage and lead complex and changing entities.

Master of Science in Education
Educational administration
Educational psychology
Foundations of education
School business management

Educational Specialist
Educational administration

Doctor of Education
Educational administration
Educational psychology

Regulations Governing Programs in Educational Administration and School Business Management

Admission

Applicants for the master's degree in school business management may submit scores from the GMAT in lieu of GRE scores. Qualified applicants to the Ed.S. program may be required to participate in a pre-admission interview. Qualified applicants to doctoral programs must demonstrate writing competency and computer literacy and participate in a pre-admission interview. Students seeking admission to certification-only programs in the department should contact the department for application materials.

Final decisions regarding admissions are made by a committee of the faculty on the basis of a total profile of an individual's qualifications. Any applicant who is denied admission to a program may submit to the department chair a written request, including information not previously submitted, for reconsideration by the admissions committee. Final decisions of the admissions committee may be appealed at the department level. Appeals must be in writing and must explain the basis for the appeal.

Advisement

A student is assigned an adviser when admitted to a department degree or certification program and develops a program of study in consultation with the adviser.

Student-at-Large, Study-Abroad, and Transfer Credit

Student-at-large, study-abroad, and transfer hours in combination may not exceed 15 semester hours for students pursuing any of the degree programs offered in the department.

Retention

Students must remain in good academic standing in the Graduate School, maintain high ethical standards, and demonstrate evidence of functional competency in fulfilling the professional roles required by the discipline. Doctoral students must pass a candidacy examination which requires an ability to deal analytically with integrated course content. Doctoral students must also develop, complete, and defend an acceptable dissertation following the guidelines of the Graduate School and the program in which they are enrolled. Additional requirements are delineated in the degree program descriptions.

Master of Science in Education in Educational Administration

This 34-semester-hour program focuses on the knowledge and skills required for persons who are interested in educational leadership, administration, and management in educational settings. The program should be of particular interest to those preparing to work as supervisors, department chairs, assistant principals, principals, and associate/assistant superintendents and may also be used by students seeking careers in higher education, private institutions, or governmental agencies.

Majors in educational administration may earn the M.S.Ed. degree with or without the general administrative endorsement to the Type 75 Illinois Administrative Certificate. Those electing to earn the endorsement normally complete the non-thesis option. Those seeking the master's degree without the endorsement may pursue either the thesis or non-thesis option.

Requirements

Students seeking the M.S.Ed. with or without the general administrative endorsement are required to complete the following requirements.

Non-Thesis Option

ETR 520 - Introduction to Educational Research (3)
Foundations course approved by adviser (3)
Course work in educational administration approved by adviser (15-24)
Electives and/or research course work approved by adviser (0-9)
LEEA 586 - Two-semester internship (fall-spring or spring-fall) with a portfolio as the culminating activity (4).

Thesis Option

Same requirements as the non-thesis option, except that 6 semester hours must be taken in LEEA 599A, Master's Thesis. Students pursuing the thesis option fulfill the comprehensive examination requirement in conjunction with the thesis defense.

Master of Science in Education in Educational Psychology

The M.S.Ed. program in educational psychology promotes the understanding and practical application of theory and empirical knowledge regarding human development, learning, and motivation in sociocultural contexts. Courses relate to learning and developmental processes within educational settings (e.g., schools, family, work, neighborhood). The program requires the successful completion of a master's thesis or project.

Admission

The faculty in educational psychology select the most qualified applicants.

An applicant for admission must submit

transcripts showing the GPA for the last two years of undergraduate work.

scores on the Miller Analogies Test (MAT) or the verbal and quantitative parts of the General Test of the GRE.

a sample of the applicant's academic or professional writing, if the applicant did not submit GRE General Test scores including the analytical writing measure.

three letters of recommendation from employers, supervisors, or professors.

While a minimum GPA of 3.00 is preferred, final decisions regarding admissions are made by the educational psychology admissions committee on the basis of all submitted items. Any applicant who is denied admission may submit an appeal to be reviewed by the entire educational psychology faculty. Appeals must be in writing, explain the basis for the appeal, and include information not previously submitted.

Student-at-Large, Study-Abroad, and Transfer Credit

Student-at-large and transfer hours in combination may not exceed 15 semester hours for students pursuing the M.S.Ed. degree in educational psychology. See "Requirements for Graduate Degrees" for limitation on study-abroad credit.

Advisement

When admitted to the program, the student is assigned an adviser who is a faculty member in the area of interest that the student intends to pursue. A course of study is developed for each student.

Requirements

The M.S.Ed. in educational psychology requires a minimum of 33 semester hours, including the following and either a thesis or project.

EPS 501 - Psychological Foundations of Education (3)
EPS 506 - Theories and Research in Child Behavior and Development (3),
  OR EPS 508 - Theories and Research in Adolescent Behavior and Development (3),
  OR EPS 510 - Adult Educational Psychology (3)
EPS 523 - Application of Psychological Research to Educational Practice (3)
Two of the following (6)
  ETR 520 - Introduction to Educational Research (3)
  ETR 521 - Educational Statistics I (3)
  ETR 522 - Educational Statistics II (3)
  EPS 524 - Ethnographies in Human Development and Learning Within Educational Settings (3)
  ETR 525 - Qualitative Research in Education (3)
  ETR 530 - Test Construction and Evaluation (3),
    OR ETR 531 - Program Evaluation in Education (3),
    OR ETR 533 - Standardized Testing (3)
One of the following (3)
  EPFE 500 - Social Foundations of Education (3)
  EPFE 510 - Philosophical Foundations of Education (3)
  EPFE 511 - Philosophical Analysis of Current Educational Thought (3)
  EPFE 521 - Historical Foundations of Education in the United States (3)
  EPFE 530 - Comparative/International Education (3)
Courses selected in consultation with the student's major adviser, at least one course in the major (9)
EPS 599A - Master's Thesis (6),
  OR EPS 599B - Master's Project (6)

Comprehensive Examination

The comprehensive examination is conducted in conjunction with the oral defense of the thesis or project.

Master of Science in Education in Foundations of Education

This 33-semester-hour program provides the student with a theoretical and comparative understanding of the philosophical, historical, and social foundations of education, which serves as the basis for the analysis of educational policies and controversies. The program requires the successful completion of a master's thesis.

Admission

An applicant may submit MAT scores in lieu of GRE scores. For qualified applicants to the program, demonstration of writing competencies and a pre-admission interview must be completed before final admission decision is made.

Student-at-Large, Study-Abroad, and Transfer Credit

Student-at-large and transfer hours in combination may not exceed 15 semester hours for students pursuing a master's degree in foundations of education. The limit on student-at-large hours may be waived in special circumstances with the approval of the department chair. See "Requirements for Graduate Degrees" for limitation on study-abroad credit.

Advisement

A student is assigned an adviser when admitted to the program. Individual needs and goals of students are considered in the advisement process; courses may be selected from appropriate departments throughout the university. Students are responsible for meeting regularly with the adviser. Near the end of course work, students select a thesis adviser and two additional committee members who are graduate faculty members in foundations of education.

Requirements

The M.S.Ed. in foundations of education requires a minimum of 33 semester hours as follows.

A course in research (3)
Foundations of education (EPFE) courses (12)
Elective course work selected in consultation with an adviser (12-15)
EPFE 599A - Master's Thesis (3-6),
OR EPFE 599B - Master's Project (3-6)

Comprehensive Examination

Students fulfill the comprehensive examination requirement in conjunction with the successful oral defense of an approved thesis or culminating project.

Master of Science in Education in School Business Management

This 39-semester-hour program is intended to prepare persons to serve as school business managers. Students, under the direction of an adviser, will plan a program of studies which will include course work, internship, and field experiences directly related to the school business management function in elementary and secondary, or college educational systems. It is not necessary to have a teaching certificate to apply for this program. A student who completes the M.S.Ed. in school business management will satisfy the educational requirements for the chief school business official endorsement to the Type 75 Illinois Administrative Certificate. Program flexibility permits elective courses which may be applied toward meeting minimal educational requirements for the general administrative endorsement.

Requirements

Students who seek the M.S.Ed. with a major in school business management are required to complete the core courses.

LEEA 500 - Educational Organization and Administration: Principles, Concepts, and Structure (3)
LEBM 501 - School Business Management (3)
LEEA 520 - Education Finance I (3)
LEBM 521 - Accounting, Statement Analysis, and Budgeting (3)
LEBM 550 - Financial Planning and School Budgeting (3)
LEBM 621 - Advanced School Fund Accounting and Budgeting (3)
Additional course work in school business management or educational administration approved by adviser (9)
Course work in educational research and educational foundations approved by adviser (6)

Each student is also required to complete a full-year internship experience. Students seeking an internship must make application and receive approval of the internship plan. A full-year internship is defined as having an internship plan which is approved by the program adviser and being registered for 2 semester hours of LEBM 586 for each of three consecutive terms.

Educational Specialist in Educational Administration

This 33-semester-hour program of advanced study in educational administration is designed to prepare eligible graduate students for various administrative positions in education. It emphasizes the technical and specialized aspects of administration and includes studies intended to refine the student's competence to deal with more general aspects of educational theory. Within their program of studies, students may complete requirements for the superintendent endorsement to the Type 75 Illinois Administrative Certificate. Other certification requirements may be included in the program. Students should consult their adviser.

Limitation of Time

The student must fulfill all of the requirements of the Ed.S. program within the six consecutive years immediately preceding the date of the student's graduation from that program. This time limit applies to enrollment in all graduate course work in the student's program including work for which transfer credit is allowed.

If an NIU course taken to complete the requirements for the Ed.S. program does not fall within the time limitation indicated in the previous paragraph, the department may require the student to retake the course for credit or may allow the student to demonstrate current knowledge of the subject matter. In the latter case, currency must be demonstrated to the satisfaction of the department offering the course through successful completion of an appropriate examination or other assessment if available from the department. Otherwise, the outdated course work must be deleted from, and other course work must be substituted in, the program of courses. Transfer courses falling outside the limitation of time cannot be used in a graduate program.

Course Requirements

The program requires 33 semester hours in either the thesis or non-thesis option with a GPA of at least 3.00 in the degree program (excluding deficiency courses taken for graduate credit) as well as in all graduate course work taken at NIU. No more than 9 semester hours of the credit counted toward the Ed.S. degree may be earned in courses numbered 400-499.

Non-Thesis Option

LEEA 600 - Nature and Theory of Administration (3)
LEEA 645 - Survey of Research in Educational Administration (3)
Additional course work in educational administration (15)
Course work in one or two related fields of study (12)

Thesis Option

Same as non-thesis option except that 6 semester hours of the educational administration course work must be in LEEA 599B, Ed.S. Thesis, or LEEA 599C, Ed.S. Field Study.

Comprehensive Examination

Each student must successfully complete a comprehensive examination administered by the department. The examination may be written or oral, or both, at the option of the department.

A student planning to take a comprehensive examination may be required to file a letter of intent with the department chair, and should consult the department concerning applicable procedures and deadlines for such notification.

A student must be enrolled in the term of the comprehensive examination. A student must be in good academic standing, both overall and in the Ed.S. program, to be eligible to take this examination. A student who fails this examination may, with the permission of the major department, repeat it no sooner than the following academic term. A student who fails this examination a second time, or is not granted approval for a second attempt, will not be permitted to continue work toward the Ed.S. degree, and admission to that program will be terminated.

Thesis

The writing of a thesis or field study is optional in the Ed.S. program. See “Requirements for Graduate Degrees.”

Composition of Committees

The thesis committee (if applicable) and comprehensive-examination committee shall each consist of at least three members. The majority of the committee must be regular faculty members at Northern Illinois University; a majority must be members of the graduate faculty; and the chair must be a graduate faculty member in this department.

Doctor of Education in Educational Administration

The Ed.D. program in educational administration is intended to prepare individuals for administrative service and leadership positions in schools, institutions of higher education, or other agencies. The doctoral program provides instructional experiences designed for satisfactory development of conceptual, human, and technical skills and understandings required for successful leadership in various administrative roles with emphasis on educational research, the role of the leader in the social order, community power structure, and organizational theory. Within their program of studies, students may complete requirements for the superintendent endorsement to the Type 75 Illinois Administrative Certificate.

Requirements

The doctoral program in educational administration requires a minimum of 63 semester hours of graduate work beyond the master’s degree as follows.

Course work constituting common requirements in research understandings and skills, learning and development theories, and sociocultural analyses of education (15)

Course work (excluding dissertation hours) in educational administration (18)

A cognate component may be selected from outside the major to provide a broader base of knowledge, a supportive professional skill, or more sophisticated research competencies.

Successful completion of a candidacy examination. This examination encompasses the common requirements, the area of professional knowledge, and any cognate. The examination is developed and evaluated by the student’s committee and combines theory, research, and practice. It is scheduled with the permission of the chair of the student’s doctoral program committee, normally during the last term of course work prior to the dissertation, but may be taken during the semester before or immediately after completing the last nondissertation course in the graduate program.

LEEA 699 - Doctoral Research and Dissertation (15)

If beyond the Ed.S. degree, the doctoral program in educational administration requires a minimum of 33 semester hours as follows.

Course work in research understandings and skills, learning and development theories, and sociocultural analyses of education (15)

One other LEEA course (3)

LEEA 699 - Doctoral Research and Dissertation (15)

Type 75 Illinois Administrative Certificate

In conjunction with the degrees described above, students may meet requirements for various endorsements to the Type 75 Illinois Administrative Certificate. Students may also enroll in certificate-only programs with departmental approval. Departmental approval is required for certification application. Application packets may be obtained from the department office for students interested in certification only rather than a degree program. Students seeking certification who are not admitted to an NIU graduate degree program also must apply for and obtain permission from the Graduate School to enroll as students-at-large.

General Administrative Endorsement

Students seeking this endorsement as part of a graduate degree program in the department must possess a baccalaureate degree which provided certification as an educator in Illinois schools or an equivalent degree with evidence of certification deficiency completion. Students seeking certification only must possess a master’s degree in addition to the previous requirement. All students seeking this endorsement must be admitted by the department, have a program of courses approved by an adviser, and successfully complete a comprehensive examination. State requirements for the general administrative endorsement include four areas of course work and experience including instructional leadership, management of public schools, schools and public policy, and a clinical experience.

Chief School Business Official Endorsement

Students who have already earned an appropriate and related master’s degree from an accredited college or university with an approved teacher education program can complete specific school business management courses to qualify for the chief school business official endorsement. Applicants must meet all state requirements for the endorsement and complete courses in the areas of school business management, school organization and administration, school finance and fiscal planning, and clinical experience.

Superintendent Endorsement

To pursue the superintendent endorsement, students must possess a master's degree in educational administration or its equivalent. Students seeking this endorsement must be admitted by the department, have a program of courses approved by an adviser, successfully complete a comprehensive examination, and meet all other state requirements. State requirements for the superintendent endorsement include the areas of governance and management of public schools, educational planning, and clinical experiences.

Doctor of Education in Educational Psychology

The doctoral degree program in educational psychology enables students to acquire an understanding of psychological processes that underlie human development, learning, and teaching and to develop necessary skills to interpret and design research in educational settings. The program provides students with opportunities to develop original and creative thinking and research in the areas of human development, learning, and motivation. Students may relate this knowledge to selected areas of interest, which may include sociocultural, historical, and philosophical foundations of education, instructional technology, research methods and assessment, special education, or teacher education.

Admission

Applicants for the doctoral degree in educational psychology are expected to have a broad base of general education in the humanities, sciences, and social sciences. Where deficiencies are found by the advisory committee, additional courses for the doctoral degree may be prescribed.

Applicants for admission must

have completed a master's degree.

submit scores from the Miller Analogies Test (MAT) or the General Test of the Graduate Record Examinations.

provide three references.

write a three-four-page essay describing their career goals and interests relevant to educational psychology, the origins of those interests, goals for pursuing those interests in research and study, and how the educational psychology program should be able to help them reach those goals.

Applicants intending to take a cognate in special education should provide evidence of a minimum of two years of professional experience centering on the education of individuals with disabilities.

Before applying for admission to the doctoral program in educational psychology, the student should consult the department chair or assistant chair, who will serve as an interim adviser until the applicant has been admitted to the Graduate School and a program advisory committee has been selected. Students seeking to take courses while admission papers to the Graduate School are being processed should receive approval of the chair or assistant chair of the department.

After all admission forms are completed and Graduate School requirements for admission are fulfilled, the applicant is considered by the department's admissions committee and may be invited for an interview. The recommendation of the admissions committee is forwarded to the Graduate School, which informs the applicant of the admission decision. Any applicant who is denied admission may submit an appeal to be reviewed by the entire educational psychology faculty. Appeals must be in writing, explain the basis for the appeal, and include information not previously submitted. Limited facilities and/or resources may necessitate the rejection of some students who meet the minimum requirements for admission.

Advisement

The student's program adviser provides advisement on courses in the major, cognates, deficiencies, additional courses, prerequisites, and the candidacy examination. The student's departmentally approved program of courses is forwarded to the Graduate School for final approval.

Course Requirements

The doctoral program in educational psychology requires the equivalent of at least three years of full-time academic work, or a minimum of 90 semester hours of graduate work beyond the baccalaureate degree including the following.

ETR 522 - Educational Statistics II (3)
EPS 524 - Ethnographies in Human Development and Learning within Educational Settings (3)
EPS 601 - Professional Practices in Educational Psychology (3)
EPS 613 - Educational Psychology (3)
EPS 623 - Design of Research on Human Development and Learning in Educational Settings (3)
One of the following (3)
- EPS 605 - Advanced Seminar in Child Development (3)
- EPS 608 - Advanced Research Seminar in Adolescent Development (3)
- EPS 610 - Seminar in Lifespan Human Development (3)

Two of the following (6)
- EPS 606 - Research in Child Development (3)
- ETR 620 - Educational Research Planning and Interpretation (3)
- ETR 621 - Nonparametric Statistics (3)
- ETR 622 - Methods of Multivariate Analysis (3)
- ETR 635 - Theory of Measurement (3)
- EPS 639 - Fieldwork Methods in Educational Research (3)
- EPF 640 - Interpretive Methods in Educational Research (3)

One of the following (3)
- EPFE 612 - Ethics and Education (3)
- EPFE 615 - Foundations of Educational Policy (3)
- EPFE 621 - Seminar in American Educational Thought (3)

Course work in an area of interest related to the major chosen in consultation with adviser. At least one course must be in the major (18)
EPS 686 - Internship, or related field-based experience chosen in consultation with adviser (3)
EPS 699 - Doctoral Research and Dissertation (12)

A maximum of 30 semester hours from a master's degree may be included in the doctoral program. These hours may be applied to prerequisites, cognates, or other requirements with the consent of the program adviser. The combined total of student-at-large and transfer hours beyond the master's degree may not exceed 15 semester hours for students pursuing the Ed.D. degree in educational psychology. See "Requirements for Graduate Degrees" for limitation on study-abroad credit.

Internship

An internship is required as part of the doctoral program. An internship is undertaken with the consent of the department chair or assistant chair and under the direction of a graduate faculty adviser.

Examinations

The student must receive approval from his or her adviser to take the candidacy examination. The candidacy examination is conducted in conjunction with the oral defense of a portfolio. It is expected that the student will have completed at least 60 semester hours of graduate course work, including most of the course work in the student's area of interest.

A final oral examination related to the dissertation is required and is conducted in accordance with the general requirements of the Graduate School.

Candidacy

Upon satisfactory completion of the candidacy examination, the student is accepted as a candidate for the Ed.D. degree. A student who fails the candidacy examination may be granted the opportunity to take a second examination. Failure on the second examination denies the student admission to candidacy.

Dissertation

The dissertation in educational psychology is expected to make a substantial contribution to knowledge in the field. Candidates are expected to conduct original scholarship and independent research appropriate to their major and communicate the results of their research effectively. The dissertation director and committee are selected by the student in consultation with the department chair or assistant chair. The committee represents graduate faculty of the university with knowledge in the area of the candidate's topic. At least two members of the committee are selected from the graduate faculty in educational psychology. Official approval of a dissertation director by the Graduate School must be effected by the conclusion of the first semester in which the student registers for dissertation credit.

Certificate of Graduate Study

Foundations of Education (18)

This certificate is designed to provide educators with a framework in historical, social, and/or philosophical foundations of education with an emphasis on issues of race, gender, and social class. It is available to any graduate-level student with a GPA of at least 3.00.

EPFE 615 - Foundations of Educational Policy (3)
EPFE 621 - Seminar in American Educational Thought (3)
EPF 640 - Interpretive Methods in Educational Research (3)

Course work from one or more of the areas below chosen in consultation with certificate adviser. Students may select an interdisciplinary program of electives from across the foundations' parent disciplines, or they may develop a focus in a specific foundations field as indicated below. A maximum of 3 semester hours of internship credit may be used toward the certificate. (9)

Philosophy of Education
EPFE 510 - Philosophical Foundations of Education (3)
EPFE 511 - Philosophical Analysis of Current Educational Thought (3)
EPFE 586 - Internship in Educational Foundations (3)
EPFE 603 - Seminar: Gender Issues in Educational Thought (3)
EPFE 610 - Seminar in Philosophical Investigation (2-6)
EPFE 612 - Ethics and Education (3)

History of Education
EPFE 521 - Historical Foundations of Education in the United States (3)
EPFE 586 - Internship in Educational Foundations (3)
EPFE 620 - Seminar in European Educational Thought (3)
EPFE 623 - History of Higher Education (3)
EPFE 625 - History of Women's Education in the United States (3)

Social Foundations
EPFE 500 - Social Foundations of Education (3)
EPFE 530 - Comparative/International Education (3)
EPF 540 - Education for Social Justice (3)
EPFE 586 - Internship in Educational Foundations(3)
EPFE 622X - Adult and Higher Education in Social Context (3)
EPFE 630 - Seminar in Comparative/International Education (3)
EPFE 640 - Seminar in Professional Educational Organizations (3)

Problem-Based Learning in Educational Psychology (15)

This certificate is designed to provide educators with a framework needed for successful implementation of problem-based learning. Graduate students must consult with the certificate adviser before beginning study.

EPFE 511 - Philosophical Analysis of Current Educational Thought (3)
EPS 501 - Psychological Foundations of Education (3)
EPS 597[1] - Independent Research (4)
EPS 614 - Instructional Psychology (3)
EPS 686[1] - Internship (2)

Course List

All courses with the EPF designator mat be be counted toward a student's major program in educational pyschology or in foundations of education.

General (EPF)

EPF 515. SOCIAL THEORY APPLIED TO EDUCATION (3). Investigation of social theory and brief survey of its origins in psychology, educational studies based on this approach, and relevant contributions from the social sciences.

EPF 540. EDUCATION FOR SOCIAL JUSTICE (3). Social and psychological forces which influence human relationships and have implications in educating for social justice and the diminution of forces of aggression, fear, and violence.

EPF 607. HUMAN DEVELOPMENT AND EDUCATIONAL AND SOCIAL POLICY (3). Interplay among societal issues, human development research and theory, and social policy. Methods for initiating, developing, and implementing social and educational policy in a variety of institutional settings.

EPF 640. INTERPRETIVE METHODS IN EDUCATIONAL RESEARCH (3). *Crosslisted as ETR 640X*. Emphasis on structuralist, poststructuralist, and semiotic theories and techniques in education to develop systematic hands-on interpretive projects. PRQ: ETR 525.

Educational Administration (LEEA)

LEEA 500. EDUCATIONAL ORGANIZATION AND ADMINISTRATION: PRINCIPLES, CONCEPTS, AND STRUCTURE (3). Development of an awareness and understanding of the social, political, and behavioral bases for educational administration. PRQ: Consent of department.

LEEA 501. SCHOOL ORGANIZATION AND ADMINISTRATION: PROGRAMS AND PRACTICES (3). Examination of administrative practices in the areas of educational programs, staff and pupil personnel functions, physical plant, finance and business management, and school-community relations. PRQ: LEEA 500 or consent of department.

LEEA 511. THE PRINCIPALSHIP (3). Basic performance patterns of elementary, middle, and secondary school principals in the organization and administration of the education process. Clinical experiences appropriate to each level of administration. PRQ: LEEA 500 and a minimum of 15 additional semester hours in the educational administration program, or consent of department.

LEEA 520. EDUCATION FINANCE I (3). Survey of social, economic, and political considerations in public financing of education. Examination of sources of revenues, federal-state-local allocation systems, and local educational agency financial planning and budgeting. Includes clinical experiences. PRQ: LEEA 500 or consent of department.

LEEA 525. EDUCATION LAW I (3). Survey course on legal problems in educational settings. Designed for students in master's degree programs. Includes clinical experiences. PRQ: Consent of department.

[1]When topic is problem-based learning.

LEEA 535. SUPERVISORY BEHAVIOR (3). Theoretical constructs underlying supervisory behavior in educational settings and applications of related principles to the supervision and management of education personnel.

LEEA 540. SCHOOL-COMMUNITY RELATIONS (3). Responsibility of the school to offer leadership in home-school-community relationships. Tasks of surveying and utilizing community resources, studying promising programs and practices, and evaluating educational criticism. Includes clinical experiences.

LEEA 550. SEMINAR: PROBLEMS IN EDUCATIONAL ADMINISTRATION (3). Individual investigation of fundamental problems in educational administration and business management, culminating in a research paper. Problems based largely on past or anticipated experience of the students. PRQ: LEEA 500 or consent of department.

LEEA 554. POLICY ANALYSIS FOR SCHOOL ADMINISTRATORS (3). Policy making, implementing, and evaluating at the school site and school district levels; skills of policy analysis and policy development; identification of issues appropriate for policy study in the school district and at the school site; the principal in policy-related roles. PRQ: LEEA 500 and EPFE 500 or EPFE 521, or consent of department.

LEEA 577. ADMINISTRATION AND SUPERVISION OF SPECIAL EDUCATION (3). Overview of the functions, responsibilities, and problems in the organization, administration, and supervision of special education programs at the federal, state, and local levels. PRQ: LEEA 500 or consent of department.

LEEA 580. CLINICAL LABORATORY, BUILDING-LEVEL ADMINISTRATION (1). Laboratory-based clinical experiences including individual and group classroom exercises and simulations focused on building-level administrative tasks and functions. Required for general administrative endorsement. PRQ: LEEA 511 or consent of department. CRQ: LEEA 520, LEEA 525, or LEEA 535, or consent of department.

LEEA 586. INTERNSHIP IN EDUCATIONAL ADMINISTRATION (1 to 12). Work individually or in small groups in a practical situation under guidance of a staff member from that setting and a university supervisor. May be repeated to a maximum of 12 semester hours, although typically only 4 semester hours may be applied to a graduate degree program. PRQ: LEEA 500, LEEA 511, and 15 additional semester hours in an educational administration program, or consent of department.

LEEA 590. WORKSHOP IN EDUCATIONAL ADMINISTRATION (1 to 3). Designed for teachers, supervisors, and educational administrators to study contemporary issues and problems in education. Content varies. May be repeated to a maximum of 12 semester hours. PRQ: Acceptance by the director of the workshop.

LEEA 592. SPECIAL TOPICS IN EDUCATIONAL ADMINISTRATION (1 to 3). Topics announced. May be repeated to a maximum of 12 semester hours when topic varies. PRQ: Consent of department.

LEEA 597. INDEPENDENT RESEARCH IN EDUCATIONAL ADMINISTRATION (1 to 6). Independent research at the master's degree level under faculty supervision. May be repeated to a maximum of 6 semester hours. PRQ: Admission to master's degree program and consent of faculty member who will direct research.

LEEA 599A. MASTER'S THESIS (3 to 6). Open only to students who elect to write a thesis for the M.S.Ed. degree. Student enrolls with the faculty member directing the thesis. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department. Recommended: ETR 520.

LEEA 599B. ED.S. THESIS (3 to 6). May be repeated to a maximum of 6 semester hours. PRQ: Consent of the chair of the student's advisory committee.

LEEA 599C. ED.S. FIELD STUDY (3 to 6). May be repeated to a maximum of 6 semester hours. PRQ: Consent of the chair of the student's advisory committee.

LEEA 600. NATURE AND THEORY OF ADMINISTRATION (3). Analysis of relationships in organizational structures, decision making, and informal organization. Assessment and analysis of models and systems for the solution of problems in administration. PRQ: LEEA 500 or consent of department.

LEEA 610. THE SUPERINTENDENCY (3). Basic performance patterns of the superintendent and central office personnel in the organization and administration of the educational process. PRQ: Minimum of 18 semester hours in educational administration at the 600 level or consent of department.

LEEA 615. EDUCATIONAL FACILITIES (3). Educational facilities planning, facilities survey, population and utilization studies, and evaluation of existing facilities. Includes laboratory and field-based clinical experiences. PRQ: LEEA 500 or consent of department.

LEEA 620. EDUCATION FINANCE II (3). Theoretical aspects of financial administration, state and local tax systems, cost-quality relationships, and operational finance. PRQ: LEEA 520 or consent of department.

LEEA 625. EDUCATION LAW II (3). Emphasis on case studies in education law. Includes clinical experiences. PRQ: LEEA 525 or consent of department.

LEEA 630. EDUCATIONAL ADMINISTRATION FIELD STUDIES (3). Methods of administrative planning in the areas of community background, evaluation of facilities, transportation, scheduling, utilization of staff, and financial analysis. Includes clinical experiences. PRQ: Consent of department.

LEEA 635. ADMINISTRATION AND SUPERVISION OF EDUCATIONAL PERSONNEL (3). Problems and issues associated with administration and supervision of educational personnel. Organization of personnel, collective negotiations, selection of personnel, and development of reward systems. Includes clinical experiences. PRQ: LEEA 535 or consent of department.

LEEA 636. COLLECTIVE BARGAINING IN EDUCATION (3). An educational administration perspective on basic processes of collective bargaining in educational settings. Consideration given to history, theory, specific collective bargaining issues, planning, communication, and strategies required in the bargaining process. Includes clinical experiences. PRQ: LEEA 635 or consent of department.

LEEA 637. SEMINAR: MANAGEMENT OF NEGOTIATED CONTRACTS IN EDUCATION (3). For present and prospective educational administrators to study and explore effective strategies for implementation, resolution, and management of negotiated contracts. Includes clinical experiences. PRQ: LEEA 636 or consent of department.

LEEA 640. SEMINAR IN SCHOOL-COMMUNITY RELATIONS (3). Current problems and issues as they affect administrative practices; emphasis on field-based practices and techniques. PRQ: LEEA 540 or consent of department.

LEEA 645. SURVEY OF RESEARCH IN EDUCATIONAL ADMINISTRATION (3). Survey of selected research studies in educational organization and administration. PRQ: LEEA 500 or consent of department.

LEEA 650. SEMINAR: EDUCATIONAL ADMINISTRATION (3). Identification and integration of the human and technical skills required for modern educational administration. May be repeated to a maximum of 6 semester hours. PRQ: LEEA 600 or consent of department.

LEEA 651. EXTERNSHIP IN EDUCATIONAL ADMINISTRATION (3). Designed expressly for practicing educational administrators and business managers and directly concerned with applied problems in educational administration and business management. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

LEEA 654. THE POLITICS OF EDUCATIONAL ADMINISTRATION (3). Methods and conceptualization of political power in educational administration; examination of policy making, the policymakers, and educational administrators in their policy making roles; ways of influencing policy processes and identification of current policy issues in educational administration. PRQ: LEEA 600 or consent of department.

LEEA 655. PLANNING AND DECISION MAKING IN EDUCATIONAL ADMINISTRATION (3). Extended study of decision making in education focusing on specific problems in planning, design, implementation, and evaluation. Includes clinical experiences. PRQ: Completion of master's degree or equivalent and consent of department.

LEEA 677. SPECIAL EDUCATION ADMINISTRATION (3). Advanced study of functions, responsibilities, and problems in the organization and administration of special education programs at the federal, state, and local levels. PRQ: LEEA 577 or consent of department.

LEEA 678. SEMINAR: SPECIAL EDUCATION ADMINISTRATION (3). Trends, issues, and concerns in administration of special education programs. One issue or trend will be selected for an in-depth independent library review and/or empirical study by each student. PRQ: LEEA 677 or consent of department.

LEEA 680. CLINICAL LABORATORY, DISTRICT-LEVEL ADMINISTRATION (1). Laboratory-based clinical experiences including individual and group classroom exercises and simulations focused on district-level administrative tasks and functions. Required for superintendent's endorsement. PRQ: LEEA 600 and LEEA 610, or consent of department.

LEEA 686. INTERNSHIP IN EDUCATIONAL ADMINISTRATION (1 to 12). Work individually or in small groups in a practical situation under guidance of a staff member of that setting and a university supervisor. May be repeated to a maximum of 12 semester hours, although typically only 6 semester hours may be applied to the program of study. PRQ: LEEA 610 or consent of department.

LEEA 697. INDEPENDENT RESEARCH IN EDUCATIONAL ADMINISTRATION (1 to 3). Independent research at post-master's degree levels under faculty supervision. May be repeated to a maximum of 6 semester hours.

LEEA 698. RESEARCH SEMINAR IN EDUCATIONAL ADMINISTRATION (3). Designed for the advanced student interested in planning and conducting research studies in educational administration. Research project may be an exploratory or pilot study related to the doctoral dissertation. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department. Recommended: ETR 620.

LEEA 699. DOCTORAL RESEARCH AND DISSERTATION (1 to 15). Student must accumulate 15 semester hours prior to graduation. May be repeated to a maximum of 30 semester hours. PRQ: Candidacy for the doctoral degree and consent of chair of doctoral committee.

Educational Psychology (EPS)

EPS 405. ISSUES IN HUMAN DEVELOPMENT IN THE ELEMENTARY THROUGH HIGH SCHOOL YEARS (3). Cognitive, socioemotional, and physical development of children and adolescents within their families, schools, and sociocultural contexts. Focus on relationships between these aspects of student development and their implications for educational approaches and teaching within a school setting. Designed for students in physical education and visual and performing arts needing K-12 teacher certification. CRQ: Documented clinical experience or supervised participation in schools.

EPS 406. ISSUES IN HUMAN DEVELOPMENT AND LEARNING IN THE MIDDLE SCHOOL AND HIGH SCHOOL YEARS (3). Cognitive, socioemotional, and physical characteristics of youth and their implications for educational practices with respect to student learning and performance in middle school and high school. Designed for students seeking teacher certification in grades 5-12 only. CRQ: Clinical experience or supervised participation in schools.

EPS 413. CREATIVITY AND LEARNING (3). Preservice and inservice training for elementary and secondary teachers in the nature of creativity, the creative process, the creative person, and cultivation of the creative personality. Addresses the assessment of creative processes and products. Emphasis on the creative process as it relates to education and schools.

EPS 415. TRANSPERSONAL EDUCATION (3). Exploration of classroom applications of transpersonal psychology, and the educational implications of consciousness research.

EPS 419. THE MIDDLE SCHOOL CHILD (3). Examination of the match between characteristics of early adolescents (10-14 years) and characteristics of middle school programs. Biological, cultural, psychological, and social forces affecting the development of young adolescents. Focus on the role of the teacher, school, and community in helping the adolescent to deal with the impact of changes in these types of forces.

EPS 450X. CLASSROOM MANAGEMENT (2). *Crosslisted as TLCI 450.* Applications of motivation and management principles and procedures to maintain a positive learning environment in classrooms.

EPS 454. THE GIFTED STUDENT (3). Characteristics of the gifted. Emphasis on identification, growth and development, creativity, motivation, guidance, and evaluation of the gifted.

EPS 492. SPECIAL TOPICS IN EDUCATIONAL PSYCHOLOGY (1 to 3). Topics announced. May be repeated to a maximum of 9 semester hours when subject varies.

EPS 501. PSYCHOLOGICAL FOUNDATIONS OF EDUCATION (3). Broad fields of psychology as they relate to and provide foundations for educational practice. Constructive analysis of the principal areas, theories, experimentation, and conclusions in psychology with focus on such topics as motivation, intelligence, learning, personality, and emotions.

EPS 506. THEORIES AND RESEARCH IN CHILD BEHAVIOR AND DEVELOPMENT (3). Analysis of theory and research concerning the nature of child development and the implications of such for classroom teachers and other professionals who work with childhood populations.

EPS 508. THEORIES AND RESEARCH IN ADOLESCENT BEHAVIOR AND DEVELOPMENT (3). Analysis of theory and research concerning the nature of adolescent development and the implications of such for classroom teachers and other professionals who work with adolescent populations.

EPS 510. ADULT EDUCATIONAL PSYCHOLOGY (3). Study of educational and psychological theories of adult development and aging with emphasis on the evaluation of contemporary research in adult cognitive development.

EPS 511. MORAL DEVELOPMENT AND CHARACTER EDUCATION (3). Advanced seminar focusing on critical analysis of theoretical perspectives, research, and educational practices related to moral development. PRQ: EPS 506, EPS 508, or EPS 510, or consent of department.

EPS 512. TEACHER, FAMILY, AND COMMUNITY: RELATIONSHIPS AND RESOURCES (3). Theoretical and empirical perspectives on how relationships among teachers, families, and communities influence the learning and school adjustment of children and adolescents as well as the roles of teachers, parents, and community agencies. Models and methods for facilitating positive relationships among teachers, parents, and students. Resources for the education of children within families and communities.

EPS 518. MOTIVATION IN THE CLASSROOM (3). Application of current motivation theories and research for understanding and fostering student motivation to learn in the classroom.

EPS 523. APPLICATION OF PSYCHOLOGICAL RESEARCH TO EDUCATIONAL PRACTICE (3). Interpretation and application of research concerning human development, learning, and motivation to improve practices in schools and other organized learning environments. Design and evaluation of educational practices based on psychological theory and research, analyzing and selecting developmental assessments, observing student learning and motivation during instructional activities, and communicating with practitioners about research.

EPS 524. ETHNOGRAPHIES IN HUMAN DEVELOPMENT AND LEARNING WITHIN EDUCATIONAL SETTINGS (3). Ethnographies in diverse educational settings (e.g., classroom, school, family) with emphasis on human development across the life span and cultures. Ethnographic research relevant to learning and development such as negotiating entry, collecting data through interview and participant-observation, writing field notes, developing and identifying research questions, and generating valid and critical hypotheses and conclusions.

EPS 532X. EVALUATION OF TEACHERS AND TEACHING (3). *Crosslisted as ETR 532.* Examination of major components of a comprehensive system for evaluating teachers and teaching and the related issues and teacher effectiveness literature.

EPS 535. EXAMINING EDUCATIONAL PSYCHOLOGY EVIDENCE FOR EDUCATIONAL PRACTICES (3). Examination of a number of practices in education from a psychological perspective, with focus on weighing the best available evidence. Topics may include methods of grouping students for instruction, individual differences in learning, student academic support activities, and student achievement. Evaluation of evidence in order to make informed decisions regarding effective practices in education. PRQ: Graduate course work in educational psychology and research methods, or consent of department.

EPS 554. PROCEDURES FOR EDUCATING THE GIFTED (3). Current practices, trends, and issues in curriculum development and instructional methods for the gifted. Procedures as they relate to cognitive functions, factors of intellect, and creative expression. PRQ: EPS 454 or consent of department.

EPS 579. CULTURAL PERSPECTIVES ON HUMAN DEVELOPMENT (3). *Crosslisted as PSYC 579X.* Cultural perspectives on parenting, home-school relations, psychological development, and education. Case materials drawn from western and non-western societies.

EPS 587. PRACTICUM IN GIFTED (1 to 10). Supervised field experience in special education programs in schools, institutions, and other facilities for gifted students. May be repeated to a maximum of 12 semester hours. PRQ: Admission to Graduate School and consent of department.

EPS 590. WORKSHOP IN EDUCATIONAL PSYCHOLOGY (1 to 3). Designed for teachers, supervisors, counselors, and administrators to study contemporary issues and problems of the public school. Content varies. May be repeated to a maximum of 12 semester hours.

EPS 592. SEMINAR IN EDUCATIONAL PSYCHOLOGY (3). Review and analysis of current issues and research in educational psychology. May be repeated to a maximum of 9 semester hours when subject varies.

EPS 597. INDEPENDENT RESEARCH (1 to 4). Independent research at the master's degree level under faculty supervision. May be repeated to a maximum of 6 semester hours. PRQ: Consent of faculty member who will direct research.

EPS 599A. MASTER'S THESIS (1 to 6). Enrollment by special arrangement with student's major adviser. May be repeated for a maximum of 6 semester hours.

EPS 599B. MASTER'S PROJECT (1 to 6). Culminating experience. Enrollment by special arrangement with student's major adviser. May be repeated for a maximum of 6 semester hours.

EPS 601. PROFESSIONAL PRACTICES IN EDUCATIONAL PSYCHOLOGY (3). Examination of the historical and systemic roots of educational psychology; relationships among educational psychology, education, and other behavior sciences; career options and professional practices; and current initiatives and future directions within the discipline.

EPS 605. ADVANCED SEMINAR IN CHILD DEVELOPMENT (3). Critical analysis of child development theories with application to contemporary educational issues and problems. PRQ: Master's degree in a relevant field or consent of department.

EPS 606. RESEARCH IN CHILD DEVELOPMENT (3). Examination and analysis of recent research in child development. Focus on development of skills for conducting research in child development applicable to all educational settings. PRQ: EPS 605 or consent of department.

EPS 608. ADVANCED RESEARCH SEMINAR IN ADOLESCENT DEVELOPMENT (3). In-depth examination of selected research methods and topics in adolescent development. Particular focus on student research and secondary analysis of existing data sets pertaining to various dimensions of adolescent development within educational contexts. PRQ: Background in adolescent development, research methods, and statistics, and consent of department.

EPS 610. SEMINAR IN LIFESPAN HUMAN DEVELOPMENT (3). The study of human development and learning from a lifespan perspective pertinent to cognitive, emotional, physical, and social development. Implications for educators.

EPS 613. EDUCATIONAL PSYCHOLOGY (3). Detailed analysis of modern learning theories and practices as they relate to education. Detailed investigation of major research in educational psychology focusing on learning and cognition. PRQ: EPS 501 or consent of department.

EPS 614. INSTRUCTIONAL PSYCHOLOGY (3). *Crosslisted as PSYC 514X.* Models and theories of instructional psychology as related to contemporary research in cognition. PRQ: EPS 613, a course in cognitive psychology, or consent of department.

EPS 615. EDUCATION AND HUMAN COGNITIVE PROCESSING (3). Implications of human cognitive processing and memory research techniques and their application to learning situations.

EPS 616. LEARNING RESEARCH PRACTICUM (3). Extended study of learning theory and individual research focusing on specific and persistent problems of design, translation, and interpretation of learning research for educators. May be repeated to a maximum of 6 semester hours. PRQ: EPS 613 or consent of department.

EPS 618. RESEARCH SEMINAR IN MOTIVATION AND EDUCATION (3). Critical analysis of current motivation theories and research in educational settings. Emphasis on issues of research design and interpretation for educators. PRQ: EPS 613 or consent of department.

EPS 623. DESIGN OF RESEARCH ON HUMAN DEVELOPMENT AND LEARNING IN EDUCATIONAL SETTINGS (3). Development of proposals for studies of human development, learning, and motivation within educational settings. Acquisition of skills to analyze research critically, develop research questions, select appropriate designs and methods, and create or adapt instruments to assess learner development. PRQ: ETR 522 or consent of department.

EPS 639. FIELDWORK METHODS IN EDUCATIONAL RESEARCH (3). *Crosslisted as ETR 639X.* Emphasis on studying examples of educational fieldwork and actual hands-on research. PRQ: ANTH 460 or ETR 525, or consent of department.

EPS 670X. WRITING FOR PUBLICATION IN EDUCATIONAL PSYCHOLOGY AND SPECIAL EDUCATION (3). *Crosslisted as TLSE 670.* Planning, producing, and submitting manuscripts for publication. Includes analysis of professional journals and articles published in them with different types of publications addressed and analyzed, including review, research, and theoretical position papers.

EPS 671X. WRITING GRANT PROPOSALS IN EDUCATION (3). *Crosslisted as TLSE 671.* Reviewing and writing competitive grant proposals. Identifying funding sources (federal, state, private) that match one's interests and expertise. Analysis of components of different types of grants, including research, demonstration, special project, technology, and personnel preparation grants.

EPS 686. INTERNSHIP (1 to 12). Work individually or in small groups in a practical situation under the guidance of a staff member of that setting and a university supervisor. Open only to doctoral students, or by consent of department. May be repeated to a maximum of 12 semester hours.

EPS 692. ADVANCED RESEARCH SEMINAR IN EDUCATIONAL PSYCHOLOGY (3). Students design and conduct a study dealing with a problem in educational psychology. It may be a pilot study related to the doctoral dissertation. May be repeated to a maximum of 12 semester hours. PRQ: Master's degree.

EPS 697. INDEPENDENT RESEARCH (1 to 3). Independent research at post-master's degree levels under faculty supervision. May be repeated to a maximum of 6 semester hours.

EPS 699. DOCTORAL RESEARCH AND DISSERTATION (1 to 15). Students are required to register for a minimum of 3 semester hours per term unless an exception is granted by the department. May be repeated for additional credit to a maximum of 24 semester hours. PRQ: Candidacy for the doctoral degree and consent of chair of doctoral committee

Foundations of Education (EPFE)

EPFE 492. SPECIAL TOPICS IN FOUNDATIONS OF EDUCATION (1 to 3). Study of special topics, announced in advance, in foundations of education. May be repeated to a maximum of 9 semester hours when subject varies.

EPFE 500. SOCIAL FOUNDATIONS OF EDUCATION (3). Social forces influencing education; educational traditions as reflections of diverse cultures; the school and cultural change; educational issues and sources of cultural conflict in the United States.

EPFE 501. RESEARCH METHODS IN THE PHILOSOPHICAL, HISTORICAL, AND SOCIAL FOUNDATIONS OF EDUCATION (3). Emphasis on interpretive, normative, and critical perspectives in planning, conducting, and writing research studies in education.

EPFE 505. FOUNDATIONS OF LANGUAGE-MINORITY EDUCATION (3). Examination and analyses of the historical and social contexts of language-minority education in the United States, with emphases on bilingual education and the instruction of English as a second language in elementary, middle, and high schools.

EPFE 510. PHILOSOPHICAL FOUNDATIONS OF EDUCATION (3). Emphasis on the distinct nature of philosophic inquiry functioning within a sociocultural setting in the construction of educational theory.

EPFE 511. PHILOSOPHICAL ANALYSIS OF CURRENT EDUCATIONAL THOUGHT (3). Philosophical methods used in analyzing, refining, and criticizing educational theory and ideology in a multicultural society.

EPFE 520. HISTORICAL FOUNDATIONS OF EDUCATION (3). History of education in Western society. Major educational figures, theories, institutions, and developments emphasized and interpreted in their cultural contexts.

EPFE 521. HISTORICAL FOUNDATIONS OF EDUCATION IN THE UNITED STATES (3). History of education in the United States. Interrelation of diverse cultures and educational figures, theories, and developments.

EPFE 530. COMPARATIVE/INTERNATIONAL EDUCATION (3). Survey of purpose, methodology, and research trends in comparative/international education. Implications of comparative research for American educational practice.

EPFE 586. INTERNSHIP IN EDUCATIONAL FOUNDATIONS (1 to 9). Students learn to apply foundations principles in a practical setting. Instruction supervised by a foundation of education professor. May be repeated to a maximum of 9 semester hours.

EPFE 590. WORKSHOP IN EDUCATION (1 to 3). Designed for teachers, supervisors, counselors, and administrators to study contemporary issues and problems of the public school. Content varies to provide the opportunity to study current problems. May be repeated to a maximum of 12 semester hours. PRQ: Acceptance by the director of the workshop.

EPFE 597. INDEPENDENT RESEARCH IN FOUNDATIONS OF EDUCATION (1 to 3). Independent research at the master's degree level under faculty supervision. May be repeated to a maximum of 6 semester hours. PRQ: Admission to master's degree program and consent of faculty member who will direct research.

EPFE 599A. MASTER'S THESIS (1 to 6). Open only to students who elect to write a thesis for the M.S.Ed. degree. Student enrolls with the faculty member directing the thesis. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department. Recommended: ETR 520.

EPFE 599B. MASTER'S PROJECT (1 to 6). Culminating experience. Enrollment by special arrangement with the student's major adviser. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

EPFE 603. SEMINAR: GENDER ISSUES IN EDUCATIONAL THOUGHT (3). Study of gender in educational thought with emphasis on epistemological, ethical, and critical arguments. Consideration of the respective implications of theories for gender-specific education and development.

EPFE 610. SEMINAR IN PHILOSOPHICAL INVESTIGATION (2 to 3). Philosophic exploration of various educational doctrines and theories operating in a sociocultural context. May be repeated to a maximum of 9 semester hours.

EPFE 612. ETHICS AND EDUCATION (3). Study of educational policy and pedagogy from the perspective of theories in ethics. Critical analysis of the relationship of education to philosophic discussions of pertinent ethical issues related to education in a multicultural society.

EPFE 615. FOUNDATIONS OF EDUCATIONAL POLICY (3). Critical analysis of the generation, implementation, and outcomes of educational economics and history used to investigate the dynamics of policy formation and the relationship between educational policy and social trends.

EPFE 620. SEMINAR IN EUROPEAN EDUCATIONAL THOUGHT (3). European educational theories that have influenced Western culture. Educational ideas of selected theorists examined in their cultural contexts. Attention to current issues and problems from a critical historical perspective.

EPFE 621. SEMINAR IN AMERICAN EDUCATIONAL THOUGHT (3). Individuals, theories, and developments in American educational history examined in their historical, philosophical, social, and cultural contexts through discussion and research. Attention to how major educational theorists and intellectual movements are connected to the wider cultural environment. PRQ: Admission to Ed.S. or doctoral program, or consent of department.

EPFE 622X. ADULT AND HIGHER EDUCATION IN SOCIAL CONTEXT (3). *Crosslisted as CAHA 622*. Critical analysis of the relationships existing between adult and higher education and its various social contexts. Clarification of present and future purposes and practices of adult and higher education in light of trends in social science research.

EPFE 623. HISTORY OF HIGHER EDUCATION (3). Critical analysis and interpretation of historical developments in American higher education from the colonial to modern periods. Emphasis on key institutions, episodes, people, and social trends illustrating the continuities, complexities, and changes in community colleges, colleges, and universities.

EPFE 625. HISTORY OF WOMEN'S EDUCATION IN THE UNITED STATES (3). Survey of women's education in the context of the main currents of United States history. Educational leaders, theories, institutions, and developments analyzed in multicultural contexts.

EPFE 630. SEMINAR IN COMPARATIVE/INTERNATIONAL EDUCATION (3). Selected topics focusing on theoretical frameworks, relevant research, and implications for educational policy and practice.

EPFE 640. SEMINAR IN PROFESSIONAL EDUCATIONAL ORGANIZATIONS (1 to 3). Case studies of educational organizations, their history, purposes, and functions. Appraisal of the impact of these groups on past, present, and future educational trends. May be repeated to a maximum of 3 semester hours.

School Business Management (LEBM)

LEBM 501. SCHOOL BUSINESS MANAGEMENT (3). Summary of task areas such as management of auxiliary enterprises including accounting and financial control, maintenance of buildings and grounds, personnel and office management, transportation, insurance, investments, administration of supplies and equipment, and administrative relationships.

LEBM 511. PRACTICUM IN SCHOOL BUSINESS MANAGEMENT (1 to 6). Designed to provide maximum experience with practitioners in the field. All phases of business management and opportunity for field experiences. May be repeated to a maximum of 6 semester hours. PRQ: LEBM 501, LEBM 521, and LEEA 520, or consent of department.

LEBM 521. ACCOUNTING, STATEMENT ANALYSIS, AND BUDGETING (3). Principles of school fund accounting including a study of budgeting, payroll administration, bonded indebtedness, accounting for receipts and expenditures, extracurricular funds and analysis of statements, and auxiliary enterprises such as cafeteria and store. PRQ: LEEA 500 and LEBM 501, or consent of department.

LEBM 525. LEGAL ASPECTS OF SCHOOL BUSINESS MANAGEMENT (3). Major legal issues and problems impacting day-to-day business and financial operations at the school district level. Includes clinical experiences. Designed for master's degree students. PRQ: LEBM 501, LEBM 521, LEEA 500, and LEEA 520, or consent of department.

LEBM 530. MANAGEMENT OF BUSINESS SUPPORT SERVICES (3). Principles and procedures of purchasing, property accounting, risk management, food service programs, transportation, and school store operation. PRQ: LEEA 500, LEEA 520, LEBM 501, and LEBM 521, or consent of department.

LEBM 536. ROLE OF THE SCHOOL BUSINESS ADMINISTRATOR IN COLLECTIVE BARGAINING (3). Focus on role of the school business administrator in defining financial parameters for bargaining, measuring short- and long-term financial impact of proposals, and administering approved contracts. PRQ: LEBM 501, LEBM 521, LEEA 500, and LEEA 520, or consent of department.

LEBM 540. PERSONNEL AND FACILITIES MANAGEMENT (3). Problems and issues associated with managing personnel and operating and maintaining school sites and facilities. All aspects of the business office, noncertified staff, and legal and insurance problems. PRQ: LEEA 500 and LEBM 501, or consent of department.

LEBM 550. FINANCIAL PLANNING AND SCHOOL BUDGETING (3). Techniques and methods of estimating local, state, and federal revenues; alternative methods of school budget planning and control; and cost analysis. PRQ: LEEA 500, LEEA 520, LEBM 501, and LEBM 521, or consent of department.

LEBM 586. INTERNSHIP IN SCHOOL BUSINESS MANAGEMENT (1 to 12). Work individually or in small groups in a practical situation under guidance of a staff member of that setting and a university supervisor. Minimum of 6 semester hours required for chief school business official endorsement. May be repeated to a maximum of 12 semester hours, although typically only 6 semester hours may be applied to the program of study. Ordinarily to be taken 2 semester hours per term for three consecutive terms for a total of 6 semester hours. PRQ: LEEA 500, LEEA 520, LEBM 501, and LEBM 521, or consent of department.

LEBM 590. WORKSHOP IN SCHOOL BUSINESS MANAGEMENT (1 to 3). Designed for teachers, supervisors, counselors, and administrators to study contemporary issues and problems of the public school. Content varies. May be repeated to a maximum of 12 semester hours. PRQ: Consent of department.

LEBM 592. SPECIAL TOPICS IN SCHOOL BUSINESS MANAGEMENT (1 to 3). Topics announced. May be repeated to a maximum of 9 semester hours when topic varies.

LEBM 597. INDEPENDENT RESEARCH IN SCHOOL BUSINESS MANAGEMENT (1 to 3). Independent research at the master's degree level under faculty supervision. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

LEBM 599. MASTER'S THESIS (3 to 6). Open only to students who elect to write a thesis for the M.S.Ed. degree. Student enrolls with the faculty member directing the thesis. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department. Recommended: ETR 520.

LEBM 610. SEMINAR IN SCHOOL BUSINESS MANAGEMENT (3). Problems involved in the business administration of schools. Concentrated study and research concerned with all phases of school business management, such as accounting and finance, cafeteria management, purchasing, transportation, building planning and construction. PRQ: Consent of department.

LEBM 621. ADVANCED SCHOOL FUND ACCOUNTING AND BUDGETING (3). Application of data processing systems to school fund accounting, payroll, inventories, curriculum, personnel, registration procedures, budget, textbook accounting, and other business office functions. PRQ: LEEA 500, LEEA 520, LEBM 501, and LEBM 521, or consent of department.

LEBM 686. INTERNSHIP IN SCHOOL BUSINESS MANAGEMENT (3 to 12). Work individually or in small groups in a practical situation under guidance of a staff member of that setting and a university supervisor. May be repeated to a maximum of 12 semester hours. PRQ: Consent of department.

LEBM 697. INDEPENDENT RESEARCH IN SCHOOL BUSINESS MANAGEMENT (1 to 3). Independent research at post-master's degree level under faculty supervision. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

Department of Literacy Education (LT--)

Chair: Norman A. Stahl

Graduate Faculty

June E. Barnhart, associate professor, Ph.D., Northwestern University
Chris L. Carger, associate professor, Ph.D., University of Illinois, Chicago
Karen Carrier, assistant professor, Ph.D., University of Pennsylvania
Mayra C. Daniel, assistant professor, Ed.D., Illinois State University
Laurie Elish-Piper, associate professor, Ph.D., University of Akron
Francine Falk-Ross, associate professor, Ph.D., University of Illinois, Chicago
Pamela J. Farris, Distinguished Teaching Professor, Ph.D., Indiana State University
Susan L'Allier, assistant professor, Ed.D., Harvard University
Pamela Nelson, assistant professor, Ed.D., Northern Illinois University
Richard A. Orem, professor, Ed.D., University of Georgia
Donald J. Richgels, Presidential Research Professor, Ph.D., University of Wisconsin
Norman A. Stahl, professor, Ph.D., University of Pittsburgh
Alfred W. Tatum, associate professor, Ph.D., University of Illinois, Chicago
Edyth E. Young, assistant professor, Ph.D., University of Illinois

The Department of Literacy Education offers the M.S.Ed. degree in literacy education and the Ed.D. degree in curriculum and instruction with a specialization in literacy education. A list of requirements for each program is available in the department office. Several courses of study leading to certification, endorsement, and teacher approval are also offered. The department offers course work pertaining to literacy, intercultural, and language education across the lifespan, including work in reading, the language arts, children's literature, bilingual education, English as a second language, and multicultural education.

Master of Science in Education
Literacy education

Doctor of Education
Curriculum and instruction

Internships

The Department of Literacy Education offers graduate internships in literacy fields including reading, language arts, children's literature, bilingual education, English as a second language, and adult literacy. For further information and internship possibilities, see course descriptions and consult with an adviser.

Master of Science in Education in Literacy Education

The M.S.Ed. in literacy education prepares experienced teachers to be socially responsible practitioner scholars and to work and learn within multicultural and multilingual contexts to foster literacy and language development for all learners across the lifespan. Students who want to complete Illinois State Board of Education certification, endorsement, or approval in a literacy education field should refer to the section "Certification at the Graduate Level" that follows.

Admission

The Department of Literacy Education seeks to select the best-qualified applicants for admission to its programs. When the number of applicants to any program exceeds its capacity, even qualified applicants may be denied admission and encouraged to reapply at a later date.

An applicant for admission must have a baccalaureate degree with a GPA of 3.00 or higher and provide at least two letters of recommendation from professors, employers, or supervisors which provide supportive evidence of an applicant's professional qualifications. An applicant may submit MAT scores in lieu of GRE scores. Prospective students who fail to satisfy the GPA criterion may request special consideration of their applications. Such a request must be in writing, must include compensatory evidence related to the deficiency, and should accompany the application for admission to the Graduate School. Decisions regarding admission are made by departmental program committees on the basis of a total profile of an individual's qualifications. Appeals of a decision made by the admissions committee may be made to the department's Student Affairs Committee. Appeals to this committee must be in writing and must explain the basis for the appeal.

Student-at-Large, Study-Abroad, and Transfer Credit

Student-at-large, study-abroad, and transfer hours in combination may not exceed 15 semester hours for students pursuing the M.S.Ed. degree in literacy education.

Requirements

The M.S.Ed. in literacy education requires a minimum of 33 semester hours. Students can choose either the non-thesis or thesis option.

Non-Thesis Option
One graduate-level course in research approved by adviser (3)
One graduate-level course in foundations of education approved by adviser (3)
Course work in major approved by adviser (18)
Additional course work approved by adviser (9)
Successful completion of a comprehensive examination

Thesis Option
Same as the non-thesis except that a minimum of 6 semester hours must be devoted to LTCY 599, Master's Thesis.

Doctor of Education in Curriculum and Instruction

Specialization in Literacy Education

This is a professional degree intended to prepare superior teachers, administrators, service personnel, and scholars of education. In addition to other functions, the program prepares individuals for teaching at the college level. Preparation for research responsibilities both as producer and as consumer is an integral part of each program. The specialization in literacy education focuses on preparing students to be knowledgeable practitioners, scholars, and leaders in the field of literacy. Students

study literacy research, theory, and practice. A commitment to scholarship and research, as well as practice, is required of students so as to improve the status of literacy for all learners.

Applicants for the Ed.D. program are expected to have a broad base of general education in the humanities, sciences, and social sciences and are required to present evidence of a minimum of three years of acceptable professional experience and/or demonstrated field leadership.

Admission

Decisions about admission to the Ed.D. program in the department are made once each academic term. To be assured of consideration, completed applications containing all required data (application forms, official transcripts, GRE or MAT scores, and letters of recommendation) must be received by the Graduate School no later than March 1 for admission for the fall term, November 1 for admission for the spring term, and March 1 for admission for the summer session.

An applicant for admission is generally expected to

- have a minimum GPA of 3.20 in previous graduate work.
- submit scores on the General Test of the GRE or the Miller Analogies Test (MAT).
- provide three letters of recommendation from professors, employers, or supervisors which provide supportive evidence of an applicant's professional qualifications.
- demonstrate satisfactory academic and professional progress as indicated by data included in the application for admission to the Graduate School.

Demonstration of writing competencies and participation in a preadmission interview is required of qualified applicants before a final admission decision is made.

Prospective students who fail to satisfy either the GPA or the GRE/MAT criterion may request special consideration of their applications. Such a request must be in writing, must include compensatory evidence related to the deficiencies, and should accompany the application for admission to the Graduate School. Final decisions regarding admissions are made by departmental program committees on the basis of a total profile of an individual's qualifications. Appeals of a decision made by the program committee may be made to the department's Student Affairs Committee. Appeals to this committee must be submitted in writing to the department chair and must explain the basis for the appeal.

Deficiency Study

In cases in which a student's background in literacy education is limited, the individual may be required to fulfill deficiency requirements. Where significant deficiencies are found by the student's advisory committee, additional semester hours above the 93 required for the doctoral degree may be prescribed.

Requirements

The doctoral program in curriculum and instruction with a specialization in literacy education requires the equivalent of at least three years of full-time academic work, or a minimum of 93 semester hours of graduate work beyond the baccalaureate degree including the following.

- TLCI 603 - Design of Curriculum and Instruction (3)
- TLCI 604 - Research Seminar in Curriculum and Instruction (3)
- Course work constituting common requirements in research understandings and skills, learning and development theories, and sociocultural analyses of education (15)
- Course work (excluding dissertation hours) in the specialization (12)
- A cognate component selected from outside the specialization to provide a broader base of knowledge, a supportive professional skill, or more sophisticated research competencies (No specific number of semester hours is required.)
- LTCY 699 - Doctoral Research and Dissertation (15-30)

Examinations

A candidacy examination encompassing the principal areas of professional knowledge, the common requirements, and students' special fields will be scheduled and administered at least twice each year. A graduate student eligible to take this examination, with the permission of the chair of the doctoral committee, will have completed at least two-thirds of his or her studies including the common requirements. Application for the examination can be made at the Department of Literacy Education.

A final oral examination related to the dissertation is required and is conducted in accordance with the general requirements of the Graduate School.

Certificate of Graduate Study

Teaching English as a Second Language and Bilingual Education (18)

This interdisciplinary certificate is designed to prepare educators to serve language-minority students in a variety of contexts, including bilingual and English as a Second Language (ESL) programs at K-12, post-secondary, and adult education levels. Students completing the certificate will gain the necessary skills for designing instruction, evaluating and designing materials, and assessing the language development of second language learners across the lifespan.

Students who want to pursue this certificate must receive approval and advisement from the coordinator. Those who want to earn either the ESL or bilingual approval from the Illinois State Board of Education should contact the certificate coordinator for further information.

EPFE 505 - Foundations of Language-Minority Education (3)
LTIC 547 - Assessment of Language-Minority Students (3)
One of the following (3)
- ENGL 522 - Theories and Methods of Teaching English to Speakers of Other Languages (3)
- LTIC 520 - Methods and Materials for Teaching English as a Second Language in Content Areas (3)
- LTIC 550/CAHA 550X - Teaching Adults English as a Second Language: Methods and Materials for Teaching Oral Skills (3)

Course work from the following (6-9)
- ENGL 514 - Introduction to Linguistics (3)
- ENGL 515 - Descriptive English Linguistics (3)
- ENGL 523 - Second Language Acquisition (3)
- LTIC 501/TLRN 501X - Multicultural Education: Methods and Materials (3)
- LTIC 515 - Bilingualism and Reading (3)
- LTIC 535 - Teaching Language-Minority Students in Bilingual Programs: Methods and Materials (3)
- LTIC 545 - Applied Linguistics for Teachers in Multilingual Classrooms (3)
- LTIC 551/CAHA 551X - Teaching Adults English as a Second Language: Methods and Materials for Teaching Literacy Skills (3)
- LTIC 552 /CAHA 552X - Teaching Adults English as a Second Language: Organizing Instruction of English Language Skills (3)

LTIC 553 /CAHA 553X - Teaching Adults English as a Second Language: Influence of Cultural Backgrounds on English Language Development (3)
LTLA 539 - Children's Literature in a Multicultural Society (3)
Internship (0-3)[1]
CAHA 586 - Internship in Adult and Higher Education (3),
OR ENGL 596 - Practicum in the Teaching of College English (3),
OR LTCY 586 - Internship in Literacy Education (3)

Certification at the Graduate Level

K-12 reading specialist certification is designed for teachers who wish to gain additional competencies which will enable them to work effectively with learners, teachers, and K-12 school-community personnel in improving reading instruction in the schools. The middle grades reading endorsement is an 18-semester-hour requirement for reading teachers whose major teaching assignment is reading at the middle school level (grades 5-9). This is a teaching qualification on an existing certificate or an endorsement on a new certificate.

Approval to teach English as a second language and bilingual education can be earned through a program of 18 semester hours of combined course work in the Departments of Literacy Education, English, and Leadership, Educational Psychology and Foundations. These approvals must be attached to a Type 03 (elementary) or Type 09 (secondary) initial teacher certificate.

Students who wish to make application for certification and/or endorsement should contact the Department of Literacy Education for further information.

Course List

Bilingual/ESL (LTIC)

LTIC 501. MULTICULTURAL EDUCATION: METHODS AND MATERIALS (3). *Crosslisted as TLRN 501X.* Designed to aid students to identify content materials and devise methods for implementing multicultural education. Emphasis on the relationships among culture, classroom procedure, and educational policy.

LTIC 515. BILINGUALISM AND READING (3). Theoretical bases, approaches, materials, and activities facilitating assessment and development of second-language reading for elementary and secondary bilingual students. PRQ: LTRE 309 or LTRE 310 or LTRE 340, or consent of department.

LTIC 520. METHODS AND MATERIALS FOR TEACHING ENGLISH AS A SECOND LANGUAGE IN CONTENT AREAS (3). Examination and application of instructional approaches and materials for teaching English as a second language in elementary and middle school settings. Focus on collaborative teaching across content areas, such as mathematics, science, language arts, and social studies.

LTIC 535. TEACHING LANGUAGE-MINORITY STUDENTS IN BILINGUAL PROGRAMS: METHODS AND MATERIALS (3). Examination and application of instructional approaches and materials in bilingual programs in elementary, middle, and high schools.

LTIC 545. APPLIED LINGUISTICS FOR TEACHERS IN MULTILINGUAL CLASSROOMS (3). Classroom-oriented applications of linguistic principles for effective instruction in multicultural, multilingual classrooms.

LTIC 547. ASSESSMENT OF LANGUAGE-MINORITY STUDENTS (3). Examination and application of instruments and techniques for assessing oral and written language of language-minority children in schools; identifying language needs and differentiating them from developmental needs.

LTIC 550. TEACHING ADULTS ENGLISH AS A SECOND LANGUAGE: METHODS AND MATERIALS FOR TEACHING ORAL SKILLS (3). *Crosslisted as CAHA 550X.* Examination and application of methods and materials used to teach oral communication skills (listening and speaking) to English-language learners in adult education settings.

LTIC 551. TEACHING ADULTS ENGLISH AS A SECOND LANGUAGE: METHODS AND MATERIALS FOR TEACHING LITERACY SKILLS (3). *Crosslisted as CAHA 551X.* Examination and application of methods and materials used to teach literacy skills (reading and writing) to English-language learners in adult education settings.

LTIC 552. TEACHING ADULTS ENGLISH AS A SECOND LANGUAGE: ORGANIZING INSTRUCTION OF ENGLISH LANGUAGE SKILLS (3). *Crosslisted as CAHA 552X.* Examination of current practices in teaching English language learners in adult education settings with focus on issues in program and curriculum design, including the curriculum as process, student and teacher assessment, teaching methodology, and professional development.

LTIC 553. TEACHING ADULTS ENGLISH AS A SECOND LANGUAGE: INFLUENCE OF CULTURAL BACKGROUNDS ON ENGLISH LANGUAGE DEVELOPMENT (3). *Crosslisted as CAHA 553X.* Examination of cultural differences and their influences on adults learning English language skills and acquiring general perceptions of their social environment.

LTIC 589. PRACTICUM IN MULTILINGUAL/MULTICULTURAL EDUCATION (1 to 6). *Crosslisted as TLCI 589X.* Selected field experiences and instructional design projects in multilingual/multicultural education for those who are interested in improving professional skills for serving diverse populations of learners. May be repeated to a maximum of 6 semester hours. Does not satisfy student teaching requirement.

Deaf and Hard of Hearing (LTDH)

LTDH 430X. AMERICAN SIGN LANGUAGE (3). *Crosslisted as COMD 430.* Development of receptive and expressive skills in American Sign Language. Emphasis on developing skills in a non-English syntax system, and communication with hearing impaired people in activities of daily living. Three hours of lecture and one hour of laboratory. PRQ: Consent of department.

LTDH 431X. AMERICAN SIGN LANGUAGE II (3). *Crosslisted as COMD 431.* Continuation of LTDH 430X emphasizing the improvement of communicative skills. Three hours of lecture and one hour of laboratory. PRQ: LTDH 430X (COMD 430) or consent of department.

LTDH 432X. AMERICAN SIGN LANGUAGE III (3). *Crosslisted as COMD 432.* Continuation of LTDH 431X with emphasis on developing fluency in American Sign Language. Three hours of lecture and one hour of laboratory. PRQ: LTDH 431X (COMD 431) or consent of department.

Language Arts (LTLA)

LTLA 403X. LANGUAGE DEVELOPMENT IN CHILDREN (3). *Crosslisted as COMD 403.* Overview of oral language acquisition including phonological, morphological, syntactic, semantic, and pragmatic development in children from infancy through adolescence.

LTLA 430. CONTEMPORARY LANGUAGE ARTS (3). Introduction to contemporary applied language arts programs. Emphasis on methods, materials, and instructional procedures for elementary school children.

LTLA 536. LITERACY RESEARCH IN ELEMENTARY EDUCATION (3). Detailed study of selected research in elementary school literacy programs with emphasis on principles, trends, methods, and materials. Focus on curriculum patterns and innovations. PRQ: ETR 520 or consent of department.

[1]Students without prior experience in teaching ESL or bilingual education must successfully complete a minimum of 3 semester hours in one of the following internships or practica in an approved ESL or bilingual program.

LTLA 537. ACQUISITION OF SPOKEN AND WRITTEN LANGUAGE (3). Study of language development in young children (ages 0-8). Includes indepth treatment of theories in developmental psycholinguistics. Emphases on parallels between oral development and literacy acquisition and on consequent preschool and elementary school teaching strategies.

LTLA 538. EVALUATING CHILDREN'S LITERATURE (3). Children's books considered in relation to literary merit and their potential for meeting developmental and ethnic needs of children. Attention given to classroom application.

LTLA 539. CHILDREN'S LITERATURE IN A MULTICULTURAL SOCIETY (3). A historical and current perspective of multicultural influences in children's literature. Implications for classroom programs are considered.

LTLA 540. TEACHING LANGUAGE ARTS IN THE ELEMENTARY SCHOOL (3). Emphasis on principles of instruction and curriculum development in the language arts.

LTLA 541. TEACHING YOUNG ADULT LITERATURE (3). Survey of young adult literature considered in relation to classroom applications and issues relevant to the developmental and diverse needs of middle and high school students.

LTLA 542. DESIGN AND PRODUCTION OF PICTURE BOOKS FOR CHILDREN AND YOUNG ADULTS (3). Close investigation of the picture book including basic reading and language arts methodologies and the creation of an original picture book. Skills for elementary and middle school classroom teachers to use in making aesthetic connections to reading and in creating specific instructional materials for children with special needs.

LTLA 543. WRITING IN THE ELEMENTARY SCHOOL (3). Methods of developing writing skills of elementary students based on current theory and research.

LTLA 550. TEACHING LANGUAGE ARTS IN THE MIDDLE SCHOOL (3). Practical applications and experiences for development of language arts teaching techniques and strategies. Evaluation of theoretical bases, approaches, activities, and materials facilitating development and assessment of language arts at the middle-school level.

LTLA 633. CHILDREN'S LITERATURE RESEARCH IN ELEMENTARY EDUCATION (3). Examination of selected research in children's literature and implications for instruction and curricular needs. Emphasis on writing and publishing for children. PRQ: Consent of department.

LTLA 660. ADVANCED SEMINAR IN ELEMENTARY EDUCATION: LANGUAGE ARTS (3). Identification and analysis of problems and current issues in elementary education. May be repeated to a maximum of 9 semester hours.

Literacy Education (LTCY)

LTCY 586. INTERNSHIP IN LITERACY EDUCATION (1 to 12). Work individually or in small groups in a practical situation under guidance of staff member of that setting and a university supervisor. May be repeated to a maximum of 12 semester hours, although typically only 3 semester hours may be applied to the program of study.

LTCY 587. TEACHING PRACTICUM (1 to 6). For those actively engaged in teaching who are interested in improving their teaching skills. Clinical work with guidance of experienced professionals and consultants in teacher education. Experiences arranged to meet the needs, concerns and interests of each individual. May be repeated to a maximum of 6 semester hours. Does not fulfill the student teaching requirement. PRQ: Consent of department.

LTCY 590. WORKSHOP IN LITERACY EDUCATION (1 to 3). Workshop designed for teachers, supervisors, counselors, and administrators to study contemporary issues and problems of literacy education. May be repeated when subject varies; however, no more than 6 semester hours may be applied toward the M.S.Ed. degree in literacy education. PRQ: Acceptance by the director of the workshop.

LTCY 592. SPECIAL TOPICS IN LITERACY EDUCATION (1 to 3). Topics announced. May be repeated when subject varies; however, no more than 6 semester hours may be applied toward the M.S.Ed. degree in literacy education. PRQ: Consent of department.

LTCY 597. INDEPENDENT RESEARCH IN LITERACY EDUCATION (1 to 3). Research at the master's level under faculty supervision. May be repeated when subject varies; however, no more than 6 semester hours may be applied toward the M.S.Ed. degree in literacy education. PRQ: Acceptance by the faculty member who will direct the research.

LTCY 599. MASTER'S THESIS (3 to 6). Open only to students who elect to write a thesis for the M.S.Ed. degree in literacy education. Student enrolls with faculty member directing the thesis. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department. Recommended: ETR 520.

LTCY 686. INTERNSHIP IN LITERACY EDUCATION (1 to 12). Work individually or in small groups in a practical situation under guidance of a staff member of that setting and a university supervisor. May be repeated to a maximum of 12 semester hours. PRQ: Admission to doctoral program or consent of department.

LTCY 697. INDEPENDENT RESEARCH IN LITERACY EDUCATION (1 to 3). Independent research at post-master's degree levels under faculty supervision. May be repeated to a maximum of 6 semester hours.

LTCY 699. DOCTORAL RESEARCH AND DISSERTATION (1 to 15). Student must accumulate a minimum of 15 semester hours prior to graduation. May be repeated to a maximum of 30 semester hours. PRQ: Candidacy for the doctoral degree and consent of chair of doctoral committee.

Reading (LTRE)

LTRE 401. PRACTICUM IN TEACHING DEVELOPMENTAL READING: ELEMENTARY LEVEL (3). Practical applications and experiences in developing diagnostic teaching techniques and strategies to improve the reading skills and meet the needs of individual pupils. PRQ: LTRE 350 or consent of department.

LTRE 431. TECHNIQUES OF TUTORING AND LEARNING ASSISTANCE (3). *Crosslisted as CAHA 431X.* Methods and techniques for peer tutoring, supplemental instruction, learning assistance, or literacy tutoring. Development of tutorial resource materials. Basic assessment and remedial or developmental processes in content area tutoring, study strategies, and learning assistance. Experiences with tutorial programs, learning assistance programs, or supplemental instruction groups.

LTRE 500. IMPROVEMENT OF READING IN THE ELEMENTARY SCHOOL (3). Advanced course in the teaching of developmental reading at the elementary level. Criteria for a desirable reading program and a consideration of innovative procedures in relation to the findings of research.

LTRE 505. TEACHING READING IN THE MIDDLE SCHOOL (3). Theories and models. Practical applications and experiences for the development of teaching techniques and strategies to improve academic and recreational reading. Study strategies for middle school students. Evaluation of current approaches, programs, and adolescent literature for teaching reading in the middle school.

LTRE 510. IMPROVEMENT OF READING IN THE SECONDARY SCHOOL (3). Extension of reading skills and interests for all learners in the junior and senior high school. Role of reading in the instructional process.

LTRE 511. TEACHING READING IN THE CONTENT AREAS (3). Adaptation of materials, reading skills, and study strategies to the content areas. Role of reading personnel as learning facilitators within the school setting.

LTRE 516. EMERGING LITERACY DEVELOPMENT (3). Emphasis on children's developing literacy. Assessment techniques and organizational approaches to literacy instruction across the preschool and primary years.

LTRE 520. DIAGNOSIS AND TREATMENT OF READING DIFFICULTIES (3). Causes of reading difficulties, their diagnosis and correction in grades K-12. Current evaluative instruments. PRQ: LTRE 500, LTRE 505, and LTRE 510, or consent of department.

LTRE 525X. READING INTERESTS OF ADULTS (3). *Crosslisted as ETT 525.* Exploration of reading interest of adults, including demographic aspects; popular nonfiction and fiction (bestsellers, genre fiction) books and periodicals; media tie-ins; reading promotion and readers advisory services in libraries.

LTRE 530. PRACTICUM IN DIAGNOSIS OF READING DIFFICULTIES (3). Case study techniques in the diagnosis of reading problems. Administration of various formal and informal tests and the interpretation of the test results. Making case studies, followed by the preparation of case reports. Written permission of department required. PRQ: LTRE 500 or LTRE 505 or LTRE 510, and LTRE 520, or consent of department.

LTRE 531. PRACTICUM IN PROBLEMS OF TEACHING READING (3). Clinical experience in applying procedures with severely disabled readers at the elementary and/or secondary level. PRQ: Consent of department. Recommended: LTRE 530.

LTRE 540. PRACTICUM IN CORRECTIVE READING IN THE ELEMENTARY SCHOOL (3). Diagnostic techniques and corrective procedures suitable for testing and teaching the less severe reading disability cases among elementary school children. Supervised laboratory practice with children in a school setting required. PRQ: Consent of department. Recommended: LTRE 530.

LTRE 550. PRACTICUM IN CORRECTIVE READING IN THE SECONDARY SCHOOL (3). Diagnostic techniques and corrective procedures suitable for testing and teaching the less severe reading disability cases among secondary school students. Supervised laboratory practice with students in a school setting required. PRQ: Consent of department. Recommended: LTRE 530.

LTRE 591. READING INSTITUTE (1 to 3). Basic reading problems and issues at all levels of reading instruction. Guest instructors and regular staff members. May be repeated when subject varies; however, no more than 6 semester hours may be applied toward the M.S.Ed. degree in reading.

LTRE 601. SUPERVISORY PROBLEMS IN READING (3). Procedures for developing a K-12 curriculum in reading and the supervisory responsibilities of administrators and reading consultants in improving reading instruction in the schools. PRQ: Consent of department. Recommended: 12 graduate-level hours in reading, including LTRE 500 and LTRE 510.

LTRE 611. SEMINAR IN RESEARCH STUDIES IN THE FIELD OF READING (3). Designed for advanced student interested in the study of research reports in education, psychology, linguistics, and other disciplines which have a bearing on the problems of teaching reading. PRQ: Consent of department. Recommended: ETR 520 and ETR 521; 12 graduate-level hours in reading.

LTRE 612. CORRELATES OF EFFECTIVE READING (3). The bases of methods in the teaching of reading and the reading process: word perception, reading readiness, personality and motivation variables, and other correlates. PRQ: LTRE 530 or consent of department.

LTRE 613. SEMINAR IN COMPARATIVE READING (3). Comparison of reading methods and related variables in different national and cultural groups. PRQ: LTRE 530 or consent of department.

LTRE 614. SEMINAR IN READING (1 to 3). Identification and analysis of issues and problems in reading at all levels. May be repeated to a maximum of 9 semester hours. PRQ: LTRE 530 or consent of department.

LTRE 618. ADULT READING INSTRUCTION (3). Emphasis on the teaching of reading to adults; strategies applicable to meet the needs of the adult learner; functional alternatives for instruction; preparation of volunteers and the role of the reading teacher with adults. PRQ: LTRE 510 or consent of department.

LTRE 619. PRINCIPLES AND METHODS OF TEACHING POSTSECONDARY READING (3). Sequences of advanced reading skills, instructional materials, and model programs for postsecondary reading programs. Examination of research on success of postsecondary reading and ways programs are planned and students are identified, tested, and taught.

Department of Teaching and Learning (TL--)

Chair: Nina G. Dorsch

Graduate Faculty

Gail Adams, assistant professor, Ed.D., Northern Illinois University
Edward Cancio, assistant professor, Ph.D., Utah State University
Lynette K. Chandler, professor, Ph.D., University of Kansas
Karen B. Cole, associate professor, Ed.D., Northern Illinois University
Gregory Conderman, associate professor, Ed.D., University of Northern Colorado
Sabiha Daudi, assistant professor, Ph.D., Ohio State University
Nina G. Dorsch, associate professor, Ph.D., Miami University
Maylan Dunn, assistant professor, Ph.D., University of Oklahoma
Sharon M. Freagon, professor, Ph.D., University of Wisconsin
Antoinette Heinze, associate professor, Ed.D., University of Southern Mississippi
Mary Beth Henning, assistant professor, Ph.D., Pennsylvania State University
Diane H. Jackman, associate professor, Ph.D., University of Minnesota
Jesse Johnson, associate professor, Ed.D., Northern Illinois University
Gaylen G. Kapperman, professor, Ed.D., University of Northern Colorado
Joyce Lieberman, assistant professor, Ed.D., George Washington University
Moses Mutuku, assistant professor, Ed.D., Indiana University of Pennsylvania
Carla C. Shaw, associate professor, Ph.D., Southern Illinois University
Eui-Kyung Shin, assistant professor, Ph.D., University of South Carolina
Deborah A. Simmons, professor, Ph.D., University of Michigan
Valerie Talsma, assistant professor, Ph.D., University of Michigan
Toni Van Laarhoven, assistant professor, Ed.D., Northern Illinois University
Elizabeth Wilkins, associate professor, Ph.D., Southern Illinois University
Randi B. Wolfe, associate professor, Ph.D., Northwestern University
C. Sheldon Woods, assistant professor, Ph.D., Kansas State University

The Department of Teaching and Learning offers the M.S.Ed. degree in curriculum and instruction, early childhood education, elementary education, and special education, and the Ed.D. degree in curriculum and instruction. Doctoral-level specializations in curriculum leadership, elementary education, and secondary education are available in the department as part of the master's and doctoral degree programs in curriculum and instruction. State of Illinois approved programs leading to certification are offered in early childhood education, elementary education, and special education. Viewing teaching both as an art and science, learning as a reciprocal process, and service as a responsibility, the faculty provides curriculum and instruction grounded in theory, research, and best practice.

Master of Science in Education
Curriculum and instruction
Early childhood education
Elementary education
Special education

Doctor of Education
Curriculum and instruction

Students interested in doctoral level studies in special education may elect a cognate in special education while pursuing the doctorate in educational psychology. (See Department of Leadership, Educational Psychology and Foundations.)

Admission

The Department of Teaching and Learning seeks to select the best-qualified applicants for admission to its programs. When the number of applicants to any program exceeds its capacity, even qualified applicants may be denied admission and encouraged to reapply at a later date.

Applicants must provide at least two letters of recommendation from professors, employers, or supervisors which provide supportive evidence of an applicant's professional qualifications. Except for applicants for the M.S.Ed. program in special education, applicants may submit MAT scores in lieu of GRE scores.

Decisions about admission to programs in the department are ordinarily made at least once each term. To be assured of consideration, completed applications containing all required data (application forms, official transcripts, GRE or MAT scores, and letters of recommendation) must be received by the Graduate School no later than June 1 for admission for the fall term, November 1 for admission for the spring term, and April 1 for admission for the summer session.

Any applicant who is denied admission to a program may submit to the department chair a written request for reconsideration by the admissions committee that includes information not previously submitted. Final decisions of admissions committees may be appealed to the department's Academic Appeals Committee. Appeals to this committee must be in writing and must explain the basis for the appeal.

Advisement

A student is assigned an adviser when admitted to a department degree or certification program and develops a program of study in consultation with the adviser. Courses with the designator TLRN may be counted toward the major in any of the department's degree programs with adviser approval.

Retention

Students must remain in good academic standing in the Graduate School, maintain high ethical standards, and demonstrate evidence of functional competency in fulfilling the professional roles required by the discipline.

Doctoral students must pass a candidacy examination which requires an ability to deal with more than individual course content. Satisfactory completion of comprehensive examinations requires analysis, synthesis, and integration of the content within a discipline. Doctoral students must also develop, complete, and defend an acceptable dissertation following the guidelines of the Graduate School and the program in which they are enrolled.

Internships

The Department of Teaching and Learning offers internships in curriculum leadership, early childhood education, elementary education, environmental education, secondary education, and special education. For further information and internship possibilities, see course descriptions and consult with an adviser.

Student-at-Large, Study-Abroad, and Transfer Credit

Student-at-large, study-abroad, and transfer hours in combination may not exceed 15 semester hours for students pursuing the M.S.Ed. degree in curriculum and instruction, elementary education, early childhood education, or special education. The limit on student-at-large hours may be waived in special circumstances with the approval of the department chair.

Deficiency Study/Field Work

In cases in which a student's background in the chosen specialty is limited, the individual may be required to fulfill deficiency requirements. Generally, deficiency course work is required of an individual seeking a doctorate whose master's course work was in another specialty area or field. Supervised field work is sometimes required in a given program of study, especially when, in the adviser's judgment, it is necessary to prepare the student in a chosen specialty.

Master of Science in Education in Curriculum and Instruction

The major in curriculum and instruction prepares knowledgeable, reflective practitioners to work in both formal and non-formal educational settings. Courses help educational practitioners clarify their professional purposes and improve the pedagogical environments in which they function. The major includes course work from curriculum leadership, environmental education, and secondary education. Students may choose to focus their course work on one of these or combine course work to meet their professional needs.

Curriculum leadership courses provide the student with information to develop competence in supervisory techniques, curriculum theory and practice, cooperative planning for improvement of instruction, and evaluation of programs of curriculum improvement.

Environmental education courses focus on methods of teaching the core concepts and skills that environmentally literate citizens need. Environmental education courses prepare formal and non-formal educators to use community and natural out-of-classroom resources to enhance the curricula and non-formal education programs. Students focusing in this area are encouraged to complete the certificate of graduate study in environmental education.

Courses in secondary education are intended for entering or practicing teachers who wish to develop the teaching skills and the informed understanding of the major issues and trends in secondary education that mark the master teacher.

Requirements

Programs of study must include a minimum of 33 semester hours, of which a minimum of 18 semester hours must be chosen from the major. Students elect either the non-thesis or thesis option.

Non-Thesis Option

One graduate-level course in research approved by adviser (3)
One graduate-level course in foundations of education approved by adviser (3)
TLCI 500 - Curriculum, Instruction, and the Community (3)
TLCI 510 - Critical Practices in Curriculum and Instruction (3)
Course work in the major approved by adviser (9-18)
Additional course work approved by adviser (0-9)
Successful completion of a comprehensive examination

Thesis Option

Same as the non-thesis option except that a minimum of 6 semester hours of program course work must be devoted to TLCI 599A, Master's Thesis: Curriculum Leadership, TLCI 599B, Master's Thesis: Environmental Education, or TLCI 599C, Master's Thesis: Secondary Education.

Master of Science in Education in Early Childhood Education

The major in early childhood education offers focused study to strengthen and broaden the professional preparation of teachers and other professionals who work with young children, birth through eight years. In addition to the basic requirements, course work will be determined on the basis of the individual student's undergraduate preparation, experience, and professional goals. Students pursuing this M.S.Ed. may also choose course work to meet Early Childhood Illinois Type 04 Certification requirements to teach children from birth through grade 3 in Illinois public schools. Students may also elect course work to fulfill special education approval requirements for teaching exceptional children, birth through age six.

Requirements

Programs of study must include a minimum of 33 semester hours, of which a minimum of 18 semester hours must be chosen from courses in early childhood education. Students elect either the non-thesis or thesis option.

Non-Thesis Option

One graduate-level course in research approved by adviser (3)
EPS 506 - Theories and Research in Child Behavior and Development (3),
OR FCNS 432 - Theories of Child Development (3)
TLEC 504 - Developmentally Appropriate Practice in the Primary Classroom (3)
TLEC 500 - Analysis of Instruction in Early Childhood Education (3)
TLEC 510 - American Preschool Movement (3),
OR TLEC 511 - Comparative/International Early Childhood Education (3)
TLEC 521 - Educational Diagnosis and Assessment of Young Children with Special Needs (3),
OR TLSE 423 - Assessment in Early Childhood Special Education (3),
OR TLSE 457 - Systems for Integrating the Exceptional Student in the Regular Classroom (3)
TLEC 535 - Family and School Partnerships for Academic Success (3)
TLEC 598 - Master's Project (3)

A focus area selected to provide a broader base of knowledge, a supportive skill, or more sophisticated research competencies. The focus area requires a minimum of 9 semester hours, approved by adviser, selected from the following: administration of early childhood programs, emergent literacy, movement development, pedagogy in early childhood education, research in early childhood education, and special education.

Successful completion of a comprehensive examination. The comprehensive examination is conducted in conjunction with the oral defense of the master's project.

Thesis Option

Students electing the thesis option will select research in early childhood education as their focus area. Six of the 9 semester hours required for the focus area must be taken in TLEC 599, Master's Thesis. Students electing the thesis option are still required to take TLEC 598.

Master of Science in Education in Elementary Education

The major in elementary education emphasizes focused study to strengthen and broaden the professional preparation of teachers for the elementary school. In addition to the basic requirements, course work will be determined on the basis of the individual student's undergraduate preparation, experience, and professional goals. Students enrolled in this M.S.Ed. program may also complete all requirements for the Type 03 Illinois Elementary Education Certificate to teach grades kindergarten through 9.

Requirements

Majors in elementary education can choose either the non-thesis or thesis option. In both options the requirement is a minimum of 33 semester hours, of which a minimum of 18 semester hours must be chosen from courses in the major. The major includes courses selected from LTLA and TLEE courses.

Non-Thesis Option

One graduate-level course in research approved by adviser (3)
One graduate-level course in foundations of education approved by adviser (3)
TLEE 560 - Seminar in Elementary Education (3)
TLEE 586 - Internship (3),
OR TLEE 587 - Teaching Practicum in Education (3)
LTIC 501 - Multicultural Education: Methods and Materials (3)
Additional elementary education courses approved by adviser (9- 18)
Electives (0-9)
Successful completion of a comprehensive examination

Thesis Option

Same as the non-thesis option except that a minimum of 6 semester hours in TLEE 599, Master's Thesis, must be taken in lieu of TLEE 560 and TLEE 586/TLEE 587.

Master of Science in Education in Special Education

Specialization in Advanced Special Education Practices
Specialization in Blind Rehabilitation
Specialization in Early Childhood Special Education
Specialization in Learning Behavior Specialist I
Specialization in Orientation and Mobility
Specialization in Visual Impairments

The M.S.Ed. in special education is designed to serve the needs of both experienced and beginning special education teachers who have baccalaureate degrees or are seeking career changes at the master's level. In addition, the department offers master's degree courses at regional sites, information on which can be obtained from the department.

Provisions are made to assist noncertified persons who hold baccalaureate degrees in fields other than special education to acquire certification and an M.S.Ed. in special education. In some cases more than 35 semester hours will be necessary to meet the requirements for both certification and the master's degree.

Students seeking certification must successfully complete the Illinois Certification Testing System Basic Skills Test prior to admission to the Teacher Education Program in special education and the tests required by their certification field prior to student teaching. Completion of all program requirements satisfies the requirements for Illinois teacher certification as a learning behavior specialist I. See also "Teacher Certification Information."

Admission

From among the applicants satisfying the requirements for admission to the Graduate School, the faculty select those most qualified, utilizing the General Test of the GRE and ordinarily requiring a GPA of 3.00 or higher for the last two years of undergraduate work.

Each prospective student must have three letters of recommendation from employers, supervisors, or professors.

Final decisions regarding admissions are made by the admissions committee of the department on the basis of a total profile of an individual's qualifications. Applicants who fail to meet these admission criteria may request special consideration from the admissions committee. If the student then fails to achieve admission, an appeal may be made to the department's Admission, Retention, and Professional Standards Committee.

Deficiency Study/Field Work

In cases in which students' backgrounds in their chosen specialty are limited, they may be required to fulfill deficiency requirements established by the department. Deficiency course hours are not counted toward the minimum 36 semester hours of the master's degree program.

Supervised clinical experiences are required in all areas of special education. Students not seeking initial certification may not be required to engage in clinical experiences, depending on the area of specialization in which they are enrolled.

Internship Programs

The Department of Teaching and Learning currently utilizes internship programs in some areas of special education. All internship placements are arranged and supervised by the department. For further information and internship possibilities, see course descriptions.

Advisement

A student is assigned an adviser when admitted to the program. The adviser is a faculty member in special education. Courses of study are developed for each student. Students are required to take the comprehensive examination. It is always the responsibility of the student to be aware of university policies and regulations affecting his or her program. Students should, therefore, familiarize themselves with the *Graduate Catalog* early in the program.

Requirements

Each student must select a specialization. Each specialization requires a minimum of 35 semester hours of study which must include a research course approved by the adviser. Specific courses required for each specialization are listed below. Elective courses are selected with the approval of the student's adviser. A student wishing to write a thesis may, with the approval of the adviser, include 3-6 semester hours of credit in TLSE 599 in the elective portion of the program.

For a student whose undergraduate major was in special education, course work in other appropriate fields may be substituted for a portion of the special education course work, with the approval of the student's adviser. However, in all cases, at least 50 percent of the semester hours required for the degree must be in special education. For students whose undergraduate major was not in special education or who have limited background in their chosen specialization, deficiency requirements may be established by the department. Deficiency course hours will not be counted toward the minimum 35 semester hours of the master's degree program.

Specialization in Advanced Special Education Practices

This specialization focuses on study to strengthen the professional development of certified special education teachers. Students enrolled in this M.S.Ed. program may incorporate requirements for one or more special education certificates of graduate study in their programs of study.

TLSE 565 - Collaboration and Consultation Skills for School Professionals (3)
TLSE 592 - Seminar in Special Education (3)
TLSE 597 - Independent Research (1)
Research course approved by adviser (3)
Foundations course approved by adviser (3)
Course work in the major (12)
Additional course work approved by adviser (12)
Successful completion of a comprehensive examination

Specialization in Blind Rehabilitation

This specialization prepares students to instruct individuals with visual impairments in independent living skills and to obtain national certification as rehabilitation teachers from the Association for Education and Rehabilitation of the Blind and Visually Impaired.

FCNS 540 - Family, Consumer, and Nutrition Sciences for Educators of the Visually Impaired (3)
TLSE 451 - Anatomy, Pathology, and Functioning of the Eye (3)
TLSE 470 - Literary Braille (3)
TLSE 472 - Communication Systems Used By Persons with Visual Impairments (3)
TLSE 474 - Basic Orientation and Mobility for Teachers of Persons with Visual Impairments (3)
TLSE 475 - Teaching Activities of Daily Living to Persons with Visual and Multiple Disabilities (3)
TLSE 573 - Instructional Systems for Utilization of Low Vision (3)
TLSE 575 - Rehabilitation of Adults with Visual Impairments (3),
OR TLSE 571 - Collaboration Principles and Skills for Professionals Working with Persons with Visual Impairments (3)
TLSE 586B - Internship in Rehabilitation Teaching of Persons with Visual Impairments (9)
TLSE 587Q - Practicum in Rehabilitation Teaching for Persons with Visual Impairments (3)

Specialization in Early Childhood Special Education

This specialization prepares students to obtain early childhood special education approval to teach young children with special needs in early childhood (birth to 8 years) settings. Students must hold or obtain a Standard Special Certificate in special education or an Early Childhood Certificate in order to apply for early childhood special education approval. This specialization also prepares students to apply for an early intervention credential to work with infants and toddlers with special needs. Students who wish to obtain one of these teaching certificates in addition to the M.S.Ed. with a specialization in early childhood special education must complete course work required for the type of certificate desired. This course work will be identified through advisement.

TLSE 423 - Assessment in Early Childhood Special Education (3)
TLSE 424 - Instructional Systems for the Education of Infants, Toddlers, and Young Children with Disabilities (3)
TLSE 426 - Working with Families of Young Children with Disabilities (3)
TLSE 427 - Issues in Early Childhood Special Education (3)
TLSE 540[1] - Foundations of Special Education (3)
TLSE 587N - Practicum in Early Childhood Special Education (3)
Elective course work with adviser's approval

Specialization in Learning Behavior Specialist I

This specialization prepares students to obtain learning behavior specialist I teacher certification.

TLSE 452 - Assistive Technology/Multiple Disabilities (3)
TLSE 512 - Methods for Teaching Students with Learning Disabilities (3)
TLSE 513 - Methods for Teaching Elementary Students with High-Incidence Disabilities (3)
TLSE 514 - Methods for Teaching Secondary Students with High-Incidence Disabilities (3)
TLSE 540 - Foundations of Special Education (3)
TLSE 547 - Issues and Trends in Special Education (1)
TLSE 557 - Functional Analysis for Special Educators (3)
TLSE 561 - Methods for Teaching Individuals with Developmental Disabilities (3)
TLSE 563 - Methods for Teaching Students with Emotional Disturbance (3)
TLSE 565 - Collaboration and Consultation Skills for School Professionals (3)
TLSE 583[1] - Initial Field Experience in Special Education (1-3)
TLSE 587A[1] - Elementary or Secondary Practicum: Learning Behavior Specialist I (6)
ETR 534 - Dynamic Assessment for Students with High-incidence Disabilities (3)

In addition, individuals not currently holding teacher certification in the State of Illinois must include the following (see adviser for course selection).
One course in educational foundations (3)
One course in child development (3)

Specialization in Orientation and Mobility

This specialization prepares students to instruct individuals with visual impairments in the concepts and skills related to independent travel, and to obtain national certification as orientation and mobility specialists from the Association for Education and Rehabilitation of the Blind and Visually Impaired.

TLSE 451 - Anatomy, Pathology, and Functioning of the Eye (3)
TLSE 470 - Literary Braille (3)
TLSE 474 - Basic Orientation and Mobility for Teachers of Persons with Visual Impairments (3)
TLSE 571 - Collaboration Principles and Skills for Professionals Working with Persons with Visual Impairments (6)
TLSE 573 - Instructional Systems for Utilization of Low Vision (3)
TLSE 574 - Advanced Orientation and Mobility (6)
TLSE 586A - Internship in Orientation and Mobility Instruction of Persons with Visual Impairments (9)
TLSE 587U - Practicum in Orientation and Mobility Techniques for Persons with Visual and Multiple Disabilities (3)
Elective course work with adviser's approval

Specialization in Visual Impairments

This specialization prepares students to obtain certification to teach individuals who are classified as visually impaired.

TLSE 470 - Literary Braille (3)
TLSE 471 - Advanced Braille (3)
TLSE 472 - Communication Systems Used By Persons with Visual Impairments (3)
TLSE 473 - Instructional Systems for Teaching Students Who Are Visually Impaired (3)
TLSE 474 - Basic Orientation and Mobility for Teachers of Persons with Visual Impairments (3)
TLSE 571 - Collaboration Principles and Skills for Professionals Working with Persons with Visual Impairments (3)
TLSE 573 - Instructional Systems for Utilization of Low Vision (3)
TLSE 587K - Elementary or Secondary Practicum in Visual Impairments (6)
Elective course work with adviser's approval

[1]Not required for students who have an Illinois Type 10 Special Education Teaching Certificate. With approval of the department, may be waived for other students who can demonstrate sufficient professional experience.

Doctor of Education in Curriculum and Instruction

Specialization in Curriculum Leadership

Specialization in Science, Social Studies, and Environmental Education Integration

Specialization in Secondary Education

This is a professional degree intended to prepare superior teachers, administrators, service personnel, and scholars of education. In addition, the program prepares individuals for teaching at the college level. Preparation for research responsibilities both as producer and as consumer is an integral part of each program.

The specialization in curriculum leadership focuses on students' future roles in society and in education as insightful and responsive leaders, with cultural, moral and ethical questions used as major themes of the doctoral program. A commitment to scholarship and research is required of students to enable them to understand the future needs of society, educational institutions, and students.

The specialization in science, social studies, and environmental education integration focuses on the students' current and future role to provide leadership in formal and non-formal instruction, curriculum development, and teacher education. The program provides students with a conceptual understanding of curriculum and instruction and also permits them to focus on the interdisciplinary field of science, social studies and environmental education.

The specialization in secondary education focuses on students' current and future roles as exemplary educators–whether as secondary classroom teachers, school and district administrators, or academicians. Complemented by the study of curriculum theory and practice, the specialization revolves around secondary instruction at both the micro (classroom) and macro (school, district) levels.

Admission

Applicants for the Ed.D. program are expected to have a broad base of general education in the humanities, sciences, and social sciences and are required to present evidence of a minimum of three years of acceptable professional experience and/or demonstrated field leadership.

An applicant for admission is generally expected to

have a minimum GPA of 3.20 in previous graduate work.

submit scores on the General Test of the GRE or the Miller Analogies Test (MAT).

provide three letters of recommendation from professors, employers, or supervisors which provide supportive evidence of an applicant's professional qualifications.

demonstrate satisfactory academic and professional progress as indicated by data included in the application for admission to the Graduate School.

Demonstration of writing competencies and participation in a preadmission interview is required of qualified applicants before a final admission decision is made.

Decisions about admission to the Ed.D. program in the department are made once each term. To be assured of consideration, completed applications containing all required data (application forms, official transcripts, GRE or MAT scores, and letters of recommendation) must be received by the Graduate School no later than March 1 for admission for the fall term, November 1 for admission for the spring term, and March 1 for admission for the summer session.

Prospective students who fail to satisfy either the GPA or the GRE/ MAT criterion may request special consideration of their applications. Such a request must be in writing, must include compensatory evidence related to the deficiencies, and should accompany the application for admission to the Graduate School. Final decisions regarding admissions are made by departmental program committees on the basis of a total profile of an individual's qualifications. Appeals of a decision made by the program committee may be made to the department's Academic Appeals Committee. Appeals to this committee must be submitted in writing to the department chair and must explain the basis for the appeal.

Deficiency Study

In cases in which a student's background in his or her chosen specialty is limited, the individual may be required to fulfill deficiency requirements.

Requirements for Specialization in Curriculum Leadership

The Ed.D. in curriculum and instruction with a specialization in curriculum leadership requires a minimum of 93 semester hours of graduate work beyond the baccalaureate degree, including the following.

TLCI 603 - Design of Curriculum and Instruction (3)

TLCI 604 - Research Seminar in Curriculum and Instruction (3)

A minimum of 15 semester hours of graduate-level course work in common requirements including research understandings and skills, learning and development theories, and sociocultural analyses of education

A minimum of 12 semester hours (excluding dissertation hours) of course work in the specialization

A cognate component selected from outside the specialization to provide a broader base of knowledge, a supportive professional skill, or more sophisticated research competencies. No specific number of semester hours is required. Students may use the cognate area to satisfy requirements for Illinois administrative certification.

Successful completion of a candidacy examination. This examination encompasses the common requirements, the area of professional knowledge within the specialization, and, as appropriate, the cognate. The examination is scheduled with the permission of the chair of the student's doctoral program committee, normally during the last term of course work prior to the dissertation.

TLCI 699A - Doctoral Research and Dissertation: (15-30)

Requirements for Specialization in Science, Social Studies, and Environmental Education Integration

The Ed.D. in curriculum and instruction with a specialization in science, social studies, and environmental education integration requires a minimum of 93 semester hours of graduate work beyond the baccalaureate degree, including the following.

TLCI 603 - Design of Curriculum and Instruction (3)

TLCI 604 - Research Seminar in Curriculum and Instruction (3)

Course work constituting common requirements in research understandings and skills, learning and development theories, and sociocultural analyses of education (15)

Course work (excluding dissertation hours) in TLEE courses and in TLCI environmental education courses (12)

A cognate component selected from outside the specialization to provide a broader base of knowledge, a supportive professional skill, or more sophisticated research competencies

TLEE 699 - Doctoral Research and Dissertation: Curriculum Leadership (15-30)

Requirements for Specialization in Secondary Education

The Ed.D. in curriculum and instruction with a specialization in secondary education requires a minimum of 93 semester hours of graduate work beyond the baccalaureate degree, including the following.

TLCI 603 - Design of Curriculum and Instruction (3)

TLCI 604 - Research Seminar in Curriculum and Instruction (3)

Course work constituting common requirements in research understandings and skills, learning and development theories, and sociocultural analyses of education (15)

Course work (excluding dissertation hours) in the student's specialization (12)

A cognate component selected from outside the specialization to provide a broader base of knowledge, a supportive professional skill, or more sophisticated research competencies. No specific number of semester hours is required. Students may use the cognate area to satisfy requirements for the Type 75 Illinois Administrative Certificate.

Successful completion of a candidacy examination. This examination encompasses the common requirements, the area of professional knowledge within the specialization, and, as appropriate, the cognate. The examination is scheduled with the permission of the chair of the student's doctoral program committee, normally during the last term of course work prior to the dissertation.

TLCI 699B - Doctoral Research and Dissertation: Secondary Education (15-30)

Certificates of Graduate Study

Advanced Teaching Practices (15)

This certificate of graduate study is designed for teachers who wish to hone their knowledge and skills required to engage in the National Board for Professional Teaching Standards certification process. Students seeking this certificate must file an application with the faculty of curriculum and instruction and develop a program of studies with a faculty adviser.

TLCI 512 - Creating Learning Communities (3)
TLCI 515 - Connecting Curriculum and Instruction to National Teaching Standards (3)
TLCI 586B - Internship (3),
OR TLCI 686B - Advanced Internship (3)
TLCI 640 - Field Study in Curriculum Leadership (3)
One course related to student's area of teacher certification (3)

Environmental Education (15)

This certificate is designed for teachers and other educators who want to gain additional competencies which will enable them to design and implement environmental education programs in schools or other, non-formal education settings. Students seeking this certificate must file an application with the faculty of outdoor teacher education and develop a program of studies with a faculty adviser.

TLCI 520 - Environmental Quality Education (3)
TLCI 534 - Integrating Community Resources Into Curriculum and Instruction (3)
TLCI 551 - Environmental Education Theory and Practice (3)
Two of the following (6)
- TLCI 500 - Curriculum, Instruction, and the Community (3)
- TLCI 522 - Teaching Environmental Ethics (3)
- TLCI 525 - Teaching Physical Science in the Outdoors (3)
- TLCI 526 - Teaching Natural Science in the Outdoors (3)
- TLCI 544 - Teaching Energy Alternatives and Energy Conservation (3)
- TLCI 586D - Internship: Environmental Education (3)

Special Education Certificates of Graduate Study

The special education certificates of graduate study are designed for educators currently holding learning behavior specialist I certification who are seeking additional competencies. Completion of a certificate of graduate study in one of the following areas prepares one to apply for Illinois learning behavior specialist II certification as an assistive technology specialist, a behavior specialist, a curriculum adaptation specialist, or a multiple disabilities specialist.

Assistive Technology Specialist

This certificate is designed for educators seeking additional competencies in applications of instructional and assistive technologies for students with learning, behavior, sensory, motor, communication, and multiple disabilities.

TLSE 421[1] - Technology for Students with Disabilities (3)
TLSE 452[1] - Assistive Technology/Multiple Disabilities (3)
TLSE 565 - Collaboration and Consultation Skills for School Professionals (3)
TLSE 577 - Survey of Assistive Technology for Persons with Visual Impairments (3)
TLSE 592 - Seminar in Special Education (3)
One of the following (3)
- ETT 510 - Instructional Media and Technology (3)
- ETT 530 - Instructional Technology Tools (3)
- ETT 570 - Instructional Technology Administration (3)
- ETT 571 - Instructional Technology Program Development (3)
- ETT 573 - Instructional Technology Facilities (3)

Behavior Specialist

This certificate is designed for educators seeking additional competencies in behavioral assessment, positive behavioral support, and crisis management.

TLSE 557 - Functional Analysis for Special Educators (3)
TLSE 565 - Collaboration and Consultation Skills for School Professionals (3)
TLSE 578 - Issues and Trends in Teaching Students with Emotional and Behavioral Disorders (3)
TLSE 592 - Seminar in Special Education (3)
TLSE 696 - Laboratory Field Studies in Special Education (3)
Elective approved by adviser (3)

Curriculum Adaptations Specialist

This certificate is designed for educators seeking additional competencies in collaborative implementation of curricular and instructional strategies for students with disabilities in general education settings.

ETR 534 - Dynamic Assessment for Students with High-incidence Disabilities (3)
TLSE 421[1] - Technology for Students with Disabilities (3)
TLSE 557 - Functional Analysis for Special Educators (3)
TLSE 562 - Curricular and Instructional Design and Adaptation for Inclusive Settings (3)
TLSE 565 - Collaboration and Consultation Skills for School Professionals (3)
TLSE 592 - Seminar in Special Education (3)

Multiple Disabilities Specialist

This certificate is designed for educators seeking additional competencies in curriculum design, assistive technologies, and instructional methodologies for students with significant developmental, sensory, and physical disabilities.

TLSE 452[1] - Assistive Technology/Multiple Disabilities (3)
TLSE 557 - Functional Analysis for Special Educators (3)
TLSE 561 - Methods for Teaching Individuals with Developmental Disabilities (3)
TLSE 565 - Collaboration and Consultation Skills for School Professionals (3)
TLSE 577 - Survey of Assistive Technology for Persons with Visual Impairments (3)
TLSE 592 - Seminar in Special Education (3)

[1]An elective approved by the adviser may be substituted for students who have completed this course or its equivalent.

Certification and Endorsement at the Graduate Level

The M.S.Ed. program in early childhood education with certification is designed for students pursuing the Early Childhood Illinois Type 04 Certification requirements to teach children from birth through grade 3 in Illinois public schools. Students may elect course work to fulfill special education approval requirements for teaching children with disabilities, birth through age six.

The M.S.Ed. program in elementary education with certification is designed for students pursuing the Elementary Education Illinois Type 03 Certificate required to teach children kindergarten through grade 9 in Illinois public schools.

Middle grades endorsement requirements for the state of Illinois may be fulfilled by taking courses at the graduate level. Students who wish to take these courses should contact the Department of Teaching and Learning for further information.

See “Teacher Certification Information.”

Course List

General (TLRN)

TLRN 501X. MULTICULTURAL EDUCATION: METHODS AND MATERIALS (3). *Crosslisted as LTIC 501.* Designed to aid students to identify content materials and devise methods for implementing multicultural education. Emphasis on the relationships among culture, classroom procedure, and educational policy.

TLRN 595. SUPERVISION OF CLINICAL EXPERIENCES (1 to 3). Designed to provide cooperating teachers, administrators, and supervisors with a better understanding of the function of clinical experiences in the professional education of teachers. Discussion of basic issues and techniques in supervising, directing and evaluating those clinical experiences. May be repeated to a maximum of 5 semester hours. PRQ: Consent of department.

TLRN 695. SEMINAR IN THE SUPERVISION AND ADMINISTRATION OF CLINICAL EXPERIENCES (1 to 3). Theory and practice of clinical experiences in professional education such as microteaching, observation, participation, simulation, student teaching, and internships. May be repeated to a maximum of 5 semester hours. PRQ: TLRN 595 or consent of department.

Curriculum and Instruction (TLCI)

General

TLCI 450. CLASSROOM MANAGEMENT (2). *Crosslisted as EPS 450X.* Applications of motivation and management principles and procedures to maintain a positive learning environment in classrooms.

TLCI 492. SPECIAL TOPICS IN CURRICULUM AND INSTRUCTION (1 to 3).
A. Curriculum
B. Professional Development Leadership
Topics announced. May be repeated to a maximum of 9 semester hours when subject varies.

TLCI 500. CURRICULUM, INSTRUCTION, AND THE COMMUNITY (3). Issues of curriculum and development and delivery of effective instruction related to the world as a pluralistic community, schooling from a global environmental perspective, and the relationship between curriculum theories and instructional practices.

TLCI 510. CRITICAL PRACTICES IN CURRICULUM AND INSTRUCTION (3). Design, analysis, and evaluation of curriculum and instruction. Principles of curriculum and models of instruction as guidelines for the construction of specific curriculum designs and instructional strategies that create learning communities.

TLCI 586. INTERNSHIP.
A. Curriculum (3-9)
B. Professional Development Leadership (3-9)
D. Environmental Education (1-9)
E. Secondary Education (3-9)
Work individually or in small groups in a practical situation under guidance of a staff member of that setting and a university supervisor. May be repeated to a maximum of 9 semester hours.

TLCI 587. TEACHING PRACTICUM (1 to 6).
A. Curriculum Leadership
B. Secondary Education
Designed for actively engaged teachers interested in improving their teaching skills. Clinical work with the guidance of experienced professionals and consultants in teacher education. Experiences arranged to meet the needs, concerns, and interests of each individual. May be repeated to a maximum of 6 semester hours. Does not fulfill the student teaching requirement. PRQ: Consent of department.

TLCI 590. WORKSHOP (1 to 3).
A. Curriculum
B. Professional Development Leadership
D. Environmental Education
E. Secondary Education
Designed for teachers, supervisors, counselors, and administrators to study contemporary issues and problems of the public school and other education institutions. Content varies. May be repeated to a maximum of 12 semester hours. PRQ: Consent of department.

TLCI 597. INDEPENDENT RESEARCH (1 to 3).
A. Curriculum
B. Professional Development Leadership
D. Environmental Education
E. Secondary Education
Independent research at the master’s degree level under faculty supervision. Lettered topics A and B may be repeated to a maximum of 3 semester hours. Lettered topics D and E may be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

TLCI 598. MASTER’S CULMINATING PROJECT (3). Investigation of an issue or topic related to curriculum leadership, environmental education, and/or secondary education. Enrollment by special arrangement with student’s adviser. Students may enroll after successfully completing 24 semester hours in the approved degree program including core courses or obtaining permission from adviser. May be repeated to a maximum of 6 semester hours, but no more than 3 semester hours may be applied toward the degree.

TLCI 599. MASTER’S THESIS (1 to 6).
A. Curriculum Leadership
B. Environmental Education
C. Secondary Education
Open only to students who elect to write a thesis for the M.S.Ed. degree. Student enrolls with the faculty member directing the thesis. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department. Recommended: ETR 520.

TLCI 686. ADVANCED INTERNSHIP (1 to 12).
A. Curriculum
B. Professional Development Leadership
D. Secondary In-Service Staff Development
E. Secondary Education
Work individually or in small groups in a practical situation under guidance of a staff member of that setting and a university supervisor. May be repeated to a maximum of 12 semester hours. PRQ: Admission to doctoral program or consent of department.

TLCI 697. INDEPENDENT RESEARCH (1 to 3).
A. Curriculum Leadership
B. Secondary Education
Independent research at post-master’s degree levels under faculty supervision. May be repeated to a maximum of 6 semester hours.

TLCI 699. DOCTORAL RESEARCH AND DISSERTATION (1 to 15).
A. Curriculum Leadership
B. Secondary Education
Student must accumulate 15 semester hours prior to graduation. May be repeated. PRQ: Candidacy for the doctoral degree and consent of chair of doctoral committee.

Curriculum Leadership

TLCI 502. SURVEY OF RESEARCH IN CURRICULUM AND INSTRUCTION (3). Analysis of research in curriculum and instruction with emphasis on current research studies and research methods.

TLCI 505. SITE-BASED CURRICULUM DEVELOPMENT (3). Assumptions underlying current curriculum organizations. Decision-making procedures regarding development and evaluation of educational programs.

TLCI 512. CREATING LEARNING COMMUNITIES (3). Analysis and application of methods used in professional development for the improvement of instruction. Elements of effective teaching investigated and applied.

TLCI 515. CONNECTING CURRICULUM AND INSTRUCTION TO NATIONAL TEACHING STANDARDS (3). Analysis and application of national teaching standards to curriculum and instruction.

TLCI 524. ELEMENTARY SCHOOL CURRICULUM (3). Study of the elementary school curriculum, its relationship to society, and present practices in schools.

TLCI 527. SECONDARY SCHOOL CURRICULUM (3). Study of the secondary school curriculum, its relationship to society, and present practices in schools.

TLCI 540. THE GENDER-SENSITIVE CURRICULUM (3). Analysis of gender stereotyping. Development of gender-sensitive curriculum and curricular materials. Critical inquiry into gender as a multicultural concept and the ways in which gender issues have an impact in schooling.

TLCI 602. RESEARCH SEMINAR IN CURRICULUM LEADERSHIP (3). Survey of research studies in curriculum leadership. PRQ: Admission to doctoral program or consent of department.

TLCI 603. DESIGN OF CURRICULUM AND INSTRUCTION (3). Design and develop a critical perspective about what knowledge is of most worth by examining beliefs and ideological positions about curriculum and instruction design. PRQ: Admission to doctoral program or consent of department.

TLCI 604. RESEARCH SEMINAR IN CURRICULUM AND INSTRUCTION (3). Designed for the advanced student interested in planning and conducting a research study in curriculum and instruction. May be an exploratory or pilot study related to the doctoral dissertation. May be repeated to a maximum of 6 semester hours. PRQ: Completion of 30 semester hours of work beyond the master's degree including 15 semester hours in the major and 15 semester hours of the common requirements.

TLCI 606. CURRICULUM INQUIRY (3). Analysis of curriculum theories. Inquiry into historical and contemporary curriculum discourses and their impact on educational practices. PRQ: Admission to doctoral program or consent of department.

TLCI 608. PRINCIPLES OF CURRICULUM THEORY INTO PRACTICE (3). Assessment of curriculum models, classroom applications, and current issues and trends. PRQ: TLCI 603, admission to doctoral program, or consent of department.

TLCI 633. SEMINAR IN CURRICULUM (3). Curriculum project required. May be repeated to a maximum of 9 semester hours when subject varies. PRQ: Admission to doctoral program or consent of department.

TLCI 634. PRACTICUM IN CURRICULUM APPRAISAL (3). Analysis of purposes, process, and types of curriculum appraisal with emphasis on conducting an on-site appraisal of a school's curriculum. PRQ: Admission to doctoral program or consent of department.

TLCI 635. ANALYSIS OF PROFESSIONAL DEVELOPMENT (3). Analysis and application of methods used in leading professional development for improvement of instruction. Emphasis on relationship between theory and practice. PRQ: Admission to doctoral program or consent of department.

TLCI 640. FIELD STUDY IN CURRICULUM LEADERSHIP (3 to 6). Methods of analyzing and evaluating educational programs through participation in curriculum leadership studies in field settings. May be repeated to a maximum of 6 semester hours. PRQ: Admission to doctoral program or consent of department.

TLCI 660. EDUCATIONAL CHANGE (3). Description and conceptualization of the process of fundamental change affecting the culture of the school community and various emerging education forms. PRQ: Admission to doctoral program or consent of department.

Environmental Education

TLCI 501. PRINCIPLES AND CONCEPTS OF OUTDOOR EDUCATION (3). Basic concepts and history of the outdoor education movement. Scope of contemporary programs in the U.S. and abroad. Examination of the teaching-learning processes relevant to outdoor education.

TLCI 503. INTRODUCTION TO EDUCATIONAL RESEARCH IN OUTDOOR EDUCATION (3). Basic course in educational research with emphasis on outdoor education. PRQ: TLCI 501 or consent of department.

TLCI 511. ADVANCED FIELD EXPERIENCES IN OUTDOOR TEACHER EDUCATION (3). For experienced teachers who wish to supplement and enrich their classroom teaching by including outdoor learning experiences. Ways and means of relating various outdoor learning activities to the various subject matter areas of the school curriculum. PRQ: TLCI 501 or consent of department.

TLCI 517. NATURE, ART, AND CRAFTS IN OUTDOOR EDUCATION (3). Using nature as inspiration and as a source of ideas and materials for artistic expression in outdoor programming. Integrating nature-focused craft projects in outdoor education.

TLCI 519. LEISURE AND THE OUTDOORS (3). Theories of leisure and recreation as applied to outdoor recreation and adventure activities. Emphasis on leadership technique, appropriate use of the environment, assessment, and personal skill acquisition.

TLCI 520. ENVIRONMENTAL QUALITY EDUCATION (3). Cultural, ecological, and educational implications of the environmental movement. Emphasis on factors and influences leading to environmental quality literacy.

TLCI 521. OUTDOOR INTERPRETATION (3). Interpreting the environment in relationship to natural, historical, and cultural heritage. Emphasis on exploring aesthetic awarenesses and a land ethic.

TLCI 522. TEACHING ENVIRONMENTAL ETHICS (3). Designed for teachers and youth leaders to provide knowledge, attitudes, and skills for teaching environmental ethics. Content applicable in both indoor and outdoor settings including schools, camps, nature centers, and other related institutions.

TLCI 525. TEACHING PHYSICAL SCIENCE IN THE OUTDOORS (3). Study of selected aspects of the physical sciences as related to the outdoor environment. Emphasis on teaching and use of research techniques of scientific investigation. PRQ: One course in mathematics and one in natural science or consent of department.

TLCI 526. TEACHING NATURAL SCIENCE IN THE OUTDOORS (3). Developing and implementing strategies for teaching natural science in the outdoors. Emphasis on teaching the interrelationships among living organisms in their natural habitats.

TLCI 534. INTEGRATING COMMUNITY RESOURCES INTO CURRICULUM AND INSTRUCTION (3). Investigating natural, cultural, and/or human resources that can be effectively integrated into curriculum development.

TLCI 544. TEACHING ENERGY ALTERNATIVES AND ENERGY CONSERVATION (3). Theoretical and practical aspects of teaching basic concepts of energy alternatives and energy conservation. Learning experiences for awareness, understandings, skills, and attitudes designed for teachers and other youth leaders in schools, camps, homes, and other institutions.

TLCI 551. ENVIRONMENTAL EDUCATION THEORY AND PRACTICE (3). Existing and emerging theory and practice related to environmental education. Environmental education as a method of curriculum integration. Planning, implementing, and assessing environmental education programs.

TLCI 570. PLANNING AND IMPLEMENTING OUTDOOR EDUCATION PROGRAMS (3). Planning and implementing outdoor education experiences of varying lengths and the acquisition, development, and maintenance of outdoor education programs and facilities. PRQ: TLCI 501 or consent of department.

TLCI 575. SEMINAR IN ENVIRONMENTAL EDUCATION (3). Identification and analysis of current problems, issues, and practices in environmental education. PRQ: Consent of department.

TLCI 592. SPECIAL TOPICS IN ENVIRONMENTAL EDUCATION (1 to 6). Topics announced. May be repeated to a maximum of 18 semester hours when subject varies, but no more than 6 semester hours may be applied toward the M.S.Ed. in curriculum and instruction. PRQ: Consent of department.

TLCI 609. SEMINAR IN SCIENCE, SOCIAL STUDIES, AND ENVIRONMENTAL EDUCATION INTEGRATION (3). Analysis of existing and emerging theory and practice related to the integration of science, social studies, and environmental education.

TLCI 652. ADVANCED ENVIRONMENTAL EDUCATION THEORY AND PRACTICE (3). Analysis of existing and emerging theory and practice related to environmental education.

Secondary Education

TLCI 422. MIDDLE SCHOOL ORGANIZATION AND INSTRUCTION (3). Development of middle school organizations and philosophy; forms of curricula; characteristics of early adolescent students; special concerns in instructional and activity planning. Fulfills middle grade philosophy, curriculum and instruction requirement for middle grades endorsement.

TLCI 424. METHODS AND MATERIALS IN THE SECONDARY SCHOOL (3). Modern principles of teaching and learning in relation to the guidance of learning activities in the high school class.

TLCI 491. SPECIAL TOPICS IN SECONDARY EDUCATION (1 to 3). Topics announced. May be repeated to a maximum of 9 semester hours when subject varies.

TLCI 523. SEMINAR IN SECONDARY EDUCATION (3). Focus on professional and classroom problems of secondary school teachers. May be repeated to a maximum of 6 semester hours when topics vary.

TLCI 533. INSTRUCTIONAL THEORIES APPLIED TO PRACTICE (3). Application of instructional theories to secondary and post-secondary practice. Review of studies related to instruction and classroom management.

TLCI 537. IMPROVEMENT OF INSTRUCTION (3). Investigation and analysis of common problems in teaching. The principles which apply at all levels of instruction.

TLCI 552. EVALUATING SECONDARY SCHOOLS (3). Focus on characteristics of quality and processes of evaluating secondary schools. Attention given to development of reports of evaluation and models for their implementation. PRQ: TLCI 523 and TLCI 537, or consent of department.

TLCI 567. PORTRAYAL OF TEACHERS IN FILM (3). *Crosslisted as ETT 567X*. Examination of the portrayal of teachers in movies with emphases on trends, related educational issues and topics, and connections between practicing teachers' professional lives and those of teacher characters.

TLCI 585A. FIELD-BASED TEACHING PRACTICUM (3 to 6). Individualized course for practicing secondary educators and teaching teams. Focus on practical and immediately useful instructional improvement experiences and projects under the guidance of secondary education faculty. May be repeated to a maximum of 12 semester hours. Does not fulfill student teaching requirements. PRQ: Consent of department.

TLCI 585B. CLINIC-BASED TEACHING PRACTICUM (3). Campus clinic-based practicum for secondary educators to develop master teaching skills. May be repeated to a maximum of 6 semester hours. Does not fulfill the student teaching requirement. PRQ: TLCI 537 or consent of department.

TLCI 589X. PRACTICUM IN MULTILINGUAL/MULTICULTURAL EDUCATION (1 to 6). *Crosslisted as LTIC 589*. Selected field experiences and instructional design projects in multilingual/multicultural education for those who are interested in improving professional skills for serving diverse populations of learners. May be repeated to a maximum of 6 semester hours. Does not satisfy student teaching requirement.

TLCI 623. SEMINAR: ISSUES IN SECONDARY EDUCATION (3). Integration and synthesis of the concepts, principles, and theoretical constructs in the secondary education field, including post-secondary teachers and teacher educators.

TLCI 637. DESIGN OF INSTRUCTIONAL MODELS (3). Design and testing of innovative instructional methods and models in order to participate in advancing knowledge in the field. PRQ: TLCI 537 or consent of department.

TLCI 662. SEMINAR: REVIEW OF RESEARCH IN SECONDARY EDUCATION (3). Participants become familiar with research questions under investigation; the nature, extent, and application of findings; and some research tasks which require conceptualization and development. Possible contributions to research literature may be generated by seminar activities.

TLCI 672. DOCTORAL COLLOQUIUM IN SECONDARY EDUCATION (3). May be repeated to a maximum of 12 semester hours. PRQ: Admission to candidacy for the Ed.D. or consent of department.

Early Childhood Education (TLEC)

TLEC 410. TRENDS AND ISSUES IN EARLY CHILDHOOD EDUCATION (3). Focus on philosophical and psychological aspects of early childhood education as related to contemporary society.

TLEC 492. SPECIAL TOPICS IN EARLY CHILDHOOD EDUCATION (1 to 3). Topics announced. May be repeated to a maximum of 9 semester hours when subject varies.

TLEC 500. ANALYSIS OF INSTRUCTION IN EARLY CHILDHOOD EDUCATION (3). Study of learning continuity in early years.

TLEC 501. IMPROVEMENT OF INSTRUCTION IN EARLY CHILDHOOD EDUCATION (3). Investigation and analysis of common problems in teaching and supervision of early childhood programs.

TLEC 504. DEVELOPMENTALLY APPROPRIATE PRACTICE IN THE PRIMARY CLASSROOM (3). Existing and emerging theory and practice with focus on direct, active involvement of learners in developing the educational environment, outcomes, and formative assessment. Examination of procedures for planning, organizing, implementing, and assessing learning, curriculum, and materials for children in developmentally appropriate primary grade classrooms.

TLEC 510. PRESCHOOL MOVEMENT IN THE UNITED STATES (3). Study of the development of the American preschool movement.

TLEC 511. COMPARATIVE/INTERNATIONAL EARLY CHILDHOOD EDUCATION (3). Cross-cultural, multidisciplinary approach to the study of both formal and informal education of young children. Emphasis on content and context of learning in early childhood across cultures.

TLEC 521. EDUCATIONAL DIAGNOSIS AND ASSESSMENT OF YOUNG CHILDREN WITH SPECIAL NEEDS (3). Special diagnostic procedures appropriate for young children with special needs. Emphasis on screening and assessment of special conditions with respect to developmentally appropriate curriculum and on providing recommendations for procedures. PRQ: Consent of department.

TLEC 522. CURRICULUM AND INSTRUCTIONAL STRATEGIES FOR THE YOUNG CHILD WITH SPECIAL NEEDS (3). Resource systems and materials available for the education of the young child with special needs. Focus on developmentally appropriate curricula for children with special needs. PRQ: Consent of department.

TLEC 523. INFANTS AND PRESCHOOLERS WITH SEVERE DISABILITIES (3). Review of the characteristics, identification, educational intervention systems, and adaptive and cognitive behavior of infants and preschoolers with severe disabilities. PRQ: FCNS 439 or consent of department.

TLEC 526. CURRICULAR STRATEGIES FOR THE EDUCATION OF INFANTS WITH SEVERE DISABILITIES (3). Curricular models for instructional intervention for infants with developmental delays during their first two years of life. PRQ: TLEC 523 or consent of department.

TLEC 530. LANGUAGE ARTS IN EARLY CHILDHOOD EDUCATION (3). Focus on language arts and associated experiences as an integral part of the young child's growth and development.

TLEC 531. SOCIAL LEARNING IN EARLY CHILDHOOD EDUCATION (3). Principles and procedures in the development of social experiences, with focus on social learning for the young child and emphasis on child growth and development, democratic values and processes, and common life problems.

TLEC 535. FAMILY AND SCHOOL PARTNERSHIPS FOR ACADEMIC SUCCESS (3). Emphasis on continuous family-school teamwork efforts. Attention given to family background and social context. Effective parent-school programs/models and current research underscoring the dynamic interaction between families and schools on the academic success of pre-kindergarten through grade 8 students.

TLEC 560. SEMINAR: NEW DEVELOPMENTS IN EARLY CHILDHOOD EDUCATION (3). Philosophy and psychology of early childhood education as related to factors in the contemporary scene.

TLEC 586. INTERNSHIP (1 to 9). May be repeated to a maximum of 9 semester hours.

TLEC 587. TEACHING PRACTICUM IN EARLY CHILDHOOD EDUCATION (1 to 6). Designed for actively engaged teachers interested in improving teaching skills. Clinical work with guidance of experienced professionals and consultants in teacher education. Experiences arranged to meet needs, concerns, and interests of each individual. May be repeated to a maximum of 6 semester hours. Does not fulfill student teaching requirement. PRQ: TLEC 560 and consent of department.

TLEC 590. WORKSHOP IN EARLY CHILDHOOD EDUCATION (1 to 3). Designed to study contemporary issues and problems. Content varies. May be repeated to a maximum of 12 semester hours. PRQ: Consent of department.

TLEC 597. INDEPENDENT RESEARCH (1 to 3). Independent research at the master's degree level under faculty supervision. Each lettered topic may be repeated to a maximum of 6 semester hours.

TLEC 598. MASTER'S PROJECT (3). Culminating experience. Enrollment by special arrangement with student's adviser. PRQ: Successful completion of all education foundation courses and early childhood core courses.

TLEC 599. MASTER'S THESIS (1 to 6). Open only to students who elect to write a thesis for the M.S.Ed. degree. Student enrolls with the faculty member directing the thesis. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department. Recommended: ETR 520.

TLEC 660. SEMINAR IN EARLY CHILDHOOD EDUCATION (3). Identification and analysis of problems and issues in early childhood education. May be repeated to a maximum of 6 semester hours.

TLEC 686. INTERNSHIP (1 to 12). Work individually or in small groups in a practical situation under guidance of a staff member of that setting and a university supervisor. May be repeated to a maximum of 12 semester hours. PRQ: Admission to doctoral program, or consent of department.

TLEC 697. INDEPENDENT RESEARCH (1 to 3). Independent research at post-master's degree levels under faculty supervision. May be repeated to a maximum of 6 semester hours.

Elementary Education (TLEE)

TLEE 402X. METHODS OF INSTRUCTION IN THE MATHEMATICS CURRICULUM FOR ELEMENTARY SCHOOL (3). *Crosslisted as MATH 402.* Methods, techniques, materials, curricular issues, learning theories, and research utilized in the teaching of elementary school mathematics. Attention given to the teaching of exceptional students and planning for multicultural learning situations. Intended for students in education. Accepted for credit as an elementary mathematics methods course, but not as an upper-division mathematical content course. Not open for credit toward the major or minor in mathematical sciences.

TLEE 490. WORKSHOP IN ELEMENTARY EDUCATION (1 to 6). Suggestions for experiences suitable for children 6 to 12 years old. Total time devoted to new media and the construction of teacher-made materials. May be repeated to a maximum of 6 semester hours. S/U grading. PRQ: Consent of department.

TLEE 492. SPECIAL TOPICS IN ELEMENTARY EDUCATION (1 to 3). Topics announced. May be repeated to a maximum of 9 semester hours when subject varies.

TLEE 501. IMPROVEMENT OF INSTRUCTION IN ELEMENTARY EDUCATION (3). Investigation and analysis of common problems in teaching. Emphasis on the principles which apply at all levels of instruction.

TLEE 502. INDIVIDUALIZING LEARNING IN THE ELEMENTARY SCHOOL (3). Philosophy, models, and procedures for diagnosing and individualizing learning in the elementary school.

TLEE 504. TEACHING STRATEGIES FOR EXPERIENTIAL LEARNING (3). Existing and emerging theory and practice relating to experiential education. Focus on direct, active involvement of learners in developing their educational environment and outcomes.

TLEE 511. USING HUMAN RESOURCES FOR ELEMENTARY SCHOOL PROGRAMS (3). Role of the elementary school teacher in developing and managing programs which involve parents and others in the community.

TLEE 530. TEACHING SOCIAL STUDIES IN THE ELEMENTARY SCHOOL (3). Examination and evaluation of issues in the teaching of social studies with emphasis on principles of instruction and curriculum development in the social studies.

TLEE 531. YOUNG CHILDREN'S EXPLORATION OF THE PHYSICAL WORLD (3). Focus on quantitative and science learnings of the young child.

TLEE 532. TEACHING SCIENCE IN THE ELEMENTARY SCHOOL (3). Identification and analysis of problems and issues in society, science, and education that have an influence on curriculum and instruction in the elementary school science program.

TLEE 533. DEVELOPING AN ELEMENTARY SCHOOL SCIENCE PROGRAM (3). Development of a conceptual framework and procedure for initiating and maintaining the currency of an elementary school science program; consideration of approaches from the perspective of the child, the teacher, the community, and the subject area.

TLEE 534. IMPLEMENTING AN ELEMENTARY SCHOOL SCIENCE PROGRAM (3). Designed to aid classroom teachers, unit leaders, department chairs, district supervisors and other leadership personnel in implementing, managing, and revising an elementary school science program. Emphasis on converting philosophical structures into an operational program.

TLEE 535. GLOBAL PERSPECTIVES IN CITIZENSHIP EDUCATION (3). Implications of emerging global trends and problems for social education in the elementary and middle school. Creation of interdisciplinary activities and units to develop the global perspective.

TLEE 541. INQUIRY STRATEGIES IN ELEMENTARY SCHOOL SOCIAL STUDIES PROGRAMS (3). Adaptation to the learning styles of children of basic inquiry strategies drawn from theoretical models in the social sciences. Emphasis on the use of these strategies as methodology in the improvement of social studies learning.

TLEE 542. RELATED ARTS FOR THE TEACHERS OF CHILDREN (3). Designed for students interested in aesthetic education for children; examination of trends, issues and aesthetic experience in the planning of learning in the fine and applied arts. May be repeated for a maximum of 6 semester hours.

TLEE 560. SEMINAR IN ELEMENTARY EDUCATION (3). Current concerns and trends in elementary education. May be repeated to a maximum of 6 semester hours. PRQ: At least 24 semester hours of course work in the elementary education master's degree program.

TLEE 586. INTERNSHIP (3 to 9). May be repeated to a maximum of 9 semester hours.

TLEE 587. TEACHING PRACTICUM IN EDUCATION (1 to 6). Designed for actively engaged teachers interested in improving teaching skills. Clinical work with guidance of experienced professionals and consultants in teacher education. Experiences arranged to meet needs, concerns, and interests of each individual. May be repeated to a maximum of 6 semester hours. Does not fulfill the student teaching requirement. PRQ: TLEE 560 and consent of department.

TLEE 590. WORKSHOP IN ELEMENTARY EDUCATION (1 to 3). Designed to study contemporary issues and problems. Content varies. May be repeated to a maximum of 12 semester hours. PRQ: Consent of department.

TLEE 597. INDEPENDENT RESEARCH (1 to 3). Independent research at the master's degree level under faculty supervision. May be repeated to a maximum of 6 semester hours.

TLEE 599. MASTER'S THESIS (1 to 6). Open only to students who elect to write a thesis for the M.S.Ed. degree. Student enrolls with the faculty member directing the thesis. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department. Recommended: ETR 520.

TLEE 602. ANALYSIS OF INSTRUCTION IN ELEMENTARY EDUCATION (3). Use of theory in the analysis and interpretation of teaching-learning situations, as observed or recorded from preschool and elementary classrooms. Attention given to the identification and use of goals in education and the application of knowledge in the areas of learning, human growth, group behavior, and curriculum.

TLEE 632. DOMAIN OF SCIENCE EDUCATION (3). Study of selected major dimensions of science education. Consideration of major problems and issues pertinent to each dimension and their association with school science programs. PRQ: Advanced graduate standing or consent of department.

TLEE 660. ADVANCED SEMINAR IN ELEMENTARY EDUCATION (3).
A. Science
B. Social Studies
C. General
Identification and analysis of problems and current issues in elementary education. May be repeated to a maximum of 9 semester hours.

TLEE 675. ELEMENTARY TEACHER EDUCATION (3). Survey of selected undergraduate programs of preparation which have been designed to educate teachers for the public elementary schools. Intensive analysis of the program at NIU involving supervised laboratory experiences. Internship concurrent with this course recommended. PRQ: Consent of department.

TLEE 686. INTERNSHIP (1 to 12). Work individually or in small groups in a practical situation under guidance of a staff member of that setting and a university supervisor. May be repeated to a maximum of 12 semester hours. PRQ: Admission to doctoral program, or consent of department.

TLEE 697. INDEPENDENT RESEARCH (1 to 3). Independent research at post-master's degree levels under faculty supervision. May be repeated to a maximum of 6 semester hours.

TLEE 699. DOCTORAL RESEARCH AND DISSERTATION (1 to 15). PRQ: Candidacy for the doctoral degree and consent of chair of doctoral committee.

Special Education (TLSE)

TLSE 421. TECHNOLOGY FOR STUDENTS WITH DISABILITIES (3). Application of microcomputers and related technology to persons with learning, behavior, sensory, motor, and communication disorders. Software evaluation and adaptation, alternative input and output modes, development of supportive resources, and integration of microcomputing into the Individualized Education Program.

TLSE 423. ASSESSMENT IN EARLY CHILDHOOD SPECIAL EDUCATION (3). Identification and diagnosis of infants, toddlers, and young children (birth to eight years) with special needs and assessment of family concerns, priorities, and resources and early childhood environments.

TLSE 424. INSTRUCTIONAL SYSTEMS FOR THE EDUCATION OF INFANTS, TODDLERS, AND YOUNG CHILDREN WITH DISABILITIES (3). Instructional strategies and curricular models for instructional intervention for infants, toddlers, and young children (birth to eight years) with disabilities.

TLSE 426. WORKING WITH FAMILIES OF YOUNG CHILDREN WITH DISABILITIES (3). Strategies to promote positive and productive family/professional relationships and family-centered, team-based models for working with children with disabilities (birth to eight years) and their families.

TLSE 427. ISSUES IN EARLY CHILDHOOD SPECIAL EDUCATION (1 to 3). Trends, issues, and concerns in the field of early childhood special education (birth to eight years). In-depth analysis of current issues in the field related to children with special needs, families, service providers, and other professionals. May be repeated to a maximum of 3 semester hours. PRQ: Consent of department.

TLSE 450. EDUCATION OF STUDENTS WITH VISUAL IMPAIRMENTS (3). Introduction to educational programs, services, and resources for children and adolescents with visual impairments. Exploration of historical background and sociological and psychological aspects of blindness, and of legislation, literature, and philosophy related to blindness. PRQ: Consent of department.

TLSE 451. ANATOMY, PATHOLOGY, AND FUNCTIONING OF THE EYE (3). Lectures and demonstrations of various pathologies. Includes study of parts of the eye and their function, normal visual development, abnormalities and conditions that result in visual loss, and functional and programmatic implications. PRQ: Consent of department.

TLSE 452. ASSISTIVE TECHNOLOGY/MULTIPLE DISABILITIES (3). Evaluating abilities in relation to environmental demands and determining adaptations, adaptive equipment, and/or assistive devices that can be used to ensure student participation. Students demonstrate proficiency in programming augmentative communication devices and using other assistive technology devices. PRQ: TLSE 445.

TLSE 457. SYSTEMS FOR INTEGRATING THE EXCEPTIONAL STUDENT IN THE REGULAR CLASSROOM (3). Designed to provide preservice and inservice elementary, secondary, and vocational educators information and skills necessary to accommodate exceptional students placed in regular school settings, including the establishment and implementation of individual educational programs and other concerns encompassed under the Individuals with Disabilities Education Act of 1990 (Public Law 101-476) and the Regulations of Section 504 of the Rehabilitation Act of 1973. Does not count toward degree program in special education. PRQ: TLEE 282 or consent of department.

TLSE 470. LITERARY BRAILLE (3). Mastery in the reading and writing of Grade II literary braille. Development and use of special materials; slate and stylus techniques presented. PRQ: Consent of department.

TLSE 471. ADVANCED BRAILLE (3). Intensive study of the Nemeth Code for mathematics and science notation, music code, computer and foreign language codes, and braille textbook formats and techniques. Transcription and adaptation of print material, including tests and worksheets, for individuals who are blind. PRQ: TLSE 470 or consent of department.

TLSE 472. COMMUNICATION SYSTEMS USED BY PERSONS WITH VISUAL IMPAIRMENTS (3). Techniques in teaching the use of communications systems developed or adapted for individuals who are blind or visually impaired, including methods for teaching braille, typing, script, notetaking, sound reproduction systems, listening skills, electronic reading devices, and calculation with emphasis on abacus usage. Laboratory experiences. PRQ: TLSE 470 and successful completion of the PPST/Praxis I or the ICTS Basic Skills Test, or consent of department.

TLSE 473. INSTRUCTIONAL SYSTEMS FOR TEACHING STUDENTS WHO ARE VISUALLY IMPAIRED (3). Special methods, materials, and techniques employed in the assessment and instruction of learners with visual impairments. Emphasis on utilization of low vision, curriculum planning, and adaptation of subject matter areas. Preschool through high school and learners with multiple disabilities included. PRQ: Successful completion of the PPST/Praxis I or the ICTS Basic Skills Test, or consent of department.

TLSE 474. BASIC ORIENTATION AND MOBILITY FOR TEACHERS OF PERSONS WITH VISUAL IMPAIRMENTS (3). Emphasis on concept development, sensory skills, organizational techniques, pre-cane skills, and a full range of mobility options. Exploration of historical background and current issues in orientation and mobility. Blindfold and simulator experience included. PRQ: Consent of department.

TLSE 475. TEACHING ACTIVITIES OF DAILY LIVING TO PERSONS WITH VISUAL AND MULTIPLE DISABILITIES (3). Methods of teaching grooming, eating, and personal and home management to children, youth, and adults with visual and multiple disabilities. Emphasis on home, school, work, and leisure skills. Two hours of lecture and two hours of laboratory per week.

TLSE 490. WORKSHOP IN SPECIAL EDUCATION (1 to 3). Investigation and application of special education principles to the particular needs and interests of the workshop participant. May be repeated to a maximum of 6 semester hours.

TLSE 512. METHODS FOR TEACHING STUDENTS WITH LEARNING DISABILITIES (3). Curriculum, instructional methods, and materials appropriate for teaching students with learning disabilities from a language arts perspective. PRQ: ETR 434 or ETR 534, TLSE 540, or consent of department.

TLSE 513. METHODS FOR TEACHING ELEMENTARY STUDENTS WITH HIGH-INCIDENCE DISABILITIES (3). Instructional theories, curricula, methods, and materials as they relate to teaching elementary-aged students with high-incidence disabilities. Emphasis on instructional procedures, adaptations, and progress-monitoring systems. PRQ: ETR 434 or ETR 534, TLSE 540, or consent of department.

TLSE 514. METHODS FOR TEACHING SECONDARY STUDENTS WITH HIGH-INCIDENCE DISABILITIES (3). Instructional theories, curricula, methods, and materials as they relate to teaching secondary-aged students with high-incidence disabilities. Emphasis on instructional procedures, adaptations, and progress-monitoring systems. PRQ: ETR 434 or ETR 534, TLSE 540, or consent of department.

TLSE 540. FOUNDATIONS OF SPECIAL EDUCATION (3). Education of exceptional learners including contemporary changes in philosophy, objectives, teaching in diverse cultural settings, curriculum, methods, materials, and evaluation.

TLSE 547. ISSUES AND TRENDS IN SPECIAL EDUCATION (1). Analysis of current issues and trends affecting the field of special education. Culminating seminar for master's program. PRQ: Minimum of 27 graduate program semester hours or consent of department.

TLSE 549. EVALUATION AND INSTRUCTION OF INDIVIDUALS WITH MULTIPLE DISABILITIES (3). Strategies for creating and evaluating meaningful educational experiences for individuals with significant learning challenges. Implications of physical, health, and/or multiple disabilities for participation in major life activities. Curriculum modifications in academic and non-academic areas. PRQ: TLSE 592 or consent of department.

TLSE 550. COUNSELING IN BLIND REHABILITATION (3). Foundations of personal-social counseling and vocational guidance with emphasis on problems created by blindness and adjustment issues related to visual loss. PRQ: Consent of department.

TLSE 557. FUNCTIONAL ANALYSIS FOR SPECIAL EDUCATORS (3). Principles and methods of behavior analysis applied to the learning and behavior management of students exhibiting problems in learning and behavior. Emphasis on functional analysis in the classroom, home, and community. PRQ: TLSE 540 or TLSE 592, and TLSE 454, or consent of department.

TLSE 559. TRANSITION PLANNING AND VOCATIONAL PROGRAMMING FOR STUDENTS WITH DISABILITIES (3). Transition planning, vocational training, evaluation, and placement of students of senior high school age with special needs; role of school personnel, families, and adult service providers. PRQ: TLSE 540 or TLSE 592, or consent of department.

TLSE 561. METHODS FOR TEACHING INDIVIDUALS WITH DEVELOPMENTAL DISABILITIES (3). Role of personnel, methods for teaching and assessing independent functioning skills, and curriculum modifications in inclusive environments for individuals with developmental disabilities. PRQ: TLSE 540, or consent of department. CRQ: ETR 434 or ETR 534. Recommended: TLSE 557.

TLSE 562. CURRICULAR AND INSTRUCTIONAL DESIGN AND ADAPTATION FOR INCLUSIVE SETTINGS (3). Models and strategies for developing and modifying materials and instruction for students with disabilities in general education classrooms.

TLSE 563. METHODS FOR TEACHING STUDENTS WITH EMOTIONAL DISTURBANCE (3). Programs, methods, and materials in the education of students with emotional disturbance. Current issues and literature dealing with teaching students with emotional disturbance. PRQ: ETR 434 or ETR 534, TLSE 540, and TLSE 557, or consent of department.

TLSE 564. ADVANCED PROGRAM PLANNING AND EVALUATION FOR PERSONS WITH DUAL SENSORY AND PHYSICAL DISABILITIES (3). In-depth curriculum planning based on theory and research for persons with dual sensory and physical disabilities. Planning and evaluation of hypothetical programs and participation in evaluation of operational programs in school districts required. PRQ: Consent of department.

TLSE 565. COLLABORATION AND CONSULTATION SKILLS FOR SCHOOL PROFESSIONALS (3). Developing, implementing, and evaluating indirect service delivery systems for learners with special needs. Emphasis on interaction skills for use by professionals in schools and processes of collaboration and consultation. PRQ: Minimum of 27 graduate program semester hours or consent of deparment.

TLSE 570. PRINCIPLES OF ORIENTATION AND MOBILITY TECHNIQUES FOR LEARNERS WITH VISUAL AND MULTIPLE IMPAIRMENTS (3). Techniques designed to assess the functional efficiency of kinesthetic, proprioceptive, auditory, visual, tactual, thermal, and olfactory senses of learners with visual and multiple impairments. Special adaptations in orientation and mobility techniques and devices for use by learners with visual and multiple impairments. PRQ: TLSE 474 or consent of department.

TLSE 571. COLLABORATION PRINCIPLES AND SKILLS FOR PROFESSIONALS WORKING WITH PERSONS WITH VISUAL IMPAIRMENTS (3). Specific techniques related to inservice training and team teaching in inclusive settings. Interrelationships between and among families and specialists working with individuals with visual impairments. PRQ: Consent of department.

TLSE 573. INSTRUCTIONAL SYSTEMS FOR UTILIZATION OF LOW VISION (3). Procedures in assessing functional vision of persons with impairments. Instructional techniques in maximizing utilization of low vision, including training in basic optics, visual development and perception, specific visual and functional skills, application of low vision devices, and adaptations of materials, equipment, and environments. PRQ: TLSE 451 or consent of department.

TLSE 574. ADVANCED ORIENTATION AND MOBILITY (3 to 6). Reinforcement of orientation and mobility skills and techniques, with emphasis on use of the long cane for travel. Teaching and assessment materials, procedures, and techniques; contemporary issues in the discipline; and program planning. Significant time spent participating in blindfold and simulator experiences. May be repeated to a maximum of 6 semester hours. PRQ: TLSE 474 or consent of department.

TLSE 575. REHABILITATION OF ADULTS WITH VISUAL IMPAIRMENTS (3). Community resources, methods, and materials to assist adults with visual impairments through rehabilitation. Includes history, rehabilitation models, and legislation. Emphasis on team management, evaluation, concomitant disabilities, and vocational planning.

TLSE 576. INSTRUCTIONAL SYSTEMS FOR TEACHING INDIVIDUALS WITH VISUAL AND MULTIPLE IMPAIRMENTS (3). Special methods, materials, and techniques used in the instruction of individuals with visual and multiple impairments. Emphasis on sensory stimulation, visual functioning, motor development, self-help skills, communication skills and devices, home and behavior management, and interrelationships among specialists in related fields. PRQ: TLSE 540 or consent of department.

TLSE 577. SURVEY OF ASSISTIVE TECHNOLOGY FOR PERSONS WITH VISUAL IMPAIRMENTS (3). Introduction to educational difficulties of individuals with visual impairments for special educators without expertise in visual impairment. Overview of visual impairments and technology-related solutions to enable independent access to the general curriculum.

TLSE 578. ISSUES AND TRENDS IN TEACHING STUDENTS WITH EMOTIONAL AND BEHAVIORAL DISORDERS (3). Focus on programs, projects, systems of support, classroom and school-based strategies, and assessment. PRQ: TLSE 563 or consent of department.

TLSE 579. ASSISTIVE TECHNOLOGY FOR PERSONS WITH VISUAL IMPAIRMENTS (3). Emphasis on application of research in using assistive technology by persons with visual impairments. Hardware and software access issues for educational and life purposes. Not open to students with credit for TLSE 479. PRQ: TLSE 470 or consent of department.

TLSE 580. ASSISTIVE TECHNOLOGY FOR PERSONS WITH VISUAL IMPAIRMENTS: ADVANCED TOPICS (3). Advanced features of recently developed technologies used by persons who are visually impaired. Emphasis on advanced instructional applications. PRQ: TLSE 579 or consent of department.

TLSE 583. INITIAL FIELD EXPERIENCE IN SPECIAL EDUCATION (1 to 3). Supervised observation of students with disabilities in a variety of educational settings. May be repeated to a maximum of 3 semester hours. PRQ: TLSE 540 or consent of department.

TLSE 586A. INTERNSHIP IN ORIENTATION AND MOBILITY INSTRUCTION OF PERSONS WITH VISUAL IMPAIRMENTS (1 to 12). Supervised instruction including the techniques of safe, independent travel and the use of the long cane. Observation and participation in residential school, day school, and/or agency programs for individuals with visual impairments. May be repeated to a maximum of 12 semester hours. PRQ: TLSE 474 and TLSE 574, or consent of department.

TLSE 586B. INTERNSHIP IN REHABILITATION TEACHING OF PERSONS WITH VISUAL IMPAIRMENTS (1 to 12). Supervised instruction including observation and participation in residential school, day school, and/or agency programs for individuals with visual impairments. May be repeated to a maximum of 12 semester hours. PRQ: Consent of department.

TLSE 587A. ELEMENTARY OR SECONDARY PRACTICUM: LEARNING BEHAVIOR SPECIALIST I (1 to 10). Supervised field experience in special education programs in schools, institutions, and other facilities for elementary and secondary students with disabilities. May be repeated to a maximum of 12 semester hours. PRQ: Consent of department.

TLSE 587E. ELEMENTARY OR SECONDARY PRACTICUM IN BEHAVIOR DISORDERS (1 to 10). Supervised field experience in special education programs in schools, institutions, and other facilities for elementary and secondary students with behavior disorders. May be repeated for experience at both elementary and secondary levels to a maximum of 12 semester hours. PRQ: Consent of department.

TLSE 587K. ELEMENTARY OR SECONDARY PRACTICUM IN VISUAL IMPAIRMENTS (1 to 10). Supervised field experience in special education programs in schools, institutions, and other facilities for elementary and secondary students with visual impairments. May be repeated for experience at both elementary and secondary levels to a maximum of 12 semester hours. PRQ: Consent of department.

TLSE 587N. PRACTICUM IN EARLY CHILDHOOD SPECIAL EDUCATION (1 to 10). Supervised field experience in special education programs in schools, homes, institutions, and other facilities for infants, toddlers, and preschoolers with disabilities. May be repeated to a maximum of 12 semester hours. PRQ: Consent of department.

TLSE 587Q. PRACTICUM IN REHABILITATION TEACHING FOR PERSONS WITH VISUAL IMPAIRMENTS (1 to 10). Supervised field experience in working with persons with visual impairments in daily living activities. May be repeated to a maximum of 16 semester hours. PRQ: Consent of department.

TLSE 587U. PRACTICUM IN ORIENTATION AND MOBILITY TECHNIQUES FOR PERSONS WITH VISUAL AND MULTIPLE DISABILITIES (1 to 10). Supervised practicum in assessment of sensory and motor skills as they relate to orientation and mobility. Student will also adapt basic orientation and mobility techniques to meet individual needs of persons with visual and multiple disabilities and provide instruction under the direction of an orientation and mobility specialist. May be repeated to a maximum of 12 semester hours.CRQ: TLSE 570 or consent of department.

TLSE 587V. PRACTICUM IN INSTRUCTIONAL SYSTEMS FOR THE UTILIZATION OF LOW VISION (1 to 10). Supervised practicum in assessment of the functional vision of persons with visual disabilities and in use of instructional techniques for obtaining maximum benefit from low vision. May be repeated to a maximum of 12 semester hours. CRQ: TLSE 573.

TLSE 587W. PRACTICUM WITH STUDENTS WITH MULTIPLE DISABILITIES (1 to 10). Supervised field experience in special education programs in schools and other facilities with programs for students with multiple disabilities. May be repeated to a maximum of 12 semester hours. PRQ: Consent of department.

TLSE 590. WORKSHOP IN TEACHER EDUCATION (1 to 3). Designed to study contemporary issues and problems. Content varies. May be repeated to a maximum of 12 semester hours. PRQ: Consent of department.

TLSE 591. INSTITUTE IN SPECIAL EDUCATION (1 to 3). Series of lectures, consultations, and discussion sessions on a relatively limited area of research or education. May be repeated to a maximum of 9 semester hours. PRQ: Consent of department.

TLSE 592. SEMINAR IN SPECIAL EDUCATION (3). Review and analysis of current research in special education in terms of the special interests of the student. May be repeated to a maximum of 9 semester hours. PRQ: Consent of department.

TLSE 593. COLLABORATION IN ADVANCED SPECIAL EDUCATION PRACTICES (3). Focus on collaboration among school personnel, community and university resources, and parents to develop and implement interventions for current and emerging issues in special education. Field experience required. PRQ: Consent of department.

TLSE 597. INDEPENDENT RESEARCH (1 to 3). Independent research at the master's degree level under faculty supervision. May be repeated to a maximum of 6 semester hours.

TLSE 599. MASTER'S THESIS (1 to 6). Open only to students who elect to write a thesis for the M.S.Ed. degree. Student enrolls with the faculty member directing the thesis. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department. Recommended: ETR 520.

TLSE 642. EDUCATIONAL ASPECTS OF MENTAL RETARDATION (3). Study of the educationally significant characteristics of the mentally retarded with emphasis on research. PRQ: Consent of department.

TLSE 643. PSYCHOLOGICAL AND SOCIOLOGICAL ASPECTS OF MENTAL RETARDATION (3). Study of psychological and sociological problems and characteristics of the mentally retarded, including a review of research. PRQ: Consent of department.

TLSE 647. ADVANCED SEMINAR IN SPECIAL EDUCATION (3). Analysis of concepts and research related to educating individuals with disabilities. PRQ: Consent of department.

TLSE 650. PERSPECTIVES IN LEARNING DISABILITIES (3). Examination of the development of the field of learning disabilities. Influence of past etiological theories, diagnostic practices, classification schemes, and treatment approaches on current practices. Service delivery approaches for youth and adults with mild, moderate, and severe learning disabilities. PRQ: Consent of department.

TLSE 652. PERSPECTIVES IN BEHAVIOR DISORDERS (3). Examination of the development of the field of behavior disorders. Influence of etiological theories, diagnostic practices, classification schemes, and treatment approaches on current practices. Service delivery approaches for youth and adults with identified mild, moderate, and severe behavior disorders. PRQ: Consent of department.

TLSE 654. READINGS IN VISUAL IMPAIRMENTS (3). Directed readings in the area of visual impairments including, but not limited to, issues related to persons with visual impairments, the teaching of students with visual impairments, adult blind rehabilitation, orientation and mobility, historical background, and current issues in the field. PRQ: Consent of department.

TLSE 662. ADVANCED INSTRUCTIONAL SYSTEMS FOR STUDENTS WITH DISABILITIES (3). Study of theories, principles, and practices in the education of children and youth with disabilities with emphasis on current research on effective schools. PRQ: Consent of department.

TLSE 665. SEMINAR: PROFESSIONAL COLLABORATION IN SCHOOLS (3). Intensive study of current trends affecting the growth of collaboration in school settings. Analysis of school change processes related to the delivery of special services. Current initiatives in schools and their treatment of special education. PRQ: TLSE 565 or consent of department.

TLSE 670. WRITING FOR PUBLICATION IN EDUCATIONAL PSYCHOLOGY AND SPECIAL EDUCATION (3). *Crosslisted as EPS 670X.* Planning, producing, and submitting manuscripts for publication. Includes analysis of professional journals and articles published in them with different types of publications addressed and analyzed, including review, research, and theoretical position papers.

TLSE 671. WRITING GRANT PROPOSALS IN EDUCATION (3). *Crosslisted as EPS 671X*. Reviewing and writing competitive grant proposals. Identifying funding sources (federal, state, private) that match one's interests and expertise. Analysis of components of different types of grants, including research, demonstration, special project, technology, and personnel preparation grants.

TLSE 680. FIELD OBSERVATION OF SPECIAL EDUCATION PROGRAMS (1 to 8). Observation and evaluation of administrative programs in special education in federal, state, and selected local programs. May be repeated to a maximum of 8 semester hours. PRQ: LEEA 500 and LEEA 577, or consent of department.

TLSE 686. INTERNSHIP IN SPECIAL EDUCATION (2 to 12). Assignment as an intern in assessment, programming, and/or administration experiences. Participation in on-going programs in residential or public schools for learners with disabilities; work as a student/staff member according to the assignment that has been undertaken. May be repeated to a maximum of 12 semester hours. PRQ: Consent of department.

TLSE 687. LABORATORY PRACTICUM IN PREPARING SPECIAL EDUCATORS FOR HIGHER EDUCATION (1 to 6). Strategies for providing instruction and experiences for preservice and inservice special education teachers. Includes program and course development, field-based programs, seminars, workshops, institutes, practicum experiences, team teaching, specialized minicourses, programmed and computer-directed instruction, and other delivery systems. Use of media and strategy evaluation. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

TLSE 691. SEMINAR: GROUP RESEARCH METHODOLOGIES IN SPECIAL EDUCATION (3). Concepts in the philosophy and methodology of scientific research to prepare students to evaluate critically ideas and practices in special education. Emphasis on understanding and employing group research designs. PRQ: Consent of department.

TLSE 692. SEMINAR: SINGLE-SUBJECT RESEARCH METHODOLOGIES IN SPECIAL EDUCATION (3). Consideration of major concepts underlying single-subject research regarding children with disabilities analyzing the design, variables, and parameters most critical in study of children who have limited language, motor, and cognitive abilities. PRQ: Consent of department.

TLSE 696. LABORATORY FIELD STUDIES IN SPECIAL EDUCATION (3). Theoretical constructs, design, and procedures for laboratory research and field-based evaluation in special education. Participation in research projects required. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

TLSE 697. INDEPENDENT RESEARCH (1 to 3). Independent research at the post-master's degree levels under faculty supervision. May be repeated to a maximum of 6 semester hours.

TLSE 699. DOCTORAL RESEARCH AND DISSERTATION (1 to 15). Students must accumulate 15 semester hours prior to graduation. May be repeated. PRQ: Candidacy for the doctoral degree and consent of chair of doctoral committee

College of Engineering and Engineering Technology

Dean: Promod Vohra, Ed.D., P.E.
Acting Associate Dean: Mansour Tahernezhadi, Ph.D., P.E.

Department of Electrical Engineering
Department of Industrial Engineering
Department of Mechanical Engineering
Department of Technology

Interdisciplinary Course Offered by the College of Engineering and Engineering Technology

IEET 490. TOPICS IN ENGINEERING AND ENGINEERING TECHNOLOGY (1-3). Selected interdisciplinary topics from various engineering or engineering technology disciplines not offered in regular departmental courses. May be repeated to a maximum of 6 semester hours. PRQ: Consent of Instructor.

Department of Electrical Engineering (ELE)

Chair: Sen-Maw Kuo

Graduate Faculty

Ibrahim Abdel-Motaleb, professor, Ph.D., P.E., University of British Columbia
Alan P. Genis, professor, Ph.D., Colorado State University
Michael Haji-Sheikh, assistant professor, Ph.D., University of Texas, Arlington
Reza Hashemian, professor, Ph.D., P.E., University of Wisconsin
Sen-Maw Kuo, professor, Ph.D., University of New Mexico
Vincent McGinn, professor, Ph.D., P.E., Pennsylvania State University
Laura L. McPheters, assistant professor, Ph.D., Georgia Institute of Technology
Gerald Miller, professor, Ph.D., Northwestern University
Mansour Tahernezhadi, professor, Ph.D., P.E., University of Oklahoma
Peng-Yung Woo, professor, Ph.D., University of Pennsylvania
Donald Zinger, associate professor, Ph.D., P.E., University of Wisconsin

Master of Science in Electrical Engineering

The Department of Electrical Engineering offers graduate studies leading to the M.S. in electrical engineering. The program is designed to stimulate creativity, to provide an in-depth understanding of the basic physical phenomena involved in electrical systems, and to provide the student with the ability to use modern techniques in the analysis and design of electrical components and systems. Bulletins describing graduate studies in electrical engineering are available from the departmental office.

Admission to the graduate program in electrical engineering requires a baccalaureate degree in electrical engineering or a related area such as physics, mathematical sciences, chemistry, computer science, or other science and engineering disciplines. Undergraduate students in electrical engineering can, however, enroll in the integrated B.S./M.S. sequence after finishing 90 semester hours with a GPA of at least 3.00.

Thesis Option

All students admitted to the M.S. program are classified as thesis option students. The thesis option is designed to prepare students for graduate work at the doctoral level and concentrates on original research techniques. The graduate program of courses must include 6 semester hours of ELE 599A, Master's Thesis, on a topic approved by the student's graduate committee. The thesis must be satisfactorily defended at an oral examination. Portions of the research work required by ELE 599A may be performed in off-campus facilities if approved by the student's graduate committee.

Non-Thesis Option

Students wishing to pursue the non-thesis option are required to petition the department's graduate committee upon admission to the major. The non-thesis option is designed for practicing professionals who wish to pursue advanced study in electrical engineering culminating in the M.S. degree and who cannot pursue the traditional research experience of a thesis option. Students pursuing a M.S. degree under this option must earn a minimum of 30 semester hours of graduate credit including 3 semester hours of ELE 599B, Master's Project, which must lead to significant original work which must be defended at an oral examination and submission of a written report.

Requirements for Graduates with a B.S. in Electrical Engineering

Students must satisfy the following departmental requirements.

The student with the support of his or her faculty adviser must submit to the department a program of graduate study approved by the student's graduate committee.

Students must complete at least 30 semester hours of graduate work with at least 12 semester hours of course work in 500- level courses exclusive of ELE 597, ELE 598, ELE 599A, and ELE 599B.

Combined credit in 400-level courses, ELE 598, and ELE 597 must not exceed 12 semester hours.

The 30 semester hours must include a minimum of 12 semester hours of course work in the department exclusive of ELE 597, ELE 598, ELE 599A, and ELE 599B.

Requirements for Graduates with a B.S. in an Area other than Electrical Engineering

Students with a B.S. degree in an area other than electrical engineering are required to take at least three courses from the following: ELE 210, ELE 250, ELE 315, ELE 330, ELE 335, ELE 340, ELE 350, ELE 356, ELE 360, ELE 370, and ELE 380. A grade of B or better is required for each of these courses. The thesis adviser must approve the set of courses to be taken. The student is also required to fulfill all the requirements in the previous section.

Requirements for Integrated B.S./M.S. Sequence

This integrated sequence leads to both the B.S. and M.S. degrees in electrical engineering and is open to all undergraduate electrical engineering majors who finished at least 90 semester hours of undergraduate work with a minimum GPA of 3.00. A minimum GPA of 3.00 must be maintained during the course of study. Failure to meet the requirements of the integrated sequence may lead to a B.S. degree only, but only after all the requirements for that degree have been met.

All students enrolled in this sequence must have their schedule approved by their faculty adviser each semester. Any deviation from an approved course schedule may delay graduation.

All students enrolled in this sequence are required to take the state Fundamentals of Engineering (FE) examination before graduation from the B.S. degree program.

Students seeking to qualify for the integrated B.S. and M.S. sequence in electrical engineering must satisfy the following departmental requirements.

A minimum of 121 semester hours of course work must be taken including all undergraduate required courses. In addition, 30 semester hours must be taken for graduate credit.

Students must take at least 12 semester hours of course work at the 500-level exclusive of ELE 597, ELE 598, ELE 599A, and ELE 599B.

Combined credit in 400-level courses, ELE 597, and ELE 598 must not exceed 12 semester hours.

A program of courses and a thesis or a project topic approved by the student's graduate committee and adviser must be submitted to the department.

The 30 semester hours of graduate credit must include a minimum of 12 semester hours of course work in the Department of Electrical Engineering exclusive of ELE 597, ELE 598, and ELE 599A, and ELE 599B.

Certificates of Graduate Study

The Department of Electrical Engineering offers several short-term focused technical fields of study leading to a certificate of graduate study. The certificates are ideally suited for graduate-level students interested in lifelong learning and in the advancement of their skills in an area of electrical engineering. Credit earned for a certificate of graduate study may be applied toward the M.S. degree in electrical engineering with the approval of the department.

Digital Image Processing (12)

ELE 454 - Introduction to Digital Image Processing (3)
ELE 554 - Advanced Topics in Digital Image Processing (3)
Two of the following (6)
- ELE 451 - Digital Filter Design (3)
- ELE 550 - Digital Signal Processing (3)
- ELE 556 - Pattern Recognition (3)

Digital Signal Processing (12)

ELE 451 - Digital Filter Design (3)
ELE 452 - Real-Time Digital Signal Processing (3)
ELE 550 - Digital Signal Processing (3)
ELE 551 - Random Signal Processing (3)

Digital Systems (12)

ELE 430 - Design with Field Programmable Logic Devices (3)
ELE 457 - Microprocessor (3)
ELE 555 - Microprocessor System Design (3)
ELE 557 - Parallel Processing (3)

Industrial Control (12)

ELE 481 - Digital Control Systems (3)
ELE 583 - Computerized Control and Modeling of Automated Systems (3)
ELE 585 - Control Laws and Strategies for Multi-Link Manipulators (3)
ELE 587 - Fuzzy Logic in Engineering (3)

Semiconductor Devices (12)

ELE 431 - Theory of Semiconductor Devices II (3)
ELE 433 - Design of Gallium Arsenide Integrated Circuits (3)
ELE 434 - Semiconductor Material and Device Characterization (3)
ELE 438 - Thin Film Engineering (3)

Semiconductor Fabrication (12)

ELE 435 - Integrated Circuit Engineering (3)
Two of the following (6)
- ELE 432 - Semiconductor Device Fabrication Laboratory (3)
- ELE 437 - Hybrid Circuit Design (3)
- ELE 438 - Thin Film Engineering (3)

One of the following (3)
- ELE 530 - Advanced Integrated Circuit Engineering (3)
- ELE 531 - VLSI Engineering: Computer-Aided Design (3)
- ELE 534 - Integrated Circuit Design for Testability (3)

VLSI Design (12)

ELE 435 - Integrated Circuit Engineering (3)
ELE 436 - Analog MOS VLSI Engineering (3)
Two of the following (6)
- ELE 530 - Advanced Integrated Circuit Engineering (3)
- ELE 531 - VLSI Engineering: Computer-Aided Design (3)
- ELE 534 - Integrated Circuit Design for Testability (3)

Course List

421. BIOMEDICAL SENSOR ENGINEERING (3). Theory, analysis, and design of biomedical sensors. Topics include biological elements; immobilization of biological components; medical, biological, and chemical sensors; and transducers based on electrochemistry, optics, and solidstate devices. PRQ: Grade of C or better in CHEM 210T and CHEM 212, PHYS 251A, and ELE 335 or ELE 215 or ELE 330; or consent of department.

430. DESIGN WITH FIELD PROGRAMMABLE LOGIC DEVICES (3). Design of high performance logic designs utilizing programmable logic gates. Design of finite state machines and introduction to latest computeraided tools. PRQ: ELE 350 or consent of department.

431. THEORY OF SEMICONDUCTOR DEVICES II (3). Continuation of ELE 335 dealing with complex semiconductor devices. Theory of operation of integrated circuits, solid state lasers, switching devices, and negative conductance microwave devices. PRQ: ELE 335 or consent of department.

432. SEMICONDUCTOR DEVICE FABRICATION LABORATORY (3). Design and fabrication of active semiconductor devices. Laboratory exercises include artwork and pattern generation, mask making, oxidation, photolithographic processing, diffusion, metallization, and device testing. PRQ: Consent of department.

433. DESIGN OF GALLIUM ARSENIDE INTEGRATED CIRCUITS (3). Fundamentals of GaAs devices and logic families; fabrication processes; physical layout for VLSI circuits; interconnection and testing of high speed systems. PRQ: ELE 335 or consent of department.

434. SEMICONDUCTOR MATERIAL AND DEVICE CHARACTERIZATION (3). Study of fundamentals and principles of semiconductor material properties with applications to device characterization. Modern measurement techniques of semiconductor industry including electrical, optical, chemical, and physical methods. PRQ: ELE 335 or consent of department.

435. INTEGRATED CIRCUIT ENGINEERING (3). Basic theory of integrated circuits including MOS processing technology. Principles of layout design, simulation, and design rule checking of large-scale integrated circuits. Introduction to design tools and techniques including utilization of available design software packages. Requirements include the design, simulation, and layout of an integrated circuit to the point of mask generation. PRQ: ELE 250 and ELE 330, or consent of department.

436. ANALOG MOS VLSI ENGINEERING (3). Introduction to analog MOS (nMOS and CMOS) circuits. MOS transistor as both a switch and a linear device. Different MOS circuits such as amplifiers, switches, comparators, sensors, D/A-A/D converters, multipliers, and neural networks. PRQ: ELE 330 or consent of department.

437. HYBRID CIRCUIT DESIGN (3). Lecture/laboratory course covering thick film processing techniques as they apply to the design and fabrication of miniature electronic circuits. Topics include minimum design rules, design of electronic components, artwork generation, screen preparation, screen printing, drying and firing profiles, and trimming. PRQ: ELE 360 or consent of department.

438. THIN FILM ENGINEERING (3). Lecture/laboratory course designed to demonstrate theory and principles of thin film processing including vacuum processing and deposition techniques. Topics include resistive evaporation, DC sputtering, RF sputtering, ion beam sputtering, electron beam evaporation, methods of achieving vacuum, and measurement techniques. PRQ: ELE 335 or consent of department.

440. POWER ELECTRONICS (3). Introduction to concepts involved with switch mode power electronic circuits. Analysis of basic circuit topologies including AC/DC, DC/DC, and DC/AC converters. Discussion of desired outputs of these circuits, as well as undesired components such as harmonies and ripple. PRQ: ELE 330 and ELE 340, or consent of department.

441. ELECTRIC DRIVES (3). Advanced discussion of different types of electric motors under various load conditions. Application of power electronic drives to electric motors. Topics include DC drives, AC induction motor drive, and AC synchronous motor drives. Efficiency and harmonic effects discussed for each drive system. PRQ: ELE 330 and ELE 340, or consent of department.

450. DIGITAL DESIGN WITH HDL (3). Design, simulation, and synthesis of digital circuits and systems using Verilog HDL or VHDL. Topics include digital design methodologies, finite state automata, behavioral models, structural design, finite state machines and datapath controllers, and algorithms and architectures for digital signal processors. Includes a term project to design, simulate, and synthesize a digital circuit/system. PRQ: ELE 250 and CSCI 240, or consent of department.

451. DIGITAL FILTER DESIGN (3). Difference equations, z-transform, Fourier representation of sequences, discrete-time system transfer functions, infinite impulse response discrete-time filters design. Includes implementation considerations and computer aided filter design. Practical examples and computer simulations. PRQ: ELE 315 or consent of department.

452. REAL-TIME DIGITAL SIGNAL PROCESSING (3). In-depth presentation of the use of single-chip programmable signal processors. Hardware design aspects of digital signal processing (DSP) systems, architectural issues, and fixed versus floating pointing representations for implementing DSP algorithms. Applications to speech processing, adaptive filtering, and telecommunications. PRQ: ELE 356 and ELE 451, or consent of department.

454. INTRODUCTION TO DIGITAL IMAGE PROCESSING (3). Principles, techniques, and algorithms for enhancements of degraded images, compression of pictorial information, recognition of patterns in scenes, reconstruction of a picture from projections, and descriptions of objects in a scene. PRQ: CSCI 240 and consent of department.

455. COMPUTER SYSTEM ARCHITECTURE (3). Register transfer and micro-operation, basic computer organization and design; central processing unit; micro-programmed control; pipeline and vector processing; computer arithmetic; input/output organization, and memory organization. PRQ: ELE 250 or consent of department.

456. INTRODUCTION TO PATTERN RECOGNITION (3). Theory and design of pattern recognition systems. Topics include pattern recognition and perception, non-parametric decision theoretical classification, statistical discriminant functions, Fisher's approach, unsupervised learning systems (clustering) and their performance, and neural networks for pattern recognition. PRQ: CSCI 240 or CSCI 241, ELE 350, and STAT 350 or IENG 335, or consent of department.

457. MICROPROCESSOR (3). Analysis of computer logic systems. Topics include parallel and serial I/O ports, memory interface, I/O interface, and interrupt interface. PRQ: ELE 356 or consent of department.

461. SYNTHESIS OF ACTIVE AND PASSIVE FILTERS (3). Principles of network synthesis are introduced. Synthesis techniques are used to design active and passive filters. PRQ: ELE 360 or consent of department.

464. SYSTEM DESIGN UTILIZING ANALOG INTEGRATED CIRCUITS (3). Basic theory for the utilization of special purpose integrated circuit amplifiers in application specific to circuit designs, including special differential and operational amplifier circuits. PRQ: ELE 330 or consent of department.

470. MICROWAVE CIRCUITS AND DEVICES (3). Wave equation; microwave waveguides and components; solid-state devices and circuits; microwave integrated circuits; microwave test equipment and laboratory measurements. PRQ: ELE 370 or consent of department.

471. LIGHTWAVE ENGINEERING (3). Theory, analysis, and design of opto electronic communication techniques. Multi-mode and mono-mode optical fibers examined for loss, dispersion, and practical considerations. Optical receiver, transmitter, and repeaters presented with an introduction to optical signal processing. PRQ: ELE 335, ELE 360, and ELE 370, or consent of department.

474. TRANSMISSION LINE MEDIA AND WAVE PROPAGATION (3). Theory and applications of various transmission line media such as two-wire, coaxial, stripline, and microstrip lines. Principles of wave propagation in freespace and waveguides. Distributed circuits and impedance matching using the Smith chart approach. PRQ: ELE 370 or consent of department.

475. ANTENNA THEORY AND DESIGN (3). Fundamentals of electromagnetic radiation from wire and aperture-type antennas; applications of field equivalence principles to aperture radiation; receiving antennas and noise evaluation of communication systems; antenna test equipment and measurement techniques. PRQ: ELE 370 or consent of department.

477. ADVANCED MICROWAVE AND MILLIMETER WAVE ENGINEERING (4). Analysis of various transmission-line media, including rectangular and circular waveguides, dielectric waveguides, finlines, and microstrip transmission lines; microwave/millimeter wave passive and active components; theory and design of integrated circuits, such as receiver front-ends; application of microwave systems and measurement techniques. PRQ: ELE 370 or consent of department.

480. CONTROL SYSTEMS II (3). Design and compensation of feedback control systems. State-variable approach to the analysis and design of feedback control systems. Use of digital controllers in modern control systems. PRQ: ELE 380 or MEE 322, or consent of department.

481. DIGITAL CONTROL SYSTEMS (3). Introduction to digital and sampled-data control systems. Analysis and design of digital systems using z-transform and state-space methods. Study of the effects of quantization and sampling on stability and performance. PRQ: ELE 480 or consent of department.

530. ADVANCED INTEGRATED CIRCUIT ENGINEERING (3). Design of large integrated circuits explored at transistor, gate, and register subsystem level. Mathematical abstractions related to parasitic effects and discussion of physics layout complications. PRQ: ELE 435 or consent of department.

531. VLSI ENGINEERING: COMPUTER-AIDED DESIGN (3). Creative use of design aids in parameter extraction, schematic capture, chip layout, channel routing, and maze routing multilevel simulation. Artwork generation and verification. PRQ: ELE 435 or consent of department.

532. VLSI ENGINEERING: DEVICE DESIGN (3). Special design considerations of NMOS, COMS, and bipolar technologies. Topics include device simulation, application of graph theory to chip layout, design rules and validation techniques, and strategies for layout of microcells and macrocells. PRQ: ELE 530 or consent of department.

533. VLSI ENGINEERING: CHIP DESIGN (3). Complete design of integrated circuits in MOS and bipolar technologies. Designs evaluated by computer simulation with the computer results utilized in an iterative manner to optimize circuit design prior to mask generation. PRQ: ELE 532 or consent of department.

534. INTEGRATED CIRCUIT DESIGN FOR TESTABILITY (3). Current methodologies and techniques for design of VLSI systems are introduced. Topics include the introduction to integrated circuit design; modeling integrated circuits at functional, structural, and physical levels; fault modeling and fault detection; testing; design for testability; built-in self test; and test pattern generation. PRQ: ELE 435 or consent of department.

535. ADVANCED ELECTRONIC DEVICES (3). Theory, analysis, and design of advanced electronic devices such as metal semiconductor field effect transistors, modulation doped field effect transistors, heterojunction bipolar transistors, and quantum well devices. PRQ: ELE 335 or consent of department.

536. DESIGN OF MICROSYSTEMS (3). Theory, analysis, and design of micro-electro-mechanical systems. Topics include fabrication process of micro and nano-devices; electrical, mechanical, magnetic and thermal properties of micro and nanostructures; and analysis of newly developed nanostructures. PRQ: ELE 335 and ELE 330, or consent of department.

537. THIN FILM RESISTIVE SENSORS (3). Analysis and design of resistive sensors and capacitive sensors. Includes anisotropic magnetoresistors (AMR), giant magnetoresistors (GMR), thermistors, humidity sensors, and mass flow sensors. PRQ: ELE 335 and ELE 370; or consent of department.

540. ADVANCED POWER ELECTRONICS (3). Discussion of advanced topics involved with switch mode power electronic circuits. Topics include switching characteristics of power semiconductor devices, resonant converters, and soft-switching converters. Advanced techniques for the modeling and control of power electronic circuits. PRQ: ELE 440.

550. DIGITAL SIGNAL PROCESSING (3). Theory and computer realization of digital signal processing. Fourier and z-transform hardware and software implementation of digital filters. Discrete Butterworth and Chebyshev filters. FIR, IIR, and linear phase filters. Effects of finite word length in fixed and floating-point arithmetic. PRQ: ELE 315 or consent of department.

551. RANDOM SIGNAL PROCESSING (3). Statistical description of discrete and continuous signals in communication. Power spectrum analysis. Applications to filtering and interpolation problems. Detection and extraction of signals in noise background based on statistical decision theory. PRQ: ELE 360 or ELE 550, or consent of department.

553. DIGITAL SPEECH PROCESSING (3). Principles, techniques, and algorithms for speech signals. Emphasis on the representation of speech signals in digital form, the implementation of sophisticated processing techniques, and the classes of applications which rely heavily on digital processing. PRQ: ELE 551 or consent of department.

554. ADVANCED TOPICS IN DIGITAL IMAGE PROCESSING (3). Advanced treatment of image processing techniques; linear and nonlinear image restoration, image segmentation, image enhancement, image encoding, feature description, and image understanding; and related computer projects. PRQ: ELE 454 or consent of department.

555. MICROPROCESSOR SYSTEM DESIGN (3). Principles and techniques required to design a microprocessor-based electronic system by treating the microprocessor as a component of the overall system. Hardware design aspects of systems including buses, memory system design, I/O, interrupts, DMA, and memory management will be examined. PRQ: ELE 457 or consent of department.

556. PATTERN RECOGNITION (3). Principles of approaches currently employed in pattern recognition; nonparametric classification, clustering analysis, nonsupervised learning, dimensionality reduction, feature extraction, shape recognition, curve fitting, polygon clipping, and graphic display generation. PRQ: CSCI 230 or consent of department.

557. PARALLEL PROCESSING (3). Fundamental concepts of parallel processor organization. Development of basic algorithms suitable for such systems. Parallel sorting and interconnection networks. Applications and discussion of specific processors. PRQ: Consent of department.

558. ARTIFICIAL INTELLIGENCE (3). Methodology in the design of a knowledge-based system using LISP or other appropriate computer language. Subjects and strategies including information base, forward chaining, testing and debugging, and dedicated hardware. Stages from initial problem definition to system implementation will be discussed. PRQ: Consent of department.

559. ADAPTIVE SIGNAL PROCESSING (3). The adaptive transversal filter with least mean square algorithm introduced and compared with frequency-domain and lattice algorithms. Applications to modeling and system identification, inverse modeling, deconvolution, equalization, adaptive noise canceling, and adaptive array. Practical examples and computer simulations. PRQ: ELE 551 or consent of department.

560. DIGITAL AND ANALOG COMMUNICATION SYSTEMS (3). Theory of digital communication systems including digital transmission of analog systems. Digital communication in the presence of noise and the use of error correcting codes. PRQ: ELE 360 or consent of department.

561. ERROR CONTROL CODING (3). Fundamentals of coding theory digital communications. Topics include finite fields, linear block codes, convolutional codes, and parallel concatenated codes. Design and implementation for a digital communication system. PRQ: ELE 360 or consent of department.

562. OPTICAL COMMUNICATION (3). Fundamentals of the propagation of optical beams in various media. Theory and applications of optical resonators. Laser oscillation and modulation techniques of laser beams. Optical detection and noise in optical systems. Two-laser optical systems and phase conjugate optics. PRQ: ELE 335 and ELE 360, or consent of department.

564. SPREAD SPECTRUM COMMUNICATION SYSTEMS (3). Concepts of spread spectrum digital communication and frequency hopped communication systems, including code tracking loops, synchronization of the receiver spreading code, and binary shift register sequence. PRQ: ELE 560 or consent of department.

571. MICROWAVE INTEGRATED CIRCUITS (3). Analysis and design of microwave/millimeter wave integrated circuits using various transmission-line media, such as microstrips, finlines, and dielectric waveguides. “Supercompact” will be used as a design tool. PRQ: Consent of department.

572. MICROWAVE SOLID-STATE DEVICES AND CIRCUITS (3). Theory of operation of passive and active microwave devices including beamlead detector and mixer diodes, switching and varactor diodes, Gunn and IMPATT diodes; use of these devices in various microwave circuits, such as receiver front-ends, Gunn and IMPATT oscillators, and voltage-controlled oscillators. Design of practical microwave/millimeter wave circuits. PRQ: Consent of department.

580. MICROPROCESSOR SENSORS AND CONTROL SYSTEMS (3). Application of microprocessors to various sensors including temperature, pressure, flow, and moisture measurements. Development of microprocessor based control systems. Includes laboratory experiments in microprocessor interface techniques. PRQ: ELE 380 or MEE 322, or consent of department.

581. STATE SPACE ANALYSIS (3). Study of linear systems emphasizing state space analysis. Topics include signals and signal representation, mathematic description of continuous and discrete systems, matrices and linear spaces, state variables and linear continuous systems, state variables and linear discrete systems, system controllability and observability, and introduction to stability theory. PRQ: ELE 480 or consent of department.

582. NONLINEAR CONTROL SYSTEMS (3). Study of the methods used for the analysis and design of nonlinear feedback control systems. Emphasis on the phase-plane method, numerical techniques, describing functions, and the methods of Lyapunov. PRQ: ELE 480 or consent of department.

583. COMPUTERIZED CONTROL AND MODELING OF AUTOMATED SYSTEMS (3). Study of computerized control in automated systems for industries, emphasizing digital controllers and linear quadratic controllers (LQC). Topics include introduction to computer control, digital controller design, command generation for process control, process modeling, optimal design methods, finite-wordlength effects, and case studies. PRQ: ELE 480 or consent of department.

584. OPTIMUM CONTROL SYSTEMS (3). Introduction to the basic theory and methods for the optimization of control system problems. Topics include matrix calculus, optimization with and without constraints, calculus of variations, dynamic programming with applications, optimal control of continuous and discrete systems, state estimation, and Kalman filters with electrical engineering applications. PRQ: ELE 481 or consent of department.

585. CONTROL LAWS AND STRATEGIES FOR MULTI-LINK MANIPULATORS (3). Study of servo control for manipulators, emphasizing various control schemes currently active in the robotic field. Topics include single-link control, kinematics and dynamics of multi-link manipulators, computed torque technique, variable-structure control, nonlinear feedback control, resolved motion control, adaptive control, and force control. PRQ: ELE 480 or consent of department.

587. FUZZY LOGIC IN ENGINEERING (3). Study of fuzzy logic with emphasis on its engineering applications. Topics include classical and fuzzy sets, classical and fuzzy relations, membership functions, fuzzy-to-crisp conversions, fuzzy arithmetic, classical and fuzzy logic, fuzzy rule-based systems, fuzzy control systems, and other engineering applications. PRQ: Consent of department.

589. INTRODUCTION TO NEURAL NETWORKS (3). Study of neural networks with an engineering application emphasis. Topics include feedforward neural networks, single layer feedback neural networks, supervised and unsupervised learning, and associative memories, as well as topics related to intelligent systems such as genetic algorithms.

597. INDEPENDENT STUDY (1 to 3). Independent pursuit of advanced problems in electrical engineering under faculty supervision. Written report required. May be repeated to a maximum of 3 semester hours. PRQ: ELE 590 or consent of department.

598. SPECIAL TOPICS IN ELECTRICAL ENGINEERING (1 to 3). A. Biomedical Engineering
B. Microelectronics
C. Power Electronics
D. Computer Engineering
E. Communications Engineering
G. Electromagnetics
J. Control Systems
K. Digital Signal Processing
Advanced study of electrical engineering topics offered in a regular class format. May be repeated to a maximum of 3 semester hours in each topic, but combined semester hours taken in all 400-level courses, ELE 597, and ELE 598 may not exceed 12 semester hours. PRQ: Consent of department.

599A. MASTER'S THESIS (1 to 6). May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

599B. MASTER'S PROJECT (1 to 3). May be repeated to a maximum of 3 semester hours. PRQ: Consent of department.

650. MODERN SIGNAL PROCESSING ALGORITHMS AND APPLICATIONS (3). Study of modern signal processing algorithms and their applications. Algorithms to be investigated include fast signal processing algorithms, neural networks, higher-order spectrum analysis, wavelet analysis, and other emerging signal processing techniques. Example application areas are biomedical signal processing, signal representation and data compression, telecommunications, and speech processing. PRQ: ELE 550 and ELE 551, or consent of department.

656. ADVANCED TOPICS IN PATTERN RECOGNITION (3). Advanced treatment of pattern recognition techniques; clustering analysis and nonsupervised learning, symbolic representation, pictorial shape analysis and recognition, graphics and image understanding. PRQ: ELE 556 or consent of department.

Department of Industrial Engineering (IENG)

Interim Chair: Dennis V. Stoia

Graduate Faculty

Ehsan Asoudegi, assistant professor, Ph.D., West Virginia University
Nourredine Boubekri, professor, Ph.D., University of Nebraska
Omar Grayeb, assistant professor, Ph.D., New Mexico State University
Murali Krishnamurthi, associate professor, Ph.D., Texas A&M University
Richard L. Marcellus, associate professor, Ph.D., University of Michigan
Reinaldo Moraga, assistant professor, Ph.D., University of Central Florida
Regina Rahn, assistant professor, Ph.D., University of Illinoi

Master of Science in Industrial Engineering

The Department of Industrial Engineering offers an M.S. degree with a major in industrial engineering. Students may choose to pursue the degree culminating in a thesis (to develop research abilities in industrial engineering), or in a project (to prepare for advanced practice in industrial engineering). Industrial engineers are employed in a broad variety of organizations, including manufacturing industries, utilities, transportation, health care systems, financial institutions, and all levels of government agencies. Students with a baccalaureate degree in engineering or science or other disciplines are encouraged to consider graduate study in industrial engineering.

At the discretion of the department, a maximum of 9 semester hours of graduate-level credit from other accredited institutions may be accepted for graduate credit towards the requirements of the degree.

Requirements

The student must submit to the department, with the help of a faculty adviser, a program of courses which must be approved by the student's graduate committee.

The student must complete at least 31 semester hours of graduate-level course work of which at least 50 percent must be in 500- and 600-level courses, excluding IENG 599A or IENG 599B.

If a student has completed a 400-level course for undergraduate credit at NIU with a grade of B or better, that course may not be retaken for graduate credit to be applied to the M. S. program in industrial engineering.

Students in this program may apply 12 semester hours of courses earned in a certificate of graduate study from any department in the College of Engineering and Engineering Technology. The program requires proficiency in statistics and computer programming. To achieve this proficiency, students must have course work in statistics and computer programming such as IENG 335, STAT 350, or UBUS 223, as well as CSCI 240 or OMIS 351 or alternatives approved by the department chair.

Thesis Option

Complete 1 semester hour of IENG 595, Graduate Seminar, 12 semester hours of industrial engineering courses, 12 semester hours of any College of Engineering and Engineering Technology graduate course work, and 6 semester hours of thesis, IENG 599A, on a topic approved by the student's graduate committee. The thesis must be satisfactorily defended at an oral examination. A portion of the research required by IENG 599A may be performed in off-campus facilities if approved by the student's graduate committee.

Non-Thesis Option

Complete 1 semester hour of IENG 595, Graduate Seminar, 18 semester hours of industrial engineering courses, including 1 - 3 semester hours of graduate project, IENG 599B, on a topic approved by the student's adviser, and 12 semester hours of any College of Engineering and Engineering Technology graduate courses.

Integrated B.S./M.S. Sequence

This plan is open to all industrial engineering majors who have finished at least 90 semester hours of undergraduate work and have a cumulative GPA of at least 3.00. When students enter the integrated sequence, they must formulate a detailed plan to study and work closely with a faculty adviser throughout the program. Failure to do so could delay graduation.

Students in this sequence must satisfy all the requirements of the undergraduate industrial engineering curriculum with the exception that 9 semester hours of industrial engineering technical course work, listed in the Undergraduate Catalog under the heading "Technical Courses," may be taken for graduate credit. These technical courses taken for graduate credit must be taken during the student's final undergraduate semester. Students must also satisfy all the requirements for the M.S. degree with a major in industrial engineering. The sequence may terminate with a B.S. degree only, but only if all the requirements for that degree have been met.

Certificates of Graduate Study

Courses taken to meet the requirements of any certificate offered in the College of Engineering and Engineering Technology may be applied toward an M.S. degree in industrial engineering as long as all the other requirements of the degree are met.

Integrated Manufacturing Systems (12)

A course of study that develops expertise in design and control of integrated manufacturing systems.

Four of the following (12)
IENG 440 - Production Planning and Control (3)
IENG 450 - Integrated Manufacturing Systems (3)
IENG 460 - Facilities Planning and Design (3)
IENG 480 - Simulation Modeling and Analysis (3)
IENG 482 - Engineering Information Systems (3)
IENG 540 - Advanced Production and Inventory Control (3)
IENG 550 - Advanced Manufacturing Systems (3)

Quality Control of Maufacturing Processes (12)

A course of study that develops expertise in statistical process control and reliability analysis.

Four of the following (12)

IENG 430T - Quality Control (3)
IENG 431 - Reliability Engineering (3)
IENG 455 - Manufacturing Metrology (3)
IENG 530 - Advanced Quality Control (3)
IENG 531 - Advanced Reliability Engineering (3)

Course List

410. HUMAN FACTORS ENGINEERING (3). Introduction to the principles of human-machine systems, human error, auditory systems, and visual systems. Analysis of psychomotor skills, speech communications, and control-display relationships. PRQ: PHYS 250A and IENG 335 or STAT 350 or UBUS 223, or consent of department.

430T. QUALITY CONTROL (3). Importance of quality; statistical concepts relevant to process control; control charts for variables and attributes; process capability analysis; acceptance sampling plans for variables and attributes. PRQ: IENG 334 or IENG 335 or STAT 350 or UBUS 223, or consent of department.

431. RELIABILITY ENGINEERING (3). Reliability analysis for the design, implementation, and operation of engineering systems, processes, and products. Fault trees, lifetime distributions, life testing, availability, and maintainability. PRQ: IENG 334 or IENG 335 or STAT 350, or consent of department.

435. EXPERIMENTAL DESIGN FOR ENGINEERING (3). Statistical techniques for designing and analyzing relationships among variables in engineering processes. Engineering applications of analysis of variance (ANOVA), factorial design, and fractional factorial design. PRQ: IENG 334 and IENG 335, or consent of department.

436. APPLIED REGRESSION ANALYSIS FOR ENGINEERING (3). Statistical techniques for modeling, designing, and investigating relationships among variables in engineering processes. Engineering applications of linear regression with one predictor variable, multiple linear regression, and forecasting and time series analysis. PRQ: IENG 334 and IENG 335.

440. PRODUCTION PLANNING AND CONTROL (3). Analysis, design, and management of production systems. Topics include productivity measurement, forecasting techniques, project planning, line balancing, inventory systems, aggregate planning, master scheduling, operations scheduling, and modern approaches to production management such as just-in-time production. PRQ: IENG 335 or STAT 350 or UBUS 223, or consent of department. CRQ: IENG 370 or OMIS 327, or consent of department.

442. ENGINEERING PROJECT MANAGEMENT (3). An integrated approach to the management of engineering and high-technology projects that addresses the entire life cycle of the project including project initiation, organization, planning, implementation, control, and termination. Focus on human resources and the use of quantitative methods for project evaluation, scheduling, resource allocation, cost control, contract selection, risk management, and project quality management. PRQ: MATH 230 or consent of department.

450. INTEGRATED MANUFACTURING SYSTEMS (3). Introduction to automation. Detroit automation, computer-aided manufacturing (CAM), group technology, flexible manufacturing systems, and production systems for manufacturing support. Applications of these concepts using the FMS laboratory. PRQ: MEE 330 and MEE 331 or IENG 350, or consent of department.

451. EXPERT SYSTEMS IN ENGINEERING (3). Basic concepts and techniques of expert systems as well as the applications of expert systems in engineering. Primary topics include expert systems building tools and languages, a review of expert systems in engineering, and building expert systems for engineering problems. PRQ: CSCI 240 or consent of department.

452. INDUSTRIAL ROBOTICS (3). Fundamentals of robotics and robotic applications. Topics include manipulator kinematics and dynamics, performance characteristics of robots, robot programming, robotic work cell design, and application of robots in industry. PRQ: MEE 211 or consent of department.

453. INTEGRATED PRODUCT AND PROCESS DESIGN (3). Concurrent engineering, product design and development strategies, correlation between functional specifications and process capabilities, design for manufacturability, and the economics of product design and development. Topics include design and analysis of special tooling, jigs, fixtures, and dies for cost efficiency. PRQ: IENG 350 and MEE 270, or consent of department.

455. MANUFACTURING METROLOGY (3). Study of the concepts, theories, and techniques of automated inspection. Topics include dimensional measurement, in-process measurement and control, coordinate measuring machines, automated visual inspection, quality control, and process capability analysis. PRQ: IENG 334 or IENG 335 or STAT 350, or consent of department.

460. FACILITIES PLANNING AND DESIGN (3). Principles and practice of the planning of facility layout and material handling equipment for manufacturing and service systems. Topics include analytical approaches in site location, facility layout, material handling, and storage systems. Discussion of systematic procedures and computer-aided techniques. PRQ: IENG 370 or consent of department. CRQ: IENG 350 or consent of department.

472. QUEUEING METHODS FOR SERVICES AND MANUFACTURING (3). Behavior of queueing systems, focusing on mathematical models, and diagnosis and correction of problems. Arrival process, service policies, waiting line disciplines, bottlenecks, and networks. Reducing delay through control and design. PRQ: IENG 371 or consent of department.

475. DECISION ANALYSIS FOR ENGINEERING (3). Elementary quantitative decision making when random factors are present. Decision trees, assessment of choices using expected utility, influence diagrams, and the value of information. PRQ: IENG 334 or IENG 335 or STAT 350 or UBUS 223, or consent of department.

480. SIMULATION MODELING AND ANALYSIS (3). Design and analysis of industrial systems using computer simulation models. Choice of input distributions, generation of random variates, design and construction of simulation models and experiments, and interpretation of generated output. PRQ: MATH 211 and UBUS 223, or IENG 334 and IENG 335, or STAT 350, and CSCI 240, and IENG 371; or consent of department.

482. ENGINEERING INFORMATION SYSTEMS (3). Basic concepts, design, development, and the use of engineering information systems. Topics include architecture and components of engineering information systems, problem analysis, modeling, design, development, and validation of application systems. Theoretical and practical issues related to manipulation of engineering information and design of queries. Examples of engineering information systems. PRQ: CSCI 240 or OMIS 351, or consent of department.

498. CONTEMPORARY TOPICS IN INDUSTRIAL ENGINEERING (1 to 3). May be repeated to a maximum of 9 semester hours, with no more than 3 hours in the same topic area. PRQ: Consent of department.

520. ECONOMIC ANALYSIS OF INDUSTRIAL PROJECTS (3). Advanced topics in engineering economic analysis including equipment replacement studies, purchases versus lease problems, project selection under budgetary and other resource constraints, mathematical programming formulations for economic optimization under constraints, statistical methods of dealing with uncertainty, evaluation for sequential decisions, portfolio selection, and multiple attributes. Knowledge of probability and statistics and economic analysis is required. PRQ: Consent of department.

530. ADVANCED QUALITY CONTROL (3). Advanced theory, principles, and procedures of statistical quality control. Mathematics of sampling plans. Acceptance sampling plans by variables. Rectifying control procedures, continuous sampling plans, cumulative sum control charts, special procedures. PRQ: IENG 430T or consent of department.

531. ADVANCED RELIABILITY ENGINEERING (3). Statistical analysis of failure distributions. Application of stochastic models for failure based on Poisson and related processes. Use of exponential and extreme value distributions in reliability. Use of Markov process in the areas of equipment reliability, maintenance, and availability. Advanced reliability evaluation techniques. PRQ: IENG 431 or consent of department.

535. ADVANCED EXPERIMENTAL DESIGN FOR ENGINEERING (3). Advanced statistical techniques for designing and optimizing experiments. Engineering applications of two-level factorial designs, two-level fractional factorial designs, optimum seeking, response surface methodology, experiments with mixtures, and mixture design. PRQ: IENG 435 or consent of department.

540. ADVANCED PRODUCTION AND INVENTORY CONTROL (3). Single and parallel-machine sequencing. Job shop and flow shop scheduling. Mathematical theory of single and multicommodity inventory systems. Production planning for static and dynamic models. Mathematical modeling approach toward forecasting. PRQ: STAT 350 and IENG 571, or consent of department.

550. ADVANCED MANUFACTURING SYSTEMS (3). Advanced topics in computer-integrated manufacturing. Major topics include advanced manufacturing processes, geometric modeling, design for manufacture, computer-aided part programming, computer-aided process planning, communication networks, and flexible manufacturing systems. Applications of these concepts using the manufacturing laboratory. PRQ: IENG 450 or consent of department.

551. INTELLIGENT MANUFACTURING SYSTEMS (3). Application of artificial intelligence (AI) techniques to manufacturing. Major topics include heuristic search techniques, knowledge representation of manufacturing entities, and control and expert systems in manufacturing. Current research issues also addressed. PRQ: IENG 451 or consent of department.

561. MODERN MATERIAL HANDLING SYSTEMS (3). Analysis for design and operations of material handling systems (MHS), with emphasis on automation. Presentation of features, applications, and economics of MHS using analytical models and simulation. Experimentation using FMS laboratory. PRQ: IENG 480 and IENG 450, or consent of department.

571. LINEAR PROGRAMMING AND NETWORK FLOWS (3). Formulation and solution techniques for linear programming and network flow problems. Simplex method, theory, and computation. Duality theory, sensitivity analysis. Maximum flow minimum cut theorem. Shortest routes, minimum cost flows. PRQ: IENG 370 or consent of department.

572. NONLINEAR PROGRAMMING (3). Theory and algorithms for optimization of nonlinear programs. Convex sets and functions, necessary and sufficient optimality conditions, constraint qualifications, duality theory, algorithms for quadratic programming, and linear complementary problems. Methods of direct search, Newton, gradient projection, feasible direction, and reduced gradient. PRQ: IENG 571 or consent of department.

573. QUEUEING SYSTEMS (3). Introduction to queueing processes and their applications. The M/M/S and M/G/I queues. Queue length, waiting line, busy period. Queueing networks. PRQ: IENG 472 or consent of department.

574. DYNAMIC PROGRAMMING (3). Techniques of recursive optimization and their applications to multistage deterministic and stochastic problems from different fields. Problem formulation, computational aspects, and dimensionality reduction. PRQ: IENG 571 and STAT 350, or consent of department.

575. ADVANCED DECISION ANALYSIS FOR ENGINEERING (3). Application of statistical decision making to engineering, with emphasis on problems in industry and operations. PRQ: IENG 371 or consent of department.

576. DISCRETE OPTIMIZATION (3). Study of concepts, theories, and techniques of discrete optimization, both integer and combinatorial. Topics include polyhedral theory, theory of valid inequalities, computational complexity, polynomial algorithms, nonpolynomial algorithms, and nonexact algorithms. Applications include problems in graphs, networks, transportation, and scheduling. PRQ: IENG 370 or consent of department.

580. ADVANCED SIMULATION TECHNIQUES (3). Advanced simulation concepts; event scheduling, process interaction, and continuous modeling techniques. Design and analysis of simulation experiments; probability and statistics related to simulation such as length of run, probability distribution interference, variance reduction, and stopping rules. PRQ: IENG 480 or consent of department.

591. OCCUPATIONAL ERGONOMICS (3). Development and use of the human-machine model to establish the effects of interface design, environment, and work organization on the performance, safety, and health of the workforce. Topics include anthropometry, work physiology, biomechanics, environments (thermal, auditory, vibratory, and visual), and design of controls, display, and work spaces. PRQ: STAT 350 or consent of department.

595. GRADUATE SEMINAR (1). Techniques for planning, conducting, documenting, and presenting industrial engineering research. Requires attending lectures and discussions on current industrial engineering research. Should be taken during the first year of the graduate program. PRQ: Consent of department.

597. INDEPENDENT STUDY (1 to 3). Independent study and work to explore recent advances and innovative approaches to industrial engineering design, practice, and research. Written report required. May be repeated to a maximum of 3 semester hours. PRQ: Consent of department.

598. ADVANCED TOPICS IN INDUSTRIAL ENGINEERING (1 to 3). Advanced topics of contemporary interest. May be repeated to a maximum of 9 semester hours provided no repetition of subject matter occurs. PRQ: Consent of department.

599A. MASTER'S THESIS (1 to 6). May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

599B. GRADUATE PROJECT (1 to 6). Experience in the application of industrial engineering to real world systems through project work. May be repeated to a maximum of 6 semester hours. Written report required. Not available for credit in the thesis option. PRQ: Consent of department.

Department of Mechanical Engineering (MEE)

Chair: Shin-Min Song

Graduate Faculty

Anima Bose, adjunct associate professor, Ph.D., Kent State University
Brianno Coller, associate professor, Ph.D., Cornell University
Behrooz Fallahi, associate professor, Ph.D., P.E., Purdue University
Sengoda G. Ganesan, associate professor, Ph.D., P.E., Oklahoma State University
Jenn-Terng Gau, assistant professor, Ph.D., Ohio State University
Abhijit Gupta, associate professor, Ph.D., P.E., Pennsylvania State University
Meung J. Kim, associate professor, Ph.D., Virginia Polytechnic Institute and State University
Milivoje Kostic, associate professor, Ph.D., P.E., University of Illinois, Chicago
Pradip Majumdar, professor, Ph.D., Illinois Institute of Technology
Parviz Payvar, Presidential Teaching Professor, Ph.D., P.E., University of California, Berkeley
Scott Short, assistant professor, Ph.D., P.E., University of Dayton

Master of Science in Mechanical Engineering

The Department of Mechanical Engineering offers a program leading to the M.S. in mechanical engineering. The program is designed to stimulate creativity, to provide an in-depth understanding of the basic physical phenomena involved in mechanical systems, and to provide the student with the ability to use modern techniques in the analysis and design of mechanical components and systems.

Admission to the graduate program in mechanical engineering requires a baccalaureate degree in mechanical engineering or related areas such as physics, mathematical sciences, chemistry, computer science, and engineering disciplines. NIU undergraduate majors in mechanical engineering can, however, be admitted to the integrated B.S./M.S. sequence after finishing 90 semester hours with a GPA of at least 3.00.

Thesis Option

All students admitted to the M.S. program are initially classified as thesis option students. The thesis option is designed to prepare students for graduate work at the doctoral level or advanced engineering work in industry and focuses on original research techniques. The graduate program of study must include 6 semester hours of MEE 599, Master's Thesis, on a topic approved by the student's graduate committee. The thesis must be satisfactorily defended at an oral examination. Portions of the research work required in MEE 599 may be performed in off-campus facilities if approved by the student's graduate committee.

Non-Thesis Option

Students wishing to pursue the non-thesis option are required to petition the department's graduate committee upon admission to the major. The non-thesis option is designed for practicing professionals who wish to pursue advanced study in mechanical engineering culminating in the M.S. degree and who cannot pursue the traditional research experience of a thesis option. Students pursuing a M.S. degree under this option must earn a minimum of 33 semester hours of graduate credit including 3 semester hours of MEE 597, Independent Study, for a master's project resulting in significant original work which must be defended at an oral examination and presented in a written report.

Requirements for Graduates with a B.S. in Mechanical Engineering

Students must satisfy the following departmental requirements.

Submit to the department a program of graduate study approved by the student's graduate committee or the department.

Complete at least 30 (thesis option) or 33 (non-thesis option) semester hours of graduate work, not more than 30 percent of which may be in courses numbered 400-499. All courses taken outside the Department of Mechanical Engineering must have departmental approval in advance.

Complete MEE 592 and one of the following: MEE 480, MEE 511, MEE 515, MEE 558, or a mathematics course approved by adviser (6)

Complete two courses from one of the following groups (6)
- Applied Mechanics--MEE 510, MEE 511, MEE 512, MEE 513, MEE 514, MEE 516
- Dynamic Systems and Control--MEE 520, MEE 521, MEE 522, MEE 523, MEE 524, MEE 525, MEE 526
- Materials and Manufacturing--MEE 529, MEE 530, MEE 531, MEE 532, MEE 533, MEE 534
- Thermal-Fluid Engineering--MEE 540, MEE 542, MEE 550, MEE 555, MEE 556, MEE 558

The graduate program must include 6 semester hours of MEE 599, Master's Thesis, on a topic approved by the student's graduate committee or must include 3 semester hours of MEE 597, Independent Study, for a master's project plus additional 500-level MEE course work for 6 semester hours. Employed students may use topics and facilities from their work if approved.

Requirements for Graduates with a B.S. in an Area other than Mechanical Engineering

Students are required to fulfill all the requirements mentioned in the previous section. In addition, students with a B.S. degree in an area other than mechanical engineering are required to take at least three courses from one of the following groups depending on their chosen field of study. The department will stipulate the courses to be taken. A grade of B or better must be obtained in each of these courses.

Applied Mechanics--MEE 210, MEE 211, MEE 212, MEE 220, MEE 350, MEE 470
Dynamic Systems and Control--MEE 211, MEE 321, MEE 322 or ELE 380, MEE 421, MEE 422, MEE 424, MEE 425, MEE 470

Materials and Manufacturing--MEE 212, MEE 330, MEE 331, IENG 431 or IENG 450 or IENG 451, MEE 423, MEE 431, TECH 345 or TECH 441
Thermal-Fluid Engineering--MEE 340, MEE 350, MEE 351, MEE 352, MEE 451, MEE 452, MEE 453

Requirements for Integrated B.S./M.S. Sequence

This integrated sequence leads to both the B.S. and M.S. degrees in mechanical engineering and is available to all undergraduate mechanical engineering majors who have finished at least 90 semester hours of undergraduate work with a GPA of at least 3.00. A minimum GPA of 3.00 must be maintained during the course of study. Failure to meet the requirements of the integrated sequence may lead to a B.S. degree only, but only after all the requirements for that degree have been met.

All students enrolled in the integrated B.S./M.S. sequence must have their schedule approved by their faculty adviser each semester. Any deviation from the approved course schedule may delay graduation.

Students must complete all undergraduate required courses, including 9 semester hours of technical electives, all of which must be taken for graduate credit during the student's final undergraduate term.

Students must also complete 21 (thesis option) or 24 (non-thesis option) additional graduate semester hours, as follows.

MEE 592 and one of the following: MEE 511, MEE 515, MEE 558, or a mathematics course approved by adviser (6)
Course work in one of the following areas of study (6)
Applied Mechanics--MEE 510, MEE 511, MEE 512, MEE 513, MEE 514, MEE 516
Dynamic Systems and Control--MEE 520, MEE 521, MEE 522, MEE 523, MEE 524, MEE 525, MEE 526
Materials and Manufacturing--MEE 529, MEE 530, MEE 531, MEE 532, MEE 533, MEE 534
Thermal-Fluid Engineering--MEE 540, MEE 542, MEE 550, MEE 555, MEE 556, MEE 558
Additional 500-level course work with department approval (3)
MEE 599 - Master's Thesis (6),
OR 597- Independent Study (3) and additional 500-level MEE course work with department approval (6)

Certificates of Graduate Study

The Department of Mechanical Engineering offers several certificates of graduate study for students interested in pursuing short-term study focused on a technical area related to mechanical engineering. The certificates are ideally suited for graduate-level students interested in lifelong learning and in the advancement of their skills in an area of mechanical engineering. Credit earned for a certificate may be applied toward the M.S. degree in mechanical engineering with the approval of the department.

Applied Mechanics (12)

This certificate emphasizes the application of engineering mechanics to design and analysis of mechanical components and products.

MEE 410 - Intermediate Mechanics of Materials (3)
MEE 510 - Experimental Stress Analysis (3)
MEE 512 - Advanced Mechanics of Materials (3)
MEE 515 - Advanced Finite Element Methods (3)

Computer-Aided Design and Computer-Aided Manufacturing (12)

Course work for this certificate unifies the methods applied to design of products simultaneous with full consideration of manufacturing methods.

IENG 450 - Integrated Manufacturing Systems (3)
MEE 430 - Computer-Aided Design and Manufacturing (3)
MEE 531 - Computer-Aided Design of Mechanical Systems (3)
MEE 533 - Computer-Aided Manufacturing (3)

Design of Thermal Systems (12)

Course work for this certificate lays the theoretical foundations of design of thermal equipment and processes with applications to such areas as refrigeration, air conditioning, thermal design of electronic equipment, and numerical modeling of thermal-fluid systems.

MEE 451 - Refrigeration and Air Conditioning (3)
MEE 452 - Design of Thermal Systems (3)
MEE 556 - Convection Heat Transfer (3)
MEE 558 - Computational Heat Transfer and Fluid Mechanics (3)

Vibration and Control System Design (12)

Course work for this certificate focuses on laying the theoretical foundations of both vibrations and control and application to the design of components and systems.

MEE 421 - Dynamic Systems and Control II (3)
MEE 521 - Advanced Vibrations (3)
MEE 522 - Experimental Methods in Mechanical Vibrations (3)
MEE 526 - Advanced Control Systems Design (3)

Course List

410. INTERMEDIATE MECHANICS OF MATERIALS (3). Buckling, unsymmetric bending, transverse loading, curved beams, thick-walled cylinders and rotating disks, torsion of thin-walled tubes, contact stresses, plastic behavior, strain energy and Castigliano's theorem, strength theories and design equations, fatigue, and fracture. PRQ: MEE 212 and MATH 336. CRQ: MEE 380 or consent of department.

421. DYNAMIC SYSTEMS AND CONTROL II (3). Concepts of linear system theory; model analysis, Lagrange's Equations, approximate numerical methods for solving vibration problems, and Root-locus and frequency response design. State-space analysis. Case studies in control system design. PRQ: MEE 322 or ELE 380, or consent of department.

422. DESIGN OF ROBOT MANIPULATORS (3). Mathematics, programming, and control in the design of robot manipulators. Includes topics on kinematics, differential relationships and dynamics, motion trajectories, and control algorithms. PRQ: MEE 211 and MATH 336, or consent of department.

423. MECHANICAL RELIABILITY (3). Basic probability, statistics, and reliability concepts applicable to mechanical systems. Probabilistic treatment of loads, stress, strength, safety indices, and fatigue. Mechanical equipment reliability; wear-out; reliability-based design, testing, and maintenance. PRQ: MEE 212 and CRQ: MEE 470; or consent of department.

424. MACHINERY VIBRATION (3). Machinery vibration analysis: signature analysis in time and frequency domains, fault detection, diagnosis, and correction; instrumentation; case studies; machine monitoring programs. PRQ: MEE 322 or consent of department. CRQ: MEE 470 or consent of department.

425. DESIGN OF MOBILE ROBOTS (3). Configuration and architecture design. Position estimation, planning, and control. Perception and learning. Group capstone project in the design and development of a mobile robot. Lecture, discussion, and case studies of mobile robot design. PRQ: MEE 211 or TECH 375, or consent of department.

426. MECHATRONICS SYSTEM DESIGN (3). Use of computers embedded in mechanical systems, microcontrollers, real-time software, analog and digital world, sensors and actuators interfacing, electronics for mechatronics, measures of system performance, state transition logic and multitasking, mechatronics system design problems, advanced concepts and case studies of mechanical systems with embedded electronics. PRQ: ELE 215, ELE 380 or MEE 322, and CSCI 230 or CSCI 240, or consent of department.

430. COMPUTER-AIDED DESIGN AND MANUFACTURING (3). Computers for CAD/CAM; computer-aided design; numerical control, origin of CAM; industrial robots; group technology and process planning; computer control; computer-integrated manufacturing. PRQ: MEE 230 or CRQ: MEE 331; or consent of department.

431. COMPOSITE MATERIALS (3). Macromechanical behavior of a lamina; micromechanical behavior of a lamina; macromechanical behavior of a laminate; bending, buckling, and vibration of laminated plates. PRQ: MEE 212, MEE 330, and MEE 380, or consent of department.

451. REFRIGERATION AND AIR CONDITIONING (3). Refrigerants; vapor compression and absorption refrigeration systems; cryogenics; psychrometrics and humidity measurements; extended surface coils and transfer processes between moist air and water; solar radiation and heating and cooling loads of buildings and structures. PRQ: MEE 350 and MEE 352, or consent of department.

452. DESIGN OF THERMAL SYSTEMS (3). Application of principles of fluid mechanics, heat transfer, and thermodynamics in the component design of thermal systems. Examples drawn from power generations, environmental control, and industrial processes. Students work on group projects for integration of these components in the design of thermal systems. PRQ: MEE 350 and MEE 352, or consent of department.

453. PROPULSION (3). Aerodynamics and thermodynamics of gas turbine airbreathing and rocket engines; quasi-one-dimensional flow; ideal and real cycle analysis; component performance; engine operating off-design characteristics. PRQ: MEE 340 and MEE 350, or consent of department.

480. FINITE ELEMENT METHODS (3). Methods of weighted residual; variational methods of approximation; variational formulation; shape functions; finite element formulation; error analysis; computer implementation; applications to solid mechanics, dynamics, vibration, fluid mechanics, and heat transfer. PRQ: MEE 322, MEE 352, and MEE 380, or consent of department.

484. ADVANCED COMPUTING IN MECHANICAL ENGINEERING (3). Project-based course which combines engineering science with advanced computing, including a practical introduction to object-oriented programming, data structures, and other topics that facilitate programming-in-the-large in which students write a substantial portion of a vehicle dynamics simulation. PRQ: MEE 381 or consent of department. Recommended CRQ: MEE 481.

510. EXPERIMENTAL STRESS ANALYSIS (3). Elementary elasticity; brittle-coating methods; strain measurement methods and related instrumentation; photoelasticity; Moire methods; residual stress analysis. PRQ: MEE 490 or consent of department.

511. CONTINUUM MECHANICS (3). Vectors and tensors; stress; deformation; Eulerian and Lagrangian strain; physical laws; constitutive equations; solid mechanics; fluid mechanics. PRQ: Consent of department.

512. ADVANCED MECHANICS OF MATERIALS (3). Stress-strain-temperature relations; failure criteria; energy methods; torsion; nonsymmetrical bending; curved beams; flat plates; beams and elastic foundations; rotating discs; contact stresses. PRQ: MEE 470 or consent of department.

513. FATIGUE AND FRACTURE MECHANICS (3). Yielding; brittle fracture mechanics; plasticity induced fracture; fracture toughness; fatigue testing and analysis; stress concentration and notch sensitivity; low-cycle, corrosion, acoustic, and thermal fatigues. PRQ: MEE 512 or consent of department.

514. THEORY OF ELASTICITY AND APPLICATIONS (3). Plane stress and plane strain in rectangular, polar, and curvilinear coordinates; analysis of stress and strain in three dimensions; torsion of bars; bending of bars and plates; axisymmetric problems; thermal stress; propagation of waves in elastic solid media. PRQ: MEE 511 or consent of department.

515. ADVANCED FINITE ELEMENT METHODS (3). Methods of weighted residual and variational calculus; variational and finite element formulations for linear/nonlinear problems; h- and p-methods for convergence and error analyses; computer implementation and use of advanced available computer software; applications to solid mechanics, dynamics/vibration, fluid mechanics, and heat transfer. PRQ: MEE 480 or consent of department.

516. MECHANICAL BEHAVIOR OF COMPOSITES (3). Comprehensive treatment of laminated beams, plates, and tubes. Bending, buckling, and vibration analysis. Various orders of theory and their range of parametric applications with respect to designing with composites. Hygrothermal and residual stresses. PRQ: MEE 431 or consent of department.

520. ADVANCED DYNAMICS (3). Newtonian mechanics; analytical mechanics; rotating reference frames; rigid body dynamics; geometric theory; stability of autonomous and nonautonomous systems; perturbation techniques; transformation theory; gyroscope. PRQ: MEE 421 or consent of department.

521. ADVANCED VIBRATIONS (3). Advanced principles of dynamics; discrete and continuous systems; free and forced vibrations; damped and undamped system response; approximate methods; wave solutions for continuous systems; random vibrations. PRQ: MEE 421 or consent of department.

522. EXPERIMENTAL METHODS IN MECHANICAL VIBRATIONS (3). Random vibrations; vibration pick-ups; dynamic strain measurements; beam vibrations; response analysis; modal analysis. PRQ: MEE 521 or consent of department.

523. ROBOT VISION CONTROL (3). Generalized images; segmented images; geometrical structures; relational structures; robot machine vision systems. PRQ: MEE 422 or consent of department.

524. ROBOT DYNAMICS AND CONTROL (3). Motion trajectories; principles of rigid body dynamics; robot dynamics; digital control systems; control of multiple link manipulators. PRQ: MEE 422 or consent of department.

525. ROBOT PROGRAMMING AND CONTROL (3). Task descriptions; structured programming; teaching; compliance and control; high level of robot language. PRQ: MEE 422 or consent of department.

526. ADVANCED CONTROL SYSTEMS DESIGN (3). Review of conventional and modern control design using block-diagram-transfer function, state-variable method, pole placement technique, estimation, and robust control schemes; digital control system analysis and design; z-transform theory and digitization process; nonlinear control system design; describing functions, phase plane and Liapunav's stability criterion; control system design problems and case studies including open-ended hands-on design projects from current research topics. PRQ: MEE 421 or consent of department.

529. MATERIALS ENGINEERING IN MECHANICAL DESIGN (3). The engineering design process, engineering materials and their properties, materials selection charts, case studies, selection of material and shape, and aesthetics of designs. PRQ: Consent of department.

530. STRUCTURE AND PROPERTIES OF POLYMERS (3). Molecular structure of amorphous, crystalline, and network polymers; theories of the glassy state; transition and melt temperatures; model prediction of viscoelastic properties; time-temperature superposition principle; theory of rubber elasticity. PRQ: MEE 430 or consent of department.

531. COMPUTER-AIDED DESIGN OF MECHANICAL SYSTEMS (3). Finite element methods in structural analysis; computer-aided design of symmetric and asymmetric machine elements under dynamic, impulsive, and thermal loadings; computer graphics; computer analysis and animation of kinematics of linkages. PRQ: MEE 480 or consent of department.

532. TRIBOLOGY (3). Surface topography and integrity; sliding and rolling friction; temperature in sliding contact; types, mechanisms, and theories of wear; antifriction and wear resistant material; boundary, hydrodynamic, and elastohydrodynamic lubrication; high pressure and wear resistant additives; solid lubricant; examples of tribology applied engineering design. PRQ: Consent of department.

533. COMPUTER-AIDED MANUFACTURING (3). Manufacture of parts and assemblies; design for manufacturability; numerically controlled machine tools; robotics. PRQ: MEE 430 or consent of department.

534. EXPERIMENTAL METHODS IN MATERIALS SCIENCE (3). Structural evaluation of materials with X-ray techniques; scanning electron microscopy for image formation and use of column related techniques to characterize bulk specimens; transmission microscopy for image formation and defect analysis in materials science applications. PRQ: Consent of department.

540. ADVANCED FLUID MECHANICS (3). Kinematics of fluid flow; plane irrotational and incompressible fluid flows; Navier-Stokes equations; hydrodynamic stability; turbulence; two-dimensional boundary layers in incompressible flow; flow separation. PRQ: Consent of department.

542. DYNAMICS OF VISCOUS FLUIDS (3). Fundamentals of viscous fluid; Navier-Stokes equations; exact solutions, boundary layer equations and their physical interpretations; mathematical techniques of similarity transformations, integral methods, perturbation methods and numerical solutions. PRQ: MEE 540 or consent of department.

550. ADVANCED THERMODYNAMICS (3). Thermodynamic postulates and conditions of equilibrium; the Euler equation and the Gibbs-Duhem relations; Legendre transformations and the extreme principle; Maxwell relations; stability of thermodynamic systems; the Nernst Postulate; chemical reactions and combustion; chemical equilibrium; irreversible thermodynamics. PRQ: Consent of department.

555. CONDUCTION HEAT TRANSFER (3). Fundamentals of heat conduction; approximate and exact analytical methods; finite and semi-infinite bodies; one-dimensional composite media; phase change problems; nonlinear problems; heat transfer in anisotropic solids. PRQ: Consent of department.

556. CONVECTION HEAT TRANSFER (3). Conservation principles; laminar internal and external flows; natural convection; turbulent flow; heat transfer at high velocities; heat transfer through porous media; numerical methods in convection heat transfer. PRQ: Consent of department.

558. COMPUTATIONAL HEAT TRANSFER AND FLUID MECHANICS (3). Application of partial differential equations, finite difference methods, and finite element methods in heat transfer and fluid mechanics; stability analysis, convergence criteria, and accuracy of computational techniques. PRQ: Consent of department.

592. ADVANCED MECHANICAL ENGINEERING ANALYSIS (3). Calculus of variations for deformable bodies; Sturm-Liouville problems; LaGrange's equations and generalized dynamical entities; integral equations in mechanical engineering; Green's functions; theory of distributions; one dimensional boundary value problems; partial differential equations in mechanical engineering. Applications of heat, conduction and convection, fluid dynamics, and structural mechanics. PRQ: Consent of department.

597. INDEPENDENT STUDY (1 to 3). Independent pursuit of advanced problems in mechanical engineering under faculty supervision. A written report is required. May be repeated to a maximum of 3 semester hours. Combined credit in MEE 597 and MEE 598 may not exceed 3 semester hours. PRQ: Consent of department.

598. SPECIAL TOPICS IN MECHANICAL ENGINEERING (1 to 3). Advanced study of mechanical engineering topics. May be repeated to a maximum of 3 semester hours. Combined credit in MEE 597 and MEE 598 may not exceed 3 semester hours. PRQ: Consent of department.

599. MASTER'S THESIS (1 to 6). May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

Department of Technology (TECH)

Chair: Clifford R. Mirman

Graduate Faculty

Youakim Al-Kalaani, assistant professor, D.E.E.E., Cleveland State University
Abul Azad, assistant professor, Ph.D., University of Sheffield (United Kingdom)
Radha Balamuralikrishna, assistant professor, Ph.D., Iowa State University
Frank J. Gruber IV, associate professor, Ph.D., Michigan State University
Earl E. Hansen, associate professor, Ed.D., Oklahoma State University
Clifford R. Mirman, professor, Ph.D., University of Illinois, Chicago
Andrew W. Otieno, assistant professor, Ph.D., University of Leeds (United Kingdom)
Said Oucheriah, associate professor, Ph.D., P.E., Cleveland State University
Jule D. Scarborough, Distinguished Teaching Professor, Ph.D., Ohio State University
Xueshu Song, professor, Ph.D., P.E., Pennsylvania State University
James R. Stewart, associate professor, Ph.D., P.E., Texas A&M University
Dennis V. Stoia, associate professor, M.B.A., P.E., University of Chicago
Robert Tatara, visiting assistant professor, Ph.D., Northwestern University
Promod Vohra, professor, Ed.D., P.E., Northern Illinois University

Master of Science in Industrial Management

The Department of Technology offers graduate studies leading to the M.S. in industrial management. The objective of this graduate program is to build upon the competencies achieved at the baccalaureate level and to prepare students to assume managerial and leadership positions.

Admission to the graduate program in industrial management requires a baccalaureate degree in engineering, technology, or industrial education. Consideration may also be given to applicants with degrees in related areas who have appropriate industrial experience. Students should review the admission and graduate degree requirements in this catalog. Admission decisions are normally made within three weeks of receipt of the completed application.

A graduate faculty adviser is appointed for each student seeking a master's degree, and together they plan a program of courses leading to the degree.

A student pursuing the M.S. in industrial management must complete a minimum of 30 semester hours (31 for non-thesis option), at least 50 percent of which must be in 500- and 600-level courses.

The department requires proficiency in accounting prior to graduation. To achieve this proficiency, students must have course work in accounting fundamentals such as ACCY 206, ACCY 288, ACCY 505, or an alternative approved by the department chair.

If a student has completed a 400-level course for undergraduate credit at NIU with a grade of B or better, that course may not be retaken for graduate credit to be applied to the M.S. program in industrial management. However, the student may, with the approval of the adviser and department chair, substitute another graduate course to meet the requirements of an area of study.

Students in this program may apply no more than 6 semester hours of relevant course work from the following courses: TECH 598 (3), TECH 599A (1-6), TECH 609 (3), or any other practicums, independent studies, directed studies, internships, seminars, and workshop courses from any department within the university.

Requirements (30-31)

TECH 500 - Research in Industry and Technology (3)
One of the following areas of study (9)

- Engineering and Technology - Three graduate-level courses from the College of Engineering and Engineering Technology approved by adviser
- Manufacturing Systems - TECH 444 (3) or TECH 545 (3), and two of the following: TECH 420 (3), TECH 429 (3), TECH 440 (3), TECH 442 (3), TECH 443 (3), TECH 444 (3), TECH 545 (3), TECH 546 (3), TECH 547 (3), TECH 548 (3), TECH 549 (3)
- Safety - TECH 434 (3) or TECH 534 (3) and two of the following: TECH 432 (3), TECH 433 (3), TECH 434 (3), TECH 435 (3), TECH 436 (3), TECH 437 (3), TECH 438 (3), TECH 439 (3), TECH 481 (3), TECH 482 (3), TECH 483 (3), TECH 531 (3), TECH 533 (3), TECH 534 (3), TECH 535 (3), TECH 536 (3), TECH 537 (3)
- Strategic Management - TECH 562 and two of the following: TECH 550 (3), TECH 560 (3), TECH 593 (3), TECH 594 (3)

Industrial Management Electives and Master's Project (12-13)

Graduate course work approved by adviser related to student's professional objectives from courses taken within the Department of Technology (12) and TECH 599A, Directed Study (1), a master's project related to student's area of study which should be taken during the final semester.
OR
Graduate course work approved by adviser related to student's professional objectives from courses within the Department of Technology (6) and TECH 599B, Master's Thesis (6)

University Electives (6)

With consent of adviser and department chair, complete 6 semester hours of graduate-level course work from any department(s) in the university.

Certificates of Graduate Study

In addition to offering a graduate degree program in industrial management, the Department of Technology offers certificates for students interested in pursuing short-term study in a technical field. The credit earned for a certificate may be applied toward the M.S. degree in industrial management, with the advice and approval of the student's adviser. All requirements for a certificate of graduate study must be completed within a period of six consecutive years.

Industrial Project Management (12)

This certificate is designed to prepare engineers, technologists, managers, supervisors, and team leaders to lead and participate in projects more effectively. Emphasis is placed on identifying and applying best practices, new models, and techniques for effective project management and leadership in organizations.

TECH 550 - Leadership Theories and Techniques (3)
TECH 562 - Industrial Systems Management (3)
TECH 593 - High-Performance Teaming (3)
TECH 594 - Industrial Project Management (3)

Industrial Workplace design systems (12)

This certificate is designed for the professional in the management services area who is responsible for the planning and control of an industrial facility. Professionals completing the program will be educated to plan the future of the work environment.

TECH 429 - Plant Location, Layout, and Materials Handling (3)
TECH 442 - Work Simplification and Measurement (3)
TECH 444 - Production Control Systems (3)
TECH 481 - Ergonomics (3)

Strategic Industrial Management (12)

This certificate is designed to help prepare individuals holding or seeking management and leadership positions in industry to identify and apply best practices and new models and techniques in their organizations.

TECH 550 - Leadership Theories and Techniques (3)
TECH 560 - International Industrial Competition: U.S. Impact and Strategies (3)
TECH 562 - Industrial Systems Management (3)
TECH 594 - Industrial Project Management (3)

Traffic Safety Education (15-16)

This certificate is designed to meet the traffic-safety-education needs of safety professionals working in educational- and industrial/occupational-safety settings. The courses for this certificate fulfill the requirements in the state of Illinois for a High School Driver Education Endorsement for an Illinois high school teaching certificate.

TECH 439 - Advanced Traffic Safety Education Practices (3)
TECH 533 - Practicum in Traffic Safety Education (3)
TECH 535 - Seminar in Safety (3)
TECH 536 - Principles of Traffic Safety Education (3)
One of the following (3-4)
- TECH 432 - Disaster Preparedness (3)
- TECH 433 - Toxicology for Industry (3)
- TECH 434 - Human Factors in Industrial Accident Prevention (3)
- TECH 435 - Legal Aspects of Safety (3)
- TECH 436 - Design and Administration of Industrial Safety Programs (3)
- TECH 437 - Fundamentals of Industrial Hygiene (3)
- TECH 438 - Safety in Transportation Systems (3)
- TECH 481 - Ergonomics (3)
- TECH 482 - Industrial Safety Engineering Analysis (3)
- TECH 483 - Applied Ergonomics (3)
- TECH 531 - Industrial Hygiene (3)
- TECH 534 - Behavioral Factors in Safety (3)
- TECH 537 - Systems Analysis in Safety (4)

Course List

401. ETHICS IN TECHNOLOGY (3). Exploration from the point of view of ethical theory of a number of ethical problems in the work environment encountered by technologists and engineers. Recognizing the moral aspects of business decisions on the personal level and of business institutions on the social level.

402. INDUSTRIAL TRAINING AND EVALUATION (3). History of employee training, kinds of training, training programs, instructional methods, and evaluation procedures.

404. SUPERVISION IN INDUSTRY (3). Principles, methods, and techniques for supervision of people in their work. For supervisory personnel and those preparing for such positions.

405. TECHNOLOGY, A HUMAN ENDEAVOR (3). Analysis of the study of technology for policy-oriented decision makers in various fields. The formative role of technology in the shaping of policy is stressed through lectures, readings, and field experiences.

408. INDUSTRIAL CONFERENCE AND MEETING MANAGEMENT (3). Purposes, advantages, and limitations of planning, leading, developing, and evaluating visual and written materials for conferences and meetings.

412. TECHNICAL ILLUSTRATION (3). Axonometric, oblique, perspective, and schematic drawing techniques. Exploded, sectional, and conventional assemblies using 3-D CADS, shading, and rendering. Emphasis on illustrating for catalogs, advertising media, service manuals, and installation diagrams. PRQ: TECH 311 or consent of department.

414. COMPUTER-AIDED MACHINE DESIGN (3). Features-based and parametric solid modeling techniques, design principles of machine elements, design for manufacturability, stress, strain and load distributions, developments in standards for exchange of product design data. PRQ: PHYS 150A, TECH 265, and TECH 311, or consent of department.

420. COMPUTER-INTEGRATED MANUFACTURING (3). Study of computer integrated manufacturing systems utilized by industry, including computer-aided manufacturing, computer-aided design/drafting, computeraided testing/inspection, and computer-aided process planning. PRQ: TECH 211 and TECH 265, or consent of department.

423. AUTOMATED MANUFACTURING SYSTEMS (3). Study of automated manufacturing systems utilized by industry, including robotics, computer-aided manufacturing, computer-aided design, computer-aided inspection, and system integration using PLCs, sensors, and other automation components. Emphasis on laboratory experiences with automated technology. PRQ: TECH 362, TECH 395, or CSCI 240, and TECH 420, or consent of department.

425. PROGRAMMABLE ELECTRONIC CONTROLLERS (3). Basic concepts and skills needed to program and apply programmable electronic controllers in industry. Examination of Man Machine Interface (MMI) and Supervisory Control and Data Acquisition (SCADA) systems. Experiments in operation, programming, and industrial applications. PRQ: TECH 175, TECH 175A, TECH 265, and CSCI 240, or consent of department.

429. PLANT LOCATION, LAYOUT, AND MATERIALS HANDLING (3). Analysis of plant location, layout, and material handling systems in achieving manufacturing/service goals. Different approaches to location, layout, and material handling systems are presented.

431. INDUSTRIAL VENTILATION (3). Application of principles of industrial ventilation for the safety professional. Emphasis on the designing of ventilation to protect workers and the environment. PRQ: TECH 211 and TECH 437, or consent of department.

432. DISASTER PREPAREDNESS (3). Organization for survival from natural and human-made disasters. Warning and communication systems, radiological monitoring, shelter management. Fallout shelter experience included.

433. TOXICOLOGY FOR INDUSTRY (3). Basic concepts of toxicity as it relates to chemicals used in industrial work places. Assessment of the hazards of chemicals and how to deal with them safely. PRQ: CHEM 110A, TECH 434, and TECH 437, or consent of department.

434. HUMAN FACTORS IN INDUSTRIAL ACCIDENT PREVENTION (3). Survey of human factors principles and techniques used to minimize the frequency and severity of industrial accidents.

435. LEGAL ASPECTS OF SAFETY (3). Study of the development of federal and state legislation and programs relating to worker safety. Analysis of the implication of these laws and programs for industrial safety.

436. DESIGN AND ADMINISTRATION OF INDUSTRIAL SAFETY PROGRAMS (3). Analysis of current problems and trends in the design and supervision of model industrial accident prevention programs. PRQ: TECH 434 or consent of department.

437. FUNDAMENTALS OF INDUSTRIAL HYGIENE (3). Application of principles of industrial hygiene for the safety specialist, whose role has been greatly expanded by recent federal legislation. Emphasis on stress-producing conditions including noise, ventilation, temperature, radiation, lighting, and their effect on human performance and productivity. PRQ: TECH 230, TECH 231, and TECH 434, or consent of department.

438. SAFETY IN TRANSPORTATION SYSTEMS (3). Status of, and rationale for, improvements in safety practices and legislation for the commercial carriers (rail, highway, water, and air transportation). Each student investigates one system in depth.

439. ADVANCED TRAFFIC SAFETY EDUCATION PRACTICES (3). Study of advanced driving performance capabilities, driving strategies, and tactics. Emphasis on administrative and instructional practices for advanced driver education programs. PRQ: TECH 331 or consent of department.

440. MONITORING AND EVALUATING WORK ENVIRONMENTS (3). Theory and methodology of sampling airborne contaminants by selection, calibration, and the use of sampling instruments. Detailed examination of human exposure to chemicals, illumination, noise, temperature, and radiation. PRQ: CHEM 110A, PHYS 150A, and TECH 437, or consent of department.

441. HAZARD CONTROL IN INDUSTRIAL OPERATIONS (3). Advanced study of controls for environmental, safety, and health issues (ESH). Concepts related to materials handling systems in relation to the design and use of guards and protective devices. Advanced concepts within the realm of safety analysis and applications within industrial settings. Emphasis on OSHA requirements and applications of these requirements to various industrial processes. PRQ: TECH 231 and TECH 245, or consent of department.

442. WORK SIMPLIFICATION AND MEASUREMENT (3). Techniques for improving and standardizing methods; procedures for measuring work and developing time standards in production and service activities.

443. ENGINEERING ECONOMY (3). Principles used in the systematic evaluation of the net worth of benefits resulting from proposed engineering and business ventures in relation to the expenditures associated with those undertakings.

444. PRODUCTION CONTROL SYSTEMS (3). Implementation and operation of manufacturing systems including facility planning, quality improvement, labor measurement, production, and inventory control systems. Forecasting methods; the design and organization of routings, schedules, and bills-of-material; computer-based materials control; quality and productivity techniques within process and job-lot environments. PRQ: Consent of department.

470. FIBER OPTICS COMMUNICATIONS (3). Fundamentals of fiber optics; fiber optics system components and applications in communication; cellular telephone technology. PRQ: TECH 378 or consent of department.

475. ANALYSIS OF MICROPROCESSORS (3). Analysis of microprocessors with emphasis on architecture, state transition, machine cycles, and timing diagrams; instruction set; and interface techniques. PRQ: TECH 377 or consent of department.

476. INDUSTRIAL CONTROL ELECTRONICS (3). Basic hardware involved in servomechanism and process control systems. Topics include sensors, actuators, signal conditioners, data acquisition systems, power interfaces, and analog and digital controllers. PRQ: TECH 376 and TECH 379, or consent of department.

481. ERGONOMICS (3). Study of the basic human factors in engineering systems with emphasis on human-machine systems in relation to equipment designs and the work environment. Analyses of organizational factors relevant to operators at work, including monotony, repetitive work, training, and selection. PRQ: MATH 155, PHYS 150A or PHYS 250, and TECH 434 or consent of department.

482. INDUSTRIAL SAFETY ENGINEERING ANALYSIS (3). Practical theories and applications of safety engineering in the industrial environment. Accident investigation and job safety analysis. PRQ: PHYS 150A or PHYS 250, TECH 231, and TECH 434, or consent of department.

483. APPLIED ERGONOMICS (3). Review of physiological, biomechanical, and psychological concepts related to workplace layout, machine tools, and work methods with emphasis on control of over-exertion injuries, control of work-related musculoskeletal disorders through the use of software and analysis and evaluations of ergonomic problems. Solution of occupational ergonomic problems with presentation of results in class. PRQ: BIOS 311 and TECH 481, or consent of department.

484. ENERGY MANAGEMENT (3). Focus on energy sources, consumption, supply, trends, hazards, control systems, alternatives, conservation techniques, and measurements. Examples drawn from residential, commercial, and industrial systems.

492. MANUFACTURING DISTRIBUTION APPLICATIONS (3). Applications of mass customization principles, flexible manufacturing, and the theory of constraints in modern industrial distribution. Examination and assessment of manufacturing supply and distribution channels for increased value in world-class manufacturing environments and compliance with ISO 9000 standards. PRQ: TECH 265 and TECH 391, or consent of department.

494. ENGINEERING AUTOMATION (4). Fundamental principles and applications of project management, team concept, and operations utilizing design and computer graphics, process control with computer logic, CAD/ CAM, and automated systems. Team design project(s) required. PRQ: TECH 394 or consent of department.

500. RESEARCH IN INDUSTRY AND TECHNOLOGY (3). Designed to acquaint the student with research methodology as it applies to technology and industrial education. Students develop competence in research design, interpretation of research results, and the application of statistical techniques to solving technical problems.

531. INDUSTRIAL HYGIENE (3). Lectures and demonstrations covering evaluation and control of exposure to dusts, fumes, mists, vapors, gases, radiation hazards, noise, and abnormal temperatures. PRQ: TECH 437 or consent of department.

533. PRACTICUM IN TRAFFIC SAFETY EDUCATION (3). Use of analysis of the driving task to develop strategies for teaching safe automobile operations. Self-improvement of driving skill, in-vehicle observations of drivers and instructors, and in-vehicle instruction. Administration of an on-road instructional program. Valid driver's license required.

534. BEHAVIORAL FACTORS IN SAFETY (3). Psychological, physiological, and sociological factors as they affect human safety. Students identify and pursue a topic of interest. PRQ: Consent of department.

535. SEMINAR IN SAFETY (1 to 6). Current issues or problems in safety. May be repeated, but a maximum of 6 semester hours may be applied toward advanced degrees.

536. PRINCIPLES OF TRAFFIC SAFETY EDUCATION (3). Program planning, administration, development, teaching theories, methods, and techniques for use in driver and traffic safety education programs. Includes class observations, lesson/course development, delivery, and evaluation.

537. SYSTEMS ANALYSIS IN SAFETY (4). Systems analysis techniques applied to accident record systems, theories of accident causation, and effectiveness of safety programs. PRQ: Consent of department.

539. RESEARCH IN SAFETY (1 to 3). Open to qualified students who wish to do individual research in safety. May be repeated. A limit of 6 semester hours may be applied toward advanced degrees. PRQ: Consent of department.

545. ORGANIZATIONAL PHILOSOPHY AND PLANNING FOR QUALITY (3). The quality philosophies of Deming, Crosby, and Juran contrasted with the concepts of Ishikawa and Taguchi. Profound knowledge (Deming), cost of quality (Crosby), organization of corporate programs in quality, and customer focused systems. Emphasis on the American Society for Quality certificate examination body of knowledge. PRQ: Consent of department.

546. SERVICE ORGANIZATIONS QUALITY ISSUES (3). Quality philosophy, objectives, and measures, and organization of quality for service establishments. Application of audit criteria used to judge for quality awards–such as the Malcolm Baldrige and Lincoln–to hospitals, schools and universities, government agencies, and other service organizations. Design, measurement, and implementation of continuous improvement philosophies in not-for-profit organizations. PRQ: Consent of department.

547. QUALITY MEASUREMENT AND IMPROVEMENT (3). Design of valid quality assurance systems. Auditing of quality systems, prevention and correction of non-conformities, root cause analysis, failure mode and effect analysis; discussion of standards including ISO 9000, QS 9000, ISO 10011. Emphasis on American Society for Quality certificate examination body of knowledge. PRQ: Consent of department.

548. QUALITY DECISION METHODS (3). Problems and case studies utilizing the decision mathematical methods for quality analysis including on-line process control, design of experiments, regression analysis, and other mathematical tools. PRQ: TECH 491 or consent of department.

549. RELIABILITY ISSUES AND PRODUCT TESTING (3). Reliability management. Reliability issues in design, development, and maintainability. Product testing, data collection, and corrective action techniques. Warranty and product liability certification. Emphasis on the American Society for Quality certificate examination body of knowledge. PRQ: TECH 545 or consent of department.

550. LEADERSHIP THEORIES AND TECHNIQUES (3). Study of leadership theories and managerial techniques used to accomplish predetermined results through others. Topics include planning, motivation, communication, delegation, and employee selection as applied in industrial settings/situations. PRQ: TECH 404 or consent of department.

555. CASE STUDIES IN MANUFACTURING–LABOR RELATIONS (3). Using recent labor arbitration awards, students examine and analyze industrial relations from both the management and the union perspective. Students research and analyze multiple cases on an individually assigned topic as a final project. PRQ: TECH 404 or consent of department.

560. INTERNATIONAL INDUSTRIAL COMPETITION: U.S. IMPACT AND STRATEGIES (3). International developments affecting U.S. industries, foreign competition, policy and management strategies; dynamics of the European Community, Andean Pact, and ASEAN. Impact of working across nationalities and cultures. PRQ: Consent of department.

562. INDUSTRIAL SYSTEMS MANAGEMENT (3). Organizational structures; integrated systems management of product and process design, production, automation, technology, engineering, maintenance, and quality; technology/worker interface; implementation of change, international issues, and case studies. PRQ: Consent of department.

573. ADVANCED ELECTRICAL SERVOMECHANISMS (3). Analysis and design of servomechanisms using analytical tools.

593. HIGH-PERFORMANCE TEAMING (3). Designed to prepare engineers, technologists, and industrial managers, supervisors, and leaders to develop and lead high-performance teams. Emphasis on methods of working with interdisciplinary and multicultural teams, team appraisal and performance assessment. Analysis, case studies, industrial research, and project required.

594. INDUSTRIAL PROJECT MANAGEMENT (3). Advanced concepts, principles, and skills of a variety of types of industrial project management. Emphasis on technological tools and project management techniques. Analysis, case studies, industrial research, and project required. PRQ: TECH 562 or consent of department.

597. WORKSHOP IN INDUSTRY AND TECHNOLOGY (1 to 6). Workshop designed for technologists, supervisors, engineers, managers, and administrators studying contemporary technological problems in the public and private sectors. Content varies providing the opportunity to study current problems and issues related to industry and technology. May be repeated to a maximum of 24 semester hours, but no more than 6 semester hours may be applied toward the M.S. degree in technology.

598. TECHNICAL PROBLEMS (1 to 6).
A. General
B. Automation
D. Engineering Graphics
E. Electronics
G. Workplace Design Systems
J. Project Management
K. Industrial Supervision
M. Metals
N. Numerical Control
Q. Quality
R. Manufacturing Technology
V. Safety
Advanced study of technical problems at the master's level under direct faculty supervision. May be repeated to a maximum of 6 semester hours. PRQ: Consent of faculty member who will supervise the study.

599A. DIRECTED STUDY (1 to 6). Directed study in independent research projects at the master's level. May be repeated to a maximum of 6 semester hours. PRQ: Consent of adviser and faculty member directing the study.

599B. MASTER'S THESIS (1 to 6). Open only to students who elect to write a thesis for the master's degree. May be repeated to a maximum of 6 semester hours. PRQ: Consent of adviser.

600. MASTER'S PROJECT (1). Capstone project for the M.S. in industrial management which focuses on a relevant subject area of particular interest to the student and emphasizes one of areas with the degree. Student must have completed more than 27 semester hours in the program or be in the final semester of the program.

606. PROGRAMS AND ORGANIZATION OF INDUSTRIAL EDUCATION (3). Philosophy, objectives, organization, administration, and significant literature for vocational-industrial all-day, part-time, and evening programs, including apprenticeship and vocational rehabilitation. Attention given to legislation and standards for state and federal aid to local vocationalindustrial and technical programs.

607. TRENDS IN INDUSTRIAL EDUCATION (3). Evaluation and significance of trends from the viewpoints of theory and practice.

609. INDUSTRIAL INTERNSHIP (3 to 6). A department-approved work experience designed to provide the student lacking full-time industrial experience an opportunity to observe and participate in activities that are applications of principles and skills acquired previously. The learning situation is organized and supervised cooperatively by the Department of Technology staff and personnel of selected organizations. Learning experiences include obtaining, with the guidance and approval of the department's faculty coordinator, an acceptable type of wage-earning employment where intern-learning experiences are present. A minimum of nine 40-hour work weeks is required for each 3 semester hours of credit. May be repeated to a maximum of 6 semester hours. PRQ: Consent of major adviser and supervising instructor.

649. TOPICS IN QUALITY EDUCATION AND TRAINING (3). Assessment of learning needs, development of curriculum, and preparation of lesson, module, course and program objectives related to educating in the quality discipline. Presenting technical material about quality in different media, including traditional lecture, interactive, and distance learning. Designing learning environments. PRQ: TECH 545 and consent of department.

658. SEMINAR IN INDUSTRY AND TECHNOLOGY (1 to 3). Individual and group concerns related to industry and industrial technology. May be repeated to a maximum of 24 semester hours, but no more than 6 semester hours may be applied toward the M.S. degree in technology.

686. PRACTICUM IN TECHNOLOGY (1 to 6). Instruction arranged to meet the needs, concerns, and interests of individuals or groups in an appropriate setting under the guidance of a staff member of that setting and a university supervisor. Projects may include work/study in an appropriate setting and individual projects/research. May be repeated to a maximum of 24 semester hours, but no more than 6 semester hours may be applied toward the M.S. degree in technology. PRQ: Consent of department.

690. INDUSTRIAL EDUCATION FOR THE INSERVICE TEACHER (3). Problems of inservice education in upgrading programs of industrial education. Emphasis on individual problems.

College of Health and Human Sciences

Dean: Shirley A. Richmond, Ed.D.
Associate Dean: Mary E. Pritchard, Ph.D.

School of Allied Health Professions
Department of Communicative Disorders
School of Family, Consumer, and Nutrition Sciences
Department of Military Science
School of Nursing

College Mission Statement

The mission of the College of Health and Human Sciences is to promote health and well-being through education, scholarship, service, and practice. The vision of the College of Health and Human Sciences is to enhance the lives of individuals, families, and communities across the lifespan.

Special Requirements

Students who select majors in the College of Health and Human Sciences may need to meet specific requirements for their academic programs and/or entry into their chosen professions, such as a criminal background check, drug testing, immunization, professional liability insurance, cardiopulmonary resuscitation (CPR) certification, uniforms, and equipment. The student is generally responsible for the costs of meeting these requirements.

Certificate of Graduate Study

Gerontology (15)

The gerontology program is an interdisciplinary program that fosters educational, research, and service activities pertinent to aging. At the graduate level, the program offers an interdisciplinary certificate of graduate study. This certificate allows students to integrate current knowledge and research on adulthood and aging into their degree programs. A student wishing to pursue this certificate must apply to the gerontology program.

Students must complete a minimum of 15 semester hours with at least 9 semester hours from the primary content area. A student may take no more than 9 of the required 15 semester hours from a single department. With the approval of the director of the gerontology program, 3 semester hours of independent study, directed individual study, or other appropriate course work may be substituted for 3 semester hours of course work toward the certificate.

Primary Content Area (9-15)

IDSP 465 - Issues in Gerontology (3)
Courses selected from the following (6-12)
- CAHA 590[1] - Workshop in Adult and Higher Education (3)
- CAHC 667 - Counseling Older Persons (3)
- FCNS 486 - Aging and the Family (3)
- KNPE 454 - Exercise Gerontology (3)
- PSYC 425 - Adult Development and Aging (3)
- SOCI 462 - Aging and Society (3)

Other Courses Related to Gerontology (0-6)

AHPH 410 - Death Education (3)
AHPH 465 - Principles of Long-Term Care Administration (3)
ANTH 465 - Medical Anthropology (3)
CAHA 501 - Adult Learning: Maturity Through Old Age (3)
COMD 574 - Cognitive-Linguistic Disorders of Neurologically Impaired Adults (3)
EPS 510 - Adult Educational Psychology (3)
EPS 610 - Seminar in Lifespan Human Development (3)
FCNS 512 - Geriatric Nutrition (3)
KNPE 555 - Clinical Experience in Exercise Gerontology (3).
NURS 595[2] - Advanced Internship in Community Health Nursing (6)
PSPA 526 - Social Policy (3)
PSYC 465 - Advanced Developmental Psychology (3)
SOCI 451 - Medical Sociology (3)
SOCI 460 - Social Structure and the Life Course (3)
SOCI 482 - Sociology of Death and Dying (3)

Faculty Associates

Susan Bowers, associate professor of family, consumer, and nutrition sciences, Ph.D.
Dianne Cearlock, professor of allied health professions, Ph.D.
James R. Ciesla, associate professor of allied health professions, Ph.D.
Carolinda Douglass, associate professor of allied health professions, Ph.D.
Lisa M. Finkelstein, associate professor of psychology, Ph.D.
Judith Hertz, associate professor of nursing, Ph.D.
Julie Hillery, associate professor of family, consumer, and nutrition sciences, Ph.D.
Pamela Macfarlane, professor of kinesiology and physical education, Ph.D.
Robin D. Moremen, associate professor of sociology, Ph.D.
Donna Munroe, associate professor of nursing, Ph.D.
Jodell Newman-Ryan, associate professor of communicative disorders, Ph.D.
Nancy Nuzzo, professor of allied health professions, Ph.D.
Allen Ottens, professor of counseling, adult and higher education, Ph.D.
Donna Plonczynski, assistant professor of nursing, Ph.D.
Aimee D. Prawitz, associate professor of family, consumer, and nutrition sciences, Ph.D.
Robert Ridinger, professor in University Libraries, M.A.
Bruce Rocheleau, professor of political science, Ph.D.
Joseph Smaldino, professor of communicative disorders, Ph.D.
Laura S. Smart, professor of family, consumer, and nutrition sciences, Ph.D.
M Cecil Smith, associate professor of leadership, educational psychology and foundations, Ph.D.
John F. Stolte, professor emeritus of sociology, Ph.D.
Josephine Umoren, associate professor of family, consumer, and nutrition sciences, Ph.D.
Virginia Wilcox-Gök, associate professor of economics, Ph.D.
Charline Xie, associate professor of family, consumer, and nutrition sciences, Ph.D.

Interdisciplinary Course Offered by the College of Health and Human Sciences

IHHS 450. ADMINISTRATION FOR PROFESSIONALS IN HEALTH AND HUMAN SCIENCES (2 to 3). Administrative principles as they pertain to the provision of service by professionals working in health and human sciences settings. Topics include departmental supervision, personnel issues, resource management, safety issues, and governmental regulations.

[1]When topic is appropriate, and with the approval of the director.
[2]Three semester hours from the internship may be applied toward certificate requirements when course content emphasizes aging, as determined by gerontology faculty associates from the School of Nursing.

School of Allied Health Professions (AH--)

Interim Chair: Ellen Parham

Graduate Faculty

Mary Jo Blaschak, associate professor, Ph.D., Northwestern University
Ngoyi K. Bukonda, associate professor, Ph.D., University of Minnesota
Dianne M. Cearlock, professor, Ph.D., University of Illinois
James R. Ciesla, associate professor, Ph.D., University of South Carolina
Sarah Conklin, associate professor, Ph.D., University of Pennsylvania
Carolinda Douglass, associate professor, Ph.D., RAND Graduate School of Policy Studies
Jeanne M. Isabel, associate professor, M.S.Ed., Northern Illinois University
Arlene Keddie, assistant professor, Ph.D., University of Texas Health Science School of Public Health
Daniel Klein, associate professor, Ph.D., Southern Illinois University
Nancy A. Nuzzo, professor, Ph.D., University of Illinois
Angela M. Odoms-Young, assistant professor, Ph.D., University of Illinois
William A. Oleckno, Distinguished Teaching Professor, emeritus, H.S.D., Indiana University
Ellen Parham, professor emeritus, Ph.D., University of Tennessee
Judith Rabak-Wagener, associate professor, Ph.D., University of Wisconsin
Sherilynn F. Spear, professor emeritus, Ph.D., University of Iowa
Tomas Tamulis, assistant professor, Ph.D., University of South Florida
Maribel Valle, assistant professor, Ph.D., University of Illinois, Chicago
Gail S. Williams, assistant professor, Ph.D., Rush Graduate College

The School of Allied Health Professions offers a Master of Public Health (M.P.H.) degree and the Master of Physical Therapy (M.P.T.) degree. The M.P.H. curriculum prepares students for leadership positions in health services management and health promotion. A generalist focus is also available for qualified health care professionals. Students learn skills in leadership, problem solving, and planning and promoting change in public health and health care systems. The M.P.T. program is the graduate component of the professional physical therapy curriculum and prepares students to function as entry-level practitioners.

The M.P.H. program is fully accredited by the Council on Education for Public Health (CEPH), an independent accrediting agency for schools of public health, as well as community health education and community health/preventive medicine programs located outside of schools of public health. CEPH is recognized by the U.S. Department of Education. The M.P.H. program is also an institutional member of the Association of Teachers of Preventive Medicine (ATPM), Council of Graduate Programs in Preventive Medicine and Public Health, a professional organization whose purpose is to set standards for the academic preparation of students in the fields of public health, disease prevention, and health promotion.

Master of Public Health (M.P.H.)

The M.P.H. program prepares professionals for leadership positions in public health and health-related agencies. Students may specialize in health promotion or health services management. A generalist focus is also available for qualified health care professionals who do not wish to specialize. The M.P.H. with a health promotion specialization prepares students to take the Certified Health Education Specialist (C.H.E.S.) examination given by the National Commission for Health Education Credentialing, Inc. Students who complete the M.P.H. with a specialization in health services management are eligible to take the Illinois Nursing Home Administrators Licensing Examination if certain electives have been completed.

Admission

Potential applicants for this program should consult with a program adviser about recommended course work. Admission to the program requires approval of an admissions committee. Preference is given to applicants who have had work or extensive volunteer experience in a public health or related agency.

Procedures for admission to the program and other detailed information are available from the public health and health education programs office.

Non-Thesis Option

A total of 43-46 semester hours of graduate credit is required for the degree with the non-thesis option.

Students may apply a maximum combined total of 18 semester hours of graduate credit earned as a student-at-large at NIU or in NIU graduate courses taken outside the U.S. or as transfer credit from another institution toward the M.P.H. degree; however, no more than 15 semester hours of combined transfer and study-abroad credit can be used toward this 18 semester hour total.

Requirements

AHPH 500 - Health Care Delivery in the U.S. (3)
AHPH 501 - Behavioral and Social Aspects of Public Health (3)
AHPH 530 - Health Services Management (3)
AHPH 535 - Problems and Issues in Environmental Health (3)
AHPH 555 - Principles and Methods of Epidemiology (3)
AHPH 589 - Community Health Planning (3)
AHPH 590 - Applied Research Methods in Public Health (3)
AHPH 595 - Internship in Public Health (3-6)
AHPH 598 - Master's Comprehensive Examination (1)
BIOS 570 - Biostatistical Analysis (3), or another 3 semester hour course in statistics approved by adviser
Generalist[1] course work, with adviser's approval (15),
OR One of the following specializations with adviser's approval (15)

Specialization in Health Promotion

AHPH 520 - Primary Prevention and Health Promotion (3)
AHPH 588 - Community Health Promotion Programs (3)
Additional course work with adviser's approval (9)

[1]Available only to qualified health care professionals with accredited degrees in medicine, dentistry, nursing, or related health care specialties.

Specialization in Health Services Management
AHPH 540 - Human Resource Management in the Health Care Setting (3)
AHPH 575 - Health Economics for Health Services Managers (3)
AHPH 593[2] - Financial Decision Making for Health Services Managers (3)
Additional course work with adviser's approval (6)

Thesis Option

Same requirements as the non-thesis option except that 6 additional semester hours of AHPH 599, Master's Thesis, are required.

Simultaneous Enrollment in M.P.H. and M.S. in Nursing Degree Programs (AHP)

The School of Allied Health Professions and the School of Nursing offer the opportunity for simultaneous enrollment in the M.P.H. and M.S. in nursing degree programs to qualified graduate students. Students must be admitted to both the public health program in the School of Allied Health Professions and the M.S. program in the School of Nursing; admission to both programs must be within 18 months of each other. The requirements under the simultaneous enrollment plan and the allowance of 15 semester hours of dually used course work do not apply to students enrolled in only one of the programs. Students must have consent of both schools to enroll in the programs simultaneously. Students should contact a graduate program adviser in the public health program for further information.

Under the simultaneous enrollment plan, students are required to take at least 64 semester hours as follows.

Courses Applied to M.P.H. Degree (28)

AHPH 500 - Health Care Delivery in the U.S. (3)
AHPH 501 - Behavioral and Social Aspects of Public Health (3)
AHPH 530 - Health Services Management (3)
AHPH 535 - Problems and Issues in Environmental Health (3)
AHPH 589 - Community Health Planning (3)
AHPH 590 - Applied Research Methods in Public Health (3)
AHPH 598 - Master's Comprehensive Examination (1)
AHPH electives (9)

Courses Applied to Both Programs (15)

AHPH 495 - Funding for Programs in Community Health (3)
AHPH 555 - Principles and Methods of Epidemiology (3)
ETR 521 - Educational Statistics I, or a statistics course approved by adviser (3)
NURS 595[3] - Advanced Internship in Community Health Nursing (6)

Courses Applied to M.S. in Nursing (21)

NURS 512 - Theoretical Perspectives for Advanced Practice Nursing (3)
NURS 513 - Scientific Inquiry in Advanced Practice Nursing (3)
NURS 515 - Diversity Within Community Systems for Advanced Nursing Practice (3)
NURS 516 - Advanced Practice Nursing Within the Health Care Delivery System (3)
NURS 571 - Advanced Community Health Nursing: Analysis and Application (3)
NURS 573 - Advanced Community Health Nursing: Health Promotion (3)
NURS elective (3)

Master of Physical Therapy (M.P.T.)

The M.P.T. program is the graduate component of the professional physical therapy curriculum. Students are admitted with stipulations to the M.P.T. program following matriculation into the undergraduate health sciences component of the professional physical therapy curriculum. The stipulations are that the student complete the first 52 semester hours of the major in health sciences with a GPA of at least 2.25 in the major and an overall GPA of at least 3.00. Students should refer to the *Undergraduate Catalog* for information concerning admission requirements to the professional physical therapy program as an undergraduate. Students in the professional physical therapy curriculum who meet the stated requirements begin the graduate component of the professional curriculum while completing the undergraduate component.

In addition to the usual costs for a university student, physical therapy majors are responsible for the costs involved in

uniforms to be worn during all clinical experiences,
transportation to, and room and board at, clinical facilities,
completion of a 3-dose Hepatitis B immunization,
proof of varicella immunity,
student professional liability insurance, and
professional textbooks

Full-time clinical experiences are an integral part of the curriculum, providing the student opportunities to apply academic knowledge under the supervision of skilled physical therapists. Clinical experiences, offered throughout the central United States, are scheduled by the NIU physical therapy faculty. Students are required to complete a six-week full-time clinical experience, as well as two eight-week clinical experiences which occur during the final semester.

Requirements (51-53)

AHPT 415 - Neurological Basis of Human Movement (4)
AHPT 436 - Physical Therapy Management of Individuals with Acute Medical Problems (3)
AHPT 437 - Cardiopulmonary Physical Therapy (3)
AHPT 503 - Psychosocial Issues in Physical Therapy (2)
AHPT 504 - Case Studies in Physical Therapy II (1)
AHPT 505 - Case Studies in Physical Therapy III (2)
AHPT 509 - Physical Therapy Research II (3)
AHPT 540 - Evaluation and Treatment of Musculoskeletal Disorders: Spine (3)
AHPT 545 - Physical Therapy Research III (1-3)
AHPT 550 - Neurological Physical Therapy (4)
AHPT 551 - Medical Issues in Neurological Physical Therapy (2)
AHPT 555 - Rehabilitation in Physical Therapy (4)
AHPT 560 - Clinical Experience IV (4)
AHPT 561 - Clinical Experience V (6)
AHPT 562 - Clinical Experience VI (6)
AHPT 565 - Advanced Mock Clinic for Physical Therapists (1)
AHPT 570 - Seminar in Physical Therapy (2)

Certificates of Graduate Study

Health Education (15)

This certificate is designed for students who are seeking endorsement on a current teaching certificate, for students who are also seeking initial teacher certification, and for students pursuing continuing education regarding health teaching methods and content. Course work for this certificate may be applied toward state endorsement requirements; however, additional course work may be necessary depending on prior course work. In addition, students who have previously obtained a baccalaureate degree may apply these courses toward initial teacher certification.

[2]May be waived for students who have received a C or better in AHPH 493 or equivalent. However, another appropriate course must be taken with the consent of the student's adviser.
[3]Area of clinical study must be in public/community health.

Potential applicants for the certificate should consult with a program adviser. Admission to the certificate requires the approval of an admissions committee. Procedures for admission to study toward the certificate and other detailed information are available from the public health and health education programs office.

AHPH 502 - Curriculum Development in School Health Education (3)
AHPH 503 - School Health Programs: Planning, Managing, and Evaluating (3)
AHPH 504 - Special Topics in School Health Education (3)
Two of the following (6)
- AHPH 402 - Community Health Programs and Issues (3)
- AHPH 408 - Mental and Emotional Health (3),
  - OR AHPH 410, Death Education (3),
  - OR FCNS 484, Advanced Family Relationships (3),
  - OR FCNS 486, Aging and the Family (3)
- AHPH 409 - Drug Education (3)
- AHPH 411 - Sexuality Education (3)
- AHPH 501 - Behavioral and Social Aspects of Public Health (3)
- AHPH 535 - Problems and Issues in Environmental Health (3),
  - OR TLCI 520, Environmental Quality Education (3),
  - OR TLCI 524, Teaching Environmental Ethics (3)
- FCNS 407 - Consumer Protection (3)
- FCNS 410 - Community Nutrition (3),
  - OR FCNS 500A, Seminar in Nutrition and Dietetics (3),
  - OR FCNS 502, Issues in Eating Disorders and Obesity (3),
  - OR FCNS 511, Maternal and Child Nutrition (3)
- SOCI 563 - Women's Health Issues (3)

Public Health (15)

Students interested in this certificate should contact the public health and health education programs office as early as possible so they can be assigned an adviser. Admission to the certificate requires approval of the admissions committee. Procedures for admission to the certificate and other detailed information are available from the public health and health education programs office.

AHPH 500 - Health Care Delivery in the U.S. (3)
AHPH 501 - Behavioral and Social Aspects of Public Health (3)
Course work from the following (3-9)
- AHPH 520 - Primary Prevention and Health Promotion (3)
- AHPH 530 - Health Services Management (3)
- AHPH 555 - Principles and Methods of Epidemiology (3)
- AHPH 589 - Community Health Planning (3)

Course work from the following (0-6)
- AHPH 465 - Principles of Long-Term Care Administration (3)
- AHPH 480 - Ethical Decision Making for Health Professionals (3)
- AHPH 491 - Assessment, Treatment, and Prevention of Drug and Alcohol Addiction (3)
- AHPH 495 - Funding for Programs in Community Health (3)
- AHPH 535 - Problems and Issues in Environmental Health (3)
- AHPH 540 - Human Resource Management in the Health Care Setting (3)
- AHPH 575 - Health Economics for Health Services Managers (3)
- AHPH 588 - Community Health Promotion Programs (3)
- AHPH 593 - Financial Decision Making for Health Services Managers (3)

Middle School Endorsement in Health Education

A middle school endorsement in health education requires 18 semester hours of course work in health education, 3 semester hours of course work in middle school philosophy, curriculum and instructional methods, and 3 semester hours of course work in educational psychology focusing on early adolescents. To be eligible for the endorsement, a student must currently possess teacher certification in another subject area. A student seeking a middle school endorsement in health education should plan a program of study with the faculty adviser in health education.

High School Endorsement in Health Education

An endorsement in health education requires 24 semester hours of course work. To be eligible for the endorsement, a student must currently possess teacher certification in another subject area. A student seeking an endorsement in health education should plan a program of study in consultation with the faculty adviser in health education.

Secondary Certification in Health Education

The health education entitlement program is designed to prepare students for teaching positions in secondary schools. A student seeking initial teacher certification in health education at the graduate level should plan a program of study in consultation with the faculty adviser in health education. This program will include courses which meet the professional education requirements for secondary education and required health education course work. Successful completion of the ICTS Basic Skills Test is required for entry into the health education teacher certification program. Also see "Teacher Certification Information."

Course List

Allied Health Professions (AHP)

AHP 440. INTRODUCTION TO TEACHING IN THE ALLIED HEALTH PROFESSIONS (1 to 3). An introduction to principles of learning, instructional strategies, interpersonal relationships, evaluation, and instructional design as these topics relate to clinical instruction in the allied health professions. PRQ: Consent of school.

AHP 444. TOPICS IN ALLIED HEALTH PROFESSIONS (1 to 3). The examination of contemporary issues and problems in the allied health occupations and professions. May be repeated to a maximum of 6 semester hours.

AHP 446. SUPERVISION IN HEALTH CARE FACILITIES (1 to 3). A study of the administration of health care programs with emphasis on the development of administrative and leadership skills, including analysis of problems in supervision for clinical department heads, supervisors, and other health-related mid-management personnel.

Physical Therapy (AHPT)

AHPT 415. NEUROLOGICAL BASIS OF HUMAN MOVEMENT (4). Human neuroanatomy and neurophysiology as they apply to the acquisition and control of movement. Emphasis on motor control, postural control, and motor learning. Effects of normal and abnormal neurological structures on performance. PRQ: BIOS 208, BIOS 209, BIOS 355, BIOS 446, and consent of school.

AHPT 425. MOTOR DEVELOPMENT FOR PHYSICAL THERAPISTS (3). Examination of change in body systems and movement patterns throughout the life cycle. Impact of developmental changes on functional abilities. PRQ: Consent of school.

[4]When topic is health theories and concepts.

AHPT 436. PHYSICAL THERAPY MANAGEMENT OF INDIVIDUALS WITH ACUTE MEDICAL PROBLEMS (3). Examination of physical rehabilitation process during the acute phase of illness and disease. PRQ: Consent of school.

AHPT 437. CARDIOPULMONARY PHYSICAL THERAPY (3). Physical therapy management of individuals with cardiopulmonary disorders. PRQ: Consent of school.

AHPT 503. PSYCHOSOCIAL ISSUES IN PHYSICAL THERAPY (2). Investigation of the impact of physical disability on individuals, families, and society. Relationship between the attitudes and values of society, persons with disabilities and their families, and health care professionals on outcomes of physical therapy interventions. PRQ: Consent of school.

AHPT 504. CASE STUDIES IN PHYSICAL THERAPY II (1). Emphasis on program for individuals with cardiopulmonary and general medical problems. PRQ: Consent of school.

AHPT 505. CASE STUDIES IN PHYSICAL THERAPY III (2). Process of differential diagnosis as utilized by physical therapists. Emphasis on the development of programs for individuals with complex movement problems and multiple system involvement. PRQ: Consent of school.

AHPT 509. PHYSICAL THERAPY RESEARCH II (3). Application of research concepts in the design of a clinical research study. PRQ: Consent of school.

AHPT 540. EVALUATION AND TREATMENT OF MUSCULOSKELETAL DISORDERS: SPINE (3). Physical therapy evaluation, treatment, and management of musculoskeletal conditions of the spine using a problem-solving approach. PRQ: Consent of school.

AHPT 545. PHYSICAL THERAPY RESEARCH III (1 to 3). Development and implementation of a research project under faculty supervision. Provides opportunity to explore specific areas of interest and integrate concepts of evidence-based practice into final project. PRQ: Consent of school.

AHPT 550. NEUROLOGICAL PHYSICAL THERAPY (4). Physical therapy evaluation and treatment of individuals with movement problems secondary to disorders of the nervous system. Emphasis on developing a clinical decision-making process applicable in a variety of practice settings for adults and children. PRQ: Consent of school.

AHPT 551. MEDICAL ISSUES IN NEUROLOGICAL PHYSICAL THERAPY (2). Medical diagnosis and management of adults and children with neurological conditions. Includes discussion of common medical imaging and laboratory tests. PRQ: Consent of school.

AHPT 555. REHABILITATION IN PHYSICAL THERAPY (4). Emphasis on the decision-making process used by physical therapists to help patients achieve maximal physical independence. PRQ: Consent of school.

AHPT 560. CLINICAL EXPERIENCE IV (4). Application of previously learned skills under the guidance of qualified physical therapists. Further development of the students' abilities in the physical therapy management of patients with emphasis on patient evaluation and development of physical therapy diagnoses. S/U grading. Individual transportation required. PRQ: Consent of school.

AHPT 561. CLINICAL EXPERIENCE V (6).
A. Acute/Subacute Care
B. Rehabilitation
C. Outpatient
D. Specialty
E. Pediatrics
Clinical experiences in selected health care facilities under the supervision and guidance of qualified physical therapists. Emphasis on coordination and provision of all physical therapy related aspects of patient care. S/U grading. Individual transportation required. PRQ: Consent of school.

AHPT 562. CLINICAL EXPERIENCE VI (6).
A. Acute/Subacute Care
B. Rehabilitation
C. Outpatient
D. Specialty
E. Pediatrics
Clinical experiences in selected health care facilities under the supervision and guidance of qualified physical therapists. Site or experience must be different from AHPT 561. Emphasis on coordination and provision of all physical therapy related aspects of patient care. S/U grading. Individual transportation required. PRQ: Consent of school.

AHPT 565. ADVANCED MOCK CLINIC FOR PHYSICAL THERAPISTS (1). Application of previously learned skills in a laboratory environment with faculty and peer supervision. Physical therapy management of patients including examination, evaluation, and intervention of the complex patient. Emphasis on safety, skill in examination and intervention, written and oral communication, and modeling the role of clinical instructor. S/U grading. PRQ: Consent of school.

AHPT 570. SEMINAR IN PHYSICAL THERAPY (2). Exploration of issues in the delivery of physical therapy services. Presentation of student clinical experience portfolios. PRQ: Consent of school.

Public Health and Health Education (AHPH)

AHPH 400. METHODS AND MATERIALS IN SCHOOL HEALTH EDUCATION (3). Health education programs in middle and secondary schools. Methodologies, strategies, materials, and resources for teaching health education. PRQ: AHPH 207, AHPH 301, and three content courses chosen from FCNS 201 or FCNS 405, and AHPH 401-AHPH 412, or consent of department.

AHPH 401. CURRENT ISSUES: HEALTH EDUCATION (1 to 3). Topics announced. May be repeated to a maximum of 6 semester hours when subject varies.

AHPH 402. COMMUNITY HEALTH PROGRAMS AND ISSUES (3). Programs and resources of health agencies, including the role of governmental agencies. Emphasis on the relationship between community and school health education programs. PRQ: AHPH 207 or consent of department.

AHPH 408. MENTAL AND EMOTIONAL HEALTH (3). Study of personality traits and interpersonal relationships. Emphasis on development and maintenance of positive mental and emotional health.

AHPH 409. DRUG EDUCATION (3). Development and evaluation of curricula appropriate for school and other settings. Emphasis on issues, techniques, and resources necessary for the health educator to interact within the school, community, and home environments. Examination of theories underlying preventive and rehabilitative substance abuse programs.

AHPH 410. DEATH EDUCATION (3). Study of death as an integral phase of the life cycle. Examination of values and coping behaviors related to death and dying.

AHPH 411. SEXUALITY EDUCATION (3). Emphasis on understanding values and beliefs concerning sexuality and on developing and implementing educational programs in school and community settings.

AHPH 412. CONSUMER HEALTH (3). Examination of issues, information, products, and services that influence the quality of life for the individual and community. Emphasis on skills necessary to assess and select appropriate products and services to maintain or improve health.

AHPH 465. PRINCIPLES OF LONG-TERM CARE ADMINISTRATION (3). Overview of long-term care services, personnel, and the roles of the administrator. Emphasis on organizational management and operations control. Resident care issues, federal and state regulations, and licensing and certification also addressed. PRQ: AHPH 460 or consent of school.

AHPH 480. ETHICAL DECISION MAKING FOR HEALTH PROFESSIONALS (3). Introduction to common ethical dilemmas involved in health services delivery. Emphasis on applied ethical decision making. Formal organizational structures related to ethical dilemmas such as written policies, committee composition, and reporting and documentation requirements. PRQ: Consent of school.

AHPH 491. ASSESSMENT, TREATMENT, AND PREVENTION OF DRUG AND ALCOHOL ADDICTION (3). Drug and alcohol addiction viewed from physiological, interpersonal, and cultural perspectives. Treatment techniques and programs to prevent drug and alcohol addiction.

AHPH 495. FUNDING FOR PROGRAMS IN COMMUNITY HEALTH (3). Seminar in identifying significant health problems and preparing competitive grant proposals. Students gain experience in writing and evaluating grant proposals and identifying potential funding agencies. PRQ: Consent of school.

AHPH 500. HEALTH CARE DELIVERY IN THE U.S. (3). Evaluation of health care controversies using critical thinking and knowledge of the sources, uses, and analysis of the health literature, especially data. Topics include bioethics, health system structure, financing methods, role of government, health personnel, mental health policy, and special populations' needs.

AHPH 501. BEHAVIORAL AND SOCIAL ASPECTS OF PUBLIC HEALTH (3). Examination of health and disease as psycho-social-behavioral-cultural phenomena from an interdisciplinary perspective. Overview of the types and distributions of diseases within certain communities. Investigation of the relationship between beliefs, behaviors, and health. Study of personal and cultural responses to disease and treatment. Discussion of the relationship between concepts of health and disease and social and personal values. PRQ: Consent of school.

AHPH 502. CURRICULUM DEVELOPMENT IN SCHOOL HEALTH EDUCATION (3). Application of fundamental principles and concepts of curriculum development to school health programs including health instruction, health services, and healthful school environment.

AHPH 503. SCHOOL HEALTH PROGRAMS: PLANNING, MANAGING, AND EVALUATING (3). Analysis of the principles of initiating, implementing, conducting, and maintaining effective school health education programs including pertinent supervision and staffing issues.

AHPH 504. SPECIAL TOPICS IN SCHOOL HEALTH EDUCATION (1 to 3). Topics announced. May be repeated as often as desired; however, degree-seeking students may count only 6 semester hours toward the degree and may not repeat topics.

AHPH 520. PRIMARY PREVENTION AND HEALTH PROMOTION (3). Analysis of primary prevention in the area of community health including health promotion program planning, development, implementation, and evaluation strategies. PRQ: AHPH 501 or consent of school.

AHPH 530. HEALTH SERVICES MANAGEMENT (3). Analysis of techniques in leadership and management applicable to the public health field. Topics include change theory, power dynamics, creative problem solving, marketing concepts and ideas, and leadership image. Emphasis on leadership challenges, research findings on experimental exercises, and case histories involving applied leadership and management skills in health service organizations. PRQ: Consent of school.

AHPH 535. PROBLEMS AND ISSUES IN ENVIRONMENTAL HEALTH (3). Analysis of contemporary environmental problems and issues related to public and community health. Topics include environmental toxicology; health risk assessment, management, and communication; air and water pollution control; solid and hazardous waste management; occupational injuries and diseases; and other miscellaneous topics. Discussion of the role of the environment in human health and disease, the basic principles of environmental health practice, and major issues in environmental health legislation and policy. PRQ: Consent of school.

AHPH 540. HUMAN RESOURCE MANAGEMENT IN THE HEALTH CARE SETTING (3). Reading, discussion, and practice of techniques in the field of human resource management. Organizational practices to improve employee morale, health, motivation, and productivity.

AHPH 550. WORKSHOP IN HEALTH SERVICES DELIVERY (1 to 3). Advanced workshop designed for students, community professionals, and health-related board members to study a selected contemporary issue or problem in the field of health services delivery. Content varies to provide the opportunity to study current problems. May be repeated to a maximum of 12 semester hours. PRQ: Consent of school.

AHPH 555. PRINCIPLES AND METHODS OF EPIDEMIOLOGY (3). Presentation and discussion of the principles and methods of the design, conduct, and interpretation of epidemiological studies. Focus on the evaluation and interpretation of the validity of findings from published epidemiological research. Examples from public health and biomedical literature used to illustrate concepts, methods, and interpretation. PRQ: BIOS 570 or consent of school.

AHPH 575. HEALTH ECONOMICS FOR HEALTH SERVICES MANAGERS (3). Study of principles, concepts, and methods of economic analysis applicable to the U. S. health sector. Applications include special characteristics of health care as a commodity and of the patient as a consumer; health insurance; determinants of cost and utilization; and effects on performance of different market structures, regulatory policies, and payment mechanisms. PRQ: Consent of school.

AHPH 585. INDEPENDENT STUDY (1 to 3). Independent study of current topics in allied health under faculty supervision. May be repeated to a maximum of 6 semester hours. S/U grading may be used. PRQ: Consent of school.

AHPH 588. COMMUNITY HEALTH PROMOTION PROGRAMS (3). Experiential involvement with health promotion programming and wellness life styles. Case study approach used to reinforce the experiential component. PRQ: AHPH 520 and consent of school.

AHPH 589. COMMUNITY HEALTH PLANNING (3). Study of the development of community health planning goals, objectives, and activities through understanding of data collection, analysis, and evaluation. Discussion of social values and political processes in planning and plan implementation. PRQ: BIOS 570 or consent of school.

AHPH 590. APPLIED RESEARCH METHODS IN PUBLIC HEALTH (3). Study of the research process applied to the community, workplace, and health agency setting. Emphasis on conceptual understanding and skill development. Integration of research methods and statistics applicable to the community health setting. PRQ: BIOS 570 or consent of school.

AHPH 593. FINANCIAL DECISION MAKING FOR HEALTH SERVICES MANAGERS (3). Theory, principles, concepts, and tools necessary to participate in the financial management process of health services organizations. Emphasis on assisting line managers to make informed decisions regarding the financial resources of any health services organization. Discussion of health care financing via third-party payers, cash flow, capital projects, analysis and forecasting, budgeting, and other relevant topics. PRQ: Consent of school.

AHPH 595. INTERNSHIP IN PUBLIC HEALTH (1 to 9). Work individually in practical community health situations under the guidance of an agency staff member and a university supervisor. May be repeated to a maximum of 12 semester hours. S/U grading. PRQ: Consent of school.

AHPH 596. CLINICAL/FIELD EXPERIENCE IN SCHOOL HEALTH EDUCATION (1 to 6). Supervised clinical/field experience in school health education with emphasis on health instruction, health facilities, and a healthful environment. May be repeated to a maximum of 6 semester hours. PRQ: Admission to health education certification program or consent of department.

AHPH 597. INDEPENDENT RESEARCH IN HEALTH EDUCATION (1 to 3). Independent research at the master's degree level under faculty supervision. May be repeated to a maximum of 6 semester hours. PRQ: Consent of faculty member who will direct research.

AHPH 598. MASTER'S COMPREHENSIVE EXAMINATION (1). Independent project completed over a time period specified by the school. May be repeated only once. S/U grading. PRQ: Consent of school.

AHPH 599. MASTER'S THESIS (1 to 6). May be repeated to a maximum of 6 semester hours. Continuous enrollment required until completion of the thesis. S/U grading. PRQ: Consent of school.

AHPH 697. INDEPENDENT RESEARCH IN HEALTH EDUCATION (1 to 3). Independent research at post-master's degree levels under faculty supervision. Research topic must be approved by supervisor prior to registration. May be repeated to a maximum of 6 semester hours. PRQ: Consent of faculty member who will direct research.

Department of Communicative Disorders (COMD)

Chair: Sue E. Ouellette

Graduate Faculty

Nancy M. Castle, professor, Ph.D., Northern Illinois University
Deborah L. Gough, associate professor, Ed.D., Northern Illinois University
Pamela A. Hadley, associate professor, Ph.D., University of Kansas
Kelly D. Hall, associate professor, Ph.D., University of Illinois
Pamela L. Jackson, professor, Ph.D., Purdue University
Gregory A. Long, professor, Ph.D., University of Kansas
Sherrill R. Morris, assistant professor, Ph.D., University of Kansas
Jodell Newman-Ryan, associate professor, Ph.D., University of Texas, Dallas
Sue E. Ouellette, professor, Ph.D., Kent State University
Matthew Rispoli, associate professor, Ph.D., Columbia University
Howard D. Schwartz, associate professor, Ph.D., Syracuse University
Earl J. Seaver, professor, Ph.D., University of Iowa
Joseph Smaldino, professor, Ph.D., University of Florida

The Department of Communicative Disorders offers graduate programs leading to the M.A. and Au.D. degrees. The graduate program is adapted to the student's individual needs and academic background. Each student plans a program in consultation with an adviser from the graduate faculty of the department.

A student may pursue a specialization in audiology, rehabilitation counseling, or speech-language pathology. The programs in speech-language pathology and audiology are accredited by the Council on Academic Accreditation of the American Speech-Language-Hearing Association. The rehabilitation counseling program is accredited by the Council on Rehabilitation Education.

Master of Arts in Communicative Disorders

Specialization in Audiology
Specialization in Rehabilitation Counseling
Specialization in Speech-Language Pathology

Admission

To be assured consideration for admission to the master's degree program in communicative disorders, prospective students must submit completed application materials (application forms, official transcripts, GRE General Test Scores, and letters of recommendation) to the Graduate School no later than February 1 for the summer and fall sessions, and September 1 for the spring session. Only complete applications containing all required data are considered.

Admission to the master's degree program is typically for full-time study. An applicant for admission to a departmental program is generally expected to meet or exceed the following requirements.

A minimum 3.00 GPA (on a 4.00 scale) in all undergraduate work.

Competitive scores on the GRE General Test.

Two letters of recommendation from professors, employers, or supervisors providing supportive evidence of an applicant's professional qualifications.

A typewritten statement describing the applicant's qualifications, goals, and career aspirations as they relate to the Department of Communicative Disorders at NIU.

Prospective students who fail to meet the GPA requirement for admission may request special consideration of their applications. Such requests must be in writing, must include compensatory evidence related to the deficiency, and should accompany the application for admission to the Graduate School. Final decisions regarding admissions are made by the program's admissions committee on the basis of a total profile of an applicant's qualifications.

It is necessary to limit graduate student admission in accordance with student/faculty ratio and the availability of practicum experience opportunities. Admissions to the specializations in audiology and rehabilitation counseling are typically limited to the summer and fall terms; however, spring admission will be considered on an individual basis.

Requirements

The student must choose a specialization in audiology, rehabilitation counseling, or speech-language pathology. With the advice and consent of the adviser, a student elects to earn a degree with or without a thesis. Student participation in practicum and internship courses requires both good academic standing and consent of the department.

Common Requirements

COMD 500 - Introduction to Research in Communicative Disorders (3)

To be engaged in any clinical practicum experience, evidence of professional liability insurance, child and adult CPR certification, completion of the Hepatitis B immunization series, absence of active tuberculosis, completion of two MMR immunizations, and a negative criminal background check are required. Graduate students must be in compliance with all of the above requirements prior to initiating clinical assignments. Students will be responsible for the costs involved in the aforementioned requirements and will also be responsible for providing their own transportation for clinical courses assignments.

Completion of the minimum academic and clinical requirements for the appropriate professional certification issued by the American Speech-Language-Hearing Association or the Commission on Rehabilitation Counselor Certification prior to graduation

Fulfillment of an experience assignment during each semester of full-time registration. Such assignments will be of a research, clinical, or teaching nature, depending on the needs of the student and the availability of the assignment

One of the following specializations

Specialization in Audiology
Specialization in Speech-Language Pathology

The master's degree requires a minimum of 36 semester hours, at least 30 of which must be earned in nonpracticum courses. Additional semester hours are normally earned in clinical practicum to fulfill the requirements of the appropriate clinical certification.

Thesis Option

The student must earn a minimum of 36 semester hours of graduate credit. A thesis must be submitted and approved. A maximum of 6 semester hours may be allotted to thesis research and writing.

The student is normally required to pass a comprehensive oral examination which assesses knowledge and ability in the specialization in graduate study, but this may be waived at the discretion of the thesis committee.

Non-Thesis Option

The student must earn a minimum of 36 semester hours of graduate credit and pass an examination which will assess knowledge and ability in the specialization of graduate study. The examination typically consists of both written and oral components; however, the oral component may be waived at the discretion of the written-examination committee.

Specialization in Rehabilitation Counseling

Because this program is fully accredited by the Council on Rehabilitation Education, a student who successfully completes the required curriculum, including a 600-hour internship under the supervision of a Certified Rehabilitation Counselor, is eligible to sit for the Commission on Rehabilitation Counselor Certification Examination. Students who wish to add a focus on deafness to augment the rehabilitation counseling specialization may complete COMD 430, American Sign Language I, COMD 431, American Sign Language II, and a basic course in audiometric methods.

CAHC 525 - Counseling Skills and Strategies (3),
OR COMD 505X - Counseling Skills and Strategies (3)
CAHC 530 - Counseling Theories and Practices (3)
COMD 492 - Medical Aspects of Disability in Rehabilitation (3)
COMD 500 - Introduction to Research in Communicative Disorders (3)
COMD 528 - Developmental Aspects of Deafness and Disability (3)
COMD 560 - Vocational Rehabilitation and Independent Living (3)
COMD 562 - Vocational Analysis and Job Placement (3)
COMD 582 - Counseling Theories and Techniques with People with Disabilities (3)
COMD 583 - Psychological and Vocational Assessment with Rehabilitation Populations (3)
COMD 586A. Practicum: Rehabilitation Counseling (1-8),
OR COMD 586B. Practicum: Deafness Rehabilitation Counseling (1-8)
COMD 590A. Advanced Practicum: Rehabilitation Counseling (2-4),
OR COMD 590B. Advanced Practicum: Deafness Rehabilitation Counseling (2-4)
COMD 594A. Internship: Rehabilitation Counseling (12),
OR COMD 594B. Internship: Deafness Rehabilitation Counseling (12)
COMD 677A. Seminar: Rehabilitation Counseling (3),
OR COMD 677B. Seminar: Deafness Rehabilitation Counseling (3)

If the student in this specialization has already completed COMD 492 with a grade of B or better as an undergraduate at NIU, that course will not be required in the student's M.A. program.

Students are required to complete a total of 200 approved professional development hours including direct involvement supervised counseling, professional meetings, and disability community involvement.

Thesis Option

A thesis must be submitted and approved. Students selecting this option must also pass a comprehensive examination which includes a defense of the thesis.

Non-Thesis Option

Students selecting this option must pass an oral and written examination which will assess knowledge and ability in the specialization.

Grading Policies for Clinical Courses

Students must make satisfactory progress in clinical practicum and internship courses. Students who earn two grades of C in clinical practicum courses (i.e., COMD 585, COMD 586, COMD 587, COMD 590, or COMD 594) will be dismissed from the graduate program.

Doctor of Audiology

The Doctor of Audiology (Au.D.) is an entry-level degree that prepares individuals for professional practice in the area of audiology. The program of study is designed to meet the minimum academic and clinical requirements for the Certificate of Clinical Competence in Audiology awarded by the American Speech-Language-Hearing Association and state licensure, expose students to basic and applied research, provide practical and research experience, and develop skills in the use of evidence-based practice.

Admission

To be assured consideration for admission to the Au.D. degree program, prospective students must submit completed application materials to the Graduate School no later than February 1 for the fall session. Admission to the Au.D. program is typically limited to the fall term, but exceptions will be considered in light of a review of deficiency course work.

Admission to the Doctor of Audiology degree program is typically for full-time study. An applicant for admission is generally expected to meet or exceed the following requirements.

A minimum 3.20 GPA (on a 4.00 scale) in all undergraduate course work.

Competitive scores on the GRE General Test.

Three letters of recommendation from professors, clinical supervisors, or employers providing evidence of an applicant's professional qualifications and ability to complete doctoral work successfully. At least two letters should be from persons in a position to write analytically about the applicant's academic qualifications to pursue graduate studies, and/or professional competence in audiology.

A prospective student who fails to meet the GPA requirement for admission may request special consideration of her or his application. Such requests must be in writing, must include compensatory evidence related to the deficiency, and should accompany the application for admission to the Graduate School. These requests will typically be considered from students completing undergraduate degrees in fields other than communication sciences and disorders. Decisions regarding admissions are made by the program's admission committee on the basis of a total profile of an applicant's qualifications.

Specific course work requirements for admission are generally those necessary for successful completion of the baccalaureate degree in communicative disorders with an emphasis in audiology. Deficiency course work will be determined on an individual basis.

Requirements

Students must complete a minimum of 114 semester hours including the following.

COMD 476 - Child Language Disorders (3)
COMD 505X - Counseling Skills and Strategies (3)
COMD 506 - Noise and Its Effects on Humans (3)
COMD 512A - Professional Issues I: Foundations of Practice (2)
COMD 512B - Professional Issues II: Practice Management (2)
COMD 525 - Advanced Hearing Science (3)
COMD 527 - Anatomy and Physiology of the Ear (3)
COMD 529 - Hearing Instruments (3)
COMD 530 - Advanced Aural Rehabilitation I (3)
COMD 531 - Advanced Aural Rehabilitation II (3)
COMD 575 - Pediatric Audiology (3)
COMD 577 - Audiologic Assessment I (4)
COMD 578 - Audiologic Assessment II (3)
COMD 579 - Electrophysiologic Assessment of the Auditory System (4)
COMD 580 - Evaluation and Treatment for Balance Disorders (3)
COMD 581 - Central Auditory Processing (3)
COMD 585 - Audiology Practicum: Speech and Hearing Clinic (8)
COMD 593 - Advanced Practicum: Audiology (30)
COMD 600 - Research Seminar (3)
COMD 627 - Auditory and Vestibular Pathology (3)
COMD 629 - Seminar in Hearing Instruments (3)
COMD 673 - Seminar in Audiology (6)
COMD 679 - Advanced Electrophysiologic Assessment of the Auditory System (3)
COMD 698 - Au.D. Research (3)
Statistics (3-4)
Electives (3)

Students are required to complete 6 semester hours of research-related courses (COMD 600, COMD 698) culminating in the completion of a research project.

To be engaged in any clinical practicum experience, evidence of professional liability insurance, child and adult CPR certification, completion of the Hepatitis B immunization series, absence of active tuberculosis, completion of two MMR immunizations, and a negative criminal background check are required. Graduate students must be in compliance with all of the above requirements prior to initiating clinical assignments. Students will be responsible for the costs involved in the aforementioned requirements and will also be responsible for providing their own transportation for clinical courses assignments.

Students must complete the minimum academic and clinical requirements for professional certification issued by the American Speech-Language-Hearing Association.

Course List

403. LANGUAGE DEVELOPMENT IN CHILDREN (3). *Crosslisted as LTLA 403X*. Overview of oral language acquisition including phonological, morphological, syntactic, semantic, and pragmatic development in children from infancy through adolescence.

420. INTRODUCTION TO AUDIOLOGY (3). Introduction to the profession of audiology and clinical procedures; etiology and diagnosis of auditory disorders. Students are strongly advised to complete COMD 325A and COMD 325B prior to enrollment in COMD 420. PRQ: COMD 323 or consent of department.

421. AURAL REHABILITATION (4). Methods and materials for communication assessment and training with the hearing impaired. Emphasis on receptive communication including speechreading, auditory training, and amplification systems. Students are strongly advised to complete COMD 326 prior to enrollment in this course. PRQ: COMD 326A, COMD 326B, and COMD 420, or consent of department.

423. DEVELOPMENTAL SPEECH AND LANGUAGE DISORDERS (3). Disorders of speech and language in special populations; observations and clinical problem solving. PRQ: COMD 221 and COMD 403, or consent of department.

424. STUTTERING (3). Introduction to the identification and measurement of stuttering. Examination of theories of the onset and development of stuttering with some discussion of evaluation and treatment procedures.

425. NEUROPATHOLOGIES OF SPEECH AND LANGUAGE (3). Neurological bases of speech-language production and disorders including sensory organization, neuromotor control, central language mechanisms, and clinical syndromes associated with central and peripheral nervous system dysfunction. PRQ: COMD 323 or consent of department.

429. ASSESSMENT PROCEDURES IN COMMUNICATIVE DISORDERS (4). Fundamental concepts underlying the evaluation of communicative disorders. PRQ: COMD 220 and STAT 208 or STAT 301, or consent of department.

430. AMERICAN SIGN LANGUAGE I (3). Development of receptive and expressive skills in American Sign Language. Emphasis on developing skills in a non-English syntax system, and communication with deaf and hard of hearing people in activities of daily living. Three hours of lecture and one hour of laboratory. PRQ: Consent of department.

431. AMERICAN SIGN LANGUAGE II (3). Continuation of COMD 430 emphasizing the improvement of communicative skills. Three hours of lecture and one hour of laboratory. PRQ: COMD 430 or consent of department.

432. AMERICAN SIGN LANGUAGE III (3). A continuation of COMD 431, with emphasis on developing fluency in American Sign Language. Three hours of lecture and one hour of laboratory. PRQ: COMD 431 or consent of department.

476. CHILD LANGUAGE DISORDERS (3). Assessment of and intervention with the high incidence population of otherwise-normal language impaired children from infancy through adolescence including those from multicultural backgrounds. PRQ: COMD 403 or consent of department.

481. WORKSHOP: AMERICAN SIGN LANGUAGE (1). Opportunities to increase sign language comprehension and expressive abilities through activities and training exercises. Workshop format is non-verbal. Emphasis on active student participation.

482. POST-EMPLOYMENT SERVICES IN VOCATIONAL REHABILITATION (3). Overview of the systems and accommodative techniques for providing post-employment services (e.g., job coaching) to people with the most severe disabilities. Emphasis on the provision of post-employment services to deaf, deaf/blind, and hard-of-hearing persons. PRQ: COMD 560.

491. MICROCOMPUTER USES IN COMMUNICATIVE DISORDERS (3). Overview of microcomputer applications in the assessment and treatment of speech and hearing disorders, and related production of reports, data, and files. Use of appropriate software available in the field of clinical evaluation, therapy exercises, report writing, and clinical data files. Development of clinically oriented programs in BASIC language.

492. MEDICAL ASPECTS OF DISABILITY IN REHABILITATION (3). A rehabilitative perspective on the structure of medicine in the United States, medical specialties, medical terminology, and the medical examination. Survey of select body systems, functions, basic etiologies, pathologies, and treatments intended to provide the rehabilitation counselor with basic information with which to determine eligibility and interpret case-related medical reports. Recommended PRQ: AHP 318.

493. COUNSELING IN COMMUNICATIVE DISORDERS (3). Counseling principles and techniques as related to assessment, treatment, parent conferences, staffings, and eliciting parent/client cooperation.

494. WORKSHOP IN COMMUNICATIVE DISORDERS (1 to 3). Application of principles of communicative disorders or rehabilitation to problems of special interest to the participant. May be repeated to a maximum of 9 semester hours.

495. FAMILIES AND COMMUNICATIVE DISORDERS: A REHABILITATIVE PERSPECTIVE (3). Application of systemic epistemology to the habilitation and rehabilitation of persons with communicative disorders. Survey of major family treatment concepts, models, and techniques as applied to communicative disorders and deafness rehabilitation counseling. Opportunity to develop a personally useful model of family-focused intervention.

500. INTRODUCTION TO RESEARCH IN COMMUNICATIVE DISORDERS (3). Study of the research areas in communicative disorders including sources of reference, research design, and the formats of professional writing. Current professional issues will also be considered. PRQ: Admission to the graduate program in communicative disorders.

502. ORAL-MOTOR FUNCTION IN CHILDREN: ASSESSMENT AND TREATMENT (3). Identification of and intervention for disorders of the oral-motor system affecting feeding, pre-speech, and speech. Topics include motor development for feeding and speech, identification of problems within the motor system during feeding and speech production, treatment strategies, transdisciplinary roles of the speech and language pathologist in assessment and treatment, and family service delivery. PRQ: COMD 425 and COMD 429, or consent of department. CRQ: COMD 587 or consent of department.

503. EARLY INTERVENTION IN COMMUNICATION DISORDERS (3). Identification of and intervention for communication disorders in children ages birth to three years and their families. Topics include the speech-language pathologist's role in interdisciplinary and transdisciplinary assessment, communication intervention techniques, models of service delivery, relevant legislation, and speech and language resources available to families and service providers. PRQ: COMD 403 and COMD 429, or consent of department.

504. CHILD LANGUAGE DISORDERS: SPECIAL POPULATIONS (3). Assessment procedures for and intervention with children with physical and/or cognitive impairments. Topics include models of intervention for individuals with autism, mental retardation, and developmental delay and infants and toddlers at risk for developmental disorders. Use of augmentative and alternative communication systems will be studied. Additional topics may include communication programming for children with syndromes, traumatic brain injury, multiple disabilities, LEP language impairment, and selective mutism. PRQ: COMD 476 or consent of department.

505X. COUNSELING SKILLS AND STRATEGIES (3). *Crosslisted as CAHC 525*. Clinical preparation in counseling skill development. Overview of role of counselor and counseling process. Emphasis on practice in counseling skills and techniques.

506. NOISE AND ITS EFFECTS ON HUMANS (3). Evaluation and practical application of noise measurement systems. Examination of noise as it affects humans. Includes information on hearing conservation programs designed to meet current governmental regulations. PRQ: COMD 420 or consent of department.

512A. PROFESSIONAL ISSUES I: FOUNDATIONS OF PRACTICE (2). Professional issues including ethical practice, confidentiality, patient/consumer rights, advocacy, cultural diversity, universal precautions, clinical decision making, report writing, and record keeping.

512B. PROFESSIONAL ISSUES II: PRACTICE MANAGEMENT (2). Issues in practice management including relevant laws and regulations, licensure, credentialing, regulatory agencies, health and educational delivery systems, service provider teaming, workers' compensation, billing and reimbursement, marketing, and advertising.

524. SUPERVISORY TECHNIQUES IN SPEECH AND HEARING SERVICES (3). Provides insights, techniques, and research information to develop competence necessary for the supervision of speech, hearing, and language services. Emphasis on information on supervision in public school, hospital, therapy center, and other agency programs.

525. ADVANCED HEARING SCIENCE (3). Normal and abnormal auditory processes, advanced psychoacoustics, development of the auditory mechanism, and speech perception. Study of clinical measures and procedures. PRQ: COMD 527 and COMD 577, or consent of department.

526. ADVANCED SPEECH SCIENCE (3). Advanced study of the acoustical, physiological, and perceptual aspects of speech. Assigned laboratory projects. PRQ: COMD 326A and COMD 326B, or consent of department.

527. ANATOMY AND PHYSIOLOGY OF THE EAR (3). Study of the anatomical and physiological aspects of the human auditory and vestibular systems. PRQ: Consent of department.

528. DEVELOPMENTAL ASPECTS OF DEAFNESS AND DISABILITY (3). Impacts of hearing impairment on the developmental, educational, personal, familial, social, and vocational aspects of life. Focus of study includes the deaf, hard-of-hearing, and multiply-disabled populations. PRQ: Consent of department.

529. HEARING INSTRUMENTS (3). Theories and procedures used in selection, evaluation, and fitting of hearing instruments. Types and components of electroacoustic hearing instruments and earmold acoustics. Laboratory experience in making earmolds; selection, fitting, and evaluation of hearing instruments. CRQ: COMD 577 or consent of department.

530. ADVANCED AURAL REHABILITATION I (3). Selected topics in aural rehabilitation with emphasis on the receptive aspects of communication and the impact on children and adults with impaired hearing. PRQ: COMD 421 or consent of department.

531. ADVANCED AURAL REHABILITATION II (3). Characteristics, assessment, and development/remediation of speech and language in children and adults with impaired hearing. PRQ: COMD 421 or consent of department.

535. FAMILY BASED TREATMENT IN COMMUNICATIVE DISORDERS (3). Study and application of a systemic paradigm to therapeutic intervention in speech-language pathology and audiology in a variety of speech-language treatment settings, including family-focused intervention, early intervention family-centered treatment, consultation in schools, and transdisciplinary teams.

544. STUTTERING MANAGEMENT AND REMEDIATION (3). In-depth examination of the evaluation and treatment of stuttering including management techniques for indirect therapy with parents and issues that affect decisions for treatment. PRQ: COMD 424 or consent of department.

547. INSTRUMENTATION FOR COMMUNICATIVE DISORDERS (3). Theoretical communicative disorders and practical aspects of electronic audio-frequency laboratory equipment commonly used for evaluation and research in speech pathology and audiology.

560. VOCATIONAL REHABILITATION AND INDEPENDENT LIVING (3). Historical and legislative development of vocational rehabilitation and independent living services are described, with emphasis on the provision of rehabilitative and independent living services for people with disabilities.

562. VOCATIONAL ANALYSIS AND JOB PLACEMENT (3). Study of basic theory, methods, and techniques for obtaining and maintaining employment of vocational rehabilitation clients. Emphasis on job readiness, job development, vocational analysis, and job accommodation. PRQ: COMD 560 or consent of department.

570. VOICE DISORDERS: RESEARCH AND THERAPY (3). Discussion and review of the literature bearing on the theory, etiology, and treatment of voice disorders. PRQ: Consent of department.

571. ADVANCED CLINICAL PHONOLOGY (1 to 3). Selected topics in the acquisition, assessment, and treatment of phonological disorders in children with emphasis on case presentations. May be repeated to a maximum of 5 semester hours. PRQ: COMD 423 and consent of department.

572. CRANIOFACIAL ANOMALIES (3). Study of craniofacial anomalies including cleft lip (with and without cleft palate), embryological development of the craniofacial complex, language and hearing problems, and other associated difficulties accompanying craniofacial dysmorphology. Principles of assessment, treatment, and research.

573. CEREBRAL PALSY (3). Study of communication problems associated with neuromuscular disorders with a focus on cerebral palsy. PRQ: COMD 425 or consent of department.

574. COGNITIVE-LINGUISTIC DISORDERS OF NEUROLOGICALLY IMPAIRED ADULTS (3). Study of neuropathologies and neuropsychological models of aphasia and cognitive-linguistic impairments accompanying head injury and right hemispheric lesions. Principles of differential diagnosis, treatment, and research. PRQ: COMD 425 or consent of department.

575. PEDIATRIC AUDIOLOGY (3). Significance of early detection of auditory disorders in the young child. Methods, techniques, and procedures used in obtaining audiological diagnosis of the auditory system of the pediatric case. PRQ: COMD 420 or consent of department.

576. ORGANIZATION AND PLANNING OF SPEECH, LANGUAGE, AND HEARING SERVICES (3). Aspects of conducting a program for communicative disorders in various settings including public schools, hospital and service clinics, and private practice. Study of current trends affecting the delivery of services in each of those areas.

577. AUDIOLOGIC ASSESSMENT I (4). Administration and interpretation of the standard audiometric battery, as well as discussion of the specialized tests of auditory function. Laboratory experience. PRQ: Consent of department.

578. AUDIOLOGIC ASSESSMENT II (3). Continuation of COMD 577 with emphasis on specialized tests of auditory function. PRQ: COMD 577 or consent of department.

579. ELECTROPHYSIOLOGIC ASSESSMENT OF THE AUDITORY SYSTEM (4). Neuroanatomic and neurophysiological bases of auditory evoked responses; administration and interpretation of the procedures used in evoked response testing; and relationship between pathology and evoked response results. Laboratory experience. PRQ: COMD 527 and COMD 577, or consent of department.

580. EVALUATION AND TREATMENT FOR BALANCE DISORDERS (3). Anatomy, physiology, neurology, and pathologies of the proprioceptive, vestibular, and central equilibrium mechanisms; instrumentation and procedures involved in evaluation of balance function; treatment for persons with equilibrium disturbances. PRQ: COMD 527 and COMD 579, or consent of department.

581. CENTRAL AUDITORY PROCESSING (3). Discussion of central nervous system processing leading to perception of an auditory event. Neurological bases of auditory perception, speech perception, understanding of language, normal and abnormal processing strategies, and neurological disorders. Evaluation of normal and abnormal central auditory processing and treatment of central auditory processing disorders. PRQ: COMD 425, COMD 527, and COMD 577, or consent of department.

582. COUNSELING THEORIES AND TECHNIQUES WITH PEOPLE WITH DISABILITIES (3). Application of basic counseling theory to the unique problems of serving persons with disabilities, with emphasis on communicative and related experiential challenges presented by people who are deaf and hard of hearing. Emphasis on personal, family, group, educational, and vocational counseling as well as basic elements of program development. PRQ: CAHC 525 or COMD 505X or consent of department.

583. PSYCHOLOGICAL AND VOCATIONAL ASSESSMENT WITH REHABILITATION POPULATIONS (3). Application of basic principles of standardized testing and evaluation to serving rehabilitation agency clients. Focus on issues related to assessment of persons with all disabilities. Emphasis on unique problems of selecting, administering, norming, and integrating test results for people who are deaf and hard of hearing. PRQ: COMD 528 or consent of department.

584. SPEECH AND SWALLOWING DISORDERS IN HEAD AND NECK CANCER PATIENTS (3). Study of speech and swallowing disorders in head and neck cancer patients following surgical and medical intervention. Emphasis on the role of the speech-language pathologist in the areas of counseling, dysphagia, artificial larynges, and alaryngeal and tracheoesophageal speech. PRQ: Consent of department.

585. AUDIOLOGY PRACTICUM: SPEECH AND HEARING CLINIC (1). Observation, practice, and discussion of diagnostic and rehabilitative audiological procedures. All students involved in on-campus practicum in audiology must enroll in this course. May be repeated to a maximum of 10 semester hours. PRQ: Consent of department.

586. PRACTICUM (1-3).
A. Rehabilitation Counseling
B. Deafness Rehabilitation Counseling
Observation, discussion, and practice of clinical procedures employed in rehabilitation counseling with persons with disabilities. All students involved in an on-campus practicum in deafness rehabilitation counseling must enroll in this course. May be repeated, with faculty adviser consent, to a maximum of 8 semester hours. PRQ: Consent of department.

587. SPEECH-LANGUAGE PRACTICUM: SPEECH AND HEARING CLINIC (1). Observation, discussion, and clinical practice of assessment and therapeutic procedures. All students involved in on-campus practicum in speech-language pathology must enroll in this course. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

588. COGNITIVE-COMMUNICATION DISORDERS ASSOCIATED WITH TRAUMATIC BRAIN INJURY (2). Neurobehavioral sequelae and the physical manifestation within a speech-language-cognitive framework. The spectrum of intervention from speech, language and cognitive assessment, to treatment and carryover.

590. ADVANCED PRACTICUM (2 to 4).
A. Rehabilitative Counseling. PRQ: COMD 586A and consent of department.
B. Deafness Rehabilitation Counseling. PRQ: COMD 586B and consent of department. S
Supervised practicum in rehabilitation counseling in external settings that include vocational rehabilitation programs and related agencies serving persons with disabilities. May be repeated to a maximum of 4 semester hours.

591. ADVANCED PRACTICUM: EDUCATIONAL SPEECH-LANGUAGE PATHOLOGY (1 to 12). Assessment and intervention experience in speech-language services in the school setting. May be repeated to a maximum of 12 semester hours. Good academic standing required for enrollment in this course. PRQ: COMD 587 and consent of department.

592. ADVANCED PRACTICUM: MEDICAL SPEECH-LANGUAGE PATHOLOGY (1 to 12). Assessment and intervention experience in speech-language services in hospital and clinic settings. May be repeated to a maximum of 12 semester hours. Good academic standing required for enrollment in this course. PRQ: COMD 587 and consent of department.

593. ADVANCED PRACTICUM: AUDIOLOGY (1 to 15). Advanced practicum in audiologic assessment and management in an external setting. May be repeated to a maximum of 30 semester hours. Good academic standing required for enrollment in this course. PRQ: COMD 585 and consent of department.

594. INTERNSHIP (1 to 12).
A. Rehabilitation Counseling. PRQ: COMD 590A and consent of department.
B. Deafness Rehabilitation Counseling. PRQ: COMD 590B and consent of department.
Clinical experience in a rehabilitation or related facility; student performs the functions of a counselor with persons with disabilities under the direct supervision of both faculty and qualified staff at the placement site. May be repeated to a maximum of 12 semester hours.

598. DIRECTED INDIVIDUAL STUDY (1 to 6). Independent pursuit of advanced problems in communicative disorders of special concern to qualified graduate students. May be repeated to a maximum of 12 semester hours, but only 6 semester hours may be applied to the master's degree in communicative disorders. PRQ: Consent of department.

599. MASTER'S THESIS (1 to 6). May be repeated to a maximum of 6 semester hours. PRQ: Consent of the student's adviser.

600. RESEARCH SEMINAR (3). Research design, application, and understanding leading to the development of a research proposal required for the Au.D. degree. PRQ: Consent of department.

627. AUDITORY AND VESTIBULAR PATHOLOGY (3). Includes discussion of changes in both structure and function. PRQ: COMD 527 or consent of department.

629. SEMINAR IN HEARING INSTRUMENTS (3). Advanced study of research in amplification systems including speech perception, psychoacoustics, and design consideration of hearing instruments. PRQ: COMD 529 or consent of department.

670. EXPERIMENTAL PHONETICS: PERCEPTION PROCESSES (3). The acoustic and psychoacoustic foundations associated with the perception of oral communication. Laboratory experimentation. PRQ: Consent of department.

671. EXPERIMENTAL PHONETICS: PRODUCTION PROCESSES (3). Research literature and laboratory methodology employed in the analysis of vocalized speech and the speech mechanism. Includes laboratory experiences relating to the physiological correlates of verbal behavior.

672. SEMINAR IN LANGUAGE (3). Theories and research on speech and language acquisition from infant vocalizations to the decoding and encoding of abstract concepts; description, measurement, and analysis of normal and variant language patterns. May be repeated to a maximum of 15 semester hours, but only 6 semester hours may be applied to the master's degree in communicative disorders. PRQ: Consent of department.

673. SEMINAR IN AUDIOLOGY (3). Special topics in audition and the auditory system. May be repeated to a maximum of 9 semester hours. PRQ: COMD 578 or consent of department.

674. ADMINISTRATION OF SPEECH AND HEARING PROGRAMS (3). Consideration of the basic business and professional principles essential to the operation of a speech and hearing program. Includes study of professional personnel management, budget and finance, plant management and development, and public relations and education.

675. SEMINAR: SPEECH-LANGUAGE PATHOLOGY (1 to 3). Selected topics in speech-language pathology. May be repeated, but only 6 semester hours may be applied toward the M.A. degree. PRQ: Consent of department.

676. SEMINAR: SPEECH SCIENCE (3). Selected topics in the normal functioning of the speech mechanism and the perception of speech. May be repeated to a maximum of 12 semester hours, but only 6 semester hours may be applied to the master's degree in communicative disorders. PRQ: COMD 326 and COMD 670, or consent of department.

677. SEMINAR (3).
A. Rehabilitation Counseling
B. Deafness Rehabilitation Counseling
Selected topics on the provision of rehabilitative services to persons with disabilities. May be repeated to a maximum of 12 semester hours, but only 6 semester hours may be applied to the master's degree in communicative disorders. PRQ: Consent of department.

679. ADVANCED ELECTROPHYSIOLOGIC ASSESSMENT OF THE AUDITORY SYSTEM (3). PRQ: COMD 579 or consent of department.

684. PEDIATRIC SWALLOWING DISORDERS (3). Assessment and treatment of pediatric swallowing disorders including neurodevelopment, normal anatomy and physiology of swallowing, respiratory and gastroenterologic issues related to swallowing, clinical oral motor and feeding assessment, videofluoroscopic evaluation of swallowing, and management of pediatric swallowing disorders.

698. AU.D. RESEARCH (3). May be repeated to a maximum of 9 semester hours. PRQ: COMD 600 and consent of department.

School of Family, Consumer, and Nutrition Sciences (FCNS)

Chair: Laura S. Smart

Graduate Faculty

Brent J. Atkinson, associate professor, Ph.D., Texas Tech University
Susan P. Bowers, associate professor, Ph.D., Ohio State University
Sarah L. Cosbey, associate professor, Ph.D., Iowa State University
Linda E. Derscheid, associate professor, Ph.D., University of Iowa
Shi-Ruei Sherry Fang, associate professor, Ph.D., Michigan State University
Beverly Henry, assistant professor, Ph.D., Loyola University
Julie Hillery, associate professor, Ph.D., University of Wisconsin
Hyun-Mee Joung, assistant professor, Ph.D., Iowa State University
Lan Li, associate professor, Ph.D., Virginia Polytechnic Institute and State University
Judith Lukaszuk, assistant professor, Ph.D., University of Pittsburgh
Michael J. Martin, professor, Ph.D., University of Georgia
J. Elizabeth Miller, associate professor, Ph.D., University of Georgia
Bette Montgomery, associate professor, Ph.D., University of Wisconsin
Jane Rose Njue, assistant professor, Ph.D., Iowa State University
Amy Ozier, assistant professor, Ph.D., University of Alabama
Aimee D. Prawitz, associate professor, Ph.D., Louisiana State University
Mary E. Pritchard, professor, Ph.D., Purdue University
Andrew Reilly, assistant professor, Ph.D., Ohio State University
Lin Shi, assistant professor, Ph.D., Texas Tech University
Laura S. Smart, professor, Ph.D., University of Connecticut
Josephine Umoren, associate professor, Ph.D., University of Nebraska
Charline Xie, associate professor, Ph.D., University of Nebraska at Lincoln

The School of Family, Consumer, and Nutrition Sciences offers graduate programs leading to the M.S. degree in applied family and child studies and in nutrition and dietetics. The school prepares professionals who support families and individuals in meeting their basic human needs. The programs are based on an interdisciplinary approach, drawing on the behavioral sciences, natural sciences, and the humanities. Students learn theories and their application to professions in nonprofit organizations, private practice, government, education, and business. Graduates have the necessary foundation for a career as well as further study.

A student pursuing an advanced degree in the School of Family, Consumer, and Nutrition Sciences is expected to meet the requirements of a major area. Deficiencies in the major area at the undergraduate level will be determined by a committee of graduate faculty and must be removed as directed by the committee. Transcripts of all postsecondary course work should accompany the Graduate School application.

Students-at-large intending to take courses required by the programs in applied family and child studies or in nutrition and dietetics should meet with the appropriate program coordinator.

Admission requirements and information regarding notification of a decision on admission are indicated below for each area of study. Prior to initial registration, each student planning a major in family, consumer, and nutrition sciences should confer with the graduate adviser.

Master of Science in Applied Family and Child Studies

This major provides professional career enhancement for advanced graduate work and research, secondary and college teaching, and programming and administration in family social services and child development settings in community and government agencies, including youth work, gerontological programming, child life programs in hospitals, infant and child care programs, family support services, and family life and parenting education.

A program of courses is developed cooperatively by the student and an adviser. In addition to taking the required courses, the student may focus on an individualized area of interest through the selection of courses within and outside the school.

Students-at-large intending to take courses required by this program should meet with the program coordinator.

Within the major, there is also the opportunity to specialize in marriage and family therapy.

Admission

Upon admission into the program, students are required, within 30 days, to notify the area coordinator in writing of their intention to register for classes in the term for which they were admitted. Failure to do so may result in cancellation of admission.

An applicant is required to have a minimum of 9 semester hours of undergraduate courses in family and child studies, or the equivalent including a course in family relations and one in child or lifespan development. Three of the 9 hours must be an upper-division family theories or child development theories course. A student may be required to remove deficiencies in the area of family and child studies by successfully completing designated courses. These deficiency courses should be completed during the first semester after admission to the major. Graduate students' undergraduate deficiencies have to be met with a grade of B or better. Failure to do so may result in removal from the program.

The maximum combined total of student-at-large hours plus transfer credit used in the degree program may not exceed 12 semester hours. For course work taken while a student-at-large, no more than 6 semester hours taken in the school and 6 hours outside of the school may be used in the degree program. Exceptions to these limits may be approved in special cases by the coordinator of the applied family and child studies faculty, provided that the Graduate School limit of transfer credit is not exceeded.

Since admission/enrollment in the major is limited, declared majors in the applied family and child studies program have priority for course enrollment. In such cases, students-at-large may not be allowed to enroll in some courses, or may be dropped from courses in the school within the graduate student drop period.

Requirements

This program requires a minimum of 30 semester hours.

ETR 521 - Educational Statistics I (3),
  OR ETR 522 - Educational Statistics II (3),
  OR BIOS 570 - Biostatistical Analysis (3),
  OR PSYC 504 - Advanced Psychological Statistics (3)
FCNS 501 - Seminar in Human Development and Family Studies (3)
FCNS 504 - Research Methods (3)
Course work from the following (3-12)
  FCNS 531 - Internship in Community Programs: Child Development (3)
    See "Special Requirements for FCNS 531" below.
  FCNS 532 - Internship in Community Programs: Family Services (3)
    See "Special Requirements for FCNS 532" below.
  FCNS 538 - Internship in Community Programs: Parent Education (3)
    See "Special Requirements for FCNS 538" below.
  FCNS 539 - Practicum: Family Therapy (12) (Enrollment limited to students admitted to the specialization in marriage and family therapy)
  FCNS 599A - Thesis (6)
  FCNS 610 - Teaching College-Level Family, Consumer, and Nutrition Sciences (3)
  A 3-semester-hour course on social science research methodology, or statistics
Three or four of the following including at least one 500-/600-level course (9-12)
  FCNS 432 - Theories of Child Development (3)
  FCNS 434 - Administration and Supervision of Programs for Young Children (3)
  FCNS 437 - Parent-Child Interaction From Birth to Eight Years (3)
  FCNS 438 - Parent Education (3)
  FCNS 439 - Infant Development in the Family (3)
  FCNS 445 - Management of Human and Family Resources (3)
  FCNS 484 - Family Theories (3)
  FCNS 486 - Aging and the Family (3)
  FCNS 489B-E. -Topical Issues in Family and Child Studies (3)
  FCNS 535 - Behavior Assessment of the Infant and Young Child (3)
  FCNS 537 - The Child in the Family (3)
  FCNS 584 - The Family with Adolescents (3)
  FCNS 585 - Family Stress and Structural Diversity (3)
  FCNS 589 - Readings in Family and Child Studies (3)
  FCNS 684 - Theoretical Foundations of Family Therapy (3)
Additional courses with approval of the adviser (6)

Students may fulfill the above requirements by completing various sequences of courses which develop professional competencies in specific areas including, but not limited to, the following areas of study.

Programming for and administration in family social services with emphasis on youth work. FCNS 501, FCNS 504, analytical and applied course requirements listed above, FCNS 438, FCNS 584, FCNS 585, 6 semester hours of electives.

Programming for and administration in child development settings, including hospitals. FCNS 501, FCNS 504, analytical and applied course requirements listed above, FCNS 434 or FCNS 445, FCNS 437, FCNS 537, and 6 semester hours of electives. It is recommended that students have a baccalaureate degree in child development or a related area including upper-division courses comparable to FCNS 330, FCNS 331, FCNS 331A, FCNS 439, and FCNS 490.

Programming for and administration in family social services with study in gerontology. FCNS 501, FCNS 504, analytical and applied course requirements listed above, FCNS 486, FCNS 585, and 6 semester hours of electives. (Consult the gerontology program listing elsewhere in this catalog.)

Preparation for advanced graduate work. FCNS, FCNS 504, FCNS 599A, ETR 522 or BIOS 570 or PSYC 501, FCNS 432, FCNS 537 or FCNS 584, FCNS 585 and 6 semester hours of electives.

Enhancement for secondary and college teaching. FCNS 501, FCNS 504, FCNS 610, and other analytical and applied course requirements listed above, FCNS 432, FCNS 537, FCNS 585, and 6 semester hours of electives.

Special Requirements for FCNS 531

Prerequisites for enrollment in the child development internship in community programs (FCNS 531) are (1) completion of a minimum of 9 graduate semester hours in applied family and child studies; (2) previous full-time employment for at least one year in a licensed early childhood program or other professional setting related to young children and their families or the equivalent of the following: supervised on-campus internship (FCNS 490), both guidance and planning courses (FCNS 330 and FCNS 331/FCNS 331A), a parent-child interaction course (FCNS 437), and an early childhood professional programs course (FCNS 434); (3) FCNS 537; (4) attendance at a scheduled child development internship meeting held prior to the start of the internship; (5) proof of liability insurance; and (6) consent of school.

Special Requirements for FCNS 532

Prerequisites for enrollment in the family services internship in community programs (FCNS 532) are (1) completion of a minimum of 9 graduate semester hours in applied family and child studies; (2) previous full-time employment for at least one year in a social services program or family therapy setting or the equivalent of all of the following: (a) 50 hours of approved volunteer work, (b) a group process class (FCNS 382 or CAHC 540), and (c) a professional issues class (FCNS 481 or FCNS 592); (3) attendance at the applied family and child studies program intern day (available on videotape); (4) proof of liability insurance; and (5) consent of school.

Special Requirements for FCNS 538

Prerequisites for enrollment in the parent education internship (FCNS 538) are (1) undergraduate course work in child or adolescent development, including principles of guidance (FCNS 330 or equivalent) and course content in ethics (FCNS 434, FCNS 481, FCNS 592, or equivalent); (2) completion of a minimum of 9 graduate semester hours in applied family and child studies, including FCNS 438 and one other content course related to the focus of the practicum; (3) completion of or co-enrollment in FCNS 537 or FCNS 584; (4) proof of liability insurance; and (5) consent of school.

Specialization in Marriage and Family Therapy

The specialization in marriage and family therapy, accredited by the Commission on Accreditation for Marriage and Family Therapy Education, emphasizes the practical application of systemic family therapy principles to the diagnosis and treatment of problems in human relationships. Through extensive course work, clinical experience with client couples, families, and individuals, and supervision by approved supervisors of the American Association for Marriage and Family Therapy, students in the specialization learn to integrate theory and research while developing the clinical skills of marriage and family therapists. The specialization prepares students to function in mental health, family service, hospital business, and human service settings, and upon graduation students have completed all requirements for associate membership in the American Association for Marriage and Family Therapy.

Application Process

The specialization in marriage and family therapy admits a limited number of students once a year in the spring semester. Eligible candidates for the specialization will be selected only from persons who have first applied for and been admitted to the M.S. program in applied family and child studies (without specialization),

fulfilling the prerequisites noted above. Therefore, applicants to the specialization must complete two separate application packets: the Graduate School application for admission to the M.S. program with a major in applied family and child studies (without specialization), and the school's application portfolio for the specialization.

The Graduate School application must be obtained directly from and submitted to the Graduate School. The specialization application portfolio must be obtained from and returned to the coordinator, specialization in marriage and family therapy, School of Family, Consumer, and Nutrition Sciences, Northern Illinois University, DeKalb, Illinois 60115-2854.

Completed Graduate School applications must be submitted by January 15 to the Graduate School, and specialization applications must be submitted to the coordinator of the specialization by January 15. Late applications will be considered only if space is available. Once admitted to both the graduate major in applied family and child studies and the specialization in marriage and family therapy, students may begin courses in the summer or fall term.

Admission requirements and procedures for the specialization in marriage and family therapy are fully described in an admission portfolio that is available from the program coordinator. Except in extraordinary circumstances, applicants must be available for a personal interview with the clinical faculty of the specialization.

Requirements

ETR 521 - Educational Statistics I (3),
OR ETR 522 - Educational Statistics II (3),
OR BIOS 570 - Biostatistical Analysis (3),
OR PSYC 504 - Advanced Psychological Statistics (3),
OR another 3-semester-hour course in social science research methodology or statistics approved by the chair of the graduate faculty (3)
FCNS 501 - Seminar in Human Development and Family Studies (3)
FCNS 500C - Seminar: Marriage and Family Therapy (6)
FCNS 504 - Research Methods (3)
FCNS 533 - Internship in Community Agencies: Marriage and Family Therapy(6)
FCNS 539 - Practicum: Family Therapy (12)
FCNS 592 - Professional Issues in Family Therapy (3)
FCNS 594 - Advanced Marriage and Family Therapy Strategies: Treatment of Children and Adolescents (3)
FCNS 595 - Strategies of Family Therapy (3)
FCNS 597 - Advanced Marriage and Family Therapy Strategies: Treatment of Couples (3)
FCNS 684 - Theoretical Foundations of Family Therapy (3)
Two of the following (6)
FCNS 438 - Parent Education (3)
FCNS 484 - Family Theories (3)
FCNS 486 - Aging and the Family (3)
FCNS 489B -Topical Issues in Family and Child Studies: Social Policy, Children, and Families (3)
FCNS 489C - Topical Issues in Family and Child Studies: Child Abuse and Neglect (3)
FCNS 489D - Topical Issues in Family and Child Studies: The Family and Divorce (3)
FCNS 489E - Topical Issues in Family and Child Studies: Working with Ethnically Diverse Children and Families (3)
FCNS 537 - The Child in the Family (3)
FCNS 584 - The Family with Adolescents (3)
FCNS 585 - Family Stress and Structural Diversity (3)
FCNS 589 - Readings in Family and Child Studies (3)

In addition to the comprehensive examination, students are required to pass an oral examination which assesses their knowledge of the theory and practice of marriage and family therapy. This examination is usually taken in the term prior to graduation

Students must complete a minimum of 54 semester hours in the program for graduation. This includes 500 supervised clinical contact hours completed within the field of marriage and family therapy. This may be done through required course work and work experience or internship.

Master of Science in Nutrition and Dietetics

The M.S. in nutrition and dietetics is designed to prepare students interested in community nutrition to work as registered dietitians in a variety of public and private health organizations in county, state, and government agencies or as patient-care dietitians in hospitals and other health-care settings. The program also prepares students to continue their studies in doctoral programs.

Students in this program may select additional courses in biology, chemistry, biochemistry, and psychology for a concentration in biochemistry or biophysics. (For details, see "Center for Biochemical and Biophysical Studies.")

Students planning to qualify for the Registration Examination of the American Dietetic Association must meet both academic and experience requirements. Completion of the Dietetic Practicum may be used to satisfy the experience requirements. The academic requirements for the Didactic Program in Dietetics (DPD) of the American Dietetic Association must be completed before students initiate the practicum hours. A list of courses may be obtained from the student's adviser. Any deficiency in courses required for admission must be removed within the time limitation determined by the admission committee.

Post-baccalaureate students requesting DPD verification must complete a minimum of 9 semester hours of course work at NIU with a grade of C or better. Consult with the DPD director prior to NIU enrollment to determine required course work.

Students-at-large intending to take courses required by this program should meet with the program coordinator.

Admission

Applicants are required to have completed a Didactic Program in Dietetics (DPD) or have had courses in general chemistry, organic chemistry, biochemistry, microbiology or bacteriology, human biology, human physiology, science of nutrition, applied nutrition, two semesters of nutrition in clinical care, principles of food preparation, and statistics. A minimum 3.00 GPA in these courses is required. Applicants will be admitted according to the vacancies in the program. Vacancies are determined by the number of graduate students completing degrees each semester. Applicants with the highest GPA and GRE scores will be given priority for available positions.

A combined total of no more than 15 semester hours of graduate credit earned as a student-at-large plus transfer hours will be counted toward the M.S. degree.

The majority of vacancies in the program are filled shortly after February 15 for summer session, April 15 for fall semester, and September 15 for spring semester.

Requirements

Students must complete a minimum of 32 semester hours in the program for graduation.

ETR 521 - Educational Statistics I (3),
OR ETR 522 - Educational Statistics II (3),
OR BIOS 570 - Biostatistical Analysis (3)
FCNS 500A - Seminar: Nutrition and Dietetics (2)
FCNS 504 - Research Methods (3)
FCNS 545 - Macronutrients (3)
FCNS 546 - Micronutrients (3)
FCNS 599A - Thesis (6)

One of the Following (3)
- FCNS 511 - Maternal and Child Nutrition (3)
- FCNS 512 - Geriatric Nutrition (3)
- FCNS 513 - Nutrition and Physical Activity (3)
- FCNS 516 - Nutritional Factors in Obesity and Eating Disorders (3)
- Three semester hours selected in consultation with the assigned graduate program adviser (3)

One of the following (3)
- AHPH 501 - Behavioral and Social Aspects of Public Health (3)
- CAHC 525 - Counseling Skills and Strategies (3)
- FCNS 410 - Community Nutrition (3)
- FCNS 429 - Strategies for Modifying Nutrition Behaviors (3)
- PSYC 417 - Principles of Behavior Modification (3)

Two of the following (5-6)
- AHPH 480 - Ethical Decision Making for Health Professionals (3)
- AHPH 500 - Health Care Delivery in the U.S. (3)
- AHPH 530 - Health Services Management (3)
- AHPH 540 - Human Resource Management in the Health Care Setting (3)
- AHPH 575 - Health Economics for Health Services Managers (3)
- FCNS 426 - Strategic Management in the Hospitality Industry (3)
- FCNS 515 - Intensive Metabolic Nutrition Support (3)
- FCNS 551 - Workshop in Dietetic Practice: Standards, Strategies, and Skills (2)
- SOCI 475 - Health Organizations and Delivery of Services (3)

Dietetic Internship

The dietetic internship offers on-site experiences in dietetics, nutrition, and food service; completion fulfills the practice requirements to qualify to take the Registration Examination of the Commission of Accreditation in Dietetic Education (CADE). Interns may request one of the three CADE emphases: community, general, or food service. The internship is accredited through the American Dietetic Association (ADA) and is available only to majors simultaneously enrolled in the M.S. program in nutrition and dietetics.

The internship involves four terms: an orientation term in which the student takes an internship workshop, FCNS 551A, and course work toward the degree and two semesters and a summer during which the student spends 20-40 hours per week in practice sites and continues graduate study. Students in the internship must have completed at least 9 semester hours toward the degree before they can be placed in a practice site, ordinarily these hours are taken during the orientation term. Interns must be enrolled in at least 4 semester hours of graduate course work toward the M.S. degree while enrolled in spring and fall on-site experiences.

Admission

Admission is limited and competitive; admission to the major does not constitute admission to the internship. Although a student may apply for admission to the internship while acceptance to the major is pending, internship acceptance cannot be finalized until the student is accepted into the major.

Applicants must have completed the academic requirements for the DPD of the ADA. A B average in key course work is required. These courses are identified in the applications packet.

Applicants must be certified in food sanitation prior to initiation of on-site practice experiences, and must have successfully completed 150 clock hours of paid work or volunteer experience related to the profession.

Students may apply in the fall or spring semester. Applicants should inquire about application deadlines. Applications will be screened and ranked with the highest ranking applicants being invited to interview. Following the interviews, students are matched to this program through the ADA computer-matching process. Late applicants will be considered if openings are available after computer matching.

Requirements

In addition to the courses required for the M.S. in nutrition and dietetics, including FCNS 551 (2), students electing the practicum must complete the following.

FCNS 517 - Internship: Food Systems Management (5)
FCNS 518 - Internship: Introduction to Medical Nutrition Therapy (3)
FCNS 519 - Internship: Community Nutrition (8)
FCNS 524 - Internship: Medical Nutrition Therapy (8)

Certificate of Graduate Study

Eating Disorders and Obesity (12)

Students interested in this certificate should contact the School of Family, Consumer, and Nutrition Sciences graduate faculty chair as early as possible so they can be assigned an adviser. Admission to the certificate requires approval of the admissions committee. Procedures for admission to this certificate and other detailed information are available from the School of Family, Consumer, and Nutrition Sciences office.

Participants must have a degree in family, consumer, and nutrition sciences or related undergraduate or graduate degree. It is recommended that the student have introductory course work in nutrition, psychology, and family relationships.

FCNS 502 - Issues in Eating Disorders and Obesity (3)
Course work from the following (9)
- FCNS 429 - Strategies for Modifying Nutrition Behaviors (3)
- FCNS 516 - Nutritional Factors in Obesity and Eating Disorders (3)
- FCNS 537 - The Child in the Family (3)
- FCNS 550[1] - Workshop in Family, Consumer, and Nutrition Sciences (3)
- FCNS 574 - Clothing and Human Behavior (3)
- FCNS 584 - The Family with Adolescents (3),
  OR EPS 508 - Theories and Research in Adolescent Behavior and Development (3)
- FCNS 585 - Family Stress and Structural Diversity (3)
- FCNS 601[1] - Problems in Family, Consumer, and Nutrition Sciences (1-3)

Teacher Certification in Family and Consumer Sciences

This program prepares individuals to be certified to teach family and consumer sciences at the middle/junior high and high school levels. The program meets the Illinois State Board of Education and the National Council for Accreditation of Teacher Education standards for secondary certification in family and consumer sciences. Students must have a baccalaureate degree in family and consumer sciences from an accredited institution and must

seek transcript evaluation and advisement from the teacher certification adviser at the earliest possible date.

be admitted to the university as a student-at-large or a graduate student. Admission to a degree program does not guarantee admission to the certification program.

plan their programs of study in consultation with a teacher certification adviser in the school at the earliest possible date.

obtain consent of family and consumer sciences teacher certification adviser for enrollment in early field experiences

[1]When topic is related to eating disorders and obesity.

obtain approval for admission into the teacher certification program which requires passing the ICTS basic skills test, a minimum 3.00 GPA in all course work, and acceptance into a master's program in the School of Family, Consumer, and Nutrition Sciences.

obtain permission for admission into student teaching which requires passing the content test.

complete the plan of courses.

Course work in family and consumer sciences must have been completed within the last ten years. Students must demonstrate currency in older course work.

Requirements in School (62-63)

FCNS 152 - Fiber and Fabric Analysis I (3),
OR FCNS 258 - Fashion Industries (3)
FCNS 200A - Principles of Food Preparation (3)
FCNS 201 - Human Nutrition (3),
OR FCNS 405 - Child Health and Nutrition (3)
FCNS 230 - Child Development (3)
FCNS 240 - Teaching and Learning in Family and Consumer Sciences Education (3)
FCNS 280 - Human Development, the Family, and Society (3)
FCNS 284 - Introduction to Family Relationships (3)
FCNS 341 - Methods and Resources for Teaching Family and Consumer Sciences (3)
FCNS 344 - Curriculum Development in Family and Consumer Sciences (3)
FCNS 438 - Parent Education (3)
FCNS 475 - Student Teaching in Family and Consumer Sciences (Secondary) (12)
One of the following (3)
- FCNS 180 - Personal Development and the Family (3)
- FCNS 285 - Introduction to Family Life Education (3)
- FCNS 384 - Asian American Families (3)
- FCNS 484 - Family Theories (3)
- FCNS 489B - Topical Issues in Family and Child Studies: Social Policy, Children, and Families (3)
- FCNS 489D - Topical Issues in Family and Child Studies: Family and Divorce (3)

Two of the following (6)
- FCNS 330 - Principles of Guiding Young Children (3)
- FCNS 332 - Program Planning for Children 3-8 Years of Age and Their Parents (3)
- FCNS 432 - Theories of Child Development (3)
- FCNS 434 - Administration and Supervision of Programs for Young Children (3)
- FCNS 437 - Parent-Child Interaction From Birth to Eight Years (3)
- FCNS 489C - Topical Issues in Family and Child Studies: Child Abuse and Neglect (3)
- FCNS 489E - Topical Issues in Family and Child Studies: Working With Ethnically Diverse Children and Families (3)

Two of the following (6)
- FCNS 207 - The Consumer (3)
- FCNS 343 - Family Financial Planning (3)
- FCNS 445 - Management of Human and Family Resources (3)

One of the following content areas (5-6)

Apparel and Textiles (6)

FCNS 152 - Fiber and Fabric Analysis I (3),
OR FCNS 258 - Fashion Industries (3),
OR FCNS 362 - Design Trends in Western Costume (3)
FCNS 252 - Apparel Production (3),
OR FCNS 353 - Apparel Products Analysis (3)

Living Environments (6)

Courses taken with approval of program adviser

Nutrition, Wellness, and Hospitality (5)

FCNS 200B - Food Preparation Laboratory (2)
FCNS 202 - Introduction to the Hospitality Industry (3),
OR FCNS 301 - Introduction to Food Services (3),
OR FCNS 406 - Global Food and Nutrition Issues (3)

Requirements outside School (22-25)

EPFE 500 - Social Foundations of Education (3),
OR EPFE 510 - Philosophical Foundations of Education (3),
OR EPFE 520 - Historical Foundations of Education (3),
OR EPFE 521 - Historical Foundations of Education in the United States (3)
EPS 406 - Issues in Human Development and Learning in the Middle School and High School Years (3),
OR EPS 508 - Theories and Research in Adolescent Behavior and Development (3)
ETT 229 - Computers in Education (3), or pass ETT proficiency examination
ETT 402 - Teaching and Learning with Technology (3)
LTRE 310 - Teaching Reading in the Secondary School (3),
OR LTRE 510 - Improvement of Reading in the Secondary School (3),
OR LTRE 511 - Teaching Reading in the Content Areas (3)
TLSE 457 - Systems for Integrating the Exceptional Student in the Regular Classroom (3)
Course work in science to include biology and chemistry, one of which must be a laboratory course (7)

Students must maintain a minimum 3.00 GPA in all undergraduate and graduate courses with a minimum 3.00 GPA in FCNS 341 and FCNS 344 for retention.

See also "Teacher Certification Information."

Course List

407. CONSUMER PROTECTION (3). Current trends in consumption; consumer movement in the United States; laws and agencies protecting and serving the consumer; product analysis using appropriate materials and skills. PRQ: Graduate standing or consent of school.

408. CURRENT PROBLEMS AND TRENDS IN NUTRITION AND FOODS (3). Readings in and discussion of selected classic studies and recent developments in the field of nutrition and foods. Implications for dietitians, nutritionists, teachers, extension workers and others. PRQ: Consent of school.

410. COMMUNITY NUTRITION (3). Nutrition problems and practices in the community, with emphasis on underserved populations. Planning, implementing, and evaluating community nutrition programs. PRQ: Consent of school. Recommended: FCNS 310.

424. CULTURAL AND NATIONAL FOOD PATTERNS (3). Food practices as influenced by social, cultural, and economic factors. PRQ: Consent of school.

426. STRATEGIC MANAGEMENT IN THE HOSPITALITY INDUSTRY (3). Analysis of environments associated with a product/market domain and implementation of the proper mix of competitive strategy and organization structure in the hospitality industry. Opportunity to explore the process and content of strategic management as applied to the administration of hospitality organizations. PRQ: FCNS 420 and MGMT 333, or consent of school.

428. EXPERIMENTAL FOODS (3). Application of scientific method in the study and design of experimental food problems. Development of evaluative and laboratory research techniques through group and individual projects. PRQ: FCNS 200A, FCNS 200B, and CHEM 370, or consent of school.

429. STRATEGIES FOR MODIFYING NUTRITION BEHAVIORS (3). Exploration of various strategies for assisting individuals and families to make changes in their behaviors related to food and nutrition. Attention given to nutrition counseling and nutrition education. Active participation in applying strategies to case studies and hypothetical situations. PRQ: FCNS 309 and FCNS 310, or consent of school.

432. THEORIES OF CHILD DEVELOPMENT (3). Analysis of the major theories of child development and their implications in working with young children. PRQ: 6 semester hours in child development or consent of school.

434. ADMINISTRATION AND SUPERVISION OF PROGRAMS FOR YOUNG CHILDREN (3). Planning the total program: the administration and supervision of various types of group care for children under six. Work with inservice training, volunteers, personnel, and financial problems. PRQ: FCNS 230 or FCNS 280, or consent of school.

437. PARENT-CHILD INTERACTION FROM BIRTH TO EIGHT YEARS (3). Parent-child interactions in the home and in institutions (e.g., early childhood care and educational settings in public and private schools, community service agencies, hospitals, and parent-child centers). Survey of theory, research, and professional early childhood practice regarding parent-child interaction, and parent education and involvement. PRQ: 6 semester hours in child development and/or family relations or consent of school.

438. PARENT EDUCATION (3). Basic principles in organization, formulation, and presentation of parent study programs. Experience in ways of working with parents of children from preschool through adolescence. Uses of group dynamics and mass media. PRQ: A course in child or adolescent development, or consent of school.

439. INFANT DEVELOPMENT IN THE FAMILY (3). The infant in the context of the family. Opportunity to become familiar with major scientific findings concerning prenatal and postnatal development of the child from conception through the first two years of life. Integration of this information through observation, laboratory experience, and home visits. PRQ: At least 6 semester hours in family and child studies or consent of school.

445. MANAGEMENT OF HUMAN AND FAMILY RESOURCES (3). The management process applied to resource allocation by individuals, families, and other units within a dynamic social and economic environment. PRQ: Consent of school.

452. APPAREL DESIGN I (3). Apparel design through the fundamental principles and processes of flat pattern methods. Emphasis on the development of a master pattern and original design. May be repeated once for advanced projects. PRQ: FCNS 252 or consent of school.

453. EXPERIMENTAL TEXTILES (3). Standard textile testing methods used in determining the physical and chemical characteristics of fibres, yarns, and fabrics, and the statistical methods employed in data analysis and evaluation. PRQ: CHEM 110 and CHEM 111, FCNS 152, and FCNS 351, or consent of school.

454. APPAREL DESIGN II (3). Draping based upon the interrelating factors of form, design, and material. Emphasis on experimentation with materials, techniques, and original design ideas. May be repeated once for advanced projects. PRQ: FCNS 252 or consent of school.

466. ECONOMICS OF APPAREL AND TEXTILE INDUSTRIES (3). Factors affecting the production, distribution, and consumption of apparel and textile products; the role of the apparel and textile industries in the national economy. PRQ: ECON 260 and FCNS 258, or consent of school.

468. CONSUMER BEHAVIOR RELATED TO APPAREL (3). Analysis of acquisition and consumption of apparel from perspectives of motivation, perception, learning, and attitude formation. Effects of factors constituting life style of families in various socioeconomic, ethnic, and age groups. Not available for credit to students with previous credit in MKTG 325. PRQ: FCNS 258, PSYC 102, SOCI 170, or consent of school.

481. PROFESSIONAL PRACTICES IN FAMILY SOCIAL SERVICES (3). Introduction to typical community family social service agencies. Includes internal function and structures and networking with other agencies, the role of the intern and entry-level worker, selected legislative statutes which relate to clients, and ethical behavior of employees and interns.

484. FAMILY THEORIES (3). Micro and macro theoretical approaches to family relationships; integration and application of theories and research to family processes and the practice of family science and family life education. PRQ: One introductory course in marriage and family and one introductory course in human or child development or consent of school.

486. AGING AND THE FAMILY (3). Family roles of the middle aged and elderly, including care giving and receiving; cultural variation; workforce and leisure participation; financial status; health status; housing needs; and the role of public and private agencies and institutions in the provision of services for the elderly. PRQ: At least 6 semester hours in family and child studies or consent of school.

489. TOPICAL ISSUES IN FAMILY AND CHILD STUDIES (3)
B. Social Policy, Children, and Families
C. Child Abuse and Neglect
D. The Family and Divorce
E. Working with Ethnically Diverse Children and Families
Selected topics affecting child development and family life. May be repeated to a maximum of 15 semester hours when topic changes. PRQ: At least 6 semester hours in family and child studies or consent of school.

490. PRACTICUM IN INFANT AND CHILD DEVELOPMENT LABORATORIES (3 to 8). Supervised on-campus practicum in child development. Opportunities for planning and supervising programs for infants and children up to 5 years of age. In fulfilling the 30 semester-hour graduate program requirement, no student will be permitted to count more than 6 semester hours from field experiences in FCNS 531 and/or FCNS 490. PRQ: FCNS 330, FCNS 331, FCNS 331A, FCNS 439, verification of a non-reactive two-step tuberculin skin test within the last six months, and consent of school.

500. SEMINAR (1 to 12).
A. Nutrition and Dietetics
B. Family and Child Studies
C. Marriage and Family Therapy
D. Family and Consumer Sciences Education
E. Textiles and Clothing
Readings and reports in the designated areas of family, consumer, and nutrition sciences. May be repeated to a maximum of 12 semester hours when topic changes. PRQ for C.: FCNS 684, or consent of school.

501. SEMINAR IN HUMAN DEVELOPMENT AND FAMILY STUDIES (3). Overview of theory and research findings in family and individual development. PRQ: Consent of school.

502. ISSUES IN EATING DISORDERS AND OBESITY (3). Interdisciplinary examination of eating disorders within the social and family context. Body image, self-esteem, cultural context, appropriate exercise and nutrition, human development, family science theory, family stress, child abuse, and interventions. Issues related to prevention, intervention, and genetics/physiology. PRQ: Consent of department.

504. RESEARCH METHODS (3). Study of the research process including the interplay of theory, research design, data collection, and analysis. Development of a research proposal required.

511. MATERNAL AND CHILD NUTRITION (3). Interaction of the social, psychological, and physiological aspects of nutrition during pregnancy and lactation in women, and for children from birth through the teen years. PRQ: Undergraduate course in applied nutrition or consent of school.

512. GERIATRIC NUTRITION (3). Interaction of the social, psychological, and physiological aspects of nutrition in the elderly population. PRQ: Undergraduate course in applied nutrition or consent of school.

513. NUTRITION AND PHYSICAL ACTIVITY (3). Theoretical basis for the interaction of linking diet and physical activity for the improvement and/or maintenance of health and physical performance. PRQ: Undergraduate course in applied nutrition or consent of school.

515. INTENSIVE METABOLIC NUTRITION SUPPORT (3). In-depth study of recent trends in clinical nutrition relating organ physiology, disease progression, biochemical interpretation, calorie and fluid analysis, and macro- and micronutrient modifications to metabolic nutrition support. Focus on disease status and nutrient modifications to promote anabolism while concurrently minimizing or preventing further deterioration in organ function. PRQ: FCNS 416 or consent of school.

516. NUTRITIONAL FACTORS IN OBESITY AND EATING DISORDERS (3). Exploration of the etiology, complications, prognosis, and treatment protocols for obesity and eating disorders. Assessment of diet and eating behavior as factors in treatment and prevention of these conditions. Students required to participate as staff volunteers in an on-going weight control program. PRQ: FCNS 309 or consent of school.

517. INTERNSHIP: FOOD SYSTEMS MANAGEMENT (5). Supervised participation in a variety of foodservice systems. S/U grading. PRQ: Consent of school.

518. INTERNSHIP: INTRODUCTION TO MEDICAL NUTRITION THERAPY (3). Introduction to supervised practice in nutrition care in a health care institution. PRQ: Admission to the dietetic internship and consent of school.

519. INTERNSHIP: COMMUNITY NUTRITION (8). Supervised practice in professional settings appropriate to the student's professional interest. S/U grading may be used. PRQ: Consent of school.

520. CURRICULUM IN FAMILY AND CONSUMER SCIENCES EDUCATION (3). Principles of curriculum development involving theoretical and philosophical concepts with emphasis on home economics programs including elementary, secondary, continuing education, and college. PRQ: FCNS 344 or consent of school.

521. EVALUATION IN FAMILY AND CONSUMER SCIENCES EDUCATION (3). Methods of evaluation. Relationship to curriculum. Selection, construction, and use of evaluation devices for family and consumer sciences programs. PRQ: FCNS 344 or consent of school.

522. TRENDS AND ISSUES IN FAMILY, CONSUMER, AND NUTRITION SCIENCES (3). Exploration of current issues in family, consumer, and nutrition sciences at the secondary, post-high-school, and college levels. Consideration of trends contributing to the issues and proposed solutions.

524. INTERNSHIP: MEDICAL NUTRITION THERAPY (8). Supervised practice in nutrition care in a health care institution. S/U grading. PRQ: FCNS 518 and consent of school.

525. ADMINISTRATION AND SUPERVISION IN FAMILY, CONSUMER, AND NUTRITION SCIENCES (3). Theories and principles of leadership and supervision as related to family, consumer, and nutrition sciences teaching, secondary departments, and state departments. Objectives, techniques, and evaluation of supervision.

531. INTERNSHIP IN COMMUNITY PROGRAMS: CHILD DEVELOPMENT (1 to 9). Supervised participation in professional settings. May be repeated to a maximum of 9 semester hours, but only 6 semester hours may be applied toward a master's degree. PRQ: See "Special Requirements for FCNS 531."

532. INTERNSHIP IN COMMUNITY PROGRAMS: FAMILY SERVICES (1 to 9). Supervised participation in professional settings. May be repeated to a maximum of 9 semester hours, but only 6 semester hours may be applied toward a master's degree. PRQ: See "Special Requirements for FCNS 532."

533. INTERNSHIP IN COMMUNITY AGENCIES: MARRIAGE AND FAMILY THERAPY (1 to 9). May be repeated to a maximum of 9 semester hours. S/U grading may be used. CRQ: FCNS 539 or consent of school.

535. BEHAVIOR ASSESSMENT OF THE INFANT AND YOUNG CHILD (3). Content and methodology of the assessment of behavior of the infant and young child. Specific discussions and materials on the measurement of personality, maturation and readiness, intelligence, social behavior, and interests and attitudes. Application of some of these tests and measurements will be an integral part of this course. PRQ: Consent of school.

537. THE CHILD IN THE FAMILY (3). Analysis of the reciprocal influences between family and child in the context of other important socializing influences. The biological, cognitive, affective, and social-personal domains of development are examined. Relevant information is included from historical, philosophical, anthropological, cross-cultural, and psychological perspectives. PRQ: Consent of school.

538. INTERNSHIP IN COMMUNITY PROGRAMS: PARENT EDUCATION (1 to 6). Supervised participation in professional settings with a parent education program aimed at changing or enhancing parental and family attitudes and behaviors. May be repeated to a maximum of 6 semester hours. PRQ: See "Special Requirements for FCNS 538."

539. PRACTICUM: FAMILY THERAPY (1 to 12). Under faculty supervision, student develops the professional skills of marriage and family therapists. May be repeated to a maximum of 12 semester hours. Applicable toward AAMFT clinical contact and supervision requirements. Restricted to students admitted to the specialization in marriage and family therapy. PRQ: Consent of school.

540. FAMILY, CONSUMER, AND NUTRITION SCIENCES FOR EDUCATORS OF THE VISUALLY IMPAIRED (3). Methods used to teach life skills to visually impaired individuals.

545. MACRONUTRIENTS (3). Study of current knowledge of the metabolic basis of nutritional needs of macronutrients (carbohydrates, proteins, fats, calcium, phosphorous, magnesium, and electrolytes) including clinical implications. PRQ: FCNS 309, a course in biochemistry, and a course in physiology; or consent of school.

546. MICRONUTRIENTS (3). The basis of nutritional needs for vitamins and trace minerals including nutrient interactions. PRQ: FCNS 309, a course in biochemistry, and a course in physiology; or consent of school.

550. WORKSHOP IN FAMILY, CONSUMER, AND NUTRITION SCIENCES (1 to 6). Workshop designed for professional personnel to study current issues, trends, and programs in a specialized area. Topic announced. May be repeated. Maximum of 6 semester hours of workshops may be applied toward master's degree. PRQ: Consent of school.

551. WORKSHOP IN DIETETIC PRACTICE: STANDARDS, STRATEGIES, AND SKILLS (1 to 2).
A. Clinical Care Issues
B. Management Issues
An exploration and evaluation of techniques, procedures, and policies associated with the contemporary practice of dietetics. PRQ: Consent of school.

554. ADVANCED APPAREL DESIGN (3). Exploration of apparel design through draping and pattern drafting technique. Emphasis on original ideas and interrelated factors of materials, design, and form. PRQ: FCNS 452 or FCNS 454, or consent of school.

562. CURRENT PROBLEMS IN CONSUMER TEXTILES (3). New development in textiles; analysis of quality control and production standards, evaluation of current problems. PRQ: FCNS 351 or consent of school.

564. FASHION PROCESS ANALYSES (3). Interdisciplinary approach to fashion process analyses incorporating anthropology, economics, history, sociology, psychology, marketing, and consumer behavior. Applications of existing fashion concepts and theories to contemporary environments. PRQ: FCNS 464 and consent of school; or FCNS 468 or consent of school.

568. READINGS IN TEXTILES, APPAREL, AND MERCHANDISING (3). Analysis of selected readings including research in textiles, apparel, and merchandising. PRQ: Consent of school.

572. HISTORIC TEXTILES (3). Methods of textile formation and textile design processes over time and in diverse cultures. PRQ: FCNS 152 or consent of school.

574. CLOTHING AND HUMAN BEHAVIOR (3). Clothing as a reflection of human behavior as related to the concepts from the behavioral sciences. Interpretation of research findings. PRQ: FCNS 464 or consent of school.

584. THE FAMILY WITH ADOLESCENTS (3). Developmental tasks of the family with adolescents; parental and adolescent roles, communication networks, adolescent identity and sexuality.

585. FAMILY STRESS AND STRUCTURAL DIVERSITY (3). Analysis of the possible problems and strengths of families that have experienced non-normative stressors or reflect structural diversity. PRQ: FCNS 501 or consent of school.

589. READINGS IN FAMILY AND CHILD STUDIES (3). Analysis of normative, developmental, and ecological changes across the life span. Focus on developmental transitions such as childbirth, adolescence, and aging. PRQ: Upper-division course in family or child studies or consent of school.

592. PROFESSIONAL ISSUES IN FAMILY THERAPY (3). Survey and discussion of ethical, legal, and contextual issues in the practice of marriage and family therapy. PRQ: Consent of school.

594. ADVANCED MARRIAGE AND FAMILY THERAPY STRATEGIES: TREATMENT OF CHILDREN AND ADOLESCENTS (3). Examination and application of advanced marriage and family clinical strategies and theories for the assessment, diagnosis, and treatment of child and adolescent mental health issues. Integration of race, ethnicity, culture, gender, sexual orientation, religion, socioeconomic status, power, and privilege issues throughout the course. PRQ: FCNS 595 or consent of school.

595. STRATEGIES OF FAMILY THERAPY (3). Exploration of the specific perceptual, conceptual, and intervention skills of traditional and current family therapy approaches. PRQ: FCNS 684 or consent of school.

596. STRUCTURAL FAMILY THERAPY (3). Exploration of the specific perceptual, conceptual, and intervention skills of structural family therapy, developed by Salvador Minuchin. PRQ: Consent of school.

597. ADVANCED MARRIAGE AND FAMILY THERAPY STRATEGIES: TREATMENT OF COUPLES (3). Examination and application of advanced marriage and family clinical strategies and theories for the assessment and treatment of couples from a relational/systemic perspective. Topics include sex therapy, domestic violence, same sex couples, and sexual functioning. Integration of race, ethnicity, culture, gender, sexual orientation, religion, socioeconomic status, power, and privilege issues throughout the course. PRQ: FCNS 594 or consent of school.

598. PROJECT (1 to 6). Individual application of student's area of study to the solution of a problem, under supervision of an adviser. Not open to students who select a thesis program. May be repeated to a maximum of 6 semester hours. PRQ: FCNS 504 or consent of adviser.

599A. THESIS (1 to 6). Individual investigation of a problem under supervision of an adviser. May be repeated to a maximum of 6 semester hours. Continuous enrollment is required until the thesis is completed. PRQ: FCNS 504 or consent of adviser.

599B. ONE-PERSON SHOW (1 to 6). Preparation of one-person show and documentation from point of view of both content and form. May be repeated to a maximum of 6 semester hours. Continuous enrollment is required until the show is completed. PRQ: Major in textiles and clothing (field of design) and consent of adviser.

601. PROBLEMS IN FAMILY, CONSUMER, AND NUTRITION SCIENCES (1 to 3). Independent study, individual problems, action, or other research. May be repeated to a maximum of 6 semester hours. PRQ: Consent of school.

610. TEACHING COLLEGE-LEVEL FAMILY, CONSUMER, AND NUTRITION SCIENCES (1 to 3). Teaching experience supervised by a faculty member. May be repeated to 12 semester hours. A maximum of 3 semester hours may be applied toward a master's degree. PRQ: Consent of school.

684. THEORETICAL FOUNDATIONS OF FAMILY THERAPY (3). *Crosslisted as CAHC 684X.* Examination and discussion of the historical development and theoretical foundations of family therapy, with focus on the traditional and current models of therapy in the field. PRQ: Consent of school.

Department of Military Science (MILS)

Chair: Lieutenant Colonel Craig A. Engel

Faculty

Lieutenant Colonel Craig A. Engel, professor, M.M.A.S., Command and General Staff College
Major Peter Yedinak, assistant professor, M.A., University of South Florida
Captain Dale W. Burbank, assistant professor, B.S., United States Military Academy

The Department of Military Science offers graduate students training and experience in the art of organizing, motivating, and leading others, while completing their studies for a degree in an academic discipline of their own choice. Completion of the program leads to a commission in the U.S. Army. The Reserve Officers' Training Corps is open to all eligible students, both male and female. The curriculum is centered around an applied leadership training program which is designed to develop those personal traits and qualities essential to successful leadership in civilian life, as well as the military environment. Those who complete the advanced program will serve as commissioned officers with National Guard, U.S. Army Reserve, or regular U.S. Army units.

Program

Army ROTC offers a two-year program which meets the needs of most graduate students. To enter this program students usually attend a 28-day leader's training course the summer before entering the advanced courses. Applications are accepted throughout the year. Students are paid while attending the training course. Upon completion of the course students may enter directly into the advanced course and start receiving a monthly stipend.

Veterans' Option

In most cases, prior military service will qualify for placement credit so that veterans may enroll directly in the advanced course. Veterans are permitted to receive G.I. Bill benefits and state benefits as well as the monthly stipend while enrolled in the advanced course.

Eligibility

Interested students should contact the department on enrollment procedures and specific eligibility requirements. Generally, to enroll in the military science program leading to an officer's commission the student must

be a citizen of the United States or have been lawfully admitted to the U.S. for permanent residence under applicable provisions of the Immigration and Naturalization Act and be at least 17 years of age;

be enrolled as a full-time student at NIU with at least four semesters remaining at NIU;

be able to complete the ROTC program prior to reaching 30 years of age (Age requirements may be waived in some cases.);

be physically and mentally qualified and of good moral character; and

be selected by the professor of military science.

Commissioning Requirements

There are four requirements for a graduate student to be commissioned as either a Reserve or Active Duty Second Lieutenant in the U.S. Army. The graduate student must hold an undergraduate degree in any major, complete or earn credit for the four years of military science undergraduate classes, complete the advanced internship in military science, and complete a military history class.

Leadership Laboratory

A leadership laboratory is required each week for all military science students. Content varies with the student year-group and military science class.

Course List (Advanced Courses)

Credit earned in Military Science is not applicable toward graduate degree requirements.

301. LEADERSHIP AND PROBLEM SOLVING (3).

302. LEADERSHIP AND ETHICS (3).

325. BASIC INTERNSHIP IN MILITARY SCIENCE (3).

350. ADVANCED INTERNSHIP IN MILITARY SCIENCE (3).

401. LEADERSHIP AND MANAGEMENT (4).

402. OFFICERSHIP (4).

495. INDEPENDENT STUDY (3).

School of Nursing (NURS)

Acting Chair: Brigid Lusk

Graduate Faculty

Karen Baldwin, assistant professor, Ph.D., University of Illinois, Chicago
Virginia Cassidy, professor, Ed.D., Northern Illinois University
Sharon Coyer, associate professor, Ph.D., Loyola University
Patricia G. Fox, associate professor, Ph.D., University of Illinois, Chicago
Judith Hertz, associate professor, Ph.D., University of Texas at Austin
Ayhan A. Lash, professor, Ph.D, University of Chicago
Brigid Lusk, associate professor, Ph.D., University of Illinois, Chicago
Diana Mertens, supportive professional staff, Dr.P.H., University of Illinois, Chicago
Donna Munroe, associate professor, Ph.D., University of Southern California
Donna Plonczynski, assistant professor, Ph.D., University of Illinois, Chicago
Judith Popovich, associate professor, D.N.Sc., Rush University
Lola Prince, assistant professor, Ph.D., Loyola University, Chicago
Julie Robertson, professor, Ed.D., Northern Illinois University
Jeanette Rossetti, assistant professor, Ed.D., Northern Illinois University

The School of Nursing offers a program of graduate study leading to an M.S. in nursing which is fully accredited by the Commission on Collegiate Nursing Education, and a post-master's family nurse practitioner certificate of graduate study. In conjunction with the School of Allied Health Professions, the School of Nursing also offers the opportunity for simultaneous enrollment in the M.S. in nursing and M.P.H. degree programs to qualified graduate students with the consent of both schools.

Grading Policies for Master's Degree and Certificate Students

Students must earn a minimum grade of B in each clinical specialty course. Clinical specialty courses include NURS 517, NURS 518, NURS 519, and NURS 519A; in addition, NURS 525, NURS 526, NURS 578, and NURS 579 for the adult nurse practitioner course of study and the adult clinical nurse specialist course of study, and NURS 574, NURS 575, NURS 577, NURS 578, and NURS 579 for the family nurse practitioner course of study.

Any clinical specialty course in which a grade of C is earned must be repeated and a grade of B or higher earned to progress in the graduate program. Students who earn two grades of C in the same clinical specialty course or any combination of clinical specialty courses will be dismissed from the graduate and certificate programs.

Master of Science in Nursing

A minimum of four semesters is required for completion of the M.S. in nursing program. Graduates are prepared for an advanced practice role as either a nurse practitioner or a clinical nurse specialist in a selected field of clinical study and are eligible to sit for national examinations for certification as a family nurse practitioner, an adult nurse practitioner, an adult clinical nurse specialist, or a community health nurse specialist by completing the program with the appropriate field of clinical study.

Current licensure with no encumbrance as a registered nurse in Illinois is prerequisite to enrollment in all nursing courses unless otherwise specified. Registered nurses who hold the baccalaureate in nursing may enroll in graduate nursing courses as students-at-large. With the approval of the student's graduate adviser, a maximum of 9 semester hours of student-at-large credit may be applied to degree requirements. Exceptions to this 9-hour limit may be made only for students who are required to complete up to 15 semester hours of graduate work in order to demonstrate an acceptable GPA. (See "Admission" below.) Enrollment in the internship courses (NURS 577, NURS 578, NURS 579, and NURS 595) requires that planning be completed with appropriate faculty during the semester preceding each internship experience.

Students must have completed an introductory statistics course and an introductory research course prior to enrolling in NURS 512. An introductory health assessment course must be taken prior to enrolling in fields of clinical study. ETR 521 or a graduate-level intermediate statistics course may be taken prior to or concurrently with NURS 512.

To maintain enrollment in the graduate program, evidence of current registered nurse licensure, professional liability insurance, CPR certification, and absence of active tuberculosis is required. Graduate students must be in compliance with all clinical requirements prior to enrollment in the first nursing course.

All internship courses are permit courses. In order to receive a permit for the course a student must complete the appropriate prerequisite courses and submit documentation of compliance with clinical requirements to the School of Nursing, Room 190. Clinical requirements include evidence of current registered nurse licensure, professional liability insurance, appropriate CPR certification, and required immunizations.

The graduate faculty committee may determine that a student not continue in the master's program in nursing for failure to maintain professional standards.

Graduate students plan their program of study in consultation with an assigned adviser. With the advice and consent of the adviser, a student may elect a thesis option, which requires completion of an additional 3 semester hours. A maximum of 6 semester hours of credit may be transferred from another college or university. The adult health clinical nurse specialist course of study, the family nurse practitioner course of study, and the adult health nurse practitioner course of study require 48 semester hours. The community health nurse specialist course of study requires 36 semester hours.

Admission

Admission to graduate study in nursing requires compliance with the following standards of the School of Nursing.

Current licensure with no encumbrance as a registered nurse in the U.S. (Prior to beginning course work, students must hold or have applied for licensure in Illinois.)

A baccalaureate degree from a school accredited by the Commission on Collegiate Nursing Education (CCNE), or the National League of Nursing Accrediting Commission, or from a program seeking initial accreditation which includes an upper-division major in nursing equivalent to the undergraduate nursing major at NIU. If the applicant is a graduate of a non-graded baccalaureate program in nursing, CCNE accreditation or National League of Nursing accreditation is required. The

applicant must provide documentation of course work which is essentially equivalent to that required in the nursing major at NIU.

A minimum 3.00 GPA (based on a 4.00 system) for the last 60 hours of the baccalaureate program, or completion of 9-15 semester hours of graduate work in nursing at NIU with a GPA of 3.20 or better.

Each applicant must provide a writing sample to be administered by the School of Nursing.

Two letters of reference from employer, supervisor, or professor which provide supportive evidence of the applicant's professional qualifications.

The approval of the School of Nursing Graduate Admissions Committee.

The applicant may be required to have a personal interview with the university and/or the School of Nursing Graduate Admissions Committee.

Admission decisions are normally made within three weeks of receipt of the complete application.

Criminal Background Checks and Drug Screening

Students are required to undergo criminal background checks and drug screening. The School of Nursing is unable to place students in a clinical setting if they have a positive drug screen or criminal background check, therefore, the student will not be able to complete the program of required courses.

Requirements

Non-Thesis Option

ETR 521 - Educational Statistics I (3),
OR another intermediate graduate statistics course approved by the School of Nursing
NURS 512 - Theoretical Perspectives for Advanced Practice Nursing (3)
NURS 513 - Scientific Inquiry in Advanced Practice Nursing (3)
NURS 515 - Diversity Within Community Systems for Advanced Nursing Practice (3)
NURS 516 - Advanced Practice Nursing Within the Health Care Delivery System (3)
One of the following fields of clinical study (21-33)

Family Nurse Practitioner (33)

NURS 514 - Actualizing the Advanced Practice Nursing Role (3)
NURS 517 - Pathophysiological Concepts in Nursing (4)
NURS 518 - Clinical Pharmacology and Therapeutics in Advanced Nursing Practice (4)
NURS 519 - Health Assessment (3)
NURS 519A - Health Assessment Clinical Laboratory (1)
NURS 574 - Primary Care I: Infant, Child, and Adolescent (3)
NURS 575 - Primary Care II: Adult (3)
NURS 577 - Internship: Infant and Child Health (4)
NURS 578 - Internship: Women's Health (4)
NURS 579 - Internship: Adult Health (4)

Adult Nurse Practitioner (33)

NURS 514 - Actualizing the Advanced Practice Nursing Role (3)
NURS 517 - Pathophysiological Concepts in Nursing (4)
NURS 518 - Clinical Pharmacology and Therapeutics in Advanced Nursing Practice (4)
NURS 519 - Health Assessment (3)
NURS 519A - Health Assessment Clinical Laboratory (1)
NURS 525 - Adult Responses to Health and Illness I (3)
NURS 526 - Adult Responses to Health and Illness II (3)
NURS 578 - Internship: Women's Health (4), and NURS 579 - Internship: Adult Health (8),
OR NURS 579 - Internship: Adult Health (12)

Adult Clinical Nurse Specialist (33)

NURS 514 - Actualizing the Advanced Practice Nursing Role (3)
NURS 517 - Pathophysiological Concepts in Nursing (4)
NURS 518 - Clinical Pharmacology and Therapeutics in Advanced Nursing Practice (4)
NURS 519 - Health Assessment (3)
NURS 519A - Health Assessment Clinical Laboratory (1)
NURS 525 - Adult Responses to Health and Illness I (3)
NURS 526 - Adult Responses to Health and Illness II (3)
NURS 578 - Internship: Women's Health (4), and NURS 579 - Internship: Adult Health (8),
OR NURS 579 - Internship: Adult Health (12)

Community Health Nurse Specialist (21)

AHPH 495 - Funding for Programs in Community Health (3)
AHPH 555 - Principles and Methods of Epidemiology (3)
NURS 571 - Advanced Community Health Nursing: Analysis and Application (3)
NURS 573 - Advanced Community Health Nursing: Health Promotion (3)
NURS 595 - Advanced Internship in Community Health Nursing (6)
Cognate course (3)

Thesis Option

Same requirements as non-thesis option, except 3 semester hours of NURS 599, Master's Thesis, must be included.

With the approval of the School of Nursing, a student may substitute an alternative field of clinical study, of 12-18 semester hours in nursing, appropriate to the student's professional interest.

Simultaneous Enrollment in M.P.H. and M.S. in Nursing Degree Programs

The School of Allied Health Professions and the School of Nursing offer the opportunity for simultaneous enrollment in the M.P.H. and M.S. in nursing degree programs to qualified graduate students. Students must be admitted to both the public health program in the School of Allied Health Professions and the M.S. program in the School of Nursing; admission to both programs must be within 18 months of each other. The requirements under the simultaneous enrollment plan and the allowance of 15 semester hours of dually used course work do not apply to students enrolled in only one of the programs. Students must have consent of both schools to enroll in the programs simultaneously. Students should contact a graduate program adviser in the public health program for further information

Under the simultaneous enrollment plan, students are required to take at least 64 semester hours as follows.

Courses Applied to M.S. in Nursing (21)

NURS 512 - Theoretical Perspectives for Advanced Practice Nursing (3)
NURS 513 - Scientific Inquiry in Advanced Practice Nursing (3)
NURS 515 - Diversity Within Community Systems for Advanced Nursing Practice (3)
NURS 516 - Advanced Practice Nursing Within the Health Care Delivery System (3)
NURS 571 - Advanced Community Health Nursing: Analysis and Application (3)
NURS 573 - Advanced Community Health Nursing: Health Promotion (3)
NURS elective (3)

Courses Applied to Both Programs (15)

AHPH 495 - Funding for Programs in Community Health (3)
AHPH 555 - Principles and Methods of Epidemiology (3)
ETR 521 - Educational Statistics I (3), or a statistics course approved by adviser (3)
NURS 595[1] - Advanced Internship in Community Health Nursing (6)

[1]Area of clinical study must be in public/community health.

Courses Applied to M.P.H. Degree (28)

AHPH 500 - Health Care Delivery in the U.S. (3)
AHPH 501 - Behavioral and Social Aspects of Public Health (3)
AHPH 530 - Health Services Management (3)
AHPH 535 - Problems and Issues in Environmental Health (3)
AHPH 589 - Community Health Planning (3)
AHPH 590 - Applied Research Methods in Public Health (3)
AHPH 598 - Master's Comprehensive Examination (1)
AHPH electives (9)

Certificate of Graduate Study

Family Nurse Practitioner (26)

This certificate requires 26 semester hours of post-master's study which includes class lectures, simulated laboratory experiences, and 659 hours of clinical experiences with designated preceptors. The purpose of the course of study is to provide the course work and clinical experience to become family nurse practitioners upon the successful completion of the nationally administered Family Nurse Practitioner Certification Examination.

The curriculum is configured for part-time students and takes a minimum of four semesters to complete. Students may choose to complete the program more slowly or enroll full time if they have prerequisites to complete. Students who have deficiencies in prerequisite courses may be able to take them at the same time they are taking the family nurse practitioner series of courses. Students must receive a minimum grade of C in all classes taken for the certificate and their prerequisites and maintain a minimum graduate GPA of 3.00 to remain in the course of study.

Prerequisites for admission into the course of study leading toward the certificate include a master's degree in nursing from a program accredited by the National League for Nursing (NLN) Accrediting Commission or the Commission on Collegiate Nursing Education (CCNE), an introductory health assessment course (equivalent to NURS 306 and NURS 306A), a graduate-level pathophysiology course within the last ten years, and an advanced community health nursing analysis and application course (equivalent to NURS 515 or NURS 571). Courses included in master's degrees other than NIU's will be evaluated on an individual basis.

Admission to pursue the family nurse practitioner certificate of graduate study requires compliance with the following standards of the School of Nursing.

Current licensure as a registered nurse in Illinois with no encumbrances

Completion of an NLN or CCNE accredited nursing master's degree program.

Two letters of recommendation from persons who are familiar with the individual's clinical expertise, ability to function in an independent role, and motivation to become a nurse practitioner.

An interview may be requested by the Graduate Admissions Committee.

Required Courses

NURS 514 - Actualizing the Advanced Practice Nursing Role (3)
NURS 518 - Clinical Pharmacology and Therapeutics in Advanced Nursing Practice (4)
NURS 519 - Health Assessment (3)
NURS 519A - Health Assessment Clinical Laboratory (1)
NURS 577 - Internship: Infant and Child Health (4)
NURS 578 - Internship: Women's Health (4)
NURS 579 - Internship: Adult Health (4)
NURS 602 - Conceptual Basis for Family Health Nursing for the Advanced Practice Nurse (3)

Course List

512. THEORETICAL PERSPECTIVES FOR ADVANCED PRACTICE NURSING (3). Exploration of links between theory, research, and knowledge guiding advanced nursing practice. Evaluation of various theoretical perspectives for their applicability to practice phenomena. Consideration of the research process as a source of nursing knowledge. CRQ: ETR 521 or consent of school.

513. SCIENTIFIC INQUIRY IN ADVANCED PRACTICE NURSING (3). Evaluation of selected research methods to identify client-focused clinical nursing problems and appropriate interventions in advanced practice. Use of databases to analyze selected client-related epidemiological problems. Analysis of selected clinical problems and methods for integration of research into advanced practice. PRQ: ETR 521 and NURS 512, or consent of school.

514. ACTUALIZING THE ADVANCED PRACTICE NURSING ROLE (3). Economic, social, political, ethical, and legal issues impacting advanced nursing practice. Components of professionalism and their effect on clinical decision making. Selected clinical experiences supplement the course. CRQ: NURS 512 or consent of school.

515. DIVERSITY WITHIN COMMUNITY SYSTEMS FOR ADVANCED NURSING PRACTICE (3). Exploration, analysis, and application of epidemiological principles, group processes, and change theory within community health systems. Emphasis on physiological, cultural, racial, ethnic, age, and gender group variants that might influence assessment and strategic planning for meeting the health needs of populations. Selected clinical experiences supplement this course. CRQ: NURS 512 or consent of school.

516. ADVANCED PRACTICE NURSING WITHIN THE HEALTH CARE DELIVERY SYSTEM (3). Analysis of the U.S. health care system and its components using a systems approach to health care policy and financing. Concepts in organizational structure and theory and political processes as they influence health care policy and delivery. PRQ: NURS 512 or consent of school. CRQ: NURS 513 or consent of school.

517. PATHOPHYSIOLOGICAL CONCEPTS IN NURSING (4). Underlying principles common to disease processes. Physiology and pathophysiology of selected systems and subsystems illustrating altered states across the life span. Integration of current research from nursing and other disciplines. CRQ: NURS 512 or consent of school.

518. CLINICAL PHARMACOLOGY AND THERAPEUTICS IN ADVANCED NURSING PRACTICE (4). Principles of pharmacology for the primary care of individuals across the life span. Emphasis on prescribing and monitoring procedures for the various drug regimens used to treat common health alterations. Identification of risks associated with drug reactions and interactions and with self-medication. Selected clinical experiences. PRQ: NURS 512 or consent of school.

519. HEALTH ASSESSMENT (3). Advanced practice health assessment knowledge base derived from research and theory. Emphasis on knowledge of the variants of normal and deviations from normal based on culture, race, gender, and age. Introduction to clinical reasoning processes. PRQ: NURS 306, NURS 306A, NURS 512, or consent of school. CRQ: NURS 519A.

519A. HEALTH ASSESSMENT CLINICAL LABORATORY (1). Clinically simulated and practice experiences to develop advanced health assessment skills for culturally diverse clients across the lifespan. Emphasis on the implementation of systematic processes for effectively and efficiently eliciting and recording subjective and objective data and guided application of the clinical reasoning. PRQ: NURS 306, NURS 306A, NURS 512, or consent of school. CRQ: NURS 519.

525. ADULT RESPONSES TO HEALTH AND ILLNESS I (3). Advanced nursing practice in health promotion and management of health responses to health alterations across the adult life span. Focus on epidemiology, symptomatology, interventions, and case management. Emphasis on selected alterations in cardiovascular, immune, respiratory, and genitourinary systems of individuals within the context of the family. PRQ: NURS 513, NURS 514, NURS 515, NURS 516, NURS 517, NURS 518, or consent of school. CRQ: NURS 519 and NURS 519A, or consent of school.

526. ADULT RESPONSES TO HEALTH AND ILLNESS II (3). Advanced nursing practice in health promotion and management of human responses to health alterations across the adult life span. Focus on epidemiology, symptomatology, interventions, and case management. Emphasis on selected alterations in endocrine, neurological, musculoskeletal, gastrointestinal, and integumentary systems of individuals within the context of the family. PRQ: NURS 513, NURS 514, NURS 515, NURS 516, NURS 517, and NURS 518, or consent of school. CRQ: NURS 519 and NURS 519A, or consent of school.

530. INDEPENDENT STUDY (1 to 3). Independent study under faculty supervision. May be repeated to a maximum of 6 semester hours. PRQ: Consent of school.

531. PRACTICUM IN NURSING EDUCATION (1 to 3). Independent experience in nursing education under faculty supervision. May be repeated to a maximum of 9 semester hours. Credit not applicable toward the M.S. in nursing. PRQ: Consent of school.

532. PRACTICUM IN NURSING RESEARCH (1 to 3). Independent experience under faculty supervision in selected components of the nursing research process. Activities may include proposal development, literature review, data collection, computer data entry, data analysis, and report writing. May be repeated to a maximum of 9 semester hours. Credit not applicable toward the M.S. in nursing. PRQ: Consent of school.

536. CLINICAL EXPERIENCE: PHYSICAL ASSESSMENT (1). Laboratory experience in clinical setting wherein physical assessment skills are developed and evaluated. Experiences scheduled on Saturdays. PRQ: Consent of school.

538. EMERGENCY AND TRAUMA NURSING (3). Investigation of the role of the nurse in the management of patients and families with trauma and other emergency health care needs within the community context. Exploration of the scientific basis for establishing priorities of care. Specific clinical problems are selected for study.

539. ONCOLOGY NURSING SEMINAR (3). Selected topics related to the illness trajectory for individuals experiencing alterations in cellular proliferation. Emphasis on the role of the nurse in advanced practice in enhancing adaptation of the individual and family.

571. ADVANCED COMMUNITY HEALTH NURSING: ANALYSIS AND APPLICATION (3). Exploration, analysis, and application of epidemiologic studies, community health care delivery systems, and the planning, implementing, and evaluating of nursing services within these systems. Theory validated in the practice setting. PRQ: AHPH 555, NURS 513, an introductory health assessment course, or consent of school. CRQ: NURS 516 or consent of school.

572. ADVANCED COMMUNITY HEALTH NURSING: HOME HEALTH CARE (3). Exploration of advanced nursing practice in home health care within a complex health care delivery system. Theory validated in the practice setting. PRQ: NURS 571 or consent of school.

573. ADVANCED COMMUNITY HEALTH NURSING: HEALTH PROMOTION (3). Exploration of advanced nursing practice within a health promotion paradigm. Theory validated in the practice setting. PRQ: NURS 571 or consent of school.

574. PRIMARY CARE I: INFANT, CHILD, AND ADOLESCENT (3). Principles underlying the longitudinal management of common health and illness issues in infants, children, and adolescents in the primary care setting. Emphasis on the impact of health and illness on the individual within the context of culturally diverse families. PRQ: NURS 513, NURS 514, NURS 515, NURS 516, NURS 517, NURS 518, or consent of school. CRQ: NURS 519 and NURS 519A, or consent of school.

575. PRIMARY CARE II: ADULT (3). Principles underlying the longitudinal management of factors affecting health and common illnesses in adults in the primary care setting. Emphasis on the impact of health and illness on the individual within the context of culturally diverse families. PRQ: NURS 513, NURS 514, NURS 515, NURS 516, NURS 517, NURS 518, and consent of school. CRQ: NURS 519 and NURS 519A, or consent of school.

577. INTERNSHIP: INFANT AND CHILD HEALTH (4). Clinical internship with focus on the management of common health and illness conditions in primary care of infants, children, and adolescents. Emphasis on integration of health promotion and preventive measures in assessing and teaching of culturally diverse families. PRQ: NURS 513, NURS 514, NURS 515, NURS 516, NURS 517, NURS 518, NURS 519, NURS 519A, and consent of school. CRQ: NURS 574 or consent of school.

578. INTERNSHIP: WOMEN'S HEALTH (4). Clinical internship with focus on the management of women's health care in the primary care setting. Emphasis on health promotion, maintenance and preventive measures from puberty through the reproductive years, menopause, and postmenopausal years. PRQ: NURS 513, NURS 514, NURS 515, NURS 516, NURS 517, NURS 518, NURS 519, NURS 519A, and consent of school. CRQ: NURS 525 or NURS 526 for adult nurse practitioner and adult clinical nurse specialist students; NURS 575 for family nurse practitioner students; or consent of school.

579. INTERNSHIP: ADULT HEALTH (4). Clinical internship with focus on the management of common health and illness conditions in primary care of young adults through older adulthood. Emphasis on integration of health promotion, health maintenance, preventive measures, and health restoration in assessing, managing, and teaching culturally diverse adult clients and families. May be repeated to a maximum of 12 semester hours. PRQ: NURS 513, NURS 514, NURS 515, NURS 516, NURS 517, NURS 518, NURS 519, NURS 519A, and consent of school. CRQ: NURS 525 or NURS 526 for adult nurse practitioner and adult clinical nurse specialist students; NURS 575 for family nurse practitioner students; or consent of school.

580. SEMINAR IN CLINICAL NURSING (1 to 3). Exploration of solutions to the development of nursing services in meeting current modern health needs. May include experimentation with new formats for communicating relevant information in fields requiring nursing expertise. May be repeated to a maximum of 9 semester hours if topic changes.

595. ADVANCED INTERNSHIP IN COMMUNITY HEALTH NURSING (6). Individualized internship to increase competency in advanced community health nursing. Completion of a clinically focused project involving community-based program planning required. May be repeated to a maximum of 12 semester hours. PRQ: NURS 571, NURS 573, and consent of school.

599. MASTER'S THESIS (1 to 3). Open only to students who elect to write a thesis for the M.S. degree in nursing. Student enrolls with faculty member directing the thesis. Microfilming of thesis with University Microfilms required. May be repeated to a maximum of 3 semester hours. Continuous enrollment required until thesis completed. PRQ: NURS 513 and consent of school.

602. CONCEPTUAL BASIS FOR FAMILY HEALTH NURSING FOR THE ADVANCED PRACTICE NURSE (3). Theoretical and conceptual bases for family nurse practitioner practice. Advanced practice nursing roles in relation to levels of care and case management of families across the life span. Includes didactic and clinical experiences when taken for 3 semester hours, while the 2-semester-hour class involves didactic experiences only. PRQ: An introductory health assessment course or consent of school.

College of Liberal Arts and Sciences

Acting Dean: Joseph E. Grush, Ph.D.
Associate Dean: Sue Warrick Doederlein, Ph.D.
Associate Dean: W. William Minor, Ph.D
Acting Associate Dean: Carla W. Montgomery, Ph.D.

Department of Anthropology
Department of Biological Sciences
Department of Chemistry and Biochemistry
Department of Communication
Department of Computer Science
Department of Economics
Department of English
Department of Foreign Languages and Literatures
Department of Geography
Department of Geology and Environmental Geosciences
Department of History
Department of Mathematical Sciences
Department of Philosophy
Department of Physics
Department of Political Science
Department of Psychology
Department of Sociology

College Mission Statement

The College of Liberal Arts and Sciences fosters the generation, dissemination, and preservation of knowledge as the foundation of a liberal education. The mission of the college is to provide high-quality education that contributes to the intellectual growth, self-discovery, and enhanced expertise of all members of the university community. The college makes available to the widest possible audience the rich cultural and scientific legacy represented by the disciplines that make up the liberal arts and sciences. Because bodies of knowledge do not exist in isolation, the college promotes interdisciplinary inquiry and is committed to the integration of teaching, scholarship, and service. The research and scholarship in the college permeate teaching and service, generating a wide range of opportunities for faculty and students to work together in transmitting, expanding, and applying knowledge. The college programs are designed to serve the university, its students, and the residents of the region, the country, and the world. These programs link basic and applied research and scholarly endeavors to the interests and needs of individuals and society.

Certficates of Graduate Study

Lesbian, Gay, Bisexual, and Transgender Studies

Coordinators: Bradley Peters (Department of English) and Diana Swanson (Women's Studies Program and Department of English)

This interdisciplinary certificate fosters research and teaching related to sexual orientation and gender identity. Course work leading to this certificate includes study of sexuality and gender identity and their significance, through a systematic engagement with theories and methods in lesbian, gay, bisexual, and transgender studies and their application in a variety of disciplinary and interdisciplinary contexts. The certificate is recommended for all students interested in examining issues of gender and sexual orientation in order to incorporate such concerns into their scholarly work as well as to function as informed citizens and successful professionals in the 21st century. The certificate is particularly appropriate for students preparing for or currently working in a variety of disciplines or careers in business, communications, the arts, education, health, social sciences, humanities, and human services.

This certificate of graduate study is available to any graduate-level student in good standing. Students must consult with the coordinator of lesbian, gay, bisexual, and transgender studies for approval of the course of study.

ILAS 550 - Lesbian, Gay, Bisexual, and Transgender Studies (3)
ILAS 551 - Research in Lesbian, Gay, Bisexual, and Transgender Studies (3)
Two of the Following[1] (6)
- AHPH 411 - Sexuality Education (3)
- ANTH 468 - Anthropology of Gender (3)
- CAHC 666 - Human Sexuality Counseling (3)
- COMS 540 - Seminar in Communication and Gender (3)
- COMS 660[2] - Seminar in Rhetoric (3)
- ENGL 507[2] - Topics in Literature (3)
- HIST 402 - Gender and Sexuality in History (3)
- ILAS 502[2] - Internship (3)
- WOMS 510[2] - Topics in Women's Studies (3)
- WOMS 520 - Feminist Theory (3)

Museum Studies (15)

This certificate is jointly administered by the College of Liberal Arts and Sciences and the College of Visual and Performing Arts. See the College of Visual and Performing Arts for a complete description of this certificate.

Women's Studies (12)

Women's studies is an interdisciplinary program which fosters research and teaching related to gender. Course work leading to the certificate of graduate study in women's studies permits study of gender and its significance through a systematic engagement with feminist theory and criticism, research methods, and scholarship and results in recognition of that study on the student's transcript. Since the Women's Studies Program is not a degree-offering unit, all graduate degrees are obtained through the student's major department, whose special requirements must be met. The certificate is available to students in good standing in any graduate program in the university. Students-at-large in good standing may also pursue the certificate. Faculty who regularly teach courses which contribute to the certificate or participate in the core courses come from a variety of departments.

A student who wishes to pursue this certificate should consult early in graduate studies with both her or his major department faculty adviser and the women's studies director. Students may earn transcript credit for the certificate by completing 12 hours in courses approved by the director of the Women's Studies Program, including the two required interdisciplinary core courses. For the other 6 required hours, in addition to the approved electives listed below, any graduate-level special topics course or directed study focused on gender may be counted toward the certificate with the approval of the director of women's studies. Students may enroll in internships combining their professional interests with their preparation in women's studies.

[1]Any graduate-level special topics course or independent or directed study course focused on sexual orientation and/or gender identity may be counted toward the certificate with the approval of the coordinator of lesbian, gay, bisexual, and transgender studies.
[2]May be counted toward the certificate when topic is appropriate

Students interested in pursuing this certificate are advised to consult with the director of women's studies as early as possible in their graduate program to determine the program of courses to be used toward the certificate.

WOMS 520 - Feminist Theory (3)
WOMS 530 - Research in Women's Studies (3)
Two of the following (6)
- ARTH 685[3] - Topics in Art History (3)
- CAHC 592[3] - Special Topics in Counseling (3)
- CAHC 595 - Women and Careers (3)
- CAHC 666 - Human Sexuality Counseling (3)
- COMS 540 - Seminar in Communication and Gender (3)
- COMS 556 - Feminist Film Theory (3)
- ENGL 502D - Feminist Literary Theory and Criticism
- ENGL 507[3] - Topics in Literature (3)
- EPFE 590[3] - Workshop in Education (3)
- EPFE 603 - Seminar: Gender Issues in Educational Thought (3)
- FCNS 500B[3] - Seminar: Family and Child Studies (3)
- FCNS 516 - Nutritional Factors in Obesity and Eating Disorders (3)
- HIST 413 - Family, Sexuality, and Society Since 1400 (3)
- HIST 473 - Topics in Women's History (3)
- HIST 510[3] - Reading Seminar in U.S. History (3)
- ILAS 550 - Lesbian, Gay, Bisexual, and Transgender Studies (3)
- MGMT 528 - Equal Opportunity and Employment (3)
- PSYC 495[3] - Seminar in Special Topics (3)
- SOCI 454 - Racial and Ethnic Minority Families (3)
- SOCI 457 - Families in Global Perspective (3)
- SOCI 563 - Women's Health Issues (3)
- WOMS 430 - Special Topics in Women's Studies (3)
- WOMS 434 - Women, Men, and Language (3)
- WOMS 502 - Internship in Women's Studies (3-6)
- WOMS 510 - Topics in Women's Studies (3)
- WOMS 539 - Independent Study in Women's Studies (1-3)

Independent study and topics courses in a variety of departments may meet the certificate requirements, with the approval of the director of the women's studies program, when substantial treatment of women's studies is included in the course.

Faculty Associates

Amy K. Levin, professor of English, Ph.D., director
Alexandra G. Bennett, assistant professor of English, Ph.D.
Barbara Burrell, Public Opinion Laboratory, Ph.D.
Virginia Cassidy, professor of nursing, Ed.D.
Louise Ciallela, assistant professor of foreign languages and literatures, Ph.D.
Carla Goar, assistant professor of sociology, Ph.D.
Ibis Gómez-Vega, associate professor of English, Ph.D.
LaVerne Gyant, Center for Black Studies, Ed.D.
Kelly Happe, assistant professor of communication, Ph.D.
Catherine Harned, senior research associate in Center for Governmental Studies, M.S.W.
Jennifer M. Hoobler, assistant professor of management, Ph.D.
Sharon Howard, director of University Resources for Women, M.S.
Barbara Jaffee, assistant professor of art, Ph.D.
Lynn Kamenitsa, associate professor of political science, Ph.D.
Jennifer Lackey, assistant professor of philosophy, Ph.D.
Hana Layson, assistant professor of English, Ph.D.
Susan Linden, associate professor of foreign languages and literatures, Ph.D.
Diana Mertens, assistant professor of nursing, Dr.Ph.H.
Carole Minor, Presidential Teaching Professor of counseling, adult and higher education, Ph.D.
Robin D. Moremen, associate professor of sociology, Ph.D.
Kristen A. Myers, assistant professor of sociology, Ph.D.
Leslie Rigg, assistant professor of geography, Ph.D.
Lois S. Self, associate professor of communication, Ph.D.
Deborah Smith-Shank, associate professor of art, Ph.D.
Christine K. Sorensen, associate professor of teaching and learning, Ph.D.
Diana Steele, associate professor of mathematical sciences, Ph.D.
Diana L. Swanson, associate professor of English, Ph.D.
Lucy Townsend, professor of leadership, educational psychology and foundations, Ph.D.
Elizabeth Vallance, associate professor of art, Ph.D.
Randi Wolfe, associate professor of teaching and learning, Ph.D.

Secondary Teacher Certification

Several departments in the College of Liberal Arts and Sciences administer programs leading to initial teacher certification. See "Teacher Certification Information" for a complete list of teacher certification entitlement programs offered by NIU. Students interested in teaching in a subject area offered by a department in the College of Liberal Arts and Sciences should see individual department listings in this catalog and seek departmental advisement concerning standards for admission and retention unique to each departmental certification program.

Requirements Common to All Accredited Teacher Certification Programs in the College of Liberal Arts and Sciences

All of the teacher certification programs offered in the College of Liberal Arts and Sciences meet or exceed minimum requirements of the Illinois State Board of Education (ISBE); consequently, students completing the requirements for any of the programs will be recommended for certification under ISBE entitlement. Students with a baccalaureate degree from an accredited institution interested in secondary teacher certification in any of the above subject areas must

be admitted to the university as a postgraduate, student-at-large, or a graduate student. Admission to a degree program does not guarantee admission to the certification program in any department. (Students should seek transcript evaluation and advisement from the appropriate department certification adviser concerning departmental requirements for admission to the teacher certification program.)

meet departmental requirements for the teaching subject-area.

complete general education course work as mandated by ISBE.

complete a minimum of 100 clock hours of clinical experiences approved by the department prior to student teaching.

complete professional education courses as mandated by ISBE. Consult the adviser in the appropriate certification program (see above list) for information about courses which meet these requirements.

complete the subject-area department teaching methods course.

pass both the State of Illinois Basic Skills Examination and the appropriate subject matter examination administered by the Illinois Certification Testing System.

complete the student teaching course offered by the subject-area department. Student teaching assignments and sites must be authorized by the subject-area department. See the appropriate department adviser for information about timely application and regulations governing the student teaching assignment.

A satisfactory academic record is not the only criterion for admission to and retention in a certification program. Written evaluations of any candidate's performance which demonstrate deficiencies in organizational and communication skills or attitudes and behaviors unsuitable for working with students will result in that candidate not being recommended for certification.

See department certification adviser. Also see "Teacher Certification Information.

[3]May meet the certificate requirements when substantial treatment of women's studies is included.

Interdisciplinary Courses Offered by the College of Liberal Arts and Sciences (ILAS, WOMS)

Interdisciplinary Liberal Arts and Sciences (ILAS)

ILAS 420. INSTITUTE FOR INTERDISCIPLINARY INSTRUCTION OF GIFTED CHILDREN (3).
A. General Introduction
B. Elementary School
C. Middle School
D. High School
Design of interdisciplinary instruction for gifted children. Topics include the characteristics, identification, and evaluation of gifted children, the rationale for gifted education, program prototypes, and an introduction to differentiated curriculum. PRQ: Consent of college.

ILAS 421. INTRODUCTION TO THE GIFTED EDUCATION NETWORK (3). Training in use of technology with the gifted and talented, designing and developing materials for use as either stand alone or with an Internet connection to the World Wide Web. New skills put into practice by developing teaching units. Open only to teachers who have received level 1 and 2 gifted institute training. PRQ: Permit only.

ILAS 444. COMPARATIVE URBANIZATION (3). Cross-cultural and interdisciplinary analysis of urbanization focusing on selected developing areas and the United States. Topics include cross-cultural definitions of urbanism, functions and services of secondary cities, and cross-cultural comparison of problems associated with urban growth and rural developments. PRQ: Junior, senior, or graduate standing.

ILAS 490. ADVANCED TOPICS IN INTERDISCIPLINARY STUDIES (3). Topics from sciences, social sciences, and/or humanities treated from an interdisciplinary perspective. May be repeated to a maximum of 6 semester hours when topic varies.

ILAS 502. INTERNSHIP (3 to 12). Work as an intern in activities related to one of the majors in the college. Reading and paper preparation under supervision of a faculty member in the College of Liberal Arts and Sciences. May be repeated to a maximum of 12 semester hours. PRQ: Consent of department and college; graduate standing.

ILAS 550. LESBIAN, GAY, BISEXUAL, AND TRANSGENDER STUDIES (3). Systematic overview of issues and schools of theory in lesbian, gay, bisexual, and transgender studies. Interdisciplinary study of sexual orientation and gender identity, with attention to race, ethnicity, and class. Implications for scholarly research.

ILAS 551. RESEARCH IN LESBIAN, GAY, BISEXUAL, AND TRANSGENDER STUDIES (3). Systematic overview of methodological and practical issues and problems in formulating and conducting research in lesbian, gay, bisexual, and transgender studies, both within specific academic fields and as an interdisciplinary effort, with attention to evaluation and interpretation of source materials, field research methods, and critical issues. Implications for scholarly research.

ILAS 555. SEMINAR ON COMPARATIVE URBANIZATION (3). A multidisciplinary seminar focusing on interdependent problems of urban and rural development with comparison between the United States and selected Third World areas. PRQ: ILAS 444 or consent of department.

ILAS 590. WORKSHOP IN TEACHING SOUTHEAST ASIAN STUDIES (1 to 3). Designed for those who want to introduce knowledge about Southeast Asia into the classroom. Includes production of lesson plans and teaching modules for K-12 teachers. May be repeated to a maximum of 6 semester hours as topic varies.

ILAS 591. SEMINAR IN SOUTHEAST ASIAN STUDIES (1 to 3). May be repeated to a maximum of 6 semester hours as topic varies.

Women's Studies (WOMS)

WOMS 430. SPECIAL TOPICS IN WOMEN'S STUDIES (3). May be repeated to a maximum of 6 semester hours as topic changes, but only 3 semester hours may be applied toward the certificate of graduate study in women's studies.

WOMS 434. WOMEN, MEN, AND LANGUAGE (3). Examination of empirical evidence pertaining to language variation by sex and gender identity within the framework of sociolinguistics. Focus on characteristics of feminine and masculine speech and conversational styles, societal attitudes towards them, and their implications for men and women in society. Biological foundations and sociogenesis of sex differences in language; interaction effects on language variation of other social variables such as age, class, and ethnic identity; and crosscultural differences.

WOMS 502. INTERNSHIP IN WOMEN'S STUDIES (3 to 6). Work as an intern in activities related to women's studies. Reading and paper preparation under supervision of a faculty member. May be repeated to a maximum of 6 semester hours. PRQ: Consent of director.

WOMS 510. TOPICS IN WOMEN'S STUDIES (3). Topics announced. May be repeated to a maximum of 6 semester hours when topic varies.

WOMS 520. FEMINIST THEORY (3). Concepts, methods, and development of feminist theories; systematic overview of schools of feminist theory as they are grounded in different social identities and epistemological perspectives; implications of feminist theories for scholarly research.

WOMS 530. RESEARCH IN WOMEN'S STUDIES (3). Interdisciplinary analysis of principles, methods, and bibliographic resources for the study of gender and for evaluating the relevance of scholarship in women's studies to traditional disciplines. Focus on theoretical perspectives and methodological issues central in feminist inquiry and development of skills in integrating gender-related research and criticism in students' area of academic specialization. PRQ: WOMS 520 or consent of department.

WOMS 539. INDEPENDENT STUDY IN WOMEN'S STUDIES (1 to 3). Student must present research prospectus approved by a faculty member before a permit is granted. PRQ: WOMS 520 and WOMS 530, or permission of the director of women's studies.

Department of Anthropology (ANTH)

Chair: Judy L. Ledgerwood

Graduate Faculty

Giovanni Bennardo, associate professor, Ph.D., University of Illinois
Winifred Creamer, professor, Ph.D., Tulane University
Daniel L. Gebo, Distinguished Research Professor, Ph.D., Duke University
Michael J. Kolb, associate professor, Ph.D., University of California at Los Angeles
Sibel Kusimba, assistant professor, Ph.D., University of Illinois
Judy L. Ledgerwood, associate professor, Ph.D., Cornell University
Mark W. Mehrer, associate professor, Ph.D., University of Illinois
Andrea K. Molnar, associate professor, Ph.D., Australian National University
Leila Porter, assistant professor, Ph.D., Stony Brook University
Susan D. Russell, professor, Ph.D., University of Illinois
Kendall Thu, associate professor, Ph.D., University of Iowa

The Department of Anthropology offers graduate courses and research opportunities leading to the M.A. degree. Graduate work in this field is designed to prepare students for teaching or research in anthropology, and for advanced study.

Applicants to the Graduate School desiring to pursue the graduate curriculum in anthropology are urged to consult with the departmental graduate adviser prior to admission. Students admitted to the graduate curriculum in anthropology should consult with their appointed departmental graduate advisers in order to insure that the requirements of the department will be met by the program of courses elected.

Master of Arts in Anthropology

Applicants for admission to this degree program are expected to have completed at least 15 undergraduate semester hours in anthropology and a course in statistics. A student lacking this background will be required to take compensatory work during his or her graduate program.

Requirements (30)

A minimum of one course taken for graduate credit from each of the four following subfields of anthropology (12)

Archaeology
Cultural-social anthropology (ANTH 421, ANTH 426, ANTH 427, ANTH 451, ANTH 460, ANTH 463, ANTH 465, ANTH 467, ANTH 525)

Linguistic anthropology
Physical anthropology

At least 18 additional semester hours, of which at least 12 must be in anthropology courses (18)

Independent study courses may not be substituted for required courses without the consent of the student's adviser and the department chair.

Each student in the master's degree program must demonstrate to the satisfaction of his or her faculty committee proficiency in either statistics or a foreign language useful for the student's research and must choose one of the following options.

Thesis Option

Students choosing this option must register for at least 3 semester hours of credit in ANTH 599, Master's Thesis, and satisfactorily complete the departmental qualifying examination in their primary subfield of anthropology. Approval of a written preliminary thesis proposal is required before registration in ANTH 599. Although the student may seek approval of the preliminary thesis proposal at any time, successful completion of the qualifying examination in the student's major subfield of anthropology is a prerequisite to formal registration in ANTH 599.

Non-Thesis Option

Students choosing this option must successfully complete the comprehensive examination in anthropology, covering all four subfields of anthropology, and must take an additional 6 hours for graduate credit in anthropology.

Course List

402. PEOPLES AND CULTURES OF THE PACIFIC ISLANDS (3). Ethnographic and ethnological survey and analysis of the societies and cultures of the Pacific Islands. Primary focus on the lifeways of the indigenous peoples of the area with a secondary focus on the role which information about the lifeways of peoples of the Pacific Islands has played in the development of anthropological theory. PRQ: ANTH 220 or consent of department.

403. PEOPLES AND CULTURES OF AFRICA SOUTH OF THE SAHARA (3). Descriptive and analytic examination of representative African societies dealing with their culture, histories, and economic, political, and social organization, as well as religion and arts. Contemporary problems of culture change and social transformation within the context of decolonization. PRQ: ANTH 220 or consent of department.

405. PEOPLES OF MESOAMERICA (3). Cultural background of Mesoamerican ethnic groups; historical and contemporary sociocultural systems of Indian, black, and mestizo groups in rural and urban areas. Attention to the processes of acculturation, urbanization, and current cultural modifications influenced by contemporary society. PRQ: ANTH 220 or consent of department.

407. PEOPLES AND CULTURES OF INSULAR SOUTHEAST ASIA (3). Introduction to the social and cultural diversity of insular Southeast Asia, especially Indonesia, Malaysia, and the Philippines. Emphasis on the region's geography, colonial experience, and patterns of social organization, kinship, religious belief, ethnic pluralism, and authority.

408. PEOPLES AND CULTURES OF MAINLAND SOUTHEAST ASIA (3). Introduction to the social and cultural diversity of mainland Southeast Asia–Burma, Thailand, Laos, Cambodia, and Vietnam. Emphasis on the area's geography, history, kinship and social organization, religious beliefs (especially Theravada Buddhism), ethnic diversity, and contemporary problems.

410. ARCHAEOLOGY OF AFRICA (3). Detailed, analytical survey of African prehistory from the earliest evidence of human occupation to the time of extra-African contact. PRQ: ANTH 210 or consent of department.

411. ARCHAEOLOGY OF EUROPE (3). Origins and development of prehistoric cultures in Europe from the Palaeolithic to the Neolithic. PRQ: ANTH 210 or consent of department.

412. ANCIENT NORTH AMERICA (3). Survey of ancient peoples and archaeological cultures throughout North America with attention to their lifeways, artifacts, and natural settings. PRQ: ANTH 210 or consent of department.

413. ILLINOIS ARCHAEOLOGY (3). Examination of the current state of knowledge of Illinois archaeology. Recent archaeological discoveries in our state provide a much improved picture of prehistoric life here. Time covered is from the first arrival of people in what is now Illinois until the establishment of cities during the last century. Emphasis on the technology, natural setting, chronology, subsistence, population, settlement, and social structure for each archaeological tradition and time period. PRQ: ANTH 210 or consent of department.

414. ARCHAEOLOGY OF MESOAMERICA (3). Descriptive and analytical examination of pre-Columbian cultures of Mexico and Central America. PRQ: ANTH 210 or consent of department.

415. ARCHAEOLOGY OF THE AMERICAN SOUTHWEST (3). Origins and diversification of prehistoric cultures in the Southwest. PRQ: ANTH 210 or consent of department.

417. ARCHAEOLOGY OF SOUTH AMERICA (3). Description and analysis of human occupation of the South American continent from its initial occupation to the arrival of the Spanish conquistadores. Emphasis on interrelationships between areas; models purporting to explain sociopolitical evolution. PRQ: ANTH 210 or consent of department.

418. ARCHAEOLOGICAL METHOD AND THEORY (3). Development of archaeological theory from the mid-19th century to the present. Assessment of interactions among archaeological theory, research design, and fieldwork. Connections of archaeological theory to major anthropological issues. PRQ: ANTH 210 or consent of department.

419. ARCHAEOLOGY OF MEDITERRANEAN CIVILIZATIONS (3). Detailed analysis of the rise of civilizations in the Mediterranean basin from the Neolithic to the Iron Age. A comparative course focusing on the regions of the Balkans, Egypt, Greece, the Levant, and Italy.

421. SOCIAL ORGANIZATION (3). Description of social systems, an exploration of the regularities and variations in the several facets of social structure emphasizing the interrelatedness of the parts of culture as a functioning entity. PRQ: ANTH 120 or ANTH 220, or consent of department.

426. POLITICAL ANTHROPOLOGY (3). Political activities and how they articulate with other institutions. Presentation of various interpretations and theories that have been applied to the data. PRQ: ANTH 220 or consent of department.

427. ECONOMIC ANTHROPOLOGY (3). Analysis of economic behavior and institutions and how they articulate with other aspects of culture. PRQ: ANTH 220 or consent of department.

428. RITUAL AND MYTH (3). In-depth examination of the approaches, theories, and methodologies in the anthropological study of ritual and myth. Topics include the feasibility of distinguishing ritual from non-ritual both cross-culturally and within particular societies, most recent studies of ritual focusing on sacrifice, ritual as performative action, ritual symbolism, ritual function vs. form, types of rituals, the study of myths, structural-symbolic analysis of sacred myths, phenomenological-symbolic analysis of myths, myths of origin and myths of death, relationship between myth and ritual. Ritual and myth also considered in relation to ideas about the maintenance of cosmological and socio-political systems. PRQ: ANTH 220 or consent of department.

435. SPACE IN LANGUAGE AND CULTURE (3). *Crosslisted as GEOG 435X.* Exploration of how various languages express spatial relationships by using different parts of speech, how culture shapes ways of organizing and using space in daily and ritual behavior, and the mental organization of spatial knowledge, with emphasis on universal patterns that generate cultural and individual realizations. PRQ: ANTH 230 or consent of department.

440. HUMAN PALEONTOLOGY (4). Emergence and evolution of humans, including our own genus Homo. Emphasis on interpretation of morphology and theory in human paleontology. Lectures and laboratory. PRQ: ANTH 240 or consent of department.

442. BIOCULTURAL PERSPECTIVES ON THE HUMAN SKELETON (3). Topical and interpretative study of the human skeleton with relation to the study of past human populations, especially in relation to the analysis of prehistoric economy, social behavior, and physical interaction with the biocultural environment. Reconstruction of paleodiet, impact of undernutrition on growth and development, bone microstructure, dental disease, other markers of stress, impact of specific behavioral repertoires on the human skeleton, and masticatory and nonmasticatory adaptations of the craniofacial complex. PRQ: ANTH 240 or consent of department.

443. HUMAN ADAPTATION AND VARIATION (3). History of the concept of race; current approaches to human variability. Selective aspects of continuous and discontinuous traits: blood groups, hemoglobins, etc.; race and I.Q.; sex differences. Ecological influences on human variation. PRQ: ANTH 240 or consent of department.

444. PRIMATE SOCIAL BEHAVIOR (3). Comparative examination of living nonhuman primates with application to understanding the origin of humans and their current behavior. PRQ: ANTH 240 or consent of department.

445. PRIMATE ANATOMY AND EVOLUTION (3). *Crosslisted as BIOS 435X*. Living and fossil primate osteology. Detailed study of the primate skeleton coupled with information on the primate fossil record. Skeletal anatomy of living and fossil primates analyzed in terms of function and adaptation and used to discern evolutionary relationships. Lectures and laboratory. PRQ: ANTH 240 or consent of department.

446. THE HUMAN SKELETON (4). Detailed study of bones and teeth, including growth and development, sex identification, age estimation, morphometrics, and functional anatomy. Application to paleopathology, forensic anthropology, and bioarchaeology are considered. Lectures and laboratory. PRQ: ANTH 240 or consent of department.

448. HUMAN GROWTH AND DEVELOPMENT: AN EVOLUTIONARY PERSPECTIVE (3). Biological processes underlying the human life cycle, its evolution, and how the processes of growth produce, channel and regulate human variation. PRQ: ANTH 240 or consent of department.

450. ETHICS AND RESEARCH DESIGN IN ANTHROPOLOGY (3). Examination of ethical decision-making in anthropological procedures and an introduction to research designs and organizational skills in the practice of anthropology. PRQ: One 200-level anthropology course or consent of department.

451. HISTORY AND THEORY OF ANTHROPOLOGY (3). Overview of the history of anthropological institutions and the historical development of anthropological concepts. Attention given to schools of thought and associated leading anthropologists in all major fields of anthropology. PRQ: ANTH 220 or consent of department.

452. CONTEMPORARY CULTURE THEORY (3). Examination of the development of anthropological culture theory starting with structuralism and moving on through symbolism to postmodernism. Focus on the writings of the major theorists. PRQ: ANTH 220 or consent of departments.

460. METHODS IN ETHNOGRAPHY (3). Theory and practice in methods of ethnographic research. Problems and techniques in participant observation, structured and nonstructured interviews, questionnaires, indirect measures, documentation, and recording. Ethics of ethnographic research. PRQ: ANTH 220 or consent of department.

462. MUSEUM METHODS (3). Lectures and practical experience in various aspects of museum work; design and construction of museum exhibits in anthropology. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

463. ETHNOHISTORY (3). Approaches to locating, evaluating, and utilizing oral and written historical sources in ethnographic and anthropological investigations. PRQ: ANTH 220 or consent of department.

465. MEDICAL ANTHROPOLOGY (3). Survey of interactions between infectious and parasitic diseases, genetic predispositions, and specific cultural habits, attitudes, and beliefs. Includes cognitive systems as they relate to disease theory in various cultures and examples of folk medical practices and beliefs. PRQ: ANTH 220 or ANTH 240, or consent of department.

467. APPLIED ANTHROPOLOGY (3). Uses of anthropological concepts, knowledge, and insights to maintain or change cultures and societies combined with a consideration of the ethical problems in programs of directed culture change. PRQ: ANTH 220 or consent of department.

468. ANTHROPOLOGY OF GENDER (3). Survey of current theory and research on gender, sexuality, and representations of the body. Examination of debates about the significance of gender and sex in primate and human evolution, physical anthropology, and sociobiology. In seminar format, students also explore cross-cultural notions of gender and analyze the intersection of race/class/gender and the historical construction of sexuality and conceptions about "the body" in the sciences, the arts, ethnography, and popular culture. PRQ: ANTH 220 or consent of department.

490. ANTHROPOLOGICAL RESEARCH TRAINING (3 to 6).
A. Cultural Anthropology
B. Ethnology
C. Archaeology
D. Physical Anthropology
E. Ethnohistory
J. Linguistic Anthropology
Training and experience in field and/or laboratory research. Students will participate, under supervision, in basic research projects. Any lettered section may be repeated to a maximum of 6 semester hours. Total credit may not exceed 6 semester hours. PRQ: Consent of department.

491. CURRENT TOPICS IN ANTHROPOLOGY (3). May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

492. PROSEMINAR IN ANTHROPOLOGY (3). Intensive seminar work on selected topics in anthropology. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

493. ANTHROPOLOGY FIELD STUDY (1 to 6).
A. Cultural Anthropology
B. Ethnology
C. Archaeology
D. Physical Anthropology
E. Ethnohistory
J. Linguistic Anthropology
Directed field study or field school. Each topic may be repeated to a maximum of 12 semester hours. PRQ: Consent of department.

496X. HISTORY AND SOCIAL SCIENCE INSTRUCTION IN GRADES 6-12 (3). *Crosslisted as HIST 496.* Organization and presentation of materials for history and social science courses at the middle school, junior high, and senior high school levels. PRQ: Admission to the history or social science teacher certification program and permission of Department of History's office of teacher certification.

510. ARCHAEOLOGY AND PREHISTORY (3). Critical analysis of original works of major importance in the development and current state of archaeological methods and prehistory. PRQ: Consent of department.

511. ARCHAEOLOGICAL INTERPRETATIONS (3). Detailed examination of theories and methods basic to cultural, temporal, and environmental interpretation of archaeological data. Relationships with other anthropological subdisciplines and with other sciences will be stressed. PRQ: ANTH 411, ANTH 412, or ANTH 414, or consent of department.

520. CULTURAL AND SOCIAL ANTHROPOLOGY (3). Critical analysis of original works of major importance in the development and current state of cultural and social anthropology. PRQ: Consent of department.

521. ADVANCED TOPICS IN SOUTHEAST ASIAN ETHNOLOGY (3). Intensive seminar on a selected topic of current interest regarding the ethnology of Southeast Asia. May be repeated to a maximum of 6 semester hours. PRQ: ANTH 407 or ANTH 408 or, consent of department.

525. SYMBOLIC ANTHROPOLOGY (3). Anthropological approaches to the role of symbols in culture.

526. LATIN AMERICAN PEASANTS AND SOCIAL CHANGE (3). Anthropological perspectives on rural economic structure and social change in Latin America, with emphasis on geographical regions from central Mexico to the Andes that have high proportions of indigenous peoples. Methodological emphasis on comparative historical analyses of agricultural systems, ethnic identity, peasant social movements, and the relationship between economy and culture. PRQ: Consent of department.

527. SOUTHEAST ASIAN PEASANT ECONOMY (3). Anthropological perspectives on the nature of Southeast Asian peasant socio-economic institutions. Comparative analysis of how political and economic policies have affected processes of change in both lowland and highland peasant cultures over time. PRQ: Consent of department.

528. RELIGION AND COSMOLOGY IN SOUTHEAST ASIA (3). Perspectives of cultural anthropology on the folk religions and world views of peoples of Southeast Asia. Comparative analysis of the impact of different religious and secular ideologies on everyday political and economic thought and behavior of common people in various urban and rural settings of the past and present. PRQ: Consent of department.

533. COGNITIVE ANTHROPOLOGY (3). Study of cognition through the formal semantic analysis of kinship systems, folk taxonomies, and other terminological networks with emphasis on how such analyses relate to nonlinguistic aspects of the cultures in which they are embedded. PRQ: ANTH 331 or consent of department.

540. PHYSICAL ANTHROPOLOGY (3). Critical analysis of original works of major importance in the development and current state of physical anthropology. PRQ: Consent of department.

553. CULTURE THEORY (3). Detailed examination of theories basic to studies of individual cultures and to cross-cultural comparison: structuralism, functionalism, cultural ecology, cultural evolution, network analysis, and other viewpoints. PRQ: ANTH 451 or consent of department.

590. INDEPENDENT STUDY IN ANTHROPOLOGY (1 to 3).
A. Cultural Anthropology
B. Ethnology
C. Archaeology
D. Physical Anthropology
E. Ethnohistory
J. Linguistics
Supervised readings or research in specialized areas, topics, or problems in anthropology. Any one course may be repeated to a maximum of 6 semester hours. PRQ: Written permission of the department.

599. MASTER'S THESIS (1 to 6). May be repeated to a maximum of 6 semester hours.

690. SEMINAR IN ANTHROPOLOGY (3).
A. Cultural Anthropology
B. Ethnology
C. Archaeology
D. Physical Anthropology
E. Ethnohistory
J. Linguistics
Intensive study of a specific area, topic, or problem of the indicated subdiscipline. Any one course may be repeated to a maximum of 9 semester hours. PRQ: Consent of department.

Department of Biological Sciences (BIOS)

Chair: J. Michael Parrish

Graduate Faculty

Hans T. Beck, assistant professor, Ph.D., City University of New York Graduate School
Richard J. Becker, assistant chair for business and operations, Ph.D., Northern Illinois University
Neil W. Blackstone, professor, Ph.D., Yale University
Jozef J. Bujarski, Distinguished Research Professor, Ph.D., Adam Mickiewicz University (Poznan, Poland)
Ana Calvo, assistant professor, Ph.D., University of Alcala (Madrid)
Sonya B. Conway, professor, Ph.D., University of California, Berkeley
Thomas P. Conway, associate professor, emeritus, Ph.D., University of Illinois
Melvin Duvall, associate professor, Ph.D., University of Minnesota, St. Paul
Kenneth W. Gasser, associate professor, Ph.D., Washington State University
Richard Hahin, professor, Ph.D., University of Maryland
Arnold E. Hampel, Distinguished Research Professor, emeritus, Ph.D., University of Wisconsin
Laszlo Hanzely, Distinguished Teaching Professor, adjunct, Ph.D., Southern Illinois University
Stuart Hill, associate professor, Ph.D., University of Montana
Gabriel P. Holbrook, associate professor, Ph.D., University of York (U.K.)
Christopher J. Hubbard, associate professor, Ph.D., Wake Forest University
Michael E.S. Hudspeth, professor, Ph.D., Wayne State University
Mitrick A. Johns, associate professor, Ph.D., University of Oregon
Barbara P. Johnson-Wint, associate professor, Ph.D., Michigan State University
Bethia H. King, associate professor, Ph.D., Purdue University
Richard B. King, associate professor, Ph.D., Purdue University
David P. Lotshaw, associate professor, Ph.D., State University of New York, Albany
Long Mao, assistant professor, Ph.D., Chinese Academy of Sciences (Beijing), Ph.D., John Ines Center for Plant Science Research, Norwich (U.K.)
Rangaswamy Meganathan, Distinguished Research Professor, Ph.D., Oklahoma State University
Peter L. Meserve, Distinguished Research Professor, Ph.D., University of California, Irvine
Jon S. Miller, assistant professor, Ph.D., University of Nebraska at Lincoln
John L. A. Mitchell, Distinguished Research Professor, Ph.D., Princeton University
Virginia L. Naples, professor, Ph.D., University of Massachusetts
Lowell K. Nicolaus, associate professor emeritus, Ph.D., North Dakota State University
J. Michael Parrish, Distinguished Research Professor, Ph.D., University of Chicago
Neil O. Polans, associate professor, Ph.D., University of California, Davis
Ole A. Schjeide, professor emeritus, Ph.D., University of California
Thomas L. Sims, associate professor, Ph.D., University of Oregon
Joel P. Stafstrom, associate professor, Ph.D., University of Colorado
Marvin J. Starzyk, professor emeritus, Ph.D., University of Wisconsin
Ronald Toth, professor, Ph.D., University of Massachusetts
Patricia S. Vary, Distinguished Research Professor, adjunct, Ph.D., Stanford University
Carl N. von Ende, associate professor, Ph.D., University of Notre Dame
Linda S. Yasui, associate professor, Ph.D., Florida State University
Shengde Zhou, assistant professor, Ph.D., Auburn University

The Department of Biological Sciences offers graduate programs leading to the M.S. and Ph.D. degrees.

Master of Science in Biological Sciences

The minimum requirement for admission to the master of science degree program is a baccalaureate degree with a major in an area of biological sciences or in a closely related field such as biochemistry or biophysics. The baccalaureate degree should have courses equivalent to those required for the B.S. degree at NIU, including organismal diversity; two semesters of principles of biology, and genetics; chemistry through one year of organic; one year of physics; and mathematics through introductory calculus. Such courses not completed before admission to the Graduate School, as well as other undergraduate courses deemed appropriate to the pursuit of the master's degree in a particular specialty in biological sciences, may be required and must be taken early in the student's program. Students with deficiencies may find that the total number of semester hours required exceeds that stated under the requirements for the degree/specialization.

Although applicants are not required to submit scores other than the GRE General Test score required for admission to the Graduate School, the submission of scores on either the GRE Subject Test in biology or biochemistry, or on the MCAT, could enhance their application.

Requirements for Degree without a Specialization

BIOS 470X - General Biological Chemistry (3),
  OR BIOS 472X and BIOS 473X - Biological Chemistry I and II (6)
BIOS 570 - Biostatistical Analysis (3),
  OR ETR 521 and ETR 522 - Educational Statistics I and II (6)
BIOS 661 - Seminar (minimum of 2 semester hours of credit)

A minimum of 30 semester hours is required for the M.S. degree without a specialization, and no more than 12 semester hours of combined credit in BIOS 599 and BIOS 670 may be applied toward those 30 hours. If a student has completed the equivalent of BIOS 470X (or BIOS 472X and BIOS 473X) and/or BIOS 570 with a grade of C or better, the course may be waived as a requirement in the graduate program, and other course work substituted, with the approval of the department. The student is required to pass a final oral comprehensive examination.

Each student will declare, with the consent of the departmental graduate committee, one of the following two options.

Thesis Option

The thesis option is intended primarily for students wishing to focus on certain areas of biology and for those considering

further graduate education. Each student must enroll in BIOS 599, Master's Thesis, and submit a written thesis. A maximum of 12 semester hours of combined credit in BIOS 599 and BIOS 670 may be applied toward the degree. The student's research adviser will serve as chair of the graduate committee that will administer a final oral comprehensive examination including a defense of thesis.

Non-Thesis Option

The non-thesis option is intended primarily for students wishing to become generalists by taking course work in several areas within the biological sciences. This option may be appropriate for students who desire to qualify for careers that require such breadth in biology, for example, teaching in a secondary school or community college, administration, or interpretive work in parks and nature centers.

The student's program will be designed with the advice and approval of the departmental graduate coordinator, with a minimum of 3 semester hours to be earned in each of six of the following seven areas of study. A course may satisfy a requirement in only one area of study.

Animal biology
Cellular, molecular, and developmental biology
Ecology and evolution
Genetics
Microbiology
Physiology
Plant biology

In addition, the student must take a total of 4 semester hours of BIOS 670, Independent Study, under the guidance of a faculty member, and submit an acceptable research paper on a topic approved by the student's final examination committee. This committee shall include the faculty member directing the student's work in BIOS 670. The enrollment in BIOS 670 must begin within the first 15 semester hours that are to be part of the student's program of courses for the degree, and must span at least two terms.

Courses taken for an undergraduate degree may be used to satisfy the non-thesis option distribution requirements, with the consent of the department, providing that a grade of B or better was earned. Such courses, however, cannot be credited toward the master's degree.

Specialization in Bioinformatics

A minimum of 30 semester hours is required for the M.S. degree with a specialization in bioinformatics. The specialization in bioinformatics is designed to teach the skills necessary for the analysis of large amounts of biological information using computer technology. The student must have taken, or take as deficiency course work, BIOS 300, Cell Biology, BIOS 308, Genetics, CSCI 240, Computer Programming in C, and CSCI 241, Intermediate Programming in C and C++, or the equivalent(s). Deficiency work must be satisfied with a grade of C or better during the first two semesters of enrollment in the program.

If the student has completed the equivalent of BIOS 467, BIOS 470X (or BIOS 472X and BIOS 473X), BIOS 535, BIOS 545, BIOS 546, and/or BIOS 570 as an undergraduate with a grade of C or better, the course may be waived as a requirement in the graduate program, and other course work substituted, with the approval of the student's graduate committee.

Students must pass a final comprehensive oral and written examination covering course material.

Requirements

BIOS 467 - Molecular Biology of Eukaryotes (3),
  OR BIOS 535 - Molecular Genetics of Prokaryotes (3)
BIOS 470X - General Biological Chemistry (3)
BIOS 545 - Bioinformatics (3)
BIOS 546 - Programming for Bioinformatics (3)
BIOS 570 - Biostatistical Analysis (3)
  OR ETR 521 and ETR 522 - Educational Statistics I and II (6)
BIOS 591 - Recombinant DNA Techniques Laboratory (4)
BIOS 661 - Seminar (2-3)
BIOS 670 - Independent Study (4-6),
  OR BIOS 599 - Master's Thesis (4-6),
  OR BIOS 690 - Cooperative Education (3)
Two of the following[1] (6-7)
BIOS 413 - Microbial Physiology (3)
BIOS 439 - Molecular Evolution (3)
BIOS 465 - Cellular Physiology (3)
BIOS 467[2] - Molecular Biology of Eukaryotes (3)
BIOS 476 - Plant Genetics (3)
BIOS 479 - Biotechnology Applications and Techniques (3)
BIOS 511 - Plant Metabolism (3)
BIOS 535[2] - Molecular Genetics of Prokaryotes (3)
BIOS 564 - Evolutionary Genetics (3)
BIOS 600M - Research Methods (3)
CHEM 570 - Enzymes (3)
CHEM 575 - Physical Chemistry of Macromolecules (3)
CSCI 440 - Data Structures and Algorithm Analysis (4)
CSCI 461 - Techniques of Computer Programming and Algorithmic Processes (3)
MATH 460 - Modeling Dynamical Systems (3)
STAT 473 - Statistical Methods and Models I (3), and STAT 473A Statistical Computing Packages (1)
STAT 474 - Statistical Methods and Models II (3)

Specialization in Human Anatomical Sciences

A minimum of 31-35 semester hours is required for the M.S. degree with a specialization in human anatomical sciences. The non-thesis option is intended to equip the graduate to teach human anatomy and human physiology at the community college level, while the thesis option is directed toward research. The course work is designed to provide students with a solid background in the human anatomical sciences, including skills in the dissection of human cadavers.

Students pursuing this specialization must have previously taken, or must take as deficiency course work, BIOS 355, Human Physiology (4), and BIOS 359, Human Neurobiology (4).

If the student has completed the equivalent of BIOS 445, BIOS 446, BIOS 470X (or BIOS 472X and BIOS 473X), and/or BIOS 570 as an undergraduate with a grade of C or better, the course may be waived as a requirement in the graduate program, and other course work substituted, with the approval of the student's graduate committee.

Non-Thesis Option

BIOS 445 - Human Histology (4)
BIOS 446 - Gross Human Anatomy (6)
BIOS 470X - General Biological Chemistry (3)
BIOS 526 - Methods of Teaching Human Anatomy (6)
BIOS 529 - Human Embryology (3)
BIOS 570 - Biostatistical Analysis (3),
  OR ETR 521 and ETR 522 - Educational Statistics I and II (6)
BIOS 661 - Seminar (minimum of 2 semester hours of credit)
BIOS 670 - Independent Study (4)
One of the following electives (3-4)
  BIOS 440 - Immunobiology (3)
  BIOS 447 - Comparative Vertebrate Anatomy (4)
  BIOS 454 - Developmental Biology (4)
  BIOS 455 - Comparative Physiology (3)
  BIOS 461 - Endocrinology (3)
  BIOS 465 - Cellular Physiology (3)
  BIOS 467 - Molecular Biology of Eukaryotes (3)
  BIOS 477 - Human Genetics (3)

[1]Alternate courses may be substituted at the discretion of the student's committee.
[2]If not used to meet requirement above.

Students must take a minimum of 4 semester hours of BIOS 670, Independent Study, under the guidance of an anatomy faculty member in the Department of Biological Sciences, and submit for that course an acceptable teaching project on a topic approved by the student's graduate committee. This committee must be formed within the student's first 9 semester hours of enrollment in the M.S. program and must be chaired by the anatomy faculty member directing the student's work in BIOS 670.

Students must pass a final written and oral comprehensive examination covering course material and the teaching project. Normally, students pursuing full-time graduate study will be required to take the comprehensive examination within two academic years of admission to the Graduate School. A student who fails the examination may, with the permission of the department, repeat it once.

Thesis Option

Same as the non-thesis option except students are required to take neither BIOS 526 nor the elective but must enroll in BIOS 599 and submit a written thesis. A maximum of 12 semester hours of combined credit in BIOS 599 and BIOS 670 may be applied toward the degree. The student's research adviser will serve as the chair of the graduate committee that will administer a final written and oral comprehensive examination covering course material and including a defense of thesis. A student who fails the examination may, with the permission of the department, repeat it once.

Doctor of Philosophy in Biological Sciences

A student seeking admission to the Ph.D. program in biological sciences must meet all the requirements for admission to the Graduate School; must have a baccalaureate or master's degree in the biological sciences or a related field; and should have courses equivalent to those required for the B.S. degree at Northern Illinois University, including organismal diversity, two semesters of principles of biology, and genetics; chemistry through one year of organic, one year of physics, and mathematics through introductory calculus. Such courses not completed before admission to the program, as well as other undergraduate courses deemed appropriate to the pursuit of the Ph.D. degree in a particular area of biological sciences, may be required and must be taken early in the student's program.

Although applicants are not required to submit scores other than the GRE General Test score required for admission to the Graduate School, the submission of scores on either the GRE Subject Test in biology or biochemistry, or on the MCAT, could enhance their application.

During the admissions process, the student must indicate an area of study in the department and obtain a faculty adviser in that area who will agree to plan the student's first year of study.

Requirements

Each student's program must consist of at least 90 semester hours of graduate credit, including successful completion of the following courses.

BIOS 470X - General Biological Chemistry (3),
OR BIOS 472X and BIOS 473X - Biological Chemistry I and II (6)
BIOS 570 - Biostatistical Analysis (3),
OR ETR 521 and ETR 522 - Educational Statistics I and II (6)
BIOS 661 - Seminar (4) (to be taken for a minimum of 4 hours of credit, at least 2 of which shall be taken after the first 30 graduate-level semester hours in the student's program)
BIOS 699 - Doctoral Dissertation (enrollment each semester after being admitted to candidacy, until all requirements for the degree are complete)

If a student has completed the equivalent of BIOS 470X (or BIOS 472X and BIOS 473X) and/or BIOS 570 with a grade of C or better, the course may be waived as a requirement in the graduate program, and other course work substituted, with the approval of the department.

By the end of the student's second semester, the chair of his or her doctoral committee will be selected with the approval of the department chair. The department chair, in consultation with the chair of the doctoral committee and the student, will nominate a doctoral committee to be appointed by the dean of the Graduate School. This committee will consist of no fewer than five members, including at least one person from outside the student's research field. Adjunct graduate faculty may serve on the doctoral committee; a majority of the committee, however, must be regular members of the graduate faculty in the Department of Biological Sciences. Replacements which may be required on the committee will be nominated by the remaining committee members and the department chair from among qualified faculty in consultation with the student.

The doctoral committee will consult with the student in the formulation of a program of courses and research study for the duration of the Ph.D. program. The committee will meet with the student at least once a year to evaluate progress toward completion of the degree requirements. This evaluation may include written and oral presentations required of the student by the committee. This committee assessment of the student's progress will appraise the student's background knowledge and his or her competence in carrying out original independent research and will determine whether the student will be retained in the Ph.D. program.

The Department of Biological Sciences research-tool requirement is fulfilled by completing BIOS 570 and either BIOS 470X or BIOS 472X and BIOS 473X, which are required for the doctoral program.

The student must pass a candidacy examination consisting of written and oral portions and administered by the doctoral committee. This examination will include a comprehensive coverage of the student's academic background to enable the committee to evaluate the student's potential for successful completion of the Ph.D. degree program. This examination will be taken at a time designated by the doctoral committee, but no sooner than the completion of the first 27 graduate-level semester hours and no later than the completion of the first 60 graduate credit hours, to be applied to the Ph.D. program. A student who fails this examination may, with the permission of the committee, repeat it once; the repeated examination will be at a time designated by the committee, but no sooner than the lapse of one semester and no later than eight months before granting of the degree.

After the student has completed all other requirements for the degree, including the writing of a dissertation on a research topic approved by the student's doctoral committee, an oral defense of the dissertation will be conducted by the doctoral committee.

The doctoral candidate will present a public lecture, based on his or her dissertation.

Following approval of the dissertation by the doctoral committee, acceptable copies must be submitted to the Graduate School.

Certificate of Graduate Study

Bioinformatics (16-17)

This certificate is primarily designed for individuals already working in the bioinformatics field who want to improve their skills through formal course work. Credit earned for work on the certificate may be applied toward the specialization in bioinformatics, with permission of the department.

BIOS 467 - Molecular Biology of Eukaryotes (3),
OR BIOS 535 - Molecular Genetics of Prokaryotes (3)
BIOS 545 - Bioinformatics (3)
BIOS 546 - Programming for Bioinformatics (3)
BIOS 661 - Seminar (1)
Two of the following[1] (6-7)
BIOS 413 - Microbial Physiology (3)
BIOS 439 - Molecular Evolution (3)
BIOS 465 - Cellular Physiology (3)
BIOS 467[2] - Molecular Biology of Eukaryotes (3)
BIOS 470X - General Biological Chemistry (3)
BIOS 476 - Plant Genetics (3)
BIOS 479 - Biotechnology Applications and Techniques (3)
BIOS 511 - Plant Metabolism (3)
BIOS 535[2] - Molecular Genetics of Prokaryotes (3)
BIOS 564 - Evolutionary Genetics (3)
BIOS 591 - Recombinant DNA Techniques Laboratory (4)
BIOS 600M - Special Topics in Biology: Research Methods (3)
CHEM 570 - Enzymes (3)
CHEM 575 - Physical Chemistry of Macromolecules (3)
CSCI 440 - Data Structures and Algorithm Analysis (4)
CSCI 461 - Techniques of Computer Programming and Algorithmic Processes (3)
MATH 460 - Modeling Dynamical Systems (3)
STAT 473 - Statistical Methods and Models I (3), and STAT 473A - Statistical Computing Packages (1)
STAT 474 - Statistical Methods and Models II (3)

If the student has completed the equivalent of BIOS 467, BIOS 535, BIOS 545, or BIOS 546[1] as an undergraduate with a grade of C or better, the course may be waived as a requirement in the graduate program, and other course work substituted, with the approval of the department. (Alternate courses may be substituted at the discretion of the student's committee.)

Course List

405. AMERICAN ECOSYSTEMS (1 to 8). Laboratory and field analysis of environments. Lectures and laboratories on campus plus extensive field experience. May be repeated to a maximum of 8 semester hours. PRQ: BIOS 316 and consent of department.

406. CONSERVATION BIOLOGY (4). Ecological bases for conservation of biological diversity, resource management, ecosystem restoration, and relationship of conservation practices to human welfare. Laboratory includes computer simulations and applied conservation field work in local nature preserves. Field trips required. PRQ: BIOS 316 or BIOS 317, or consent of department.

410. PLANT ANATOMY (4). Structure of vascular plants, primarily flowering plants. Three hours of lecture and three hours of laboratory. Laboratory includes formal assignments and independent projects. PRQ: BIOS 305 or consent of department.

411. PLANT PHYSIOLOGY (4). Physical and chemical aspects of the functions of higher plants. Two hours of lecture and four hours of laboratory. PRQ: BIOS 205 and BIOS 209, or consent of department.

412. MYCOLOGY (4). Culture, morphology, and economic significance of the fungi. PRQ: BIOS 205 and BIOS 209, or consent of department.

413. MICROBIAL PHYSIOLOGY (3). Physical and chemical aspects of the functions of bacteria and other microorganisms. PRQ: BIOS 300, BIOS 313, and CHEM 330 or CHEM 336, or consent of department.

415. WATER MICROBIOLOGY (3). Designed to acquaint the student with normal and pollutional microorganisms found in water, their sources and control. Standard methods of detection and enumeration as well as new experimental approaches will be stressed in the laboratory. PRQ: BIOS 313 and CHEM 330 or CHEM 336, or consent of department.

417. PATHOGENIC MICROBIOLOGY (4). Consideration of human viruses, bacteria, and fungi and their host-parasite relations. PRQ: BIOS 313 or consent of department.

418. HUMAN HEREDITY (3). Inheritance in humans. Does not count for credit toward the major in biological sciences. PRQ: BIOS 103, BIOS 104, or BIOS 109, or consent of department.

420. PLANT PATHOLOGY (3). Specific causal agents of plant diseases, their identification and control measures. Parasitism and the economy of crop disease. Two hours of lecture and two hours of laboratory. PRQ: BIOS 209 or consent of department.

422X. PLANT-SOIL INTERACTIONS (4). *Crosslisted as GEOG 422.* Chemical and physical properties of soils affecting vegetation, segregation of natural plant communities, and managed systems. Lecture, laboratory, and field experience. PRQ: BIOS 103 or BIOS 104 and GEOG 302, or consent of department.

423. GENERAL VIROLOGY (3). Interactions between bacterial, animal, and plant viruses and their hosts, with emphasis on the biochemical development and genetics of viruses. PRQ: BIOS 300, BIOS 313, and CHEM 330 or CHEM 336, or consent of department.

430. PLANT SYSTEMATICS (4). Systematics and evolution of higher plants including contemporary phylogeny. PRQ: BIOS 209 or consent of department.

433. BEHAVIORAL ECOLOGY (3). Examples and theories of how behavior influences survival and reproduction in different environments. PRQ: BIOS 209 or consent of department.

435X. PRIMATE ANATOMY AND EVOLUTION (3). *Crosslisted as ANTH 445.* Living and fossil primate osteology. Detailed study of the primate skeleton coupled with information on the primate fossil record. Skeletal anatomy of living and fossil primates analyzed in terms of function and adaptation and used to discern evolutionary relationships. Lectures and laboratory. PRQ: ANTH 240 or consent of department.

439. MOLECULAR EVOLUTION (3). Evolution of nucleic acids and proteins and the modifying actions of mutational events. Survey of different types of molecular data and methods of determination and analysis. Consideration of the broader implications of molecular changes for our improved understanding of macroevolution and phylogeny retrieval. Two hours of lecture and three hours of laboratory per week. PRQ: BIOS 308 or BIOS 317, or consent of department.

440. IMMUNOBIOLOGY (3). Biochemistry and interactions of antigens, antibodies, and lymphocytes; development of the immune system; and medical applications and current immunological techniques. PRQ: BIOS 300 or BIOS 313 and CHEM 330 or CHEM 336, or consent of department.

441. EXPERIMENTAL IMMUNOLOGY (3). Laboratory course in theoretical and experimental knowledge of basic immunological techniques. CRQ: BIOS 440 or consent of department.

442. EVOLUTION AND THE CREATIONIST CHALLENGE (3). Evolutionary theory and tenets of present-day anti-evolutionists with emphasis on providing students with the skills to articulate the theory of evolution as it applies to the biological sciences. Not designed as a substitute for a formal course in evolutionary theory. Recommended for students pursuing careers in secondary science education. PRQ: BIOS 205 and BIOS 209, or consent of department.

444. CELL AND TISSUE CULTURE (3). Basic laboratory techniques in plant and animal tissue culture. Topics include growth analysis, mutation induction, hybridoma production, cell cycle analysis, and cell fusion. Topics and experiments from recent literature will be emphasized. One hour of lecture and two three-hour laboratories per week. PRQ: BIOS 300 and CHEM 330 or CHEM 336, or consent of department.

445. HUMAN HISTOLOGY (4). Microscopic anatomy of human cells and tissues. Emphasis on correlating cell structure at the light and ultramicroscopic level with physiology in individual tissue and organs of the human body. Two hours of lecture and four hours of laboratory. PRQ: BIOS 209 or consent of department.

446. GROSS HUMAN ANATOMY (6). Gross anatomy of the human body, including dissection, with functional, histological, developmental, and clinical correlates. PRQ: BIOS 355 or BIOS 357, or consent of department.

447. COMPARATIVE VERTEBRATE ANATOMY (4). Relationships of vertebrate classes as demonstrated by embryological, morphological, and paleontological evidence. Three hours of lecture and four hours of laboratory. PRQ: BIOS 205 and BIOS 209, or consent of department.

[1] Alternate courses may be substituted at the discretion of the student's committee
[2] If not used to meet requirement above.

448. AQUATIC ECOLOGY (4). Structure and function of freshwater communities as influenced by biotic and abiotic interactions. Two hours of lecture and five hours of laboratory per week. PRQ: BIOS 205, BIOS 209, and BIOS 316, or consent of department.

453. ENTOMOLOGY (3). Insects and other terrestrial arthropods: anatomy, behavior, classification, ecology, economic importance, and physiology. Two hours of lecture and one 3-hour laboratory per week. PRQ: BIOS 205 and BIOS 209, or consent of department.

454. DEVELOPMENTAL BIOLOGY (4). Mechanisms of eukaryotic development. Emphasis on model animal systems. Two hours of lecture and four hours of laboratory per week. PRQ: BIOS 300 and CHEM 330 or CHEM 336, or consent of department.

455. COMPARATIVE PHYSIOLOGY (3). General physiological principles and functions in vertebrates and invertebrates. Three hours of lecture and three hours of laboratory per week. PRQ: BIOS 205 and BIOS 209, or consent of department.

456. BIOLOGY OF FISHES, AMPHIBIANS, AND REPTILES (4). Evolution, taxonomy, physiology, behavior, ecology, and distribution of fishes, amphibians, and reptiles. Laboratory work and field trips emphasize identification of Illinois forms. PRQ: BIOS 205 and BIOS 209, or consent of department.

457. BIOLOGY OF BIRDS AND MAMMALS (4). Evolution, taxonomy, physiology, behavior, ecology, and distribution of birds and mammals. Laboratory work and field trips emphasize identification of Illinois forms. PRQ: BIOS 205 and BIOS 209, or consent of department.

458. VERTEBRATE PALEONTOLOGY (3). *Crosslisted as GEOL 458X.* Survey of the history of vertebrates, focusing on key evolutionary innovations such as the evolution of bone, the invasion of land, and the origin of endothermy. Examination of fossils and the interpretation of them in the context of their geological setting.

461. ENDOCRINOLOGY (3). Classic mammalian endocrine systems examined with emphasis on cellular and molecular mechanisms of action. Topics include endocrine cell signaling, molecular mechanisms of hormone action, and some discussion of endocrine pathology. Lecture material and readings from the current professional literature. PRQ: BIOS 355 or consent of department.

462. BIOGEOGRAPHY (3). Role of ecological, evolutionary, and historical factors in explaining the past and current distributions of plants and animals. Current theory and applications to species preservation and nature reserve design. Three hours of lecture. PRQ: BIOS 316 or consent of department.

464. CELL SIGNALLING (3). Principles of chemical communication between cells. Detailed examination of chemical messengers, receptors, and intracellular signal transduction mechanisms involved in regulation of cell function, growth, and development. PRQ: BIOS 300 and CHEM 330 or CHEM 336, or consent of department.

465. CELLULAR PHYSIOLOGY (3). Principles underlying cellular activity. Topics include the biochemistry of cells, cell organelles, cell environment, membranes, and energy conversions. PRQ: BIOS 300 or consent of department.

467. MOLECULAR BIOLOGY OF EUKARYOTES (3). Mechanisms of gene expression and regulation of gene activity in eukaryotic organisms. PRQ: BIOS 300 and CHEM 330 or CHEM 336 or CRQ: BIOS 473X, or consent of department.

468X. GEOMICROBIOLOGY (3). *Crosslisted as GEOL 468.* Role of microorganisms in diverse environments at and below the surface of the earth. Topics include life in extreme environments, biodegradation and remediation, biogeochemical cycling, and astrobiology examined from the perspectives of geochemistry, microbial ecology, molecular biology, and ecosystem studies. PRQ: GEOL 120 or BIOS 313, or consent of department.

469X. INVERTEBRATE PALEONTOLOGY (3). *Crosslisted as GEOL 470.* Principal invertebrate fossil forms of the geologic record, treated from the standpoint of their evolution, and the identification of fossil specimens. several field trips required. PRQ: Major in biological sciences or geology.

470X. GENERAL BIOLOGICAL CHEMISTRY (3). *Crosslisted as CHEM 470.* Overall view of biochemistry including structure, properties, function, and metabolism of biologically important compounds. PRQ: CHEM 331 or CHEM 337, or consent of department.

471X. BIOLOGICAL CHEMISTRY LABORATORY (3). *Crosslisted as CHEM 471.* Experiments in the isolation, purification, and characterization of biomolecules by chromatographic, electrophoretic, and centrifugation techniques; enzyme kinetics; electron transport in mitochondria and microsomes. PRQ: CHEM 325 or consent of department. CRQ: CHEM 470 or CHEM 472, or consent of department.

472X. BIOLOGICAL CHEMISTRY I (3). *Crosslisted as CHEM 472.* Detailed study of the structure and properties of proteins, carbohydrates, lipids, and nucleic acids. Properties of enzymes. Bioenergetics including oxidative phosphorylation and photosynthesis. PRQ: CHEM 331 or CHEM 337, or consent of department.

473X. BIOLOGICAL CHEMISTRY II (3). *Crosslisted as CHEM 473.* Detailed study of the metabolism of carbohydrates, lipids, and nitrogenous compounds, including proteins and nucleic acids. Metabolic regulation. Genetic information. PRQ: CHEM 472 or BIOS 472X, or consent of department.

474. ADVANCED BIOCHEMICAL TECHNIQUES (3). Theory and practice in the use of techniques for the isolation and characterization of macromolecules such as ultrafiltration, amino acid analysis, ultracentrifugation, optical rotatory dispersion, circular dichroism, absorption spectroscopy, calorimetry, and rapid reaction kinetics. Two 4- hour laboratory periods including one hour of lecture a week. PRQ: Consent of department.

475. NEURAL DEVELOPMENT (3). Examination of the principles that govern the development of the nervous system from a single fertilized cell in various organisms. PRQ: BIOS 355 or BIOS 455; CHEM 211T and CHEM 213; MATH 155; and PHYS 251 or PHYS 251A; or consent of department.

476. PLANT GENETICS (3). Examination of plant genetic variation at the level of the genome, population, and higher taxa, using both classical and molecular approaches. How natural and domesticated plant populations are shaped by evolutionary and human forces. PRQ: BIOS 308 or consent of department.

477. HUMAN GENETICS (3). Study of human genes, genome organization, and genetic diseases, with emphasis on DNA-based techniques. PRQ: BIOS 308 or consent of department.

478. BIOINSTRUMENTATION FOR CELL AND MOLECULAR BIOLOGY (4). Classroom instruction and hands-on training on contemporary equipment used in cell and molecular biology, including analysis of data generated by the equipment. Pipetting (calibration, precision, and accuracy), protein/DNA gel electrophoresis, transblotting and immunodetection, image acquisition and analysis, isoelectric focusing, PCR, centrifugation, column chromotography, spectrophotometry/spectrofluorometry, and confocal microscopy. Two hours lecture, six hours laboratory including open laboratory. PRQ: BIOS 300 and PHYS 251, or consent of department.

479. BIOTECHNOLOGY APPLICATIONS AND TECHNIQUES (3). Detailed study of the methodology, techniques and applications of biotechnology in both plant and animal systems with an emphasis on the use of genomics and genetic engineering approaches in agricultural and medical biotechnology. PRQ: BIOS 300 or BIOS 308, or consent of department.

480. BIOCOMPUTING (3). Computing technology as a multifaceted tool applicable to a wide range of biology subdisciplines through the development of a broad range of computing skills related to the Windows/ NetWare environment. Experience in application of general and specialty software in addressing various biological questions. Three hours of lecture and laboratory. PRQ: BIOS 209 or consent of department.

481. VISION AND THE VISUAL SYSTEM (3). Anatomy and physiology of the human and animal visual system, including descriptions of phototransduction, retinal representation in the cortex, perception of motion and depth, motion blindness, color vision, face recognition, and interpretation and processing of information in the brain. PRQ: BIOS 208 and BIOS 209, or consent of department.

511. PLANT METABOLISM (3). Biochemical and physiological aspects of metabolism in plants, including interpretation of current scientific literature. PRQ: Two years of chemistry or consent of department.

523. GRADUATE TEACHING AND RESEARCH ORIENTATION (1). Instruction in methods for teaching in the biological sciences and developing a thesis/dissertation research topic in the graduate program in the biological sciences.

525. ELECTRON MICROSCOPY (4). Preparative techniques for electron microscopy of biological specimens. Basic theory and operation of electron microscopes, including electron-micrography. Interpretation of the ultrastructure of cells and cell constituents. PRQ: Consent of department.

526. METHODS OF TEACHING HUMAN ANATOMY (1 to 6). Instruction in teaching methods for human gross anatomy. Emphasis on dissection techniques plus laboratory and lecture material as it pertains to a human gross anatomy course that utilizes cadaver material. May be repeated to a maximum of 6 semester hours. PRQ: BIOS 446 or consent of department.

527X. NEUROANATOMICAL BASES OF BEHAVIOR (3). *Crosslisted as PSYC 527.* Gross, microscopic, and ultramicroscopic anatomy of the nervous system; basic subdivisions of the central, peripheral, and autonomic components of the nervous system; histology and ultrastructure of nervous tissue; and neuroanatomical mechanisms in the regulation of behavior. PRQ: Graduate standing, PSYC 503, or consent of department.

528X. NEUROANATOMICAL BASES OF BEHAVIOR: LABORATORY (3). *Crosslisted as PSYC 528.* Gross, microscopic, and ultramicroscopic examination of tissues from the nervous systems of selected species. PRQ or CRQ: BIOS 527X.

529. HUMAN EMBRYOLOGY (3). Progression of human embryonic development from fertilization to parturition. Emphasis on description of development in major organ systems of the body and selected cellular and molecular mechanisms that induce these systems. PRQ: BIOS 446 or consent of department.

530. RADIATION BIOLOGY (3). Effects of radiation upon cells and organisms.

530X. NEUROCHEMICAL BASES OF BEHAVIOR (3). *Crosslisted as PSYC 530.* Biochemistry of the nervous system; chemical composition, metabolism, and chemistry of neurons and glia; chemical bases of learning, motivation, and other categories of behavior. PRQ: Graduate standing, PSYC 529, or consent of department.

535. MOLECULAR GENETICS OF PROKARYOTES (3). Mechanisms of molecular, bacterial, and viral genetics including genetic recombination, mutagenesis, gene regulation and expression, transposons, genetic engineering, and genomics. Emphasis on recent literature. Familiarity with molecular biology concepts assumed. PRQ: BIOS 300, BIOS 308, and BIOS 313, or consent of department.

536. EXPERIMENTS IN MOLECULAR GENETICS OF PROKARYOTES (2). Experiments with current techniques of molecular genetics of prokaryotes in genetic exchange, mutagenesis, transposition, gene cloning, and analysis. CRQ: BIOS 535 or consent of department.

540. ADVANCED IMMUNOLOGY (3). The genetics of the immune response, inheritance, and structure of membrane antigens, function of B and T lymphocytes, mechanism of cell mediated immunity, and genetics of immunoglobulin molecules. PRQ: BIOS 308 and BIOS 440, or consent of department.

545. BIOINFORMATICS (3). Introduction to theory, strategies, and practice of data management and analysis in molecular biology. Topics include DNA and protein sequence analysis, biological databases, genomic mapping, and analysis of gene expression data. PRQ: BIOS 308 or consent of department.

546. PROGRAMMING FOR BIOINFORMATICS (3). Introduction to computer programming and programming techniques for bioinformatics, with emphasis on currently used programming techniques in the bioinformatics field. Applications to bioinformatics and analysis of biological data. PRQ: BIOS 545 and CSCI 240, or consent of department.

555. MICROBIAL DIVERSITY (3). Detailed study of microbial diversity. In-depth familiarization with the evolutionary perspective on microbial relationships, development of an understanding of the morphological, ecological, and biochemical diversity of the microbial world, and classical and molecular approaches by which microbial diversity is studied. Scheduled laboratory period. PRQ: BIOS 313 or consent of department.

559. NEUROPHYSIOLOGY (3). Processing of information in the nervous system with emphasis on propagation of information along a single cell and between cells in the peripheral nervous system and in the spinal cord. PRQ: BIOS 355, BIOS 465, or BIOS 455; PHYS 251 or PHYS 251A; MATH 155; or consent of department. Recommended: One semester of calculus.

564. EVOLUTIONARY GENETICS (3). Population-genetic and quantitative-genetic models of evolution. PRQ: BIOS 308 and BIOS 317, or consent of department.

570. BIOSTATISTICAL ANALYSIS (3). Principles and procedures of statistical analysis of biological data. Includes use of statistical packages and computers in the laboratory.

575. POPULATION ECOLOGY (3). Structure and dynamics of animal populations and communities. PRQ: BIOS 316 and MATH 229, or consent of department.

580. COMMUNITY ECOLOGY (3). Concepts of classification, organization, structure, and change in biotic communities over ecological and evolutionary time. Role of physical factors and biotic interactions as well as hypotheses of community equilibria, stability, and composition. PRQ: BIOS 316 or consent of department.

590. TOPICS IN MOLECULAR AND CELLULAR CONTROL MECHANISMS (3). Mechanisms of regulation of biological systems at the cellular and molecular levels, considering current scientific literature. May be repeated to a maximum of 9 semester hours as topic varies. PRQ: BIOS 470X or consent of department.

591. RECOMBINANT DNA TECHNIQUES LABORATORY (4). Advanced experiments using recombinant DNA techniques. PRQ: Consent of department.

599. MASTER'S THESIS (1 to 12). Research leading to writing of a master's thesis. Students eligible to register only after their research problems have been approved. May be repeated to a maximum of 30 semester hours. S/ U grading. PRQ: Consent of department.

600. SPECIAL TOPICS IN BIOLOGY (1 to 9).
A. Physiology
B. Development and Morphogenesis
C. Genetics
D. Microbiology
E. Ecology/Environmental Biology
G. Evolution
J. Systematics
K. Molecular Biology
M. Research Methods
Lectures, discussions, and reports on topics of special interest in a particular field of biology. One to 9 semester hours as scheduled; each field may be repeated to a maximum of 9 semester hours. PRQ: Consent of department.

661. SEMINAR (1).
A. Microbiology
B. Ecology and Evolution
C. Teaching Human Anatomy
D. Cell Biology
E. Plant Sciences
May be repeated to a maximum of 12 semester hours, but no more than 4 semester hours may be counted toward the M.S. degree.

670. INDEPENDENT STUDY (1 to 9). Independent study of problems under the supervision of an adviser. May be repeated, but no more than 6 semester hours may be counted toward the M.S. degree. PRQ: Consent of department.

690. COOPERATIVE EDUCATION (1 to 3). Work experience related to biological sciences. Credit to be determined by the graduate coordinator. Enrollment restricted to students formally participating in NIU's cooperative education program. May be repeated, but no more than 3 semester hours may be applied toward any one degree. PRQ: Consent of the department and the university's director of cooperative education.

699. DOCTORAL DISSERTATION (1 to 12). May be repeated with permission of the department to a maximum of 120 semester hours. S/U grading. PRQ: Admission to Ph.D. candidacy and consent of department.

Department of Chemistry and Biochemistry (CHEM)

Chair: To be appointed.

Graduate Faculty

Gary M. Baker, associate professor, Ph.D., Purdue University
David S. Ballantine, Jr., associate professor, Ph.D., University of Maryland
Rathindra N. Bose, professor, Ph.D., Georgetown University
Jon W. Carnahan, professor, Ph.D., University of Cincinnati
Robert F. Cunico, professor emeritus, Ph.D., Purdue University
James E. Erman, Distinguished Research Professor, emeritus, Ph.D., Massachusetts Institute of Technology
Elizabeth R. Gaillard, associate professor, Ph.D., University of Texas
Thomas M. Gilbert, associate professor, Ph.D., University of California, Berkeley
Heike Hofstetter, adjunct assistant professor, Ph.D., University of Tübingen (Germany)
Oliver Hofstetter, associate professor, Ph.D., University of Tübingen (Germany)
Narayan S. Hosmane, Distinguished Research Professor, Ph.D., Edinburgh University
Dennis N. Kevill, Distinguished Research Professor, emeritus, Ph.D., University of London
Douglas Klumpp, associate professor, Ph.D., Iowa State University
Chhiu-Tsu Lin, Distinguished Teaching Professor, Presidential Research Professor, Ph.D., University of California, Los Angeles
W. Roy Mason III, professor emeritus, Ph.D., Emory University
John L. A. Mitchell, Distinguished Research Professor, Ph.D., Princeton University
Victor V. Ryzhov, associate professor, Ph.D., Case Western Reserve University
Lee Sunderlin, associate professor, Ph.D., University of California, Berkeley
Petr Vanýsek, associate professor, Ph.D., Czechoslovak Academy of Sciences
Lidia Vitello, adjunct associate professor, Ph.D., Clarkson University
Qingwei Yao, associate professor, Ph.D., University of Illinois, Chicago
Chong Zheng, professor, Ph.D., Cornell University

The Department of Chemistry and Biochemistry offers programs leading to the M.S. and Ph.D. degrees. Bulletins describing graduate programs in chemistry are available from the department chair.

Admission to graduate programs in chemistry requires a baccalaureate degree in chemistry or a related area.

Master of Science in Chemistry

Students who wish to enter the M.S. program should have a baccalaureate degree in a life, physical, or mathematical science, including one year of physics; one year of general chemistry; one year of physical chemistry; mathematics consisting of either three semesters of calculus or two semesters of calculus and one semester of differential equations; and four courses in other areas of chemistry at the 300-400 level. Students deficient in these requirements may satisfy them after admission, but the courses may not be taken for graduate credit and must be approved by the Graduate Program Committee after consultation with the department faculty in the student's primary area of interest. These deficiencies must be satisfied with a grade of C or better during the first two semesters of enrollment in the program.

Prior to registration the student is required to take background examinations in the fields of analytical, inorganic, organic, and physical chemistry. These examinations are usually given a week before registration to aid the adviser in the preparation of a course of study for the student. A passing level has been established so that these examinations can also serve as proficiency examinations for required undergraduate courses. (Students will be informed in advance that undergraduate deficiencies may be satisfied in this manner.)

The student must fulfill all requirements for the M.S. degree within five consecutive years from entry into the program.

Thesis Option

A minimum of 30 semester hours of graduate work is required. The student must successfully complete a minimum of five courses (15 semester hours, excluding CHEM 515, CHEM 590, CHEM 598, and CHEM 599), of which at least 9 semester hours are to be in chemistry, for graduate credit. At least one of these courses must be CHEM 446, CHEM 541, or CHEM 542, or an equivalent physical chemistry graduate course. A minimum of two courses must be outside the primary area of study. Only graduate courses from accredited institutions in which the student has earned a grade of B or better may be accepted towards an advanced degree, subject to approval of the department and the Graduate School.

CHEM 515, Chemistry Seminar, must be taken each semester.

A thesis incorporating the results of an approved research problem and successfully defended as part of a comprehensive oral examination is required. CHEM 598, Independent Study, should be taken as soon as possible, with enrollment to continue each term until enrollment in CHEM 599, Master's Thesis, is begun.

Teacher Certification Option

Students in this option must meet the requirements for teacher certification, in consultation with the discipline coordinator.

In addition, the student must successfully complete a minimum of four courses (12 semester hours) for graduate credit from courses numbered CHEM 405 to CHEM 600, excluding CHEM 490 to CHEM 499, CHEM 515, CHEM 590, CHEM 598, and CHEM 599. At least one of the four courses must be CHEM 446, CHEM 541, or CHEM 542, or an equivalent physical chemistry graduate course. Only graduate courses from accredited institutions in which the student has earned a grade of B or better may be accepted towards an advanced degree, subject to approval of the department and the Graduate School.

The student must pass a comprehensive examination in chemistry and chemistry education.

A minimum of 30 semester hours of graduate work to be determined by the department is required. In most cases, the number of semester hours will exceed 30. Retention in the program requires adherence to Graduate School and teacher certification requirements and regulations.

Doctor of Philosophy in Chemistry

The prospective candidate for the Ph.D. in chemistry may do advanced study and research in analytical, biological, inorganic, organic, or physical chemistry.

Students who wish to enter the Ph.D. program should have a baccalaureate degree in a life, physical, or mathematical science, including one year of physics; one year of general chemistry; one year of physical chemistry; mathematics consisting of either three semesters of calculus or two semesters of calculus and one semester of differential equations; and four courses in other areas of chemistry at the 300-400 level. Students deficient in these requirements may satisfy them after admission, but the courses may not be taken for graduate credit and must be approved by the Graduate Program Committee after consultation with department faculty in the student's primary area of interest. These deficiencies must be satisfied with a grade of C or better during the first two semesters of enrollment in the program.

Course Requirements

A minimum of eight courses (24 semester hours, excluding CHEM 515, CHEM 590, CHEM 598, CHEM 599, and CHEM 699), of which at least 15 semester hours are to be in chemistry, must be taken for graduate credit. At least one of these courses must be CHEM 446, CHEM 541, or CHEM 542, or an equivalent physical chemistry graduate course. A minimum of three courses must be outside the primary area of study.

Only graduate courses from accredited institutions in which the student has earned a grade of B or better may be accepted towards an advanced degree, subject to approval of the department and the Graduate School.

CHEM 515, Chemistry Seminar, must be taken each semester. This requirement is in addition to the 24 semester hours of required course work.

There is no general language/research skill requirement. However, a student's research adviser may require that such skills appropriate for the student's research be obtained, and course work to achieve this may also be included in the student's program of courses.

The student must complete the degree requirements with a cumulative GPA of 3.20 or above in all NIU graduate course work included on the doctoral program of courses.

CHEM 699, Doctoral Research and Dissertation, should be taken as soon as possible after passing the qualifying examination, with enrollment to continue each semester until graduate work terminates.

Examinations

Background examinations are required at the time of entering the program (described above in the requirements for the master's degree).

A qualifying examination must be satisfactorily completed in the primary area. This examination will test comprehensive knowledge of the area at the graduate level. Each division will establish the graduate course(s) in the division which will contribute towards the material upon which the examination is based. The qualifying examination must be taken no later than the fourth semester of enrollment as a graduate student. Students must have a GPA of at least 3.20 in previous graduate work to attempt the examination. A prospective doctoral candidate who has received an M.S. degree in chemistry from NIU must take the examination at the first offering following the awarding of the M.S. degree. Qualifying examinations will be given three times a year, in September, January, and May. A student who fails to pass this examination must retake it at the next offering. Failure on the second attempt will terminate further work toward the doctorate but not the master's degree.

Within one year of passing the qualifying examination in the primary field, the student must complete a research oral examination on his or her field of research encompassing the background literature in the area, the current state of the student's research, and the proposed direction of the research. The examination committee will be formed from faculty representing the primary area and a secondary area and will constitute the student's examining committee for all future examinations, with the addition of an extradepartmental representative for the final dissertation oral defense. The student's research adviser will chair the research oral committee. This examination will serve as the admission to candidacy examination. A student who fails to pass this examination must retake it no earlier than four nor later than six months after the first attempt. Failure on the second attempt will terminate further work toward the doctorate.

Each doctoral candidate will give an oral presentation of her or his research once a year. The student's examining committee will evaluate the presentation and inform the student of its opinion in writing.

Appeals against dismissal for failure to satisfy above examination requirements shall be directed to the Graduate Program Committee, whose recommendation shall be passed on to the faculty. The decision of the latter shall be final.

Dissertation

The student must complete an approved research problem and incorporate the results in a dissertation. The dissertation will be a substantial contribution to knowledge in which the student exhibits original scholarship and the ability to conduct independent research. A successful defense of the dissertation before the student's doctoral committee is required for its final approval.

Limitation of Time

All requirements for the Ph.D. degree in chemistry must be completed within seven consecutive years from entry into an NIU graduate program in chemistry.

Course List

Course numbering system. Courses offered by the Department of Chemistry and Biochemistry are divided into different areas as a general guide to students using the following numbering system.

–00, special topics
–15, seminar
–01 to –19, general chemistry
–20 to –29, analytical chemistry
–30 to –39, organic chemistry
–40 to –50, physical chemistry
–51 to –59, special laboratory and research areas
–60 to –69, inorganic chemistry
–70 to –79, biochemistry
–80 to –99, research, dissertation, and miscellaneous

405. CHEMICAL INSTRUMENTATION (3). Measurements of signals generated by chemical instrumentation. Applications of active and passive components in amplifiers, comparison circuits, filter circuits, and mathematical function circuits in relation to chromatographic, electroanalytical, and spectrochemical systems. Electrical noise as a function of frequency is discussed in the context of signal sampling and achieving maximum signal-to-noise ratios. Analog and digital data acquisition and computer controlled measurements. Two lectures and 3 hours of laboratory per week. PRQ: CHEM 440 or consent of department.

425. ANALYTICAL CHEMISTRY II (4). Fundamentals of physicochemical techniques of chemical analysis focusing on spectrometric and electrochemical techniques. Fundamentals, instrumentation, and applications of optical and mass molecular and atomic spectrometries, and electrochemical methods. Three hours of lecture and one 4-hour laboratory period a week. Not offered for graduate credit for chemistry majors. PRQ: CHEM 325 and CHEM 440, or consent of department.

435. PHYSICAL METHODS IN ORGANIC CHEMISTRY (3). Application of spectroscopic techniques to the determination of organic structures. PRQ: CHEM 440 or consent of department.

440. PHYSICAL CHEMISTRY I (3). Study of the gaseous, liquid, and solid states; thermodynamics; chemical equilibrium; and kinetic theory. Three lectures a week plus a recitation section. Not offered for graduate credit for chemistry majors. PRQ: CHEM 211T, CHEM 213, PHYS 251 or PHYS 251A, and MATH 230, or consent of department.

441. PHYSICAL CHEMISTRY II (3). Atomic and molecular structure, spectroscopy, kinetics, and chemical statistics. Three lectures a week plus a recitation section. Not offered for graduate credit for chemistry majors. PRQ: CHEM 440 and either MATH 232 or MATH 336, or consent of department.

446. THEORETICAL CHEMISTRY (3). Continuation of CHEM 440 and CHEM 441. Atomic structure, chemical bonding, and introduction to elementary quantum mechanics. Three lectures a week. PRQ: CHEM 441 or consent of department.

447. PHYSICAL CHEMISTRY LABORATORY (3). Modern experimental techniques and underlying theoretical principles for thermodynamics, chemical kinetics, spectroscopy, and molecular structure. Introduction to computer methods in physical chemistry. Two lectures and one 4-hour laboratory period a week. Not offered for graduate credit for chemistry majors. PRQ: CHEM 440 or consent of department.

460. INORGANIC CHEMISTRY II (3). Introduction to bonding and structure of transition metal complexes. Descriptive chemistry of the first row transition elements including reactions, structures, electronic spectra, and magnetic properties. Selected topics from the heavy transition elements, the lanthanides and the actinides. Not offered for graduate credit for chemistry majors. Three lectures per week. PRQ: CHEM 325, CHEM 337, and CHEM 440, or consent of department.

461. INORGANIC CHEMISTRY LABORATORY (1). Microscale synthesis and characterization of compounds of both main group elements and transition elements. Experimental examination of magnetic and spectroscopic properties of inorganic complexes. Use of glovebox techniques in the handling of air-sensitive materials. Not offered for graduate credit for chemistry majors. One 4-hour laboratory per week. PRQ: CHEM 332 or CHEM 339 or consent of department. PRQ or CRQ: CHEM 460 or consent of department.

463. INORGANIC CHEMISTRY III (3). Chemical applications of group theory including vibrational spectra, molecular orbitals, and ligand field theory. Theoretical basis for physical methods in inorganic chemistry. Selected topics in modern structural inorganic chemistry: organometallic compounds, cluster compounds including rings and polymers, and bioinorganic chemistry. Three lectures a week. PRQ: CHEM 460 or consent of department.

470. GENERAL BIOLOGICAL CHEMISTRY (3). *Crosslisted as BIOS 470X.* Overall view of biochemistry including structure, properties, function, and metabolism of biologically important compounds. PRQ: CHEM 331 or CHEM 337, or consent of department.

471. BIOLOGICAL CHEMISTRY LABORATORY (3). *Crosslisted as BIOS 471X.* Experiments in the isolation, purification, and characterization of biomolecules by chromatographic, electrophoretic, and centrifugation techniques; enzyme kinetics; electron transport in mitochondria and microsomes. PRQ: CHEM 325 or consent of department. CRQ: CHEM 470 or CHEM 472, or consent of department.

472. BIOLOGICAL CHEMISTRY I (3). *Crosslisted as BIOS 472X.* Detailed study of the structure and properties of proteins, carbohydrates, lipids, and nucleic acids. Properties of enzymes. Bioenergetics including oxidative phosphorylation and photosynthesis. PRQ: CHEM 331 or CHEM 337, or consent of department.

473. BIOLOGICAL CHEMISTRY II (3). *Crosslisted as BIOS 473X.* Detailed study of the metabolism of carbohydrates, lipids, and nitrogenous compounds, including proteins and nucleic acids. Metabolic regulation. Genetic information. PRQ: CHEM 472 or BIOS 472X, or consent of department.

494. USE OF TECHNOLOGY IN CURRICULUM DEVELOPMENT AND CHEMISTRY TEACHING (3). Use of web-based teaming technology to track, design, and implement new science curricula. Includes use of SharePoint to develop collaboratively a standards-aligned instructional module on the web as part of a three-semester project including ILAS 300 and/or ILAS 401, and CHEM 497. PRQ: Consent of department. CRQ: CHEM 301X and ILAS 301, or consent of department.

495X. TEACHING OF PHYSICAL SCIENCES (3). *Crosslisted as PHYS 495.* Preparation for certification in grades 6-12 in one or more of the fields of physical science: physics, chemistry, earth science, general science. Examination and analysis of modern curricula; classroom and laboratory organization; microteaching and observation of teaching; lesson planning; multicultural education; teaching science to the exceptional child; reading and the teaching of science; methods of evaluation. Not offered for graduate credit for chemistry majors. PRQ: Consent of department. CRQ: ILAS 401 or consent of department.

500. SELECTED TOPICS IN CHEMISTRY (1 to 3).
A. Inorganic
B. Analytical
C. Organic
D. Physical
E. Biological
Lecture and discussions of special topics for beginning graduate students. One to 3 semester hours as scheduled; course may be repeated up to a maximum of 9 semester hours. PRQ: Consent of department.

515. CHEMISTRY SEMINAR (1/2). Required of thesis option master's and doctoral students each semester in residence except summer session. May be repeated to a maximum of 8 semester hours. PRQ: Consent of department.

522. ANALYTICAL SEPARATIONS (3). Fundamental principles of chemical separations and measurements with emphasis on instrumental methods. Survey of both traditional and emerging techniques. PRQ: CHEM 441 or consent of department.

523. MASS SPECTROMETRY (3). Fundamentals of mass spectrometry, including modern ionization techniques, major types of mass analyzers, and interface to separation techniques. Survey of biochemical, pharmaceutical, and environmental applications.

524. OPTICAL METHODS IN ANALYTICAL CHEMISTRY (3). Theoretical and practical applications of spectral measurements to research and chemical analysis, with emphasis on absorption, emission, and luminescence techniques in the principal regions of the electromagnetic spectrum. PRQ: CHEM 425 or consent of department.

525. ELECTROANALYTICAL CHEMISTRY (3). Theory, practice, and applicability of electroanalytical measurements in analysis and research. Traditional and emerging techniques of electroanalytical chemistry and electrochemical kinetics are emphasized. PRQ: CHEM 425 or consent of department.

531. ORGANIC SYNTHESIS (3). Systematic presentation of methods of assembling carbon skeletons, functional group interconversions, and analysis of synthetic pathways. PRQ: CHEM 331 or CHEM 337.

532. PHYSICAL ORGANIC CHEMISTRY (3). Mechanism and structure in organic chemistry including structural theory, stereochemistry, and the study of the reactive intermediates of organic chemistry. PRQ: CHEM 331 or CHEM 337, and CHEM 441, or consent of department.

541. CHEMICAL THERMODYNAMICS (3). Fundamental laws of thermodynamics and applications to chemical problems. Calculation of thermodynamic quantities. PRQ: CHEM 441 or consent of department.

542. KINETICS (3). Theories and applications of rates of chemical reactions including reactions in the gas phase and in solution. Thermodynamic foundations of chemical reaction rates. Applications of kinetics in the determination of reaction mechanisms. PRQ: CHEM 441 or consent of department.

543. QUANTUM CHEMISTRY I (3). Postulatory basis of quantum theory. The time-independent Schrodinger equation and its applications. Operator techniques are emphasized. PRQ: CHEM 446 and either MATH 334 or MATH 336, or consent of department.

570. ENZYMES (3). Basic principles of the concepts of enzyme kinetics, theory and design of experimental methods, and interpretation of enzyme mechanisms. Three lectures a week. PRQ: CHEM 470 or consent of department. Recommended: CHEM 542.

575. PHYSICAL CHEMISTRY OF MACROMOLECULES (3). Comprehensive introduction to the use of physical chemistry in the study of macromolecules. Three lectures a week. PRQ: CHEM 441 or consent of department.

590. APPLIED TOPICS IN THE CHEMISTRY PROFESSION (1 to 2). Issues regarding the chemistry profession, teaching methods in chemistry, research tools, information presentation, advanced research, and other subjects not normally considered as part of more traditional chemistry courses. May be repeated to a maximum of 6 semester hours. S/U grading. PRQ: Consent of department.

595. IN-SERVICE EXPERIENCE IN CHEMISTRY (1 to 4). Work individually or in small groups in an academic, industrial, or government setting under the guidance of a professional staff member(s) in an approved lecture and/or laboratory program. May be repeated to a maximum of 9 semester hours. PRQ: Consent of department.

598. INDEPENDENT STUDY (1 to 12). Independent study of problems under the supervision of an adviser. May be repeated to a maximum of 55 semester hours, but no more than 15 combined semester hours of CHEM 598 and CHEM 599 may be applied toward the M.S. degree. S/U grading. PRQ: Consent of department.

599. MASTER'S THESIS (1 to 12). Research for and writing of a master's thesis. Students are eligible to register only after receiving approval from their thesis adviser. May be repeated to a maximum of 9 semester hours, but no more than 15 semester hours of combined credit in CHEM 598 and CHEM 599 may be applied toward the M.S. degree. S/U grading. PRQ: Consent of department.

600. SPECIAL TOPICS IN CHEMISTRY (1 to 3).
A. Inorganic
B. Analytical
C. Organic
D. Physical
E. Biological
Lectures, discussions, and reports on topics of special interest in a particular field of chemistry. One to 3 semester hours as scheduled; course may be repeated to a maximum of 9 semester hours. PRQ: Consent of department.

699. DOCTORAL RESEARCH AND DISSERTATION (1 to 12). May be repeated to a maximum of 100 semester hours, but no more than 40 semester hours may be applied toward the Ph.D. degree. S/U grading. PRQ: Admission to Ph.D. candidacy and consent of department.

Department of Communication (COMS, JOUR)

Chair: Steven M. Ralston

Graduate Faculty

Gretchen Bisplinghoff, assistant professor, Ph.D., Northwestern University
Robert Brookey, associate professor, Ph.D., University of Minnesota
Ferald J. Bryan, associate professor, Ph.D., University of Missouri
Gary Burns, professor, Ph.D., Northwestern University
Yu-Li Chang, assistant professor, Ph.D., Ohio University
Jeffrey Chown, Presidential Teaching Professor, Ph.D., University of Michigan
David Gunkel, associate professor, Ph.D., DePaul University
Janice D. Hamlet, associate professor, Ph.D., Ohio State University
Kelly Happe, assistant professor, Ph.D., University of Pittsburgh
David Henningsen, associate professor, Ph.D., University of Wisconsin
Mary Lynn Henningsen, assistant professor, Ph.D., University of Wisconsin
Richard Holt, associate professor, Ph.D., University of Illinois
Richard L. Johannesen, professor emeritus, Ph.D., University of Kansas
Betty LaFrance, assistant professor, Ph.D., Michicagn State University
Mary S. Larson, professor, Ed.D., Northern Illinois University
Robert Miller, associate professor, Ph.D., Northwestern University
Orayb Najjar, associate professor, Ph.D., Indiana University
Steven M. Ralston, professor, Ph.D., Indiana University
Joseph Scudder, associate professor, Ph.D., Indiana University
Lois S. Self, associate professor, Ph.D., University of Wisconsin
Brian Thornton, associate professor, Ph.D., University of Utah
Kathleen S. Valde, associate professor, Ph.D., University of Iowa
Laura Vazquez, associate professor, Ph.D., Northwestern University
Karen Whedbee, assistant professor, Ph.D., University of Wisconsin
Dale Zacher, assistant professor, Ph.D., Ohio University

The Department of Communication offers a graduate program leading to the M.A. degree in communication studies. This graduate program is adapted to the student's individual needs and academic background. Each student plans a program in consultation with an adviser from the graduate faculty of the department. With the approval of the adviser, the student may elect a maximum of 12 semester hours in allied studies in other departments.

With the adviser's consent, the student may choose to pursue the degree with or without a thesis. The number of credits transferred from another school or taken as a student-at-large to be approved as part of the student's program of courses will be determined by the student's departmental advisory committee.

Master of Arts in Communication Studies

A student may pursue the primary portion of graduate study for the M.A. in communication studies in communication theory, rhetorical studies, journalism, or media studies.

Requirements

The student must earn a minimum of 33 semester hours of graduate credit and must take at least one graduate-level course in three of the following four areas: journalism, communication theory, rhetorical studies, and media studies. COMS 591, Research in Communication Studies (3), is required of all students and must be taken during the first 12 semester hours of graduate work.

With the adviser's advice and consent, the student must fulfill the requirements of either the thesis or non-thesis option.

Thesis Option

A thesis must be submitted and approved. From 3 to 6 semester hours may be allotted to thesis research and writing. A maximum of 6 semester hours may be taken in a combination of COMS 597, Directed Individual Study, and COMS 599, Master's Thesis.

During the semester in which degree requirements are completed, the student must pass a written examination and an oral examination on the thesis and course work.

Non-Thesis Option

A maximum of 3 semester hours may be earned in COMS 597, Directed Individual Study.

During the semester in which degree requirements are completed, the student must pass a written examination and an oral examination, both of which will assess knowledge and ability in the area of special interest.

The comprehensive examination includes the submission by the student, for evaluation by the committee, of an expanded scholarly paper growing out of previous course work or directed individual study.

Course List

Communication Studies (COMS)

Communication Theory

507. SEMINAR IN SMALL-GROUP COMMUNICATION (3). Theories of communication in small-group interaction, especially in decision-making and conflict resolution; examination of the experimental literature.

509. TOPICS IN COMMUNICATION THEORY (3). Special issues, problems, methods, or applications related to communication theory. Methodological focus varies. May be repeated to a maximum of 6 semester hours when topic varies.

510. SYMBOLIC BEHAVIOR AND COMMUNICATION (3). Description of the nature of symbols and the major forms of symbolic systems used in speech communication.

561. SEMINAR IN INTERNAL ORGANIZATIONAL COMMUNICATION (3). Analysis of communication systems in complex organizations with a focus on communication and organizational goals. Research methodologies emphasizing field study methods.

562. SEMINAR IN INTERCULTURAL COMMUNICATION (3). Intensive study of the means whereby individuals communicate, perpetuate, and develop their world views and ethos, with emphasis on the nature and function of communication among, between, and/or within cultures.

563. SEMINAR IN INTERPERSONAL COMMUNICATION (3). Exploration of the functions of interpersonal communication such as uncertainty reduction, social support, self presentation, influence, and relationship maintenance; examines sociocultural expectations for verbal and nonverbal interaction.

564. SEMINAR IN COMMUNICATION THEORY (3). Analysis of motives for developing and criteria for evaluating communication theories. Introduces empirical, interpretive, and critical communication theories, including theories focused on specific contexts such as close relationships, organizational networks, and media processing.

571. SEMINAR IN ORGANIZATIONAL LEADERSHIP AND COMMUNICATION (3). Communication in the development and practice of leadership in modern organizations. Theory and research concerning leadership and communication.

572. SEMINAR IN ORGANIZATIONAL DEVELOPMENT AND COMMUNICATION (3). Use of communication to identify performance gaps and direct informed organizational change. Theory and research concerning the central role of communication in organizational development.

573. SEMINAR IN EXTERNAL ORGANIZATIONAL COMMUNICATION (3). Focus on such functions as public relations, marketing, advertising, lobbying, fund raising, long-range planning, government relations, crisis management, sales, and media relations. Theory and research concerning the use of external communication in accomplishing organizational goals.

580. SEMINAR IN CONFLICT MANAGEMENT AND NEGOTIATION (3). Communication theory and research about conflict management, negotiation/bargaining, and mediation; emphasis on interpersonal, group, and organizational contexts.

607. SEMINAR IN PERSUASION (3). Selected areas of research on persuasion and application of various theories to persuasive situations such as political campaigns, advertising, and social issues. May be repeated to a maximum of 9 semester hours provided there is no duplication of subject matter.

Rhetorical Studies

403. FREEDOM OF SPEECH AND COMMUNICATION ETHICS (3). Social responsibilities of the public and private oral communicator, as sender and receiver; the issues of freedom of speech and exploration of problems of ethics in speech communication.

419. POLITICAL COMMUNICATION IN AMERICA (3). Communication theory and practices within the context of American politics. Modern campaigns, political communication consultants, issue definition and dissemination, communication strategies of administrative control, and communication within the presidency and within congress. Special focus on the mass media.

500. THE CLASSICAL TRADITION IN RHETORICAL THEORY (3). Foundations of rhetoric, emphasizing the contributions of Plato, Aristotle, Cicero, and Quintilian, and selected medieval, Renaissance, and post- Renaissance rhetorical theorists.

502. CONTEMPORARY RHETORICAL THEORY (3). Issues in rhetorical theory construction, trends in 20th-century rhetorical theorizing, and the approaches to rhetorical theory of such figures as Kenneth Burke, I.A. Richards, Richard M. Weaver, Chaim Perelman, Stephen Toulmin, Ernesto Grassi, Michel Foucault, and Jurgen Habermas.

503. SEMINAR IN PUBLIC RHETORIC (3). Significant public speeches and rhetorical discourse throughout American history on major intellectual, social, and political issues. May be repeated to a maximum of 9 semester hours provided no major duplication of subject matter occurs.

504. METHODS OF RHETORICAL CRITICISM (3). Examination of the nature and function of rhetorical criticism in regard to diverse texts and contexts.

505. THEORY AND USES OF ARGUMENT (3). Study of modern theories of argument and a critical examination of the function of debate in the determination of public policy.

506. COMMUNICATION ETHICS (3). Conceptual perspectives for evaluation of ethics in interpersonal, small group, organizational, and mass media communication settings. Exploration of potential standards, controversial issues, and case studies. Instructional approaches to communication ethics in academic and nonacademic contexts.

519. SEMINAR IN PRESIDENTIAL RHETORIC (3). Examination of the definitional, theoretical, and methodological issues relevant to the rhetoric of the American presidency. Focus on the rhetorical practices of recent presidents from FDR to Reagan.

520. RHETORICAL APPROACHES TO SOCIAL MOVEMENTS (3). Examination of definitional, theoretical, and methodological issues unique to rhetorical criticism of social movements as articulated in contemporary scholarly debates such as the nature of a rhetorical movement, the role of communication in development of rhetorical movements, method(s) appropriate to study of modes of symbolic activity in rhetorical movements, and the ethical status of the critic of rhetorical movements. Issues explored through consideration of particular case studies.

540. SEMINAR IN COMMUNICATION AND GENDER (3). Examination of the relationship between communication and gender, current research regarding gender differences in communication, theoretical and critical perspectives that emphasize gender, and contemporary communication problems and issues for which gender plays a pivotal role (e.g., pornography and sexual harassment).

660. SEMINAR IN RHETORIC (3). Intensive studies of selected topics such as postmodern issues, communication and culture, power and identity, alternative critical perspectives, and free speech/free press. May be repeated to a maximum of 9 semester hours provided there is no duplication of subject matter.

Media Studies

426. ADVANCED FIELD PRODUCTION (3).
A. Documentary. PRQ: COMS 358 and COMS 457 and successful portfolio review, or consent of department.
B. Narrative. PRQ: COMS 462 or COMS 456C or COMS 456D and successful portfolio review, or consent of department.
Video production based on application of appropriate theories and aesthetics for documentary or narrative production. Projects utilize digital editing, audio track mixing, digital video camera(s), and locations as needed.

446. DESIGNING FOR THE INTERNET (3). Conceptualization of appropriate design criteria for an attractive and efficient Internet site. Techniques for site construction. Appropriate software used for image manipulation and page construction and design.

449. AUDIO PRODUCTION (3). Production of radio programs or other audio projects of a complex nature, emphasizing recording, editing, and mixing techniques. PRQ: COMS 357 and successful portfolio review, or consent of department.

450X. INSTRUCTIONAL VIDEO I (3). *Crosslisted as ETT 450.* Practical methods for the production and use of video in educational settings. Preparation and presentation of televised instructional materials. Not open to students with credit in COMS 357 or COMS 358.

454. TRANSNATIONAL COMMUNICATION AND MEDIA (3). Study of the development, structure, functions, and control of international communications media systems and activities as they affect world relations.

455. MEDIA LAW AND ETHICS (3). Development, structure, theory, and functions of legal controls and ethical constraints on media production and programming.

456. HISTORY OF FILM (3).
C. Before 1950
D. After 1950
Each lettered topic may be taken only once.

457. THE DOCUMENTARY TRADITION (3). Theories, techniques, history, and criticism of the documentary

459. HISTORY OF BROADCASTING (3). History of radio and television broadcasting in the United States from its inception to the present.

460. BROADCASTING THEORY AND CRITICISM (3). Major theoretical and critical perspectives or analysis of broadcasting.

462. FILM THEORY AND CRITICISM (3). Major theoretical and critical perspectives for analysis of film.

463. ADVANCED STUDIO PRODUCTION (3). Production of studio-based programs utilizing multiple cameras in a live or live-on-tape format. PRQ: COMS 357 and successful portfolio review, or consent of department. CRQ: COMS 426 or consent of department.

466. NARRATIVE SCRIPTWRITING (3). Focus on structure, development, and execution of a 100-page narrative fiction script for media. Emphasis on creativity, critical ability, and discipline in writing. PRQ: COMS 355 or consent of department.

467. CORPORATE SCRIPTWRITING (3). Focus on scripting for nonbroadcast settings such as corporate training packages for management development or employee orientation; public service packages for social service agencies; and educational packages for such enterprises as medical agencies. Emphasis on client assessment, pre-production planning, writing for specific objectives, and script evaluation. PRQ: COMS 355 or consent of department.

469. INTERACTIVE MEDIA PRODUCTION II (3). Advanced technologies and techniques for creating Web-based, interactive multimedia. Theories of media integration and interaction design, development of practical skills with Web-based production technologies beyond basic HTML (i.e., CSS, ASP, XML, Flash, and JavaScript), and creation of several interactive projects for e-commerce, education, and public service applications. PRQ: COMS 359 or consent of department.

541. DVD AND DIGITAL MEDIA (3). Effects of DVD and other emerging digital technologies on the film and media industries. Critical evaluation of applications and implications of these new technologies.

547. COMMUNICATION TECHNOLOGY (3). Investigation of computer-mediated communication including but not limited to the Internet, cyberspace, and virtual reality. Examination of the economic, social, political, and philosophical aspects of technology as well as practical experience with computer-based communication and information systems.

549. MEDIA AND CULTURE IN IRELAND (3). Survey of Irish film and television against the historical, political, and cultural traditions of Ireland. Irish media as it has developed in competition with Hollywood and British representation of Ireland.

550. SEMINAR IN MEDIA STUDIES (3). Intensive study of selected topics in media studies. Topics vary. May be repeated to a maximum of 9 semester hours provided that no repetition of subject matter occurs.

552. ADVANCED PROBLEMS OF MEDIA PRODUCTION (3). Techniques, theories, and criticism of production for radio, television, or film as used in television. May be repeated to a maximum of 6 semester hours provided there is no duplication of course content.

553. TOPICS IN BROADCAST MEDIA MANAGEMENT (3). Topics in the operation and management of the broadcast station in the commercial or educational field. May be repeated to a maximum of 6 semester hours provided there is no duplication of course content.

554. MEDIA AND SOCIETY (3). Focus on how media shape an individual's creation of social reality with regard to such areas as interpersonal communication, politics and government, religion, and community involvement.

555. THEORIES OF TELEVISION (3). Focus on the fundamental nature of television, how it differs from film and other media, its aesthetic characteristics, and how it is constituted technologically, industrially, and socially. Major theoretical and critical approaches to television will be examined.

556. FEMINIST FILM THEORY (3). Historical and methodological development of the feminist perspective in film analysis. Use and influence of sociological, psychoanalytical, Marxist, and semiological tools in a feminist approach to understanding film and how it works in a patriarchal society.

557. DOCUMENTARY THEORY AND PRACTICE (3). Survey of major documentary theories. Students put theory into practice while producing their own documentary videotapes.

558. SEMINAR IN MEDIA CRITICISM (3). Examination of mass communication theories, history of media criticism, current trends in media criticism, and major critical methods.

559X. INSTRUCTIONAL TELEVISION II (3). *Crosslisted as ETT 559.* Application of television production techniques to instructional activities. PRQ: COMS 450X or consent of department.

598. ACCESS TO PRODUCTION STUDIOS (0). For students creating studio and/or field video productions either as independent study or as part of the creative thesis. Available only as a CRQ with COMS 557, COMS 597, or COMS 599.

Research, Commmunication Education, and Internship

508. SPECIAL TOPICS IN COMMUNICATION STUDIES (1 to 3). May be repeated to a maximum of 9 semester hours when topic varies.

539. INTERNSHIP IN COMMUNICATION STUDIES (1 to 12). For graduate students preparing to enter fields where internship experience is available and desirable. Study of problems related to teaching, media application, and communication systems. Experience will be supervised and evaluated. May be repeated to a maximum of 12 semester hours. No more than 3 semester hours may be included in the degree program. Grades awarded are S, U, or I.

591. RESEARCH IN COMMUNICATION STUDIES (3). Focus on the nature and development of research questions and methods typical of scholarship in such areas as communication theory, rhetorical studies, and media studies.

597. DIRECTED INDIVIDUAL STUDY (1 to 6). Supervised readings and research or production of a creative project. May be repeated to a maximum of 6 semester hours, but no more than 3 semester hours may be applied toward the M.A.

599. MASTER'S THESIS (1 to 6). May be repeated to a maximum of 6 semester hours.

630. SEMINAR IN COMMUNICATION EDUCATION (3). Issues relevant to communication education.

Journalism (JOUR)

410. NEWS EDITING (3). Advanced practice in editing and headline construction for print media, and in newspaper and newsletter page design. PRQ: JOUR 200 or JOUR 200A or JOUR 200B or consent of department.

416. PHOTOGRAPH EDITING (3). Digital editing and layout of photographs. Selection of photographs from various electronic news sources and editing them for use as singles, spreads, and essays. History of newspaper and magazine design as well as the ethics of photographic selection, editing, and presentation. PRQ: JOUR 312 or consent of department.

449. MEDIA MANAGEMENT (3). Management of mass communications organizations, with emphasis on general administration, advertising, promotion, production, research and planning.

457. THE TELEVISION NEWS DOCUMENTARY (3). In-depth reporting on location of some aspect of the contemporary scene. Students investigate, prepare scripts, and shoot and edit documentaries to be used on television. Some traveling may be required. PRQ: JOUR 357 or consent of department.

460. SPECIALIZED PRESS WRITING (3). Writing for specialized publications: research for articles, writing in the style of specialized publications, and the marketing of articles. Includes study of the specialized press. PRQ: JOUR 200 or JOUR 200A or JOUR 200B or consent of department.

461. SPECIALIZED PRESS EDITING (3). Practical work in managing, planning, editing, and producing specialized publications. Includes reporting, copywriting, and picture editing. PRQ: JOUR 200 and JOUR 312 and a passing score on the Journalism Qualifying Examination, or consent of department.

480. JOURNALISM LAW AND REGULATION (3). Law and regulation affecting the concept of freedom of the press, access to information, free press–fair trial, libel, privacy, copyright, access to the media, and legal concepts and restrictions related to the press, publishing, electronic media, photojournalism, and public relations.

481. HISTORY OF JOURNALISM (3). Development of a free press from its origins in Europe through the emergence of modern journalism. Includes study of early newspapers, periodicals, and broadcast news programs.

482. INTERNATIONAL NEWS COMMUNICATIONS (3). Survey of the news media and international affairs; foreign correspondence and coverage; international news agencies; and country-by-country historical-societal study of foreign journalism.

483. MASS MEDIA IN MODERN SOCIETY (3). Concept and role of mass communications; rights, restrictions, and responsibilities of the mass media; and interactions of mass communications and society.

485. TOPICS IN JOURNALISM (1 to 3). In-depth study and discussion of current topics of special importance and interest in the field of journalism, including the background of the topics and their relationship to other fields. May be repeated to a maximum of 6 semester hours when topics vary. PRQ: Written permission of the faculty member coordinating the work.

490. ETHNIC MINORITIES AND THE NEWS MEDIA (3). Development of the press of various ethnic groups in the 19th and early 20th centuries, the needs it fulfilled, and its role in helping ethnic groups adjust to American society. The press of ethnic groups such as African Americans and Native Americans.

492. INTERNSHIP IN JOURNALISM (3). A work experience program for students planning to enter the field of mass communication. Students work for a semester or a summer as interns with appropriate organizations under the supervision and advisement of a department faculty coordinator. S/U grading.

502. REPORTING OF PUBLIC AFFAIRS (3). Advanced study and application of investigative, interpretive, and in-depth reporting of public affairs. Emphasis on social, political, and economic news as it is developed and reported at the local, state, and federal levels. Practical reporting experiences combined with seminar discussions and research investigations.

521. SEMINAR IN SPECIAL TOPICS IN JOURNALISM (3). May be repeated to a maximum of 6 semester hours when topics vary.

535. PUBLIC RELATIONS CASES, CONCEPTS, AND CAMPAIGNS (3). Practice in planning and conducting campaigns to achieve specific goals and to anticipate and solve specific public relations problems, including pre- and post-testing to measure results. Case method approach.

552. SEMINAR IN MEDIA CONVERGENCE (3). Development, structure, and future of print-broadcast-online journalism. Examination of how news media have changed and are changing, with focus on economic, political, and social systems. Advanced techniques for reporting, producing, and managing news for multiple platforms.

580. READINGS IN JOURNALISM (3). Selected review of journalism literature, including books, research studies, and periodicals.

582. THE PRESS AND WORLD AFFAIRS (3). Communication problems of the press in international affairs; detailed study of international news agencies and services; investigation of the foreign press by countries with emphasis on the press under fascism, communism, and democracy; and world censorship.

583. SEMINAR IN PRESS PROBLEMS (3). Selected problems in press freedom, federal-local censorship, press privileges, display and suppression of news, and the public's right to know. Also selected problems in influences of the press on social, economic, and political affairs; public opinion; and the formation of thought processes. May be repeated to a maximum of 6 semester hours when topics vary.

590. INDEPENDENT STUDY (1 to 3). Open to qualified students who wish to do individual advanced work in journalism or mass communications.

599. THESIS (1 to 3). PRQ: Consent of department.

Department of Computer Science (CSCI)

Interim Chair: Rodney Angotti

Graduate Faculty

Kathi Davis, associate professor, Ph.D., Illinois Institute of Technology
Kirk Duffin, assistant professor, Ph.D., Brigham Young University
Reva Freedman, assistant professor, Ph.D., Northwestern University
George Henry, associate professor, Ed.D., Northern Illinois University
H. Joel Jeffrey, professor, Ph.D., University of Colorado
Nicholas T. Karonis, associate professor, Ph.D., Syracuse University
Ibrahim Onyuksel, professor, Ph.D., University of Michigan
Robert Rannie, professor, Ph.D., Pennsylvania State University
Neil Rickert, professor, Ph.D., Yale University
Yuejian Sheng, associate professor, Ph.D., Louisiana State University
Robert Zerwekh, associate professor, Ph.D., University of Illinois
Jia Zhang, assistant professor, Ph.D., University of Illinois, Chicago
Jie Zhou, assistant professor, Ph.D., Concordia University

For admission to the graduate program in computer science, students must have a thorough knowledge of the programming language C, the operating system UNIX, advanced aspects of COBOL and MVS, and assembler language for third generation computers. Students who are admitted with stipulated deficiencies must earn a grade of B or higher in each of their stated deficiency courses.

Graduate students and students-at-large may not audit or elect to complete computer science courses on a pass/fail basis without obtaining prior permission from the Department of Computer Science.

Master of Science in Computer Science

Students pursuing the M.S. in computer science must complete at least ten graduate-level courses of 3 or 4 semester hours each. These ten courses must include at least five 3-semester-hour 500-level courses, and at least eight of the ten required courses must be in the Department of Computer Science. Students must obtain prior departmental approval to apply courses not offered by the Department of Computer Science in their programs of courses.

A program of study designed by the student and the adviser must be approved by the Department of Computer Science.

The student must pass a comprehensive examination in computer science. Students pursuing full-time graduate study will be required to take the comprehensive examination within two academic years of admission to the Graduate School, and all students must enroll in a computer science course carrying at least 2 semester hours of credit during the semester in which this examination is taken.

Required Courses
CSCI 464 - Data Structures (4)
CSCI 466 - Database/Data Communications Software (4)
CSCI 468 - Systems Programming (4)

At least three of the following (3)
CSCI 530 - Computer Networks (3)
CSCI 563 - Systems Design and Analysis (3)
CSCI 567 - Applied Systems Programming (3),
OR CSCI 568 - Advanced Systems Programming (3)
CSCI 588 - Database Concepts (3)

With approval of the department chair and adviser, a student may substitute other computer science courses taken for graduate credit for up to 11 of the required semester hours listed above.

If a graduate student in the M.S. program has already completed a required 400-level course with a grade of C or better as an undergraduate at NIU, that course requirement will be waived in the student's M.S. program. Other graduate course work will be substituted to complete the required program.

Course List

434X. NUMERICAL LINEAR ALGEBRA (3). *Crosslisted as MATH 434.* Roundoff errors and computer arithmetic. Direct and iterative methods for solving linear systems; norms and condition numbers, iterative refinement. Linear least squares problems: the normal equations and QR approach for overdetermined systems. Numerical methods for eigenvalues: an introduction to the QR iteration. Extensive use of computers. PRQ: MATH 232, MATH 240, and CSCI 230, CSCI 240, or approved equivalent; or consent of department.

435X. NUMERICAL ANALYSIS (3). *Crosslisted as MATH 435.* Polynomial interpolation, numerical solutions of nonlinear equations, least squares approximation by polynomials, orthogonal polynomials, economization of power series. Numerical integration including quadrature formulae, adaptive quadrature, composite quadrature formulae, and Romberg integration. Numerical methods for initial value problems including Taylor series methods, Runge-Kutta methods and multistep methods. The course makes extensive use of computers. PRQ: MATH 232, MATH 240, and CSCI 230, CSCI 240, or approved equivalent; or consent of department.

440. DATA STRUCTURES AND ALGORITHM ANALYSIS (4). Application of analysis and design techniques to nonnumeric algorithms acting on data structures. Utilization of algorithmic analysis and design criteria in the selection of methods for data manipulation. Computing projects done in a high-level computing language. Laboratory projects. PRQ: CSCI 241 and CSCI 360, or consent of department.

461. TECHNIQUES OF COMPUTER PROGRAMMING AND ALGORITHMIC PROCESSES (3). Advanced course in algorithmic processes and computer programming. A major higher-level language used in developing applications and the solutions of current problems. Knowledge of programming is required. PRQ: Consent of department.

464. DATA STRUCTURES (4). In-depth study of the theory and the programming techniques related to the storage and management of various forms of data. Programming assignments require advanced understanding of assembler language. Extensive laboratory work. PRQ: CSCI 360 or consent of department.

465. EXTERNAL DATA STRUCTURES (4). Formal organization of files, organization techniques using direct access, and indexed sequential and sequential files. COBOL topics, Job Control Language, and access methods and utilities with applications to data processing. Extensive laboratory work. PRQ: CSCI 360 or consent of department.

466. DATABASE/DATA COMMUNICATIONS SOFTWARE (4). Software development in a representative current database and an on-line interactive teleprocessing system. Extensive laboratory work. PRQ: CSCI 465 or consent of department.

467. SYSTEMS DESIGN AND ANALYSIS (4). Phases of the systems development life cycle and the tools used by the analyst in planning, specifying, and implementing a complex computer-based system. Related topics include documentation standards, interaction with users, and design of interfaces. Assignments include at least one major group project. PRQ: CSCI 465 or consent of department.

468. SYSTEMS PROGRAMMING (4). Detailed study of systems programming on a third-generation computer. Emphasis on the logical organization of the computer used. Extensive laboratory work. PRQ: CSCI 464 or consent of department.

470. PROGRAMMING IN JAVA (3). Intermediate-level course in object-oriented programming using Java, including multi-threading, graphical applets, and Internet-based distributed client-server database applications. Extensive laboratory work. PRQ: CSCI 440 or CSCI 240 and CSCI 464, or consent of department.

480. THEORETICAL OPERATING SYSTEMS (4). Principles and practices of modern operating system design. Includes file systems organization; multi-tasking; windowing interfaces such as Windows or OS/2; interprocess communication, including communications across a network; and serverclient models of processing. PRQ: CSCI 330 or CSCI 463, and either CSCI 440 or CSCI 464, or consent of department.

521. PARALLEL PROCESSING (3). Principles of parallel computation and advanced computer architectures. Topics include vector processors, multiprocessors, concurrency control, parallel programming environments, and software support. PRQ: CSCI 468 or CSCI 480, or consent of department.

530. COMPUTER NETWORKS (3). Basic principles concerning the technology and architecture of data and computer communications. Focus on design approaches and standards with emphasis on applications in specific areas of current technology. PRQ: CSCI 440 or CSCI 464, or consent of department.

531. NETWORK APPLICATIONS PROGRAMMING (3). Principles used to develop networking software and case studies of existing network applications. Includes principles of sockets programming and alternative strategies of network programming. Assignments include implementing several programming projects on a UNIX-based system. PRQ: CSCI 530 or consent of department.

545. NEURAL NETWORKS (3). Topics include Hopfield networks, back propagation, competitive learning, the Kohonen feature map and counterpropagation. Applications and examples provided, and future directions for these networks discussed. PRQ: Consent of department.

551. ADVANCED COMPUTER PROGRAMMING (3). Introduction to decision support, specification, applications, and very high level programming languages. PRQ: CSCI 461 or consent of department.

562. ANALYSIS OF DATA PROCESSING SYSTEMS (3). Detailed and in-depth analysis of large and complex computerized data processing systems. PRQ: CSCI 467 or consent of department.

563. SYSTEMS DESIGN AND ANALYSIS (3). Software development in multi-person projects, focusing on requirements analysis, design, and testing. All relevant aspects, both technical and non-technical, and their interactions. Planning, estimating, and tracking software development; collaboration between software teams; increasing software productivity. Manager-developer interactions. Testing as a decision-making activity in the various phases of the software development process. Case studies and real-world examples used to illustrate concepts and techniques. PRQ: CSCI 467 or consent of department.

564. DATABASE SYSTEMS (3). Advantages and limitations of the use of integrated databases, as opposed to conventional file structures. Includes detailed examination of at least one current system, as well as future trends. PRQ: CSCI 464 and CSCI 466, or consent of department.

567. APPLIED SYSTEMS PROGRAMMING (3). Examination of the role of the systems programmer. Topics include operating system initialization, tuning, and maintenance, as well as operating system software development. Study of current operating system emphasizing modern methods and future trends. PRQ: CSCI 464 and CSCI 465, or consent of department.

568. ADVANCED SYSTEMS PROGRAMMING (3). Interpretive systems; assemblers, loaders, compilers, library monitoring systems, input-output scheduling, executive programs, job scheduling, multi-access systems, multi-programming, multi-processing. PRQ: CSCI 468 or consent of department.

569. SOFTWARE ENGINEERING (3). Topics in improved programming technology, data structures, and analysis of algorithms. Focus on problems encountered in the design and implementation of large software systems. Includes both individual and group programming projects. PRQ: CSCI 464 and CSCI 467, or consent of department.

570. SIMULATION METHODS (3). Modeling and simulation concepts. Topics include generating pseudo random numbers and data, writing simulation programs in a general purpose programming language such as C and in a special purpose simulation language such as GPSS, and interpreting simulation results using statistical analysis techniques. PRQ: Consent of department.

575. CLIENT-SIDE WEB DEVELOPMENT (3). Advanced topics include Cascading Style Sheets, JavaScript, and cross-browser compatibility. Aesthetic topics include designing an effective user interface with color, graphics, navigation, and related topics. Extensive laboratory work. PRQ: Consent of department.

580. TOPICS IN COMPUTER SCIENCE (3).
A. Artificial Intelligence
B. Computer Graphics
C. Web Development
D. Operating System Principles and Practices
E. Programming Language Concepts and Methods
G. Database Theory and Applications
J. Storage Technology and Architectures
K. Computer Systems
M. Computer Applications
N. Programming Techniques
Q. Image Processing
R. Pattern Recognition
U. Computer Security
V. Windows Programming.
Each lettered topic may be repeated to a maximum of 6 semester hours when subject varies. PRQ: Three semester hours of 500-level course work in computer science and consent of department.

588. DATABASE CONCEPTS (3). Principles of database design. Comparison of the features of currently available database systems, as well as an introduction to current research in database technology. Role of database systems in both batch and on-line environments. PRQ: CSCI 464 and CSCI 466, or consent of department.

589. OBJECT-ORIENTED DESIGN AND PROGRAMMING (3). Fundamental elements of the object-oriented model. Techniques for object-oriented design studied with an opportunity to synthesize these concepts and apply the methodology through an object-oriented programming language such as C++. PRQ: CSCI 464 and CSCI 466, or consent of department.

590. INTERNSHIP (3 to 6). Work in a computer-related industrial environment. Normally only available to students who have no prior computer-related work experience. May be repeated to a maximum of 6 semester credit hours. PRQ: CSCI 468 and consent of department.

595. SEMINAR IN COMPUTER SCIENCE (3). May be repeated to a maximum of 9 semester hours as topic changes. PRQ: Six hours of graduate credit in courses related to the topic and consent of department.

597. GRADUATE READING IN COMPUTER SCIENCE (1 to 6). Individual reading in computer science. May be repeated to a maximum of 6 semester hours. PRQ: CSCI 468 and consent of department.

Department of Economics (ECON)

Chair: Eliakim Katz

Graduate Faculty

Evan Anderson, assistant professor, Ph.D., University of Chicago
Carl Campbell III, associate professor, assistant chair, Ph.D., Princeton University
Ardeshir J. Dalal, director of graduate studies, professor, Ph.D., University of Iowa
Jeremy Groves, assistant professor, Ph.D., Washington University
Neelam Jain, associate professor, Ph.D., University of Minnesota
Stephen Karlson, associate professor, Ph.D., University of Wisconsin
Eliakim Katz, professor, Ph.D., University of London
Khan A. Mohabbat, professor, Ph.D., State University of New York, Buffalo
Stephen Nord, professor, Ph.D., University of Illinois
Susan Porter-Hudak, associate professor, Ph.D., University of Wisconsin
George Slotsve, associate professor, Ph.D., University of Wisconsin
Virginia L. Wilcox-Gök, associate professor, Ph.D., Washington University

The Department of Economics offers graduate programs leading to the M.A. and Ph.D. degrees. A procedures manual describing graduate programs in economics in greater detail is available from the department chair or the departmental director of graduate studies.

Students who plan to pursue the graduate curriculum in economics should consult the departmental director of graduate studies before enrolling in course work. A student whose background in economics is deficient (in the judgment of the department's graduate committee) may be required to take additional course work at the undergraduate level.

Master of Arts in Economics

The M.A. in economics is suitable either for students intending to pursue a Ph.D. in economics or for those seeking a practical program of study to prepare them for technical or administrative positions in business or government.

The M.A. program in economics requires 30 semester hours of graduate credit.

Course Requirements

ECON 560 - Microeconomic Analysis I (3)
ECON 561 - Macroeconomic Analysis I (3)
ECON 590 - Econometrics I (3)
ECON 590A - Econometrics Laboratory (1)
ECON 599A - Master's Thesis (6),
OR ECON 599B - Master's Research Paper (3),
OR a substantial research paper written in a 500- or 600-level economics course and approved by the professor teaching the course.

Students with an interest in applied economics are expected to enroll in ECON 597, Economic Research Practicum, and to choose elective courses in applied fields such as public economics, labor economics, or urban and regional economics for the remaining hours. Those whose interests are in general economics or who plan to enter the Ph.D. program may elect work in non-applied areas. In either case, with the prior written consent of the director of graduate studies, students may elect to enroll in up to 6 semester hours of courses related to the student's field of study offered outside the department.

Comprehensive Examinations

Comprehensive examinations in microeconomic and macroeconomic analysis will normally be taken by each student in the master's degree program the first time that these examinations are offered following the completion of ECON 560 and ECON 561.

A student who fails either of these examinations twice will generally not be permitted to continue in the M.A. program. However, in extenuating circumstances a student may submit a written appeal to the department to take an examination a third and final time.

Students having a grade below B in ECON 560 will be required to pass a comprehensive examination in microeconomic theory. Those having a grade below B in ECON 561 will be required to pass a comprehensive examination in macroeconomic theory.

Doctor of Philosophy in Economics

A person who has earned the doctorate in economics is qualified both to teach economics at the university level and to do original research in academe, government, and the private sector. The doctoral program in economics features a strong core of courses in theory and econometrics and a focus on the three applied fields of labor economics, public finance, and urban and regional economics. Other fields may be approved by the department's director of graduate studies, subject to student demand and faculty availability.

Course Requirements

All doctoral students must satisfactorily complete a minimum of 60 semester hours of graduate course work, including ECON 590, Econometrics I (3), ECON 590A, Econometrics Laboratory (1), ECON 660, Microeconomic Analysis II (3), and ECON 661, Macroeconomic Analysis II (3). Prerequisites for these courses include ECON 490, ECON 491, ECON 560, and ECON 561. Students who have not satisfactorily completed these courses or their equivalents will normally be required to do so.

In addition, each student must take three courses in each of two applied fields and must earn at least a B in each field course. Courses in the applied fields that are the primary focus of the department will be offered on a regular basis.[1] Information about the availability of course work in other applied fields may be obtained by consulting the department's director of graduate studies.

All doctoral students must earn 6 semester hours in ECON 698, Current Research Colloquium (1). At least 2 of these hours must be taken after the student has passed the candidacy examinations.

[1] These are labor economics (ECON 500, ECON 501, ECON 600) and public finance (ECON 550, ECON 551, ECON 650).

Research-Tool Requirement

The Department of Economics research-tool requirement is fulfilled by successfully completing ECON 490, ECON 491, ECON 590, and ECON 590A, which are required in the doctoral program

Admission to Candidacy

All students are required to take candidacy examinations in microeconomic theory and in macroeconomic theory. Students must take the candidacy examination in microeconomics the first time it is offered after satisfactory completion of ECON 560/ECON 660 and must take the candidacy examination in macroeconomics the first time it is offered after satisfactory completion of ECON 561/ECON 661. A student who fails either of these examinations may, with the permission of the examining committee, repeat it after the lapse of at least one semester. A student who fails either of these examinations a second time will be dismissed from the doctoral program.

After successfully completing the candidacy examinations, each student must write a research paper in one of his or her applied fields and present the results in ECON 698. The paper will generally serve as a basis for the student's dissertation. The department's chair and director of graduate studies will appoint a committee of three faculty members (who may later serve on the student's doctoral dissertation committee) who will evaluate the paper and the oral presentation. Upon receiving a satisfactory evaluation, the student will be admitted to candidacy. Failure to receive a satisfactory evaluation within one year after completing the course work for the applied fields will result in dismissal from the doctoral program. Under exceptional circumstances this time limit may be extended by the department's Graduate Committee.

Course List

402. COMPARATIVE LABOR RELATIONS (3). Patterns of industrial relations systems in European and selected emerging economies. Scope of collective bargaining and social welfare legislation. Cooperation between the various national labor movements. PRQ: ECON 300; ECON 360 or ECON 361; or consent of department.

403. ECONOMICS OF HUMAN RESOURCES (3). Analysis of factors affecting demand for and supply of labor. Human capital analysis, discrimination, labor market operations, and public policy. PRQ: ECON 360 or consent of department.

420. ANTITRUST ECONOMICS (3). Detailed analysis of monopoly, near monopoly, and various business practices. Examination of legal and economic foundations of current and past public policies toward monopoly. PRQ: ECON 360 or consent of department.

423. PUBLIC UTILITIES (3). General economic characteristics of and governmental policy toward public utilities. Problems such as pricing, finance, and private, cooperative, and public ownership. PRQ: ECON 360 or consent of department.

425. ECONOMIC EDUCATION (1 to 3). Exploration of selected economic concepts, topics, and classroom materials/applications to assist elementary or secondary teachers in developing K-12 economics curricula and instructional activities that meet the State of Illinois Standards. Not open for credit toward the M.A. or Ph.D. in economics. May be repeated to a maximum of 3 semester hours when topic varies. PRQ: Consent of department.

443. ECONOMIC DEVELOPMENT (3). Analysis of major problems and issues of a theoretical and a policy nature concerning developing economies. PRQ: ECON 360 or ECON 361, or consent of department.

450. PUBLIC ECONOMICS (3). Analysis of the structure and effects of the national, state, and local revenue and outlay systems. PRQ: ECON 360 or consent of department.

452. FISCAL POLICY (3). Examination of the role of the federal budget in fiscal policy. Public expenditures, taxes, and debt management are evaluated as tools of economic stabilization since World War II. PRQ: ECON 361 or consent of department.

454. STATE AND LOCAL FINANCE (3). Analysis of the expenditure-revenue process in state and local governments. The effect of intergovernmental grants and the future of fiscal federalism. PRQ: ECON 360 or consent of department.

466. BUSINESS CYCLES (3). History of business fluctuations; theories and techniques of analysis; countercyclical monetary and fiscal policies; and survey of selected forecasting techniques. PRQ: ECON 361 or consent of department.

470. HISTORY OF ECONOMIC THOUGHT (3). Development of economic thought to the mid-19th century. Emphasis on Adam Smith, Ricardo, Malthus, Mill, and Marx. PRQ: ECON 260 and ECON 261, or consent of department.

471. MODERN ECONOMIC THOUGHT (3). Evolution of neoclassical and modern theories of value, distribution, and income. Emphasis on Walras, Menger, Jevons, Marshall, Chamberlain, Robinson, and Keynes. PRQ: ECON 260 and ECON 261 or consent of department.

474. ECONOMIC HISTORY OF THE UNITED STATES (3). Evolution and development of American economic institutions and processes from colonial times to the 20th century. Modern economic approach developed and applied to various topics. PRQ: ECON 260 and ECON 261, or consent of department.

485. URBAN ECONOMIC PROBLEMS AND POLICIES (3). Economic analysis of urban growth and land use and selected urban problems such as urban transportation, public finance, housing, poverty, and environmental quality. PRQ: ECON 360 and ECON 385; or consent of department.

489. SEMINAR IN ECONOMIC ANALYSIS (3). Economic analysis of a topic beyond the level usually reached in undergraduate courses. Examples of topics include aspects of economic growth and development, industrial organization, international economics, labor economics, health economics, monetary economics, public finance, agricultural economics, quantitative economics, financial economics, and economic theory. May be repeated to a maximum of 6 semester hours when topics change. PRQ: ECON 360, ECON 361, and MATH 211 or MATH 229 or consent of department.

490. ECONOMIC STATISTICS AND ECONOMETRICS (3). Topics include descriptive statistics, probability, estimation, hypothesis testing, correlation, and regression analysis, as applied to economic models. PRQ: MATH 230 or consent of department.

491. MATHEMATICAL METHODS FOR ECONOMICS (3). Mathematical methods used in economics with applications. PRQ: ECON 360, ECON 361, and MATH 229, or consent of department.

493. SEMINAR IN POLITICAL ECONOMY (3). *Crosslisted as POLS 493X*.
A. Decision Making in the Public Sector
B. International Relations
C. Metropolitan Studies
D. Human Resources and Training Policy
Topics announced. Each lettered topic may be taken once. PRQ: Consent of department.

495. SEMINAR IN CURRENT PROBLEMS (3). Issues and policies in government, politics, and economics. Course may be repeated without limit for each new topic, but each topic may be repeated only once. PRQ: Consent of department.

496X. HISTORY AND SOCIAL SCIENCE INSTRUCTION IN GRADES 6-12 (3). *Crosslisted as HIST 496.* The organization and presentation of materials for history and social science courses at the middle school, junior high, and senior high school levels. PRQ: Admission to the history or social science teacher certification program and permission of Department of History's office of teacher certification.

497. INDEPENDENT STUDY IN ECONOMICS (3). Individually arranged study within the various fields of economics. Not open to economics graduate students. PRQ: ECON 360 and ECON 361, or consent of department.

500. LABOR MARKET ANALYSIS I (3). Wage, employment, and human resource theory, empirical findings, and policy implications. Emphasis on human capital, household production, discrimination, and other sources of wage and employment difference. PRQ: ECON 360 and consent of department.

501. LABOR MARKET ANALYSIS II (3). Various theories of unemployment. Collective bargaining analysis. The economic impact of unions on prices, productivity, wages, and resource allocation. Collective bargaining and wage theory. The economic impact of unions. PRQ: ECON 360 and consent of department.

512. MONETARY THEORY (3). Theoretical and empirical analysis of supply of and demand for money; interrelationships between money and interest, prices, and output, with particular attention to monetary aspects of macroeconomic theory. PRQ: Consent of department.

513. MONETARY POLICY (3). Objectives and instruments of monetary policy and the supply of money, alternative monetary models, and the effectiveness and incidence of monetary policy. PRQ: Consent of department.

521. STRUCTURE OF INDUSTRY (3). Analysis of the determinants of the number of sellers in an industry, and whether industries with few sellers are less competitive, more profitable, or more innovative than those with a large number of sellers. PRQ: ECON 490 and ECON 560, or consent of department.

522. INDUSTRIAL ORGANIZATION (3). Analysis of contracts between traders, including vertical integration, price discrimination, tying contracts, requirements contracts, resale price maintenance, market division, and exclusive dealing. Additional topics include antitrust policy, patents, and other issues in law and economics. PRQ: ECON 490 and ECON 560, or consent of department.

525. TOPICS IN ECONOMIC EDUCATION (1 to 3). Designed to assist elementary or secondary teachers with the integration of economics into the K-12 classroom curricula, focusing on the economic concepts in the State of Illinois Learning Standards. Not open for credit toward the M.A. or Ph.D. in economics. May be repeated to a maximum of 12 semester hours when topic varies. PRQ: ECON 425 or consent of department.

530. INTERNATIONAL TRADE THEORY (3). PRQ: ECON 560 or consent of department.

532. INTERNATIONAL MONETARY ECONOMICS (3). PRQ: ECON 561 or consent of department.

540. THEORIES OF ECONOMIC DEVELOPMENT (3). Analytical approach to problems and obstacles to economic development in emerging societies: population problems, capital formation, investment criteria, structural and technical change, sectoral analysis, foreign trade, and others. PRQ: ECON 560 or consent of department.

548. INTRODUCTION TO GAME THEORY (3). An introduction to the tools and application of game theory. Topics include concepts of equilibrium, information, dynamic games, evolutionary games, reputation and repeated games, the folk theorem, perfect Bayesian equilibria, common knowledge, moral hazard, adverse selection, signaling in education, and bargaining games. PRQ: ECON 560 or consent of department.

550. ECONOMICS OF THE PUBLIC SECTOR (3). Economic nature of government services, public sector decision making, welfare and efficiency criteria in financing these services, and interrelationships of the public and private sectors. PRQ: ECON 360 or consent of department.

551. FINANCING GOVERNMENT ACTIVITIES (3). Budgetary policy, evaluation of different forms of taxation, pricing of government services, public borrowing and debt management, and programs of tax reform. PRQ: ECON 360 or consent of department.

560. MICROECONOMIC ANALYSIS I (3). Domestic and international price systems with regard to resource allocation, welfare, and income distribution. Brief introduction to concepts involved in input-output analysis and linear programming. PRQ: ECON 360 and ECON 491, or consent of department.

561. MACROECONOMIC ANALYSIS I (3). Factors determining levels of aggregate income, employment, and prices. PRQ: ECON 360, ECON 361, and ECON 491, or consent of department.

564. SURVEY OF MARKET ECONOMICS (3). Prices, output, distribution, and industrial efficiency in alternative input and output markets; structural maladjustments, employment, and inflation; government-business relations and government-labor relations; international prices; alternative economic systems. Not open to students who are economics majors or students who have taken ECON 360 or its equivalent. PRQ: Consent of department.

565. SURVEY OF INCOME ECONOMICS (3). Income, employment, prices and their determinants, theories of consumption, investment, taxation, fiscal, monetary and financial institutions and practices. Government debt, exchange rates, and balance of payments as influences on levels of economic activity. Not open to students who are economics majors or students who have taken ECON 361 or its equivalent. PRQ: Consent of department.

570. HISTORY OF ECONOMIC ANALYSIS I (3). Detailed treatment of the development of tools and concepts of theoretical economics up to the decline of the classical school. PRQ: Consent of department.

571. HISTORY OF ECONOMIC ANALYSIS II (3). Continuation of ECON 570 beyond the classical school to the analytics of the late 19th and early 20th centuries. PRQ: ECON 570 or consent of department.

585. REGIONAL ECONOMICS (3). Interregional trade and factor mobility, regional economic growth, economic analysis of industrial location, and quantitative methods useful in urban and regional planning with some computer applications. PRQ: Consent of department.

586. URBAN ECONOMICS (3). Economic analysis of urban location and land use, urban economic growth, and problems of urban transportation, public finance, and housing. Quantitative methods of urban analysis useful in urban planning, with some computer applications. PRQ: Consent of department.

590. ECONOMETRICS I (3). Specification and estimation of economic models with emphasis on single equation models. PRQ: ECON 360, ECON 361 and ECON 490, or consent of department. CRQ: ECON 590A.

590A. ECONOMETRICS LABORATORY (1). Use of various statistical and matrix language computer packages pertaining to econometrics. Topics include the use of such packages to perform regression, GLS, nonlinear regression, simultaneous equations, and a wide variety of other econometric techniques. CRQ: ECON 590 or consent of department.

595. SPECIAL TOPICS IN ECONOMICS (3). Topics not dealt with in other courses. May be repeated to a maximum of 6 semester hours as topic varies. PRQ: ECON 560 and ECON 561, or consent of department.

597. ECONOMIC RESEARCH PRACTICUM (3). Use of empirical data, statistical techniques (and computer software programs), and economic theory to do research needed by a business firm, government agency, or other economic organization, especially in the labor, urban and regional, and public finance areas. Technical and non-technical report writing. PRQ: Consent of department. Recommended: ECON 590.

598. INDEPENDENT STUDY IN ECONOMICS (3).
A. Economic Growth and Development
B. Economic History
C. History of Economic Analysis
D. Industrial Organization
E. International Economics
G. Labor Economics
J. Monetary Economics
K. Public Finance
M. Quantitative Economics
N. Urban and Regional Economics
Each topic may be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

599A. MASTER'S RESEARCH COMPONENT: MASTER'S THESIS (1 to 6). May be repeated to a maximum of 6 semester hours.

599B. MASTER'S RESEARCH COMPONENT: MASTER'S RESEARCH PAPER (3).

600. SEMINAR IN APPLIED LABOR ECONOMICS AND LABOR RELATIONS (3). The economics of labor and of labor-management relations. Emphasis on individual research. With consent of department, may be repeated once for credit. PRQ: Consent of department.

640. FINANCIAL ECONOMICS (3). Introduction to and survey of theoretical and empirical research in modern financial markets with focus on infinite horizon models of capital accumulation, risk sharing, and asset pricing in the context of complete and incomplete markets. Principal-agency problems, signaling and financial intermediation issues. Additional topics may include market microstructure, the roles of taxes, and optimal security design. PRQ: ECON 560 and ECON 590.

642. THE ECONOMICS OF CONTINGENT CLAIMS (3). Advanced analysis of markets for contingent claims, the derivative markets. Introduction to elements of stochastic calculus, dynamic portfolio choice, the Black-Scholes Model and extensions, the term structure of interest rates, American and European option pricing, and, if time permits, the Heath-Jarrow-Morton Model and exotic options. Advanced mathematical and computational techniques applied to the study of derivative markets. PRQ: ECON 560, ECON 590, and FINA 455, or consent of department.

650. SEMINAR IN APPLIED PUBLIC ECONOMICS (3). Theory and institutional aspects of public finance. Emphasis on microeconomic problems as they relate to public finance. With consent of department, may be repeated once for credit. PRQ: Consent of department.

660. MICROECONOMIC ANALYSIS II (3). Continuation of ECON 560 including new and advanced topics. PRQ: Consent of department. Recommended: ECON 560.

661. MACROECONOMIC ANALYSIS II (3). Continuation of ECON 561 including new and advanced topics. PRQ: Consent of department. Recommended: ECON 561.

685. SEMINAR IN APPLIED URBAN AND REGIONAL ECONOMICS (3). Selected topics in urban and regional economics. May be repeated once for credit, with consent of department. PRQ: Consent of department.

690. ECONOMETRICS II (3). Specification and estimation of simultaneous economic models. PRQ: Consent of department. Recommended: ECON 590.

693. SEMINAR IN QUANTITATIVE ECONOMICS (3). Application of mathematical and statistical techniques to the analysis of economic problems. May be repeated once for credit. PRQ: Consent of department.

695. INTERNSHIP IN ECONOMICS (2 to 15). May be repeated to a maximum of 15 semester hours. PRQ: Written consent of department Graduate Committee.

698. CURRENT RESEARCH COLLOQUIUM (1). Discussion by faculty and graduate students of their current research. May be repeated to a maximum of 6 semester hours. Doctoral students must satisfactorily complete at least 6 semester hours, at least 2 of which must be taken after passing the candidacy examinations. A maximum of 6 semester hours can be applied towards the doctoral degree. S/U grading. PRQ: Consent of department.

699. DOCTORAL RESEARCH AND DISSERTATION (1 to 15). May be repeated to a maximum of 32 semester hours.

Department of English (ENGL)

Chair: Deborah H. Holdstein

Graduate Faculty

Gulsat Aygen, assistant professor, Ph.D., Harvard University
William Baker, Presidential Research Professor, Ph.D., University of London
Alexandra G. Bennett, assistant professor, Ph.D., Brandeis University
Betty J. Birner, assistant professor, Ph.D., Northwestern University
David Bywaters, associate professor, Ph.D., Washington University
Susan Callahan, associate professor, Ph.D., University of Louisville
Edward Callary, associate professor, Ph.D., Louisiana State University
Nicole Clifton, associate professor, Ph.D., Cornell University
Michael J. Day, associate professor, Ph.D., University of California, Berkeley
Deborah C. DeRosa, assistant professor, Ph.D., University of North Carolina, Chapel Hill
Susan E. Deskis, associate professor, Ph.D., Harvard University
Sue W. Doederlein, associate professor, Ph.D., Northwestern University
Philip E. Eubanks, associate professor, Ph.D., University of Illinois
Keith Gandal, associate professor, Ph.D., University of California, Berkeley
James R. Giles, Presidential Teaching Professor, Ph.D., University of Texas
Ibis Gómez-Vega, associate professor, Ph.D., University of Houston
David J. Gorman, associate professor, Ph.D., Columbia University
Deborah H. Holdstein, professor, Ph.D., University of Illinois
Larry R. Johannessen, associate professor, Ph.D., University of Chicago
Jeffrey Johnson, professor, Ph.D., University of Missouri
William C. Johnson, Distinguished Teaching Professor, Ph.D., University of Iowa
Mark Kipperman, professor, Ph.D., University of Pennsylvania
John V. Knapp, professor, Ph.D., University of Illinois, Ph.D., University of Wisconsin
Hana Layson, assistant professor, Ph.D., University of Chicago
Amy K. Levin, associate professor, Ph.D., City University of New York
Christoph Lindner, assistant professor, Ph.D., University of Edinburgh
Doris M. Macdonald, associate professor, Ph.D., Louisiana State University
Brian T. May, associate professor, Ph.D., University of Virginia
Amy Newman, associate professor, Ph.D., Ohio University
Bradley T. Peters, associate professor, Ph.D., University of Iowa
Kathleen Renk, assistant professor, Ph.D., University of Iowa
John D. Schaeffer, professor, Ph.D., St. Louis University
Sean N. Shesgreen, Distinguished Research Professor, Ph.D., Northwestern University
Diana L. Swanson, associate professor, Ph.D., University of Minnesota
Mark W. Van Wienen, associate professor, Ph.D., University of Illinois

The Department of English offers graduate programs leading to degrees at both the master's and doctoral levels. The scores on the GRE General Test are required as admission credentials. Well prepared students with baccalaureate degrees may begin work immediately to fulfill the requirements for the doctorate. ENGL 501, Bibliography and Methods of Research, ENGL 508, Research Methods in Linguistics, or ENGL 525, Methods of Research in Professional Writing, is required of all graduate students in English, and should be taken early in a student's program of studies. No more than 15 semester hours of transfer course work and/or credit earned as a student-at-large may be applied toward a graduate degree in English.

Advising

Students are assigned a departmental adviser upon admission to a degree program and must consult their adviser before or during the first semester of course work to select courses and design a program of study to be filed with the Graduate School. After doctoral students decide on fields of study, they must select an adviser from one of their fields who must be approved by the department.

Master of Arts in English

The Department of English offers two tracks leading to the M.A. degree, the choice of which depends on the student's academic and professional goals. Track I requires a minimum of 30 semester hours, and track II requires 36 semester hours. All students pursuing the M.A. in English are required to take a final comprehensive examination after completing a minimum of 24 semester hours in the Department of English.

Students pursuing the M.A. in English may choose one of seven areas of study: British and American literature; English education; film and literature; linguistics/stylistics (the application and theory of the linguistic analysis of literary texts); literature and rhetoric/composition; rhetoric and professional writing; and teaching English as a second language/TESOL (for students and educators who wish to study teaching English as a Second Language [ESL], English as a Foreign Language [EFL], bilingual education, or applied linguistics). Substitutions within each area of study may be made at the discretion of the department's director of graduate studies.

Track I

Track I requires a minimum of 30 semester hours of graduate credit in the Department of English and is designed to prepare students for graduate work at the doctoral level. Students in this track must pass a proficiency examination in one foreign language. Foreign language proficiency may be demonstrated in French, German, Greek (classical or koine), Italian, Latin (classical or medieval), Russian, or Spanish, or in another language approved by the director of graduate studies on the basis of demonstrated need. The student's graduate adviser may permit limited study in fields closely related to English (subject to the approval of the director of graduate studies).

Track II

Track II requires a minimum of 36 semester hours of credit, including 27 semester hours in the Department of English. This track is designed for students who are currently teaching in secondary schools or community colleges or who plan to teach at one of these levels, whether in literature, composition, or professional, technical writing; students who plan to teach English as a second language; students who seek careers as technical writers, editors, or trainers; students interested in other careers, such as business or public relations, that require strong written

communication skills; and practicing professionals in any other professional field seeking to sharpen their written communication skills. A graduate adviser and the student design a program of study (subject to the approval of the director of graduate studies) which must include 9 semester hours of study in subjects other than English and American literature, such as courses within and outside the department in the teaching of English, rhetoric, creative writing and composition, technical writing, linguistics, reading, mass media, public relations, or others that contribute to the student's professional development.

Areas of Study

British and American Literature

ENGL 501 - Bibliography and Methods of Research (3)
Course work in literature, with consent of adviser (24 or 27)
Course work in non-literature courses (0-9)

English Education

This area of study is primarily designed for English language arts professionals who are currently teaching in the schools. Students interested in initial teacher certification in English should consult the discipline coordinator as soon as possible.

ENGL 501 - Bibliography and Methods of Research (3)
Three of the following (9)
- ENGL 500 - Internship in the College Teaching of English (3)
- ENGL 504 - Topics in Materials for the English Classroom (3)
- ENGL 522 - Theories and Methods of Teaching English to Speakers of Other Languages (3)
- ENGL 523 - Second Language Acquisition (3)
- ENGL 547 - The Teaching of Writing in Middle and High School (3)
- ENGL 548 - Materials and Methods of Teaching English in Middle and High Schools (3)
- ENGL 597 - English Institute (3)

Course work in language, literature, and rhetoric chosen in consultation with the adviser, with at least two courses from literature, one course from linguistics, and one course from rhetoric (15-24)
Electives chosen in consultation with adviser (0-9)

Film and Literature[1]

ENGL 501 - Bibliography and Methods of Research (3)
ENGL 504[2] - Topics in Materials for the English Classroom (3)
ENGL 590 - Literature and Film (3)
ENGL 591 - Topics in Literature and Film (6)
Electives in modern British and American literature, rhetoric, or theory and criticism (12-18)
Course work in communication studies, instructional technology, history, and/or philosophy, with consent of adviser (3-9)

Linguistics/Stylistics

ENGL 501 - Bibliography and Methods of Research (3), OR ENGL 508 - Research Methods in Linguistics (3)
ENGL 515 - Descriptive English Linguistics (3)
ENGL 534 - Linguistics and Literature (3)
Electives (21-27 semester hours, at least 9 of which must be in linguistics)

Literature and Rhetoric/Composition

ENGL 501 - Bibliography and Methods of Research (3), OR ENGL 525 - Methods of Research in Professional Writing (3)
ENGL 503 - Traditions in Written Rhetoric (3)
ENGL 510 - Rhetoric of Prose Composition (3)
Course work in rhetoric and communication[3] (6-9)
- ENGL 500 - Internship in the College Teaching of English (3)
- ENGL 502A[4] - Literary Theory and Criticism: History of Literary Theory
- ENGL 504 - Topics in Materials for the English Classroom (3)
- ENGL 526 - Technical Writing (3)
- ENGL 527 - Technical Editing (3)
- ENGL 529 - Topics in Rhetoric (3)
- ENGL 530 - Theory and Research in Rhetoric and Professional Writing (3)
- ENGL 600 - Topics in the Teaching of College English (3)
- ENGL 603 - Seminar: Rhetorical Studies (3)
- COMS 500 - The Classical Tradition in Rhetorical Theory (3)
- COMS 502 - Contemporary Rhetorical Theory (3)
- COMS 503 - Seminar in Public Rhetoric (3)
- COMS 504 - Methods of Rhetorical Criticism (3)
- COMS 505 - Theory and Uses of Argument (3)
- COMS 506 - Communication Ethics (3)
- COMS 510[4] - Symbolic Behavior and Communication (3)
- COMS 540 - Seminar in Communication and Gender (3)
- COMS 607 - Seminar in Persuasion (3)
- COMS 660[5] - Seminar in Rhetoric (3)
- Electives in literature[6] (12-15)

Rhetoric and Professional Writing

ENGL 510 - Rhetoric of Prose Composition (3)
ENGL 525 - Methods of Research in Professional Writing (3)
ENGL 599 - Master's Thesis (3)
Course work from the following (9)
- ENGL 509 - Creative Writing (3)
- ENGL 524 - Professional Writing Institute (1-6)
- ENGL 526 - Technical Writing (3)
- ENGL 527 - Technical Editing (3)
- ENGL 528 - Internship in Technical Writing, or Editing (3)
- ENGL 532 - Writing for Electronic Media (3)
- ENGL 592 - Nonfiction Writing (3-6)

Two of the following (6)
- ENGL 503 - Traditions in Written Rhetoric (3)
- ENGL 529 - Topics in Rhetoric (3)
- ENGL 530 - Theory and Research in Rhetoric and Professional Writing (3)
- ENGL 531 - Topics in Professional Writing (3)
- ENGL 603 - Seminar: Rhetorical Studies (3)

Two of the following (6)
- ENGL 514 - Introduction to Linguistics (3)
- ENGL 515 - Descriptive English Linguistics (3)
- ENGL 518 - Morphology and Syntax (3)
- ENGL 520 - Semantics (3)
- ENGL 533 - Discourse Analysis (3)
- ENGL 534 - Linguistics and Literature (3)

Electives (0-6)

Students in this area must demonstrate a competence in English grammar and usage by passing ENGL 207 or by passing the grammar exemption examination.

Teaching English as a Second Language/TESOL

ENGL 508 - Research Methods in Linguistics (3)
ENGL 515[7] - Descriptive English Linguistics (3)
ENGL 517 - Phonology (3)
ENGL 518 - Morphology and Syntax (3)
ENGL 522[7] - Theories and Methods of Teaching English to Speakers of Other Languages (3)
At least 12 semester hours from the following (12)
- ENGL 511 - History of the English Language (3)
- ENGL 516 - Grammars of Modern English (3)
- ENGL 519 - Varieties of English (3)
- ENGL 520 - Semantics (3)
- ENGL 521 - Topics in Linguistics (3)

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[1] Available in track II only.
[2] When topic is teaching film.
[3] Students in track II are required to take all of ENGL 506 and ENGL 529, and ENGL 517 and ENGL 518.
[4] If ENGL 501 is chosen, 9 semester hours are required in rhetoric and communication
[5] Accepted for rhetoric credit with consent of adviser and director of graduate studies.
[6] When topic is contemporary social movements or political rhetoric.
[7] If ENGL 525 is chosen, 15 semester hours are required in literature.

ENGL 523 - Second Language Acquisition (3)
ENGL 533 - Discourse Analysis (3)
ENGL 534 - Linguistics and Literature (3)
ENGL 614 - Seminar: English Linguistics (3)
Electives (3 or 9)

Doctor of Philosophy in English

The Ph.D. program in English offers study in such areas as British and American literature, rhetoric and composition, language and linguistics, professional and technical writing, and literature and film. Distribution requirements direct students into applied as well as theoretical course work, preparing them for academic and nonacademic careers.

A graduate faculty member, after analysis of the applicant's background and training, will counsel the student in planning an appropriate program. Small graduate seminars enable the student to develop the critical and investigative skills and insights necessary to perform successful scholarship and teaching. Fellowships and teaching assistantships are available for qualified students. Full-time students should be able to complete all the requirements for the doctoral degree in five years beyond the baccalaureate degree or four years beyond the master's degree.

The doctoral degree in English is granted to candidates who not only satisfactorily complete a definite number of prescribed courses but who also are recognized for their high attainments and ability as shown by passing the required candidacy examinations (as detailed below) and by the preparation and defense of a dissertation.

Admission

For admission to the program leading to candidacy for the Ph.D. in English, the student ordinarily must have successfully completed 30 semester hours of graduate work or hold a master's degree. Exceptional students who hold only a baccalaureate degree may apply directly to the doctoral program.

Requirements

English Ph.D. students must normally complete a minimum of 90 semester hours. These include 60 hours of course work (30 of which may be approved M.A. course work) and 30 hours of ENGL 699, Doctoral Dissertation. Students and assigned advisers design a program to prepare students for areas of study leading to field examinations, a dissertation, and professional expertise.

Core Requirements (9)

One course from each of the following groups
Research Methodology (3): ENGL 501, ENGL 508, ENGL 525
Issues in Criticism (3): ENGL 502A, ENGL 502B, ENGL 502C, ENGL 502D, ENGL 503
History of the Language (3): ENGL 511, ENGL 512, ENGL 513

Distribution Requirements (24)

Students should select 600-level courses only if they have studied the period or subject at the undergraduate or M.A. level. Exceptions may be made at the discretion of the instructor and with the approval of the director of graduate studies.

When selecting courses, students must include at least two courses with a pedagogical or other applied component from two of the fields of language, literature, and rhetoric (e.g., ENGL 500, ENGL 504, ENGL 510, ENGL 516, ENGL 521, ENGL 522, ENGL 528, ENGL 547, ENGL 596, ENGL 597, ENGL 600, ENGL 602, ENGL 603) and at least four 600-level seminars.

British and American Literature (18)

At least one course from each of the following groups
Medieval: ENGL 535, ENGL 536, ENGL 537, ENGL 539, ENGL 636, ENGL 637
Renaissance: ENGL 538, ENGL 540, ENGL 541, ENGL 542, ENGL 543, ENGL 638, ENGL 641, ENGL 642
18th Century: ENGL 544, ENGL 556, ENGL 557, ENGL 558, ENGL 559, ENGL 644, ENGL 646, ENGL 656
19th Century British: ENGL 560, ENGL 561, ENGL 562, ENGL 563, ENGL 564, ENGL 662, ENGL 663
Pre-1900 American: ENGL 576, ENGL 577, ENGL 578, ENGL 579, ENGL 676, ENGL 677
Post-1900 British and American: ENGL 565, ENGL 566, ENGL 567, ENGL 568, ENGL 581, ENGL 582, ENGL 584, ENGL 585, ENGL 587, ENGL 593A, ENGL 593B, ENGL 593C, ENGL 593D, ENGL 665, ENGL 683

Language, Linguistics/Stylistics, and Rhetoric (9)

At least one course from each of the following groups
Language/Linguistics: ENGL 514, ENGL 515, ENGL 516, ENGL 517, ENGL 518, ENGL 519, ENGL 520, ENGL 521, ENGL 522, ENGL 523, ENGL 533, ENGL 534, ENGL 614
Rhetoric: ENGL 502A-D, ENGL 510, ENGL 524, ENGL 526, ENGL 527, ENGL 528, ENGL 529, ENGL 530, ENGL 531, ENGL 603

Foreign Language Requirement

All Ph.D. students must demonstrate a knowledge of two foreign languages with average proficiency or one foreign language with high proficiency. The choice of languages is subject to departmental approval. The proficiency examinations must be passed before students take the candidacy examinations. (For means of demonstrating language proficiency, refer to "Language and Research-Tool Requirement" in the Requirements for Graduate Degrees section of this catalog.)

Candidacy Examinations

All Ph.D. students must successfully complete three Ph.D. candidacy examinations.

Two of these are written examinations in two fields of study selected from the following.

Rhetoric
Linguistics or philology
Medieval literature (Old English literature and Middle English literature)
English literature from 1500 to 1600 (including Shakespeare)
English literature from 1600 to 1660
British literature from 1660 to 1800
British literature from 1800 to 1900
British literature since 1900
American literature to 1865
American literature since 1865
African-American literature
British and American women's literature since 1750
Literature and film
A special field as determined by an examination committee and student in consultation

The third is an oral examination which consists of an explanation and defense of the student's dissertation proposal, including its relation to the larger body of relevant knowledge and to the teaching of English or to other professional pursuits.

Students may request permission of the director of graduate studies in English to take the examinations when they have successfully completed 20 semester hours of course work beyond the M.A. degree (or 50 semester hours beyond the baccalaureate degree).

Dissertation

Candidates must write a dissertation that contributes to literary or linguistic knowledge and exhibits original scholarship and the

ability to conduct independent research. Candidates must pass an oral defense of the dissertation. Chaired by the dissertation director, who must be a senior member of the graduate faculty in English, the dissertation committee shall consist of at least three members of the graduate faculty. The dean of the Graduate School or a dean's designee may also serve as an ex officio, nonvoting member of the dissertation defense committee.

Certificates of Graduate Study

The Department of English offers two certificates of graduate study. Courses used to satisfy the requirements of the certificate may also be applied toward a graduate degree in English.

English Education (15)

This certificate recognizes the successful completion of a set of courses intended to enhance the professional qualifications of teachers of English in the secondary schools.

At least 9 semester hours from the following (9)
- ENGL 504 - Topics in Materials for the English Classroom (3)
- ENGL 507[1] - Topics in Literature (3)
- ENGL 510 - Rhetoric of Prose Composition (3)
- ENGL 522 - Theories and Methods of Teaching English to Speakers of Other Languages (3)
- ENGL 529[1] - Topics in Rhetoric (3)
- ENGL 547 - The Teaching of Writing in Middle and High School (3)
- ENGL 548 - Materials and Methods of Teaching English in Middle and High Schools (3)
- ENGL 597 - English Institute (1-6)

One course from two of the following groups (6)

Literature
- A 500-level literature course approved by the department (3)

Literary and Rhetorical Theory
- ENGL 502A - Literary Theory and Criticism: History of Literary Theory (3),
  - OR ENGL 502B - Literary Theory and Criticism: Contemporary Literary Theory (3),
  - OR ENGL 502C - Literary Theory and Criticism: Interpretation of Literary Texts (3),
  - OR ENGL 502D - Literary Theory and Criticism: Feminist Literary Theory and Criticism (3)
- ENGL 503 - Traditions in Written Rhetoric (3)
- ENGL 590 - Literature and Film (3)
- ENGL 593A - Ethnic American Literature: African American Literature (3),
  - OR ENGL 593B - Ethnic American Literature: Native American Literature (3),
  - OR ENGL 593C - Ethnic American Literature: Latina/Latino American Literature (3)

Linguistics
- ENGL 514 - Introduction to Linguistics (3)
- ENGL 516 - Grammars of Modern English (3)
- ENGL 519 - Varieties of English (3)
- ENGL 523 - Second Language Acquisition (3)
- ENGL 533 - Discourse Analysis (3)
- ENGL 534 - Linguistics and Literature (3)

Technical Writing (18)

This certificate recognizes the successful completion of a set of courses intended to enhance the professional qualifications of technical writers.

ENGL 526[2] - Technical Writing (3)
ENGL 527[3] - Technical Editing (3)

Course work from the following (12)
- ENGL 524[4] - Professional Writing Institute (1-6)
- ENGL 525 - Methods of Research in Professional Writing (3)
- ENGL 528[4] - Internship in Technical Writing, or Editing (1-6)
- ENGL 530 - Theory and Research in Rhetoric and Professional Writing (3)
- ENGL 531 - Topics in Professional Writing (3)
- ENGL 532 - Writing for Electronic Media (3)

Teacher Certification

The initial teacher certification program in English qualifies students for the Standard High School Certificate (6-12) issued by the state of Illinois and offers the opportunity for middle-grades endorsement. The state issues certificates upon the recommendation of the Department of English and Northern Illinois University. Admission to the program requires formal application by candidates to the department's coordinator of initial teacher certification and formal approval by the department's Committee on Initial Teacher Certification.

Also see "Teacher Certification Information."

Admission Requirements

Application in writing to the coordinator.

A passing score on the Basic Skills Test.

Submission of a portfolio demonstrating competence in several written genres. (Consult the coordinator for specific portfolio requirements.)

Completion of the courses in mathematics, speech, and writing required for general education core competency or courses at least equivalent to these.

One of the following

Admission to a graduate program in English at NIU.

A graduate or undergraduate degree in English with a cumulative GPA of at least 2.75 and a GPA in English of at least 3.00, and completion of at least 6 semester hours of graduate courses in English at NIU with a GPA of at least 3.00.

Completion of at least 12 semester hours of graduate courses in English at NIU with a GPA of at least 3.00.

Retention

Good academic standing.

GPA of 3.00 or higher in all work required for certification taken at NIU.

A grade of B or better in ENGL 547 and ENGL 548, and a GPA of 3.00 or higher in all English courses required for certification.

A satisfactory review of progress toward the certificate with the coordinator each semester.

Courses in English Required for Certification (42-45)

ENGL 207 - Fundamentals of English Grammar (3), unless exempted by examination
At least 6 semester hours of American literature[5]
At least 12 semester hours of English literature[6]
At least 3 semester hours of linguistics
At least 3 semester hours of advanced writing or rhetoric
Three semester hours in teaching of composition
Three semester hours in methods of teaching English
Twelve semester hours in student teaching (ENGL 485)

Students who have not satisfied all requirements in English as part of their undergraduate programs may satisfy the remaining requirements, except for student teaching, with graduate-level courses. Upon the approval of the director of graduate studies

[1] Must have approved pedagogical topic
[2] Students with credit in ENGL 308 must substitute a 3 semester hour elective for ENGL 526.
[3] Students with credit in ENGL 403 must substitute a 3 semester hour elective for ENGL 527.
[4] With approval of the certificate adviser, students may select up to 6 semester hours of electives from other English courses in rhetoric, language, linguistics, or writing or from appropriate courses in such other areas as communication, instructional technology, computer science, art, and business. Students may add up to 3 semester hours to the initial 6 with the approval of the graduate director.
[5] Ordinarily to include work in American Literature before 1865.
[6] Ordinarily to include Shakespeare.

in English, such courses may also be included in the program of studies for the graduate degree. Students seeking both a degree and certification should be careful to consult regularly with the director of graduate studies in English and with the coordinator of teacher certification about using courses to satisfy requirements in both programs.

Students are admitted to ENGL 485, Student Teaching (Secondary) in English, only after completing all other work required for the certificate and upon application to the coordinator. The methods course must be taken in the semester immediately preceding student teaching.

Courses Required outside Department

Clinical Experiences (100 clock hours)

The state of Illinois requires 100 clock hours of substantial, varied, and sequential clinical experience prior to student teaching. This requirement may be satisfied in a variety of ways; it will be met, in most instances, by successfully completing ILAS 201, ILAS 301, and ENGL 482.

Credit for clinical experiences may not be included in the program of studies for a graduate degree in English. Candidates should consult the coordinator of teacher certification in English about satisfying this requirement as soon as they have been admitted to the certification program.

Other State Certification Requirements

Other state requirements include educational psychology (including human growth and development), history and/or philosophy of education, and psychology of exceptional children. Students normally satisfy the requirement in educational psychology with EPS 406, Issues in Human Development and Learning in the Middle School and High School Years (3). Students should consult with the certification coordinator in English to determine which courses are approved for satisfying the additional requirements. Students must also pass the state of Illinois certification examination in English.

Foreign Language

Students must satisfy the foreign language requirement for the B.A. in English at NIU, or the equivalent.

Course List

General

501. BIBLIOGRAPHY AND METHODS OF RESEARCH (3). Introduction to the philosophy and methods of literary research.

504. TOPICS IN MATERIALS FOR THE ENGLISH CLASSROOM (3). Analysis of new curriculum materials in English, with focus on language, literature, or composition. May be repeated to a maximum of 6 semester hours when topic varies.

507. TOPICS IN LITERATURE (3). Study of special topics and periods of literature. May be repeated to a maximum of 9 semester hours when topic varies.

509. CREATIVE WRITING (3). A workshop/pedagogy course in poetry or fiction for students who wish to further their knowledge of literature through practice of the art, and for those who intend to become practicing writers and critics. May be repeated to a maximum of 9 semester hours as the topic changes.

546. THE TEACHING OF LITERATURE IN MIDDLE AND HIGH SCHOOLS (3). Methods, materials, and curriculum materials for teaching literature and reading in the middle and high schools. Attention is given to teaching literature and reading to diverse students and to using appropriate instructional technology. PRQ: Consent of department.

547. THE TEACHING OF WRITING IN MIDDLE AND HIGH SCHOOL (3). Approaches to teaching and evaluating composition in the middle and high school, with emphasis on the multicultural classroom. PRQ: Consent of department. CRQ: ILAS 301 or consent of department.

548. MATERIALS AND METHODS OF TEACHING ENGLISH IN MIDDLE AND HIGH SCHOOLS (3). Methods, devices, techniques, and curriculum materials for teaching English in the middle and high school. Attention given to teaching English to diverse students. PRQ: Six semester hours of graduate-level course work in literature in the department and consent of department.

570. THE SHORT STORY (3). Studies of history, form, and authorship in the short story as a genre in British, American, and world literature.

590. LITERATURE AND FILM (3). Relationship between literature and film as narrative forms. Significance of literary modes such as romanticism and realism for film content and structure. Analysis of the adaptation of literary works to the medium of film.

591. TOPICS IN LITERATURE AND FILM (3). Topics in film theory, history, and criticism, such as authorship, narrativity, adaptation, and popular genres, that have interdisciplinary value for English studies. May be repeated to a maximum of 6 semester hours when topic varies.

592. NONFICTION WRITING (3). Workshop in aspects of nonfiction writing for students seeking to enhance their writing abilities through study of nonfiction genres, style, and writing processes. May be repeated to a maximum of 9 semester hours as topic changes.

596. PRACTICUM IN THE TEACHING OF COLLEGE ENGLISH (3). Supervised and evaluated experience in designing and conducting a course in English. May be repeated to a maximum of 15 semester hours; however, only 3 hours may be applied toward a graduate degree in English. PRQ: Consent of department.

597. ENGLISH INSTITUTE (1 to 6). Studies in selected topics of special interest to teachers of English. May be repeated to a maximum of 12 semester hours as the topic changes. May not be included in a program of courses for a graduate degree in English except with the approval of the Graduate Studies Committee. S/U grading may be used. PRQ: Permission of director of graduate studies in English.

598. INDEPENDENT READING (1 to 3). Normally open only to students who have completed 30 semester hours in an M.A. program. May be repeated to a maximum of 6 semester hours when topic varies. PRQ: Permission of director of graduate studies in English.

599. MASTER'S THESIS (3). May be taken upon the appointment of a thesis director and the approval of a prospectus

602. SEMINAR: TEXTUAL STUDIES (3). Advanced study of analytical bibliography, either descriptive or textual. May be repeated to a maximum of 9 semester hours when topic varies. PRQ: ENGL 501 or consent of department.

607. SEMINAR: TOPICS IN LITERATURE (3). Advanced study of special topics and periods of literature. May be repeated to a maximum of 9 semester hours when topic varies.

699. DOCTORAL DISSERTATION (credit arranged). May be repeated to 30 semester hours.

Rhetoric and Literary Criticism

ENGL 500. INTERNSHIP IN THE COLLEGE TEACHING OF ENGLISH (3). For teaching interns only. May be repeated to a maximum of 6 semester hours, all of which may be counted toward program requirements for the doctoral degree and for track II of the master's degree. Only 3 semester hours may be applied toward track I of the master's degree.

502. LITERARY THEORY AND CRITICISM (3).
A. History of Literary Theory
B. Contemporary Literary Theory
C. Interpretation of Literary Texts
D. Feminist Literary Theory and Criticism
Study of the history, movements, and applications of literary criticism and theory. Each lettered topic may be taken only once.

503. TRADITIONS IN WRITTEN RHETORIC (3). Survey of major rhetoricians, theories, and movements that have contributed to those rhetorical traditions determining or influencing the production and analysis of written text.

510. RHETORIC OF PROSE COMPOSITION (3). Introduction to contemporary rhetorical theories and methods of written discourse and their pedagogical and practical applications. Required of students focusing on rhetoric.

524. PROFESSIONAL WRITING INSTITUTE (1 to 6). Studies in selected topics of special interest to students, teachers, and practitioners of written technical communication. May be repeated to a maximum of 12 semester hours as topic changes. May not be included in a program of courses for a graduate degree in English except upon approval of the director of graduate studies in English. PRQ: Permission of director of graduate studies in English.

525. METHODS OF RESEARCH IN PROFESSIONAL WRITING (3). Survey of theoretic, quantitative, and qualitative methods used by academic scholars and workplace professionals to conduct written technical communication research. Analysis of the strengths and weaknesses of different methodologies and their appropriateness for particular research goals and inquiries.

526. TECHNICAL WRITING (3). Principles and strategies of planning, writing, and revising technical documents common in business and industry. Application in case studies and practical projects.

527. TECHNICAL EDITING (3). Principles and strategies of preparing technical documents for publication, including editing for content, organization, style, and layout. Application in case studies and practical projects.

528. INTERNSHIP IN TECHNICAL WRITING, OR EDITING (1 to 12). Job-related experience involving primarily writing or editing and supervised cooperatively by the department's internship coordinator and by the sponsoring company or organization. May be repeated to a maximum of 12 semester hours, but only 3 semester hours may be applied toward a graduate degree in English. PRQ: Consent of department internship coordinator.

529. TOPICS IN RHETORIC (3). Topics in rhetorical theory and analysis. May be repeated to a maximum of 6 semester hours when topic varies.

530. THEORY AND RESEARCH IN RHETORIC AND PROFESSIONAL WRITING (3). Theories of rhetoric and composition as related to the research, teaching, and practice of written professional, technical communication.

531. TOPICS IN PROFESSIONAL WRITING (3). Study of specific topics in written technical communication, such as the history of technical writing, online documentation, emerging technologies and technical writing, or the rhetoric of scientific writing. May be repeated to a maximum of 6 semester hours when topic varies.

532. WRITING FOR ELECTRONIC MEDIA (3). Theories, principles, and strategies for designing, writing, and editing online texts such as mail messages, web pages, and hypertext online documentation. Application in case studies and practical projects.

600. TOPICS IN THE TEACHING OF COLLEGE ENGLISH (3). May be repeated to a maximum of 6 semester hours when topic varies. PRQ: Consent of director of graduate studies.

603. SEMINAR: RHETORICAL STUDIES (3). Advanced study of special topics in the history of written rhetoric, theories of prose composition, writing practicum, rhetoric and stylistics, and applied discourse analysis. May be repeated to a maximum of 9 semester hours when topic varies.

Language

508. RESEARCH METHODS IN LINGUISTICS (3). Introduction to doing and interpreting research in linguistics. Discussion and application of theory in both qualitative and quantitative research.

511. HISTORY OF THE ENGLISH LANGUAGE (3). Linguistic analysis and description of the development of English from its earliest Anglo-Saxon stages to present-day British and American English.

512. OLD ENGLISH (3). Introduction to English at the earliest period of its history (i.e., before the Norman Conquest in 1066) with focus on the grammatical analysis of short prose works and the careful reading of several important poems.

513. MIDDLE ENGLISH (3). Analysis and description of the process by which Old English lost most of its Germanic inflections and gained an enormous Romance vocabulary in the wake of the Norman Conquest, with special attention to the persistence of dialectal variety as well as to the rise of a London standard.

514. INTRODUCTION TO LINGUISTICS (3). Survey of language and language study: elements of language, language change, language universals, first and second language acquisition, dialects, language and the brain, development of writing and contemporary writing systems, nonhuman communication, language change. Recommended as a preliminary course for students with little linguistic background.

515. DESCRIPTIVE ENGLISH LINGUISTICS (3). Survey of analytical techniques and methods of describing phonological, morphological, and syntactic systems of language.

516. GRAMMARS OF MODERN ENGLISH (3). Analysis and exemplification of three approaches (traditional, structural, transformational-generative) commonly used in teaching English to native users and to foreign learners.

517. PHONOLOGY (3). Introduction to the sound systems of language: phones, allophones, and the nature of phonological systems; segments and natural classes of sounds; allophonic and process rules.

518. MORPHOLOGY AND SYNTAX (3). Investigation of linguistic processes of word composition and sentence formation; and the nature of morphological and syntactic systems.

519. VARIETIES OF ENGLISH (3). Survey of methods and materials of the major varieties of English: regional, social, ethnic, gender, and situational varieties. Standard language and dialects. Attitudes toward varieties of language. World Englishes.

520. SEMANTICS (3). Survey of linguistic approaches to meaning, with focus on connotative and denotative word meanings, sentence and beyond-the-sentence meanings, and semantic change. Links between linguistic semantics and language pedagogy, pragmatics, and discourse analysis.

521. TOPICS IN LINGUISTICS (3). Focus on specific topics in theoretical or applied linguistics, usually not explored in depth in more general language/linguistics courses. May be repeated to a maximum of 6 hours when the topic changes.

522. THEORIES AND METHODS OF TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES (3). Survey of theoretical principles, interdisciplinary approaches, methodology, and practical applications essential for teaching English as a second/foreign language or as a second dialect. Emphasis on linguistic, psychological, and social backgrounds of language learning in a bilingual or multilingual setting.

523. SECOND LANGUAGE ACQUISITION (3). Overview of the major theories and processes of second language acquisition including analyses of current empirical research in learner language and language-learning processes.

533. DISCOURSE ANALYSIS (3). Linguistic analysis of the functions and structures of oral language above the level of the sentence. Genres of oral texts investigated include conversation, exposition, and narrative.

534. LINGUISTICS AND LITERATURE (3). Exploration of the linguistic foundations of 20th century literary theory and criticism, with particular focus on linguistic methods of analyzing literary style.

614. SEMINAR: ENGLISH LINGUISTICS (3). May be repeated to a maximum of 9 semester hours when topic varies.

English Literature Before 1660

535. MIDDLE ENGLISH LITERATURE (3). Studies in important Middle English works (AD 1100-1500). May include prose, romance, lyric, religious allegory, and/or drama.

536. BEOWULF (3). A close and thorough reading of this important early poem. Considers issues of grammar, poetics, and literary and social history. Requires reading knowledge of Old English.

537. CHAUCER (3). Focus on the poetry, with additional consideration of historical background and literary antecedents.

538. 16TH CENTURY PROSE AND POETRY (3). Survey of Tudor prose and poetry (1485-1603), as reflected in the works of such writers as Skelton, More, Sidney, and Spenser.

539. ENGLISH DRAMA TO 1600 (3). Examination of the development of English pre-Shakespearean drama and theatre through study of such authors as Lyly, Kyd, and Marlowe.

540. ENGLISH DRAMA: 1600-1660 (3). Representative drama, excluding Shakespeare, including works by such playwrights as Dekker, Heywood, Marston, Jonson, Beaumont, and Fletcher.

541. SHAKESPEARE (3). Survey of representative comedies, histories, and tragedies, with special attention to Shakespeare's development as a playwright.

542. 17TH CENTURY PROSE AND POETRY (3). Survey of major Stuart and Commonwealth writers (1603-1660), including figures such as Bacon, Donne, Browne, Herbert, Jonson, and Marvell, but excluding Milton and Dryden.

543. SPENSER (3). Intensive study of Spenser's development as a major poet, from *The Shepheardes Calendar* through *The Faerie Queene.*

544. MILTON (3). Intensive survey of Milton's poetry, prose, and drama, focusing on such work

636. SEMINAR: MEDIEVAL LITERATURE (3). May be repeated to a maximum of 9 semester hours when topic varies.

637. SEMINAR: CHAUCER (3). May be repeated to a maximum of 9 semester hours when topic varies.

638. SEMINAR: 16TH CENTURY ENGLISH LITERATURE (3). May be repeated to a maximum of 9 semester hours when topic varies.

641. SEMINAR: SHAKESPEARE (3). May be repeated to a maximum of 9 semester hours when topic varies.

642. SEMINAR: 17TH CENTURY ENGLISH LITERATURE (3). May be repeated to a maximum of 9 semester hours when topic varies.

644. SEMINAR: MILTON (3). May be repeated to a maximum of 9 semester hours when topic varies.

English Literature After 1660

556. RESTORATION AND EARLY 18TH CENTURY LITERATURE (3). Study of English literature (excluding fiction and drama) 1660-1740, including such writers as Dryden, Swift, and Pope.

557. LATER 18TH CENTURY ENGLISH LITERATURE (3). Study of English literature (excluding fiction and drama) 1740-1800, including such writers as Gray and Johnson.

558. ENGLISH DRAMA: 1660-1800 (3). Study of English drama 1660-1800, including such playwrights as Congreve and Sheridan.

559. 18TH CENTURY ENGLISH NOVEL (3). Study of English fiction 1700-1800, including such writers as Defoe, Richardson, and Fielding.

560. BRITISH ROMANTIC PERIOD (3). British literature, 1780-1830, with emphasis on the poetry of Blake, the Wordsworths, Coleridge, Keats, Shelley, and Byron, with attention to theoretical and historical issues surrounding the critical term "romantic."

561. VICTORIAN POETRY: 1830-1880 (3). Study of Victorian poetry including such poets as Arnold, the Brownings, Hardy, Morris, Swinburne, and Tennyson.

562. 19TH CENTURY BRITISH PROSE (3). Exploration of diverse nonfiction forms such as journalism, scientific writing, biography, journals, and letters, by such writers as Arnold, the Carlyles, Darwin, Hazlitt, the Mills, Morris, Ruskin, and Wilde.

563. 19TH CENTURY BRITISH NOVEL (3). Survey of the British novel from Austen to Hardy and Eliot.

564. BRITISH LITERATURE: 1880-1920 (3). Survey of British literature during the transitional period between the Victorian age and the rise of modernism, including works by such writers as Wilde, Gissing, Kipling, Stevenson, Wells, Woolf, and Richardson.

565. BRITISH LITERATURE SINCE 1900 (3). Survey of 20th century British literature, including fiction, drama, and poetry. Major literary movements, such as modernism and postmodernism, as well as writers such as Conrad, Shaw, Rhys, Eliot, Woolf, Byatt, Lessing, and Pinter.

566. 20TH CENTURY BRITISH POETRY (3). Developments in English poetry in the 20th century, including works by Eliot, Auden, Yeats, Sitwell, Levertov, and Boland.

567. 20TH CENTURY BRITISH DRAMA (3). Survey of major plays and playwrights of the 20th century British theatre, including such writers as Shaw, Beckett, Pinter, Stoppard, and Ayckbourn.

568. 20TH CENTURY BRITISH FICTION (3). Novels and short fiction of the 20th century; analysis of major literary styles and movements; texts by such writers as Conrad, Woolf, Lawrence, Joyce, Drabble, Rushdie, Mansfield, and Carter.

656. SEMINAR: RESTORATION AND 18TH CENTURY ENGLISH LITERATURE (3). May be repeated to a maximum of 9 semester hours when topic varies.

662. SEMINAR: 19TH CENTURY ENGLISH LITERATURE (3). May be repeated to a maximum of 9 semester hours when topic varies.

664. SEMINAR: ENGLISH LITERATURE, 1880-1920 (3). May be repeated to a maximum of 9 semester hours when topic varies.

665. SEMINAR: 20TH CENTURY ENGLISH LITERATURE (3). May be repeated to a maximum of 9 semester hours when topic varies.

American Literature

576. AMERICAN LITERATURE TO 1830 (3). Survey of literature of European colonization and settlement, New England Puritanism, the Enlightenment, and the revolutionary and early national periods.

577. AMERICAN LITERATURE: 1830-1865 (3). American romantic literature, focusing on the major transcendentalists (Emerson, Fuller, Thoreau) and such novelists as Hawthorne and Melville.

578. AMERICAN LITERATURE: 1865-1900 (3). Studies in the fiction, poetry, and prose of the United States, from the Civil War until the turn of the century, including such writers as Howells, Dickinson, James, Twain, Woolson, Norris, and Wharton.

579. 19TH CENTURY AMERICAN NOVEL (3). Studies in the American novel, including the romance, woman's fiction, realism, and naturalism, and such writers as Sedgwick, Cooper, Hawthorne, Stoddard, James, Twain, Phelps, Norris, and Wharton.

581. AMERICAN LITERATURE: 1900-1960 (3). Study of drama, fiction, and poetry, including such writers as Cather, O'Neill, Williams, Faulkner, Hemingway, and Stevens.

582. AMERICAN LITERATURE SINCE 1960 (3). Study of drama, fiction, and poetry, including such writers as Bellow, Tyler, Rich, Erdrich, Kushner, and Morrison.

584. 20TH CENTURY AMERICAN POETRY (3). Study of American poetry from the imagists and modernists to the beats and the postmodernists, including such writers as Stevens, Frost, Pound, Cummings, Bishop, Ginsberg, Berryman, Lowell, Rich, and Ammons.

585. 20TH CENTURY AMERICAN FICTION (3). Study of American fiction from the realists and naturalists to the modernists and postmodernists, including such writers as Dreiser, Cather, Anderson, Fitzgerald, Hemingway, Faulkner, Wright, Ellison, O'Connor, and Morrison.

587. 20TH CENTURY AMERICAN DRAMA (3). Major American plays and playwrights of the 20th century, including such authors as O'Neill, Williams, Miller, Albee, Mamet, and Shepard.

593. ETHNIC AMERICAN LITERATURE (3).
A. African American Literature
B. Native American Literature
C. Latina/Latino American Literature
D. Special Topics
Study of the contributions of diverse cultural groups to American literature. ENGL 593A-C may be taken once each; ENGL 593D may be repeated to a maximum of 6 semester hours when topic varies.

676. SEMINAR: AMERICAN LITERATURE TO 1830 (3). May be repeated to a maximum of 9 semester hours when topic varies.

677. SEMINAR: 19TH CENTURY AMERICAN LITERATURE (3). May be repeated to a maximum of 9 semester hours when topic varies.

683. SEMINAR: 20TH CENTURY AMERICAN LITERATURE (3). May be repeated to a maximum of 9 semester hours when topic varies.

Department of Foreign Languages and Literatures (FL--)

Chair: Anne L. Birberick

Graduate Faculty

Carl W. Atlee, assistant professor, Ph.D., University of Arizona
Katharina Barbe, associate professor, Ph.D., Rice University
John R. Bentley, associate professor, Ph.D., University of Hawaii
Anne L. Birberick, associate professor, Ph.D., University of Virginia
Dennis E. Brain, associate professor, Ph.D., University of Texas at Austin
Louise Ciallella, assistant professor, Ph.D., University of Wisconsin
Jessamine Cooke-Plagwitz, assistant professor, Ph.D., Queen's University, Kingston, Ontario
Mary L. Cozad, assistant professor, Ph.D., University of California, Berkeley
William F. Harrison, associate professor, Ph.D., University of New Mexico
John F. Hartmann, professor, Ph.D., University of Michigan
Patricia B. Henry, associate professor, Ph.D., University of Michigan
Frances Jaeger, assistant professor, Ph.D., University of Illinois
Joanna Kot, associate professor, Ph.D., University of Chicago
Susan H. Linden, associate professor, Ph.D., State University of New York, Buffalo
Maryline Lukacher, associate professor, Ph.D., University of California, San Diego
Michael L. Mazzola, professor, Ph.D., Cornell University
Eloy E. Merino, assistant professor, Ph.D., University of Miami
Michael C. Morris, associate professor, Ph.D., University of Iowa
Christopher Nissen, associate professor, Ph.D., University of California, Berkeley
F. Corey Roberts, assistant professor, Ph.D., Indiana University
Joshua P. Rodriguez, assistant professor, Ph.D., Ohio State University
Francisco Solares-Larrave, assistant professor, Ph.D., University of Illinois
Pablo Virumbrales, assistant professor, Ph.D., Ohio State University
Philippe Willems, assistant professor, Ph.D., University of Colorado, Boulder

The Department of Foreign Languages and Literatures offers a graduate program leading to the M.A. degree. Students may pursue a specialization in French or Spanish. The program permits selective enhancement of particular skills, such as translation, linguistics, or cultural and literary analysis. The curriculum provides a core experience consisting of courses in linguistics, culture, and literature culminating in a practicum (applied project or internship) or thesis. It also allows for the exploration of related interdisciplinary fields.

On admission to the program, each student will be assigned a graduate advisory committee appointed by the chair of the department. This committee will consist of three members and will be chaired by one person designated as the student's adviser. Responsibility for approving the student's program of courses rests with this committee, which will also assess any work done at other institutions and grant up to 6 semester hours of transfer credit for graduate work deemed acceptable, subject to subsequent approval by the Graduate School. Student-at-large hours may not exceed 9 semester hours for students pursuing a master's degree in foreign languages, except in special circumstances with consent of department. The committee will also be responsible for the administration of the thesis or practicum and for the supervision of an exit examination to test oral proficiency.

Students seeking admission to the M.A. program in foreign languages should have completed an undergraduate major in French or Spanish or have a demonstrated proficiency at an equivalent level. Students also must possess a practical command of the target language (determined by interview) and be able to follow lectures in it. Admission to the program is on a competitive basis.

Master of Arts in Foreign Languages

Requirements

Students are required to complete a minimum of 30 semester hours of graduate credit, at least 15 hours of which must be taken in 500-level courses. Students are required to complete a specialization in French or Spanish. A student's program of courses should be formally approved by the advisory committee early in the program of study.

Students who wish to complete a program that includes a focus on a second language are required to take 12 additional semester hours in the second language (3-6 hours in translation and 6-9 hours in culture and literature) for a total of 42 semester hours of graduate credit, at least 21 of which must be taken in 500-level courses.

During their last semester of study, candidates are required to pass an oral comprehensive examination demonstrating a satisfactory level of communicative competence and the ability to integrate effectively a knowledge of language, literature, and culture. If a focus is taken in a second language, a second, similar examination must be passed for that language.

Specialization in French

Linguistics (3-9)
- FLAL 483 - Applied Linguistics and the Romance Languages (3)
- FLFR 481 - French Phonetics and Phonemics (3)
- FLFR 482 - History of the French Language (3)
- FLST 583A - Research Seminar in Languages and Linguistics: French (3)

Translation (6-9)
- FLFR 483 - *Theme Et Version* (3)
- FLFR 484 - Advanced Translation (3)
- FLFR 485 - Initiation to Consecutive Translation (3)
- FLST 584A - Research Seminar in Translation: French (3)

Culture and Literature (9-15)
- FLFR 431 - 17th Century French Literature (3)
- FLFR 433 - 18th Century French Literature (3)
- FLFR 435 - 19th Century French Literature (3)
- FLFR 438 - 20th Century French Literature (3)
- FLFR 441 - Medieval French Literature (3)
- FLFR 443 - French Literature of the Renaissance (3)
- FLFR 463 - *La France Contemporaine* (3)
- FLFR 464 - Paris: City of Lights (3)
- FLST 540A - Research Seminar in Literature: French (3)
- FLST 561A - Research Seminar in Civilization and Culture: French (3)

Elective (3)
- With the consent of their graduate advisory committee, students may select from the following language-related courses, or they may select other graduate-level courses which have direct bearing on their program of study.
  - COMS 454 - Transnational Communication and Media (3)
  - ENGL 501 - Bibliography and Methods of Research (3)
  - ENGL 502A-D - Literary Theory and Criticism (3)
  - ENGL 514 - Introduction to Linguistics (3)
  - HIST 418 - European Cultural History 1870-Present (3)

Practicum/Thesis (3)
FLST 590 - Practicum (3),
OR FLST 599 - Master's Thesis (1-3)

Specialization in Spanish

Linguistics (3-9)
FLAL 483 - Applied Linguistics and the Romance Languages (3)
FLSP 480 - Introduction to Hispanic Linguistics (3)
FLSP 481 - Spanish Phonology (3)
FLSP 485 - Spanish Syntax (3)
FLSP 486 - Contrastive Grammatical Structures in Spanish and English (3)
FLSP 487 - Hispanic Dialectology (3)
FLSP 491 - History of the Spanish Language (3)
FLST 583D - Research Seminar in Languages and Linguistics: Spanish (3)

Translation (6-9)
FLSP 483 - Techniques of Spanish Translation (3)
FLSP 484 - Advanced Spanish Translation (3)
FLST 584D - Research Seminar in Translation: Spanish (3)

Culture and Literature (9-15)
FLSP 431 - Spanish Golden Age Poetry (3)
FLSP 432 - Medieval Spanish Literature (3)
FLSP 433 - Classical Spanish Drama (3)
FLSP 434 - Cervantes: The Quixote (3)
FLSP 435 - Spanish Golden Age Prose (3)
FLSP 436 - Spanish Romanticism and Realism (3)
FLSP 437 - The Generation of 1898 (3)
FLSP 438 - Contemporary Spanish Literature (3)
FLSP 440 - Spanish American Poetry and Theater (3)
FLSP 441 - Spanish American Novel (3)
FLSP 445 - Latin American Women Writers (3)
FLSP 451 - Literature of the Andean Republics (3)
FLSP 452 - Literature of the Caribbean (3)
FLSP 453 - Literature of Uruguay, Argentina, and Chile (3)
FLSP 454 - Mexican Literature (3)
FLSP 455 - Spanish-American Short Story (3)
FLSP 456 - Colonial Latin American Literature (3)
FLSP 457 - 19th Century Spanish American Literature (3)
FLSP 458 - Spanish American Modernismo and Vanguardias: 1880-1945 (3)
FLSP 459 - Spanish American Historical Novels (3)
FLSP 460 - Contemporary Spanish American Literature (3)
FLSP 461 - Spanish Civilization (3)
FLSP 462 - Spanish-American Civilization (3)
FLST 540D - Research Seminar in Literature: Spanish (3)
FLST 561D - Research Seminar in Civilization and Culture: Spanish (3)

Elective (3)
With the consent of their graduate advisory committee, students may select from the following language-related courses, or they may select other graduate-level courses which have a direct bearing on their program of study.
COMS 454 - Transnational Communication and Media (3)
ENGL 501 - Bibliography and Methods of Research (3)
ENGL 502A-D - Literary Theory and Criticism (3)
ENGL 514 - Introduction to Linguistics (3)
HIST 418 - European Cultural History 1870-Present (3)

Practicum/Thesis (3)
FLST 590 - Practicum (3),
OR FLST 599 - Master's Thesis (1-3)

Certficates of Graduate Study

Foreign Language Instructional Technology (18)

This certificate is designed to combine foreign language study with the development of proficiency in the use of technology to allow the candidates to integrate technology into their foreign language pedagogy. Students who wish to pursue this certificate must have a B.A. or M.A. degree in a foreign language (preferably a language taught at NIU). Previous experience with computers is highly recommended.

FLTE 591 - Integrating Technology into the Foreign Language Curriculum (3)
FLTE 592 - Development of Technology-Based Materials for the Foreign Language Classroom (3)
FLTE 593 - Foreign Language Learning Center Administration (3)
FLTE 594 - Implementation of Technology-Enhanced Language Learning (3)
At least two of the following (6)
ETT 439 - Developing Educational Software for Computers (3)
ETT 510 - Instructional Media and Technology (3)
ETT 535 - Distance Education: Design and Delivery (3)
ETT 539 - Courseware Systems Development (3)
ETT 590 - Workshop in Instructional Technology (1-3)
ETT 592[1] - Special Topics in Instructional Technology (1-3)

German Language, Literature, and Culture (18)

This certificate is designed to enhance individuals' knowledge of German language, language teaching, literature, and culture and to be of interest not only to teachers who desire continuing professional education, but also to post-baccalaureate students with general or business/translation interests.

FLGE 411 - Modern German (3)
FLGE 461 - German Culture and Civilization 800-1832 (3),
OR FLGE 462 - German Culture and Civilization 1832-1945 (3),
OR FLGE 463 - *Deutschland Heute* (3)
FLGE 481 - The Structure of Modern German (3)
FLIS 481[2] - Independent Study in a Foreign Language (3)
Two of the following (6)
FLGE 412 - Business German I (3)
FLGE 414 - Business German II (3)
FLGE 432 - Enlightenment, Through Weimar Classicism (3)
FLGE 433 - German Romanticism (3)
FLGE 435 - Modern German Literature: 1900-1945 (3)
FLGE 437 - Contemporary German Literature (3)
FLGE 482 - Techniques of Translation I (3)
FLGE 484 - Techniques of Translation II (3)

Spanish Language, Literature and Culture (18)

This certificate is designed to enhance individuals' knowledge of the Spanish language, literature, and culture and should be of interest not only to teachers who desire continuing education, but who do not wish to commit to the M.A. program, and also to post-baccalaureate students with general or business/translation interests. This certificate may be of particular interest to graduate students in business or the social sciences.

FLSP 480 - Introduction to Hispanic Linguistics (3)
FLSP 461 - Spanish Civilization (3),
OR FLSP 462 - Spanish-American Civilization (3)
Two of the following (6)
FLSP 414 - Spanish Business Communications (3)
FLSP 481 - Spanish Phonology (3)
FLSP 482 - Foundations in Spanish Sociolinguistics (3)
FLSP 483 - Techniques of Spanish Translation (3)
FLSP 485 - Spanish Syntax (3)
FLSP 486 - Contrastive Grammatical Structures in Spanish and English (3)
FLSP 487 - Hispanic Dialectology (3)
FLSP 491 - History of the Spanish Language (3)
Two 400-level Spanish or Spanish-American Literature courses (6)

[1] Topic must be on software tools for instruction.
[2] Must be taken for 3 semester hours with work done in German.

Course List

French (FLFR)

FLFR 412. COMMERCIAL FRENCH (3). Practice in business and administrative correspondence in French. PRQ: FLFR 301 and FLFR 302, or consent of department. CRQ: MGMT 346 or consent of department.

FLFR 431. 17TH CENTURY FRENCH LITERATURE (3). PRQ: FLFR 321, FLFR 322, or FLFR 323, or consent of department.

FLFR 433. 18TH CENTURY FRENCH LITERATURE (3). PRQ: FLFR 321, FLFR 322, or FLFR 323, or consent of department.

FLFR 435. 19TH CENTURY FRENCH LITERATURE (3). PRQ: FLFR 321, FLFR 322, or FLFR 323, or consent of department.

FLFR 438. 20TH CENTURY FRENCH LITERATURE (3). PRQ: FLFR 321, FLFR 322, or FLFR 323, or consent of department.

FLFR 441. MEDIEVAL FRENCH LITERATURE (3). Literary expression in France to the end of the 15th century, with emphasis on the 12th and 13th centuries. PRQ: FLFR 321, FLFR 322, or FLFR 323, or consent of department.

FLFR 443. FRENCH LITERATURE OF THE RENAISSANCE (3). PRQ: FLFR 321, FLFR 322, or FLFR 323, or consent of department.

FLFR 445. FRENCH WOMEN WRITERS (3). Works of selected French women writers from the Middle Ages to the present. PRQ: FLFR 321, FLFR 322, or FLFR 323, or consent of department.

FLFR 463. *LA FRANCE CONTEMPORAINE* (3). Political, social, and cultural development of France since 1945. PRQ: FLFR 302 and FLFR 312, or consent of department.

FLFR 464. PARIS: CITY OF LIGHTS (3). Study of urban changes in Paris from the Middle Ages to the present. PRQ: FLFR 302 and FLFR 312, or consent of department.

FLFR 481. FRENCH PHONETICS AND PHONEMICS (3). PRQ: FLFR 302 and FLFR 312, or consent of department.

FLFR 482. HISTORY OF THE FRENCH LANGUAGE (3). Internal development of the French language from its origins to the present with consideration of external social influences. Attention given to the relationship of French to the other Romance languages through elements of phonology, morphology, syntax, and vocabulary. PRQ: FLFR 302, FLFR 312, and FLFR 322, or consent of department.

FLFR 483. *THEME ET VERSION* (3). Translation of selected literary passages, alternating between French and English. May be repeated to a maximum of 9 semester hours. PRQ: FLFR 302 or consent of department.

FLFR 484. ADVANCED TRANSLATION (3). Intensive training in accurate translation of business, administrative, and technical texts. May be repeated to a maximum of 9 semester hours. PRQ: FLFR 302 or consent of department.

FLFR 485. INITIATION TO CONSECUTIVE TRANSLATION (3). Initiation to the tools, methodology, and terminology of consecutive translation. PRQ: FLFR 415 and FLFR 484, or consent of department.

Italian (FLIT)

FLIT 481. SPECIAL TOPICS IN ITALIAN LITERATURE (3). Study of a major author, genre, theme, period, or literary movement. Topics for each offering will be announced in the *Schedule of Classes*. PRQ: FLIT 321 or consent of department.

FLIT 482. SPECIAL TOPICS IN ITALIAN LINGUISTICS (3). Focus on linguistic topics such as the history of the Italian language, Italian dialectology, or Italian structure. PRQ: FLIT 301 and FLIT 311, or consent of department.

Spanish (FLSP)

FLSP 414. SPANISH BUSINESS COMMUNICATIONS (3). Practice in contemporary business and administrative communications and correspondence in Spanish. PRQ: FLSP 411 or consent of department.

FLSP 431. SPANISH GOLDEN AGE POETRY (3). Study and analysis of the major poetic works of the Spanish 16th and 17th centuries. Poets treated will be Spanish Petrarchists of the Renaissance, “Mannerist,” and Baroque periods, including some of the greatest poets of all Spanish literature. PRQ: FLSP 321 or consent of department.

FLSP 432. MEDIEVAL SPANISH LITERATURE (3). Through the 15th century. PRQ: FLSP 321 or consent of department.

FLSP 433. CLASSICAL SPANISH DRAMA (3). PRQ: FLSP 321 or consent of department.

FLSP 434. CERVANTES: THE QUIXOTE (3). PRQ: FLSP 321 or consent of department.

FLSP 435. SPANISH GOLDEN AGE PROSE (3). Study and analysis of the prose of the Spanish Golden Age, including the chivalric, picaresque, and mystic genres. Includes the works of Miguel de Cervantes (with the exception of Don Quixote). PRQ: FLSP 321 or consent of department.

FLSP 436. SPANISH ROMANTICISM AND REALISM (3). PRQ: FLSP 321 or consent of department.

FLSP 437. THE GENERATION OF 1898 (3). PRQ: FLSP 321 or consent of department.

FLSP 438. CONTEMPORARY SPANISH LITERATURE (3). PRQ: FLSP 321 or consent of department.

FLSP 440. SPANISH AMERICAN POETRY AND THEATER (3). Critical study of poetry and theater as literary genres; in-depth study of representative works which may date from the period of European contact to the present day. PRQ: FLSP 322 or consent of department.

FLSP 441. SPANISH AMERICAN NOVEL (3). Critical study of the novel as genre, accompanied by an in-depth study of representative works by Spanish American writers of the 19th, 20th, and 21st centuries. PRQ: FLSP 322 or consent of department.

FLSP 445. LATIN AMERICAN WOMEN WRITERS (3). General study of the works of Latin American women writers and the evolution of feminist thought in Latin America. PRQ: FLSP 322 or consent of department.

FLSP 451. LITERATURE OF THE ANDEAN REPUBLICS (3). The literature of Peru, Ecuador, and Bolivia with emphasis on the 20th century. PRQ: FLSP 322 or consent of department.

FLSP 452. LITERATURE OF THE CARIBBEAN (3). The literature of Colombia, Venezuela, Central America, and the Spanish-speaking West Indies with emphasis on the 19th and 20th centuries. PRQ: FLSP 322 or consent of department.

FLSP 453. LITERATURE OF URUGUAY, ARGENTINA, AND CHILE (3). The regional literature of the River Plate republics and Chile with emphasis on the period since 1914. PRQ: FLSP 322 or consent of department.

FLSP 454. MEXICAN LITERATURE (3). Mexican literature with emphasis on the 20th century. PRQ: FLSP 322 or consent of department.

FLSP 455. SPANISH-AMERICAN SHORT STORY (3). Authors from the various Spanish-American countries with emphasis on the 20th century. PRQ: FLSP 322 or consent of department.

FLSP 456. COLONIAL LATIN AMERICAN LITERATURE (3). Spanish American literature during the Colonial period (before 1900) including pre-Columbian literature. PRQ: FLSP 322 or consent of department.

FLSP 457. 19TH CENTURY SPANISH AMERICAN LITERATURE (3). The adaptation and development of periods such as romanticism, realism, and naturalism in the Spanish American cultural context, involving issues such as the politics of national identity and the effect of language and history. PRQ: FLSP 322 or consent of department.

FLSP 458. SPANISH AMERICAN MODERNISMO AND VANGUARDIAS: 1880-1945 (3). Focus on issues such as the influence of modernity, the politics of literary expression, and the artistic movements in Europe that led Spanish American writers to define their role in a globalized world. PRQ: FLSP 322 or consent of department.

FLSP 459. SPANISH AMERICAN HISTORICAL NOVELS (3). Study of historical novels depicting such important events from the history of Spanish America as discovery and conquest, the wars of independence, and other important historical events or time periods. Issues of verisimilitude, historical and historiographical criticism, and the concept of history. PRQ: FLSP 322 or consent of department.

FLSP 460. CONTEMPORARY SPANISH AMERICAN LITERATURE (3). Spanish American prose, poetry, and theater from 1945 to the present. PRQ: FLSP 322 or consent of department.

FLSP 461. SPANISH CIVILIZATION (3). Development of the Spanish pattern of civilization from pre-Roman times to the present. PRQ: FLSP 321 or FLSP 322, or consent of department.

FLSP 462. SPANISH-AMERICAN CIVILIZATION (3). Evolution of the Spanish-American pattern of civilization from the pre-Hispanic period to the present. PRQ: FLSP 321 or FLSP 322, or consent of department.

FLSP 480. INTRODUCTION TO HISPANIC LINGUISTICS (3). Introduction to the core areas of the linguistic study of Spanish language: phonology, morphology, syntax, semantics, history of the language, and dialectology. Provides necessary background for advanced studies in Spanish linguistics or general linguistics. PRQ: FLSP 301, or consent of department.

FLSP 481. SPANISH PHONOLOGY (3). Introduction to the sound patterns of the Spanish language and the linguistic principles underlying them. Focus on how these patterns and principles apply across languages of the world as well as on the normative rules of pronunciation. PRQ: FLSP 311 or consent of department.

FLSP 482. FOUNDATIONS IN SPANISH SOCIOLINGUISTICS (3). Introduction to the basic principles of Spanish sociolinguistics. Provides necessary background for advanced studies in Spanish sociolinguistics. PRQ: FLSP 480.

FLSP 483. TECHNIQUES OF SPANISH TRANSLATION (3). Development of skill and techniques of translation from Spanish to English and English to Spanish. May be repeated to a maximum of 9 semester hours. PRQ: FLSP 411 or consent of department.

FLSP 484. ADVANCED SPANISH TRANSLATION (3). Intensive training in accurate and idiomatic translation of business, administrative, and technical texts from Spanish to English and English to Spanish. May be repeated to a maximum of 9 semester hours. PRQ: FLSP 483 or consent of department.

FLSP 485. SPANISH SYNTAX (3). Introduction to the patterns of sentence structure of the Spanish language and the linguistic principles underlying them. Emphasis on the functionality of syntactical patterns and their relationship to normative rules of writing. PRQ: FLSP 411 or consent of department.

FLSP 486. CONTRASTIVE GRAMMATICAL STRUCTURES IN SPANISH AND ENGLISH (3). Provides the student with a knowledge of the basic structural differences between Spanish and English. Taught in both languages to demonstrate fundamental interrelationships between the two languages. Emphasis also on sensitivity to language interference and other problems of language acquisition. PRQ: FLSP 301 or consent of department.

FLSP 487. HISPANIC DIALECTOLOGY (3). Introduction to the study of variation within the Spanish language in both Spain and the Americas. Focus on the intricate matrix of social, political, and historical factors that underlie the natural processes of dialect formation, bilingualism, and multilingualism across linguistic communities around the world. PRQ: FLSP 320 and either FLSP 480 or FLSP 481, or consent of department.

FLSP 491. HISTORY OF THE SPANISH LANGUAGE (3). Introduction to the origin and evolution of the Spanish language. Emphasis on the phonetic, phonological, and morphosyntactic changes that Latin underwent and eventually gave rise to the Spanish language and on the social, political, and historical circumstances that have shaped the map of the Spanish-speaking world. PRQ: FLSP 320 and either FLSP 480 or FLSP 481, or consent of department.

Portugese (FLPO)

FLPO 461. BRAZILIAN CIVILIZATION (3). Contributions of Africans and Indians to the history and literature of Brazil. Classes conducted in English with English and Portuguese bibliography.

German (FLGE)

FLGE 411. MODERN GERMAN (3). Current usages in spoken and written German with emphasis on contemporary vocabulary, idiomatic expressions, and syntax. In German. PRQ: FLGE 311 or consent of department.

FLGE 412. BUSINESS GERMAN I (3). Techniques of spoken and written communication necessary in the business world. Discussion of basic features of the export-oriented German economy. PRQ: FLGE 411 or consent of department.

FLGE 414. BUSINESS GERMAN II (3). Advanced practice in business communication, with analysis of authentic contemporary materials. Preparation for the optional *Prüfung Wirtschaftsdeutsch International* offered by the Goethe Institute on an annual basis. Lectures, exercises, films. PRQ: FLGE 412 or consent of department.

FLGE 432. ENLIGHTENMENT, THROUGH WEIMAR CLASSICISM (3). Literary, philosophical, and political experience of Germany in the 18th century as reflected in the works of Lessing, Herder, Wieland, Goethe, Schiller, and others. PRQ: FLGE 321, FLGE 322, or consent of department.

FLGE 433. GERMAN ROMANTICISM (3). Background, theory, and major texts of German Romanticism. PRQ: FLGE 321 and FLGE 322, or consent of department.

FLGE 434. GERMAN REALISM AND NATURALISM (3). Realism and naturalism in 19th century Germany as reflected in the prose, poetry, and drama of Stifter, Keller, Hebbel, Storm, Fontane, Hauptmann, and others. PRQ: FLGE 321 and FLGE 322, or consent of department.

FLGE 435. MODERN GERMAN LITERATURE: 1900-1945 (3). Literary trends from 1890 to 1945, including impressionism, neo-romanticism, expressionism, the new realism of the Weimar Republic, the Third Reich, the inner Emigration, and the Other Germany in exile. Includes representative writers such as Wedekind, Schnitzler, Hofmannsthal, Rilke, Thomas Mann, Kafka, Hesse, and Brecht. PRQ: FLGE 321 and FLGE 322, or consent of department.

FLGE 437. CONTEMPORARY GERMAN LITERATURE (3). German literature from 1945 to the present, including the postwar period, the East-West division of the Cold War, and the conflicts since the reunification of 1990, but also the separate developments in Austria and Switzerland. Texts by such representative writers as H. Boll, G. Grass, C. Wolf, and others. PRQ: FLGE 321 and FLGE 322, or consent of department.

FLGE 461. GERMAN CULTURE AND CIVILIZATION 800-1832 (3). Social and cultural developments in the German-speaking lands from 800-1832. Taught in German. PRQ: FLGE 321 and FLGE 322, or consent of department.

FLGE 462. GERMAN CULTURE AND CIVILIZATION 1832-1945 (3). Critical approach to German culture and society from 1832-1945 with emphasis on the Wilhelminian era, the Weimar Republic, and the Third Reich. Analysis of essential texts and the lives of representative Germans. Lectures, discussions, films. Taught in German. PRQ: FLGE 321 and FLGE 322, or consent of department.

FLGE 463. *DEUTSCHLAND HEUTE* (3). A critical approach to postwar and contemporary German culture, society, and everyday life from 1945 to the present, with emphasis on the developments since the reunification of 1990. Analysis of essential texts and the lives of representative Germans. Lectures, discussions, films. Taught in German. PRQ: FLGE 321 and FLGE 322, or consent of department.

FLGE 481. THE STRUCTURE OF MODERN GERMAN (3). Survey of modern German and the use of contemporary linguistic methods to analyze and contrast its major structures and their functions. PRQ: FLGE 302 or consent of department.

FLGE 482. TECHNIQUES OF TRANSLATION I (3). Development of skills and techniques of translation of a variety of text types from German to English and English to German. PRQ: FLGE 301 or consent of department.

FLGE 484. TECHNIQUES OF TRANSLATION II (3). Intensive training in accurate and idiomatic translation from German to English and English to German with emphasis on administrative, political, and technical texts. PRQ: FLGE 302 or consent of department.

FLGE 485. HISTORY OF THE GERMAN LANGUAGE (3). A survey of the German language from its origins to the present with a consideration of the political, social, and literary forces influencing the language. Topics include grammar and phonology, and the relationship of German to other languages and to older Germanic dialects. PRQ: FLGE 302 or consent of department.

Russian (FLRU)

FLRU 412. BUSINESS RUSSIAN (3). Techniques of spoken and written communication necessary to doing business in post-Soviet Russia, with attention to linguistic etiquette. PRQ: FLRU 301 or consent of department.

FLRU 431. 19TH CENTURY RUSSIAN LITERATURE (3). Readings, lectures, and discussion of classic writers in various genres. Taught in English.

FLRU 432. RUSSIAN LITERATURE AND CULTURE (3). Readings, lectures, and discussion of works chosen on the basis of their genre or particular thematic content. Taught in English.

FLRU 433. RUSSIAN MODERNIST LITERATURE: 1881-1930 (3). Readings, lectures, and discussion of masterpieces of the modernist period. Taught in English.

FLRU 434. 20TH CENTURY RUSSIAN LITERATURE (3). Readings, lectures, and discussion of works by major authors of the 20th century in various genres. Taught in English.

FLRU 461. CONTEMPORARY RUSSIAN CULTURE (3). Students of Russian are given an opportunity to apply their linguistic skills in areas of topical interest relating to Soviet culture. A better understanding of contemporary Soviet culture is acquired by following closely, and analyzing, media coverage of current events of cultural interest. PRQ: FLRU 301 or consent of department.

FLRU 480. MODERN RUSSIAN (3). Advanced study of contemporary Russian. Emphasis on development of reading, writing, and speaking skills, and translation techniques with recent material from science, economics, politics, and the arts. May be repeated to a maximum of 9 semester hours. PRQ: FLRU 301 or consent of department.

Classical Languages (FLCL)

FLCL 483. DIRECTED READINGS IN CLASSICAL LANGUAGES (1 to 3). Independent study of a classical author under the direction of a faculty member. May be repeated to a maximum of 6 semester hours. PRQ: Two years of college Latin or Greek or equivalent, or consent of department.

Indonesian (FLIN)

FLIN 421. INTRODUCTION TO INDONESIAN LITERATURE (3). Survey of the development of Indonesian literature. Selected readings in regional languages in translation using traditional and contemporary Indonesian literature. PRQ: FLIN 204 or consent of department.

Foreign Language Instructional Technology (FLTE)

FLTE 591. INTEGRATING TECHNOLOGY INTO THE FOREIGN LANGUAGE CURRICULUM (3). Use of communication technologies and related foreign language materials with emphasis on pedagogically sound integration of these technologies and materials into foreign language curriculum.

FLTE 592. DEVELOPMENT OF TECHNOLOGY-BASED MATERIALS FOR THE FOREIGN LANGUAGE CLASSROOM (3). Use of computer and Internet-based applications to develop related foreign language materials with emphasis on pedagogically sound integration of these technologies and materials into the foreign language curriculum. PRQ: FLTE 591 or consent of department.

FLTE 593. FOREIGN LANGUAGE LEARNING CENTER ADMINISTRATION (3). Overall goals and practical procedures for overseeing and running a multimedia language learning center.

FLTE 594. IMPLEMENTATION OF TECHNOLOGY-ENHANCED LANGUAGE LEARNING (3). Includes independent research on a topic related to foreign language pedagogy and foreign language instructional technology utilizing the Foreign Language Multimedia Learning and Training Center facilities. PRQ: Consent of department.

General (FLAL, FLIS, FLMT, FLST)

FLAL 483. APPLIED LINGUISTICS AND THE ROMANCE LANGUAGES (3). Survey of the principles of linguistic theory as they apply to the teaching of the major romance languages. Emphasis on taxonomic and transformational linguistics. PRQ: Completion of the second year of a Romance language or consent of department.

FLIS 481. INDEPENDENT STUDY IN A FOREIGN LANGUAGE (1 to 6). Independent research on a cultural, linguistic, or literary topic. Detailed outline of proposed research required prior to enrollment. May be repeated to a maximum of 6 semester hours. PRQ: Three 400-level courses in the language and consent of department.

FLMT 490. TEACHING METHODOLOGIES FOR THE ELEMENTARY SCHOOL FOREIGN LANGUAGE CLASSROOM (3). Development of an effective foreign language program at the elementary school level with emphasis on development of materials and techniques for such programs. PRQ: Completion of the 301-302 level in any foreign language; instructor permission.

FLMT 591. METHODOLOGIES FOR THE TEACHING OF FOREIGN LANGUAGES AT THE UNIVERSITY LEVEL (2). Study and practice of current theories, methodologies, and instructional materials used in the teaching of modern foreign languages at the university level. Emphasis on practical application and incorporation of techniques into classroom instruction. Required course for new teaching assistants in the Department of Foreign Languages and Literatures. S/U grading.

FLST 481. SPECIAL TOPICS IN LITERATURE I (3). Study of a major author, genre, theme, period, or literary movement. Topics announced. May be repeated to a maximum of 9 semester hours as topic changes. PRQ: Consent of department.

FLST 482. SPECIAL TOPICS IN LITERATURE II (3). Study of a major author, genre, theme, period, or literary movement. Topics announced. May be repeated to a maximum of 9 semester hours as topic changes. PRQ: Consent of department.

FLST 483. SPECIAL TOPICS IN LINGUISTICS (3). Topics announced. May be repeated to a maximum of 6 semester hours as topic changes. PRQ: Consent of department.

FLST 540. RESEARCH SEMINAR IN LITERATURE (3).
A. French
B. German
C. Russian
D. Spanish
Study of special subjects and periods of literature. May be repeated to a maximum of 15 semester hours as the subject and/or period varies. PRQ: Consent of department.

FLST 561. RESEARCH SEMINAR IN CIVILIZATION AND CULTURE (3).
A. French
B. German
C. Russian
D. Spanish
Selected subjects in civilization and culture of the language area indicated, announced in the Schedule of Classes. Any one language area may be repeated to a maximum of 12 semester hours when the subject varies. PRQ: Consent of department.

FLST 583. RESEARCH SEMINAR IN LANGUAGES AND LINGUISTICS (3).
A. French
B. German
C. Russian
D. Spanish
Focus on specific subjects in linguistics as related to an individual language area. May be repeated to a maximum of 9 semester hours as the subject changes. PRQ: Consent of department.

FLST 584. RESEARCH SEMINAR IN TRANSLATION (3).
A. French
B. German
C. Russian
D. Spanish
Graduate training in translation with a focus on specific subjects related to the various foreign languages. May be repeated to a maximum of 9 semester hours. PRQ: Consent of department.

FLST 590. PRACTICUM (3). Professional experience related to the work environment utilizing foreign language translation and/or communication skills. Normally only available to students who have no prior foreign-language-related work experience. PRQ: Consent of department.

FLST 599. MASTER'S THESIS (1 to 3). May be taken upon the appointment of a thesis director and the approval of a prospectus. May be repeated to a maximum of 3 semester hours. PRQ: Consent of department.

Department of Geography (GEOG, MET)

Chair: Andrew J. Krmenec

Graduate Faculty

Walker S. Ashley, assistant professor, Ph.D., University of Georgia
Mace L. Bentley, assistant professor, Ph.D., University of Georgia
Sarah A. Blue, assistant professor, Ph.D., University of California
David Changnon, professor, Ph.D., Colorado State University
Richard Greene, associate professor, Ph.D., University of Minnesota
Michael E. Konen, associate professor, Ph.D., Iowa State University
Andrew J. Krmenec, professor, Ph.D., Indiana University
Wei Luo, associate professor, Ph.D., Washington University
Lesley S. Rigg, associate professor, Ph.D., University of Melbourne
Jie Song, associate professor, Ph.D., University of Delaware
Fahui Wang, associate professor, Ph.D., Ohio State University

The Department of Geography offers a graduate program leading to the M.S. degree.

Master of Science in Geography

The department welcomes applications from students with interests in geography, earth science, and atmospheric science. All new students who are admitted to a major in geography leading to the M.S. degree are required to consult with the department's graduate studies coordinator before registering for courses. The coordinator will assist students in identifying an appropriate regular adviser who will form a committee to arrange a program of study. A student must choose either a thesis or a non-thesis option, subject to the consent of the adviser. Students must have the approval of their adviser to register for geography courses each semester and must meet with their committee each year to discuss progress made toward the degree. A student whose background is deficient may be required to take additional course work at the undergraduate level. Deficiencies should be resolved in the first year and do not normally carry graduate credit toward the degree.

Requirements

GEOG 500 - Geography Seminar (½) (must accumulate at least 2 semester hours prior to graduation; hours do not count toward required hours for the degree)
GEOG 504 - Concepts in Human Geography (3)
GEOG 505 - Concepts in Physical Geography (3)
GEOG 561 - Advanced Quantitative Methods for Geographic Research (3)
GEOG 563 - Geographic Research Procedures (3)
Satisfactory performance on a comprehensive written examination
Satisfactory completion of the requirements for either the thesis or non-thesis option.

Thesis Option

The thesis option consists of a minimum of 30 semester hours, including at least 24 semester hours of course work and a thesis. Students are required to present findings of the thesis at the Geography Seminar (GEOG 500) and to present one paper or poster at a state, regional, or national professional meeting. Complete instructions for writing and submitting the thesis are in the department's "Graduate Student Handbook" (consult adviser).

Non-Thesis Option

The non-thesis option consists of a minimum of 36 semester hours. Students must submit two major research papers. The first paper must be submitted and accepted prior to completion of 24 semester hours. One paper must be completed under GEOG 572. Findings of one non-thesis paper will be presented at the Geography Seminar (GEOG 500). Complete instructions for writing and submitting the research papers are available in the department's "Graduate Student Handbook."

Certificate of Graduate Study

Geographic Information Analysis (16-18)

This certificate is designed for graduate students in all disciplines and for professionals seeking advanced education in geographic information systems, mapping science, and applications. Students should consult with the graduate certificate adviser prior to registering for any courses.

Course work from the following (16-18)
GEOG 459[1] - Geographic Information Systems (3)
GEOG 460 - Remote Sensing of the Environment (3)
GEOG 464 - Location Analysis (3)
GEOG 493 - Computer Methods and Modeling (3)
GEOG 502E - Internship: Geographic Information Systems (1-3),
OR GEOG 502J - Internship: Remote Sensing (1-3)
GEOG 554[1] - Fundamentals of Mapping (2)
GEOG 555[1] - Fundamentals of GIS (2)
GEOG 556 - GIS Design and Data (3)
GEOG 559 - Regional Planning (3)
GEOG 560 - Advanced Spatial Analysis (3)
GEOG 565 - Advanced Field Methods (3)
GEOG 571J - Independent Research: Cartography/Remote Sensing (1-3)

Course List

Geography (GEOG)

402. PEDOLOGY (4). Soil genesis, distribution, and classification. Environment, geomorphology, and soil formation relationships. Soil description, mapping, and interpretation for land use. Lecture, laboratory, and field experience.

403. SOIL GEOGRAPHY AND LAND USE PLANNING (3). Regional and local problems of soil utilization and management. Strategies for using soil data in land use plans and legislation.

413. FOREST ECOLOGY AND MANAGEMENT (3). Forest species regeneration, growth, and mortality. Past and present environmental conditions, disturbances, and forest processes. Tree identification, forest measures, and field methods. Lecture, laboratory, and field experience. PRQ: GEOG 322 and BIOS 103 or BIOS 104, or consent of department.

[1] Not available for credit to students who have earned the certificate of undergraduate study in geographic information systems; other course work within the certificate should be substituted.

422. PLANT-SOIL INTERACTIONS (4). *Crosslisted as BIOS 422X.* Chemical and physical properties of soils affecting vegetation, segregation of natural plant communities, and managed systems. Lecture, laboratory, and field experience. PRQ: BIOS 103 or BIOS 104 and GEOG 302, or consent of department.

430. POPULATION GEOGRAPHY (3). Geographic perspective on overpopulation, immigration, environmental degradation, development, and human rights. Fundamentals of fertility, mortality, migration, and composition. Discussion of both conceptual and empirical approaches focusing on national and international population and public policy issues. PRQ: 3 semester hours in geography or sociology, or consent of department.

435X. SPACE IN LANGUAGE AND CULTURE (3). *Crosslisted as ANTH 435.* Exploration of how various languages express spatial relationships by using different parts of speech, how culture shapes ways of organizing and using space in daily and ritual behavior, and the mental organization of spatial knowledge, with emphasis on universal patterns that generate cultural and individual realizations.

442X. GEOMORPHOLOGY (3). *Crosslisted as GEOL 442.* Systematic study of the geologic processes affecting the evolution of the earth's surface. Emphasis on glacial, fluvial, and coastal processes and their relationship to the development of landforms under diverse climates of the past and present. Lecture, laboratory, and field trips. PRQ: GEOG 101 and GEOG 102, or GEOL 105, or GEOL 120, or GEOL 120A, or consent of department.

451. POLITICAL GEOGRAPHY (3). Study of political phenomena in areal context. Emphasis on temporal and spatial attributes of the state. Core areas and capitals, boundaries, administration of territory. Geopolitics, power, multinational organizations, and modern theories about states. Geographic concepts applied to in-depth analysis of selected conflict regions. PRQ: Consent of department.

453. ENVIRONMENTAL MANAGEMENT (3). Human-environment geography perspective on natural resource planning, environmental conservation, and sustainable development throughout the world. Advanced analysis of environmental issues in a variety of geographic contexts and at scales ranging from local to global. Emphasis on critical and analytical thinking skills. PRQ: GEOG 253 or consent of department.

455. LAND-USE PLANNING (3). Study of processes and policies in land-use and land development decisions. Mapping and GIS decision-making techniques applied to the analysis of land-use patterns and management conflicts at national, state, regional, and local government scales. Lecture, laboratory, and field experience.

459. GEOGRAPHIC INFORMATION SYSTEMS (3). Study of the conceptual framework and development of geographic information systems. Emphasis on the actual application of a GIS to spatial analysis. Two hours of lecture and two hours of laboratory. PRQ: GEOG 359 or consent of department.

460. REMOTE SENSING OF THE ENVIRONMENT (3). Introduction to the principles of acquiring and interpreting data from remote sensing systems. Extraction of the earth resource information through image processing techniques and applications of satellite remote sensing in earth and atmospheric sciences. Use of remote sensing for mapping, measuring, and detecting atmospheric motion and weather systems, and assessing environmental change. Lecture, laboratory, and field experience. PRQ: MATH 210 or MATH 229 and STAT 301, or consent of department.

461. APPLIED STATISTICS IN GEOGRAPHIC RESEARCH (3). Application of descriptive and inferential statistics in geographic research: the general linear model, spatial statistics, computer analysis, and research design and presentation. PRQ: STAT 301 and consent of department.

463. URBAN GEOGRAPHY (3). Examination of the internal patterns and dynamics of urban areas. Spatial, economic, political, social, and behavioral approaches to the study of cities. Major focus is on U.S. cities. PRQ: GEOG 362 or consent of department.

464. LOCATION ANALYSIS (3). Examination of the location patterns of human social and economic activities. Principles of optimal location for agricultural, industrial, retail, transportation, and urban functions. Use of GIS and other spatial methods in location analysis. Lecture and laboratory. PRQ: GEOG 361 and either GEOG 204 or ECON 260, and consent of department.

467. WORKSHOP IN CARTOGRAPHY/GIS (1 to 3). Problems and techniques of map or GIS prototype development. Projects vary but include the processes of design and production, editing and quality control, and final implementation as printed or operational product. Directed individual study. May be repeated to a maximum of 6 semester hours. PRQ: GEOG 256 and consent of department.

469. EDUCATION METHODS AND MATERIALS IN GEOGRAPHY (3). Strategies of presenting geographic concepts. Evaluation of techniques and materials. PRQ: EPS 405 or EPS 406, or consent of department.

492. HYDROLOGY (3). *Crosslisted as GEOL 492X.* Quantitative examination of the properties, occurrence, distribution, and circulation of water near the earth's surface and its relation to the environment. Emphasis on applying fundamental physical principles to understand surface and subsurface hydrological processes. Lecture, laboratory, and field trip. PRQ: GEOG 101 and GEOG 102, or GEOL 120; MATH 210 or MATH 229; and PHYS 150 or PHYS 250; or consent of department.

493. COMPUTER METHODS AND MODELING (1 to 3). Programming topics in geographic or meteorological research problems, computer graphics, simulation techniques, regional modeling, geographic information systems applications, and climate modeling. Lecture and laboratory. May be repeated to a maximum of 6 semester hours as topic varies. PRQ: Consent of department.

495X. TEACHING OF PHYSICAL SCIENCES (3). *Crosslisted as PHYS 495.* Preparation for certification in grades 6-12 in one or more of the fields of physical science: physics, chemistry, earth science, and general science. Examination and analysis of modern curricula; classroom and laboratory organization; microteaching and observation of teaching; lesson planning; multicultural education; teaching science to the exceptional child; reading and the teaching of science; methods of evaluation. PRQ: Consent of department. CRQ: ILAS 401 or consent of department.

496X. HISTORY AND SOCIAL SCIENCE INSTRUCTION IN GRADES 6-12 (3). *Crosslisted as HIST 496.* Organization and presentation of materials for history and social science courses at the middle school, junior high, and senior high school levels. PRQ: Admission to the history or social science teacher certification program and permission of Department of History's office of teacher certification.

498. SEMINAR IN CURRENT PROBLEMS (1 to 3).
A. Natural Environmental Systems
B. Meteorology/Climatology
C. Environmental Management
D. Urban/Economic Geography
E. Area Studies
J. Hydrology
K. Soil Science
M. Methodology and Techniques
Selected topics in the various subfields of geography. May be repeated to a maximum of 6 semester hours as the topic changes. PRQ: Consent of department.

500. GEOGRAPHY SEMINAR (½). Current research and policy developments in geography and related spatial sciences. Each graduate student in geography must accumulate 2 semester hours of credit prior to graduation, but hours may not be applied toward semester-hour requirements for the M.S. degree. May be repeated to a maximum of 12 semester hours. S/U grading.

502. INTERNSHIP (1 to 6).
A. Natural Environmental Systems
B. Meteorology/Climatology
C. Urban/Economic Geography
D. Area Studies
E. Geographic Information Systems
J. Remote Sensing
Work as an intern in an off-campus agency or firm. Students complete intern tasks as assigned, do readings, and prepare a paper under the supervision of a faculty member. May be repeated to a maximum of 12 semester hours; only 3 semester hours may be applied to the degree program. S/U grading. PRQ: Consent of department.

504. CONCEPTS IN HUMAN GEOGRAPHY (3). Exploration of the origin, development, and application of fundamental concepts in human geography. Emphasis on contemporary issues of cultural, economic, political, and urban geography.

505. CONCEPTS IN PHYSICAL GEOGRAPHY (3). Exploration of the origin, development, and application of fundamental concepts in physical geography with focus on contemporary issues and research directions.

506. GEOGRAPHY INSTITUTE FOR TEACHERS (1 to 8). Development of substantive knowledge of systematic or regional geography, understanding of geographical methodology, and exploration of means of articulating advanced work into field and classroom instruction. May be repeated to a maximum of 8 semester hours. PRQ: Consent of institute director.

551. GEOPOLITICAL PERSPECTIVES (3). Application of political geographic ideas, concepts, and perspectives to a range of current global issues, e.g., territorial nationalism, conflict over natural resources, population growth, and migration.

554. FUNDAMENTALS OF MAPPING (2). For graduate students with little formal background in mapping. Maps as models, tools of visualization, and forms of graphic communication. Processes of map production, including imagery and surveying. Principles of map design. PRQ: Consent of department.

555. FUNDAMENTALS OF GIS (2). For graduate students with little formal background in GIS or computer mapping. Principles, components, and uses of geographic information systems. CRQ: GEOG 554 and consent of department.

556. GIS DESIGN AND DATA (3). Designing and implementing a geographic information system. Field collection of spatial data. Geo-referencing systems. Spatial meta-data standards and data-quality: precision, accuracy standards, accuracy testing. Data management, ownership, and liability. PRQ: Consent of department.

558. READINGS IN GEOGRAPHY (1 to 3). Directed readings in those phases of geographic literature needed by the student to strengthen background knowledge. May be repeated to a maximum of 6 semester hours.

559. REGIONAL PLANNING (3). Geographic basis and practice of regional mapping, GIS, and spatial decision processes applied to land-use, social services, transportation, and environmental management concerns. Problems of integrating land, transportation, and environmental management over a multi-jurisdictional geography.

560. ADVANCED SPATIAL ANALYSIS (3). Statistical and analytical procedures for the analysis of spatial data. Includes descriptive spatial statistics; point, line, and area pattern analysis; multivariate spatial patterns; spatial autocorrelation; spatial process models and kriging. Limitations of asymptotic-theory hypothesis test procedures and introduction to randomization tests. Emphasis on the development and application of operational spatial analysis routines for use in GIS, applied, and basic spatial research. PRQ: GEOG 461 or consent of department.

561. ADVANCED QUANTITATIVE METHODS FOR GEOGRAPHIC RESEARCH (3). Introduction to multivariate data analysis: matrix algebra, MANOVA, discriminant functions, principal components, and other procedures in geographic research. PRQ: GEOG 461 or consent of department.

563. GEOGRAPHIC RESEARCH PROCEDURES (3). Geography in the sciences; logical inquiry; paradigms and models; geographic research strategies.

565. ADVANCED FIELD METHODS (3 to 6). Field investigation of spatial processes and patterns. Research design, sampling methods, and mapping techniques. Choice of area and topics dependent upon needs and interests of the student. Lecture, laboratory, and field experience. May be repeated to a total of 6 semester hours.

568. HISTORY OF GEOGRAPHIC THOUGHT (3). Evolution of concepts pertaining to the nature, scope, and methodology of geography since classical times; emphasis on the modern period.

570. ADVANCED CLIMATOLOGY (3). Physical processes associated with the global energy balance, the hydrologic cycle, and the atmosphere's general circulation, and their linkage to the climate system. Climate controls to understand climates of various spatial scales. Past, present, and future climate variability and change. Applications to climate-sensitive environmental systems.

571. INDEPENDENT RESEARCH (1 to 3).
A. Natural Environmental Systems
B. Meteorology/Climatology
C. Urban/Economic Geography
D. Area Studies
J. Cartography/Remote Sensing
Independent research under the supervision of adviser. May be repeated to a maximum of 6 semester hours.

572. MASTER'S RESEARCH PAPER (1 to 3). Individual investigation of special problems in the field of geography under supervision of one or more staff members. May be repeated to a maximum of 6 semester hours.

590. COMMUNITY GEOGRAPHY (3). Team research project focusing on an issue of practical concern to the northern Illinois community. Application of geography and/or meteorology tools and methods to contemporary issues. Variable topics. May be repeated to a maximum of 6 semester hours. PRQ: At least 15 semester hours of geography or meteorology at the graduate or undergraduate level and GEOG 359 and STAT 301.

599. MASTER'S THESIS (1 to 6). May be repeated to a maximum of 6 semester hours.

600. SEMINAR IN SYSTEMATIC GEOGRAPHY (1 to 3).
A. Landforms/Soils
B. Meteorology/Climatology
C. Natural Resources
D. Economic Geography
E. Cultural Geography
J. Urban Geography
K. Political Geography
Lectures, discussions, and reports on topics of special interest in a particular field of systematic geography. May be repeated in one or more fields of geography to a maximum of 6 semester hours in any field of systematic geography. PRQ: Consent of department.

601. SEMINAR IN REGIONAL GEOGRAPHY (1 to 9). Lectures, discussions, and reports on topics of special interest in a particular field of regional geography. May be repeated to a maximum of 9 semester hours in any field of regional geography as the topic changes. PRQ: Consent of department.

602. SEMINAR IN GEOGRAPHIC METHODOLOGY AND TECHNIQUES (1 to 9). Lectures, discussions, and reports on topics of special interest in geographic methods and techniques. May be repeated to a maximum of 9 semester hours, if the topic changes.

Meteorology (MET)

410. WEATHER DYNAMICS I (4). Statics, conservation of mass, linear momentum and energy, shallow water equations, scale analysis, geostrophic, gradient and thermal winds, circulation and vorticity theorems, and introduction to the planetary boundary layer. Three hours of lecture and two hours of laboratory. PRQ: MET 300, MATH 232, and MATH 336, or consent of department. CRQ: CSCI 230 or CSCI 240, or consent of department.

411. WEATHER DYNAMICS II (4). Waves in the atmosphere, quasi-geostrophic flow theory, introduction to numerical weather prediction and dynamic instability theory. Three hours of lecture and two hours of laboratory. PRQ: MET 410 or consent of department.

430. MICROMETEOROLOGY (3). Study of physical processes in the turbulent transfer of momentum, heat, and moisture in the atmospheric boundary layer. Field installation and operational use of meteorological instrumentation. Assessment of precision, accuracy, and calibration of sensors. Data processing and interpretation. Lecture and field experience. PRQ: MET 300 and CSCI 230 or CSCI 240, or consent of department.

431. APPLICATIONS IN CLIMATOLOGY (3). Application of climatological theory and personal computers to develop climate relationship-decision models for use in agriculture, water resources, utilities, construction, transportation, and recreation. Lecture and field experience. PRQ: GEOG 370 or consent of department.

485. ATMOSPHERIC PHYSICS (3). Fundamentals of radiation transfer theory, cloud and precipitation physics, satellite remote sensing techniques, and physics of the middle and upper atmosphere. Lecture and laboratory. PRQ: MATH 336 and MET 300, or consent of department.

540. CLIMATE DYNAMICS I (3). Global scale tropospheric convection and wave processes on time scales from the Brunt-Vaisalla frequency to multiples of the Milankovitch cycle. Deterministic chaos and climate variability. Sensitivity of the troposphere to solar forcing, volcanism, orbital changes, anthropogenic effects, and atmosphere-ocean coupling. PRQ: MET 411 or consent of department. CRQ: MATH 336 or consent of department.

541. CLIMATE DYNAMICS II (3). Detailed systematic investigation into the macroscale dynamics of the climate system as a continuation of MET 540. Additional topics include the Lorenz equations, energy balance models, Milankovitch theory of climate, Golitsyn similarity theory of planetary atmospheric circulation, and the development of a three-dimensional tropospheric general circulation model. PRQ: MET 540 or consent of department.

550. NUMERICAL ANALYSIS AND FORECASTING (3). Finite difference schemes, numerical stability, forward, backward, and centered differencing, numerical relaxation techniques, finite element methods, and spectral techniques. PRQ: MET 411 and MATH 334 or MATH 336, or consent of department.

Department of Geology and Environmental Geosciences (GEOL)

Chair: Jonathan H. Berg

Graduate Faculty

Jonathan H. Berg, Distinguished Research Professor, Ph.D., University of Massachusetts
Colin J. Booth, professor, Ph.D., Pennsylvania State University
Phillip J. Carpenter, professor, Ph.D., New Mexico Institute of Mining and Technology
Mark P. Fischer, associate professor, Ph.D., Pennsylvania State University
Mark R. Frank, assistant professor, Ph.D., University of Maryland
B. Kathy Kitts, assistant professor, Ph.D., Washington University (St. Louis)
Melissa E. Lenczewski, assistant professor, Ph.D., University of Tennessee
Paul Loubere, Distinguished Research Professor, Ph.D., Oregon State University
Carla W. Montgomery, associate professor, Ph.D., Massachusetts Institute of Technology
Eugene C. Perry, Jr., professor, Ph.D., Massachusetts Institute of Technology
Ross D. Powell, Distinguished Research Professor, Ph.D., Ohio State University
Reed P. Scherer, associate professor, Ph.D., Ohio State University
Paul R. Stoddard, associate professor, Ph.D., Northwestern University
Jay A. Stravers, associate professor, Ph.D., University of Colorado
James A. Walker, assistant chair, professor, Ph.D., Rutgers University

The Department of Geology and Environmental Geosciences offers graduate programs leading to the M.S. and Ph.D. degrees.

Because the number of places in the graduate program in geology is limited, the graduate committee may wait to make admission decisions until the majority of applications for a given semester are complete. In the case of an applicant presenting superior credentials for admission, however, a decision may be made immediately upon receipt of the completed application.

Master of Science in Geology

The M.S. degree prepares one for professional work in geology or environmental geosciences, or for further work leading to a doctorate. It may also be valuable to teachers of earth science in secondary schools and community colleges. Teachers and prospective teachers, if not already certified, will be expected to obtain the necessary requisites for certification in Illinois.

Students are normally expected to meet the geology and environmental geosciences, chemistry, physics, and mathematics requirements for the B.S. in geology and environmental geosciences at NIU. However, students whose undergraduate major was in a science other than geology are encouraged to apply. Such students may be required to complete a core sequence of undergraduate geology and environmental geosciences courses in consultation with their adviser and the graduate committee.

Requirements

A minimum of 30 semester hours of graduate credit taken under either the thesis or non-thesis option is required. This will normally include at least 24 semester hours in geology and environmental geosciences.

With the approval of the department and the office of the dean of the Graduate School, a maximum combined total of 15 semester hours of graduate courses taken as a student-at-large at NIU, plus credit earned in NIU courses taught outside of the U.S., plus graduate credit for courses accepted in transfer from other accredited institutions, may be counted toward meeting the master's degree requirements.

In or prior to the first semester of course work, the student is required to participate in an oral interview with four faculty chosen by the departmental graduate committee. These interviews are to aid the adviser in the preparation of the program of courses for the student.

Thesis Option

At least 24 semester hours of graduate course work, excluding GEOL 599, plus a thesis which must be successfully defended as part of a comprehensive oral examination. Ordinarily, no more than 3 semester hours of independent study courses (GEOL 570 and/or GEOL 670) may be included in the minimum 24 non-thesis semester hours. Additional independent-study hours may be counted toward this total only with the approval of the departmental graduate committee. Each student is required to make a public presentation of the results of the thesis research through a departmental colloquium as well as a defense of the thesis.

Each M.S. candidate is required to meet with his or her thesis committee at least once each academic year, beginning in the student's second semester. This meeting is to evaluate the progress of the candidate in the thesis research and toward the degree. The committee's assessment will be shared with the candidate.

Non-Thesis Option

At least 30 semester hours. During the first semester in the program, a student must petition the department's graduate committee to obtain permission to pursue this option. The student is required to pass a written comprehensive examination in his or her final term.

Doctor of Philosophy in Geology

Any student who has earned a baccalaureate or master's degree in geology or environmental geosciences, biology, chemistry, engineering, geography, mathematics, physics, or soil science from an accredited college or university is eligible to apply for admission. Every candidate for the Ph.D. must complete the requirements specified below.

Course Requirements

Ph.D. students must normally complete a minimum of 90 semester hours as part of the degree program. In computing this total, a maximum of 30 semester hours may be included from the M.S. or equivalent program, provided they are consistent with the student's Ph.D. program objectives. At least 24 semester hours must be taken in approved courses in the student's field of study.

A maximum of 39 semester hours may be counted for Ph.D. dissertation research and writing (GEOL 699). The remaining hours must be selected from electives and an internship program, with the consent of the adviser.

With the approval of the department and the office of the dean of the Graduate School, a maximum combined total of 15 semester hours of graduate courses beyond the master's degree taken as a student-at-large at NIU, plus credit earned in NIU courses taught outside of the U.S., plus graduate credit for courses accepted in transfer from other accredited institutions, may be counted toward meeting doctoral degree requirements.

The complete doctoral program is arranged as follows.

1. Field of study	24-30	semester hours
2. Electives	21-30	semester hours
3. Internship	0-9	semester hours
4. Dissertation (GEOL 699)	30-39	semester hours
	90	semester hours minimum

The student should expect to take a significant portion of the elective course work in allied science departments, particularly chemistry, mathematics, and physics, as is appropriate to round out the doctoral program. Entering students with particularly sound preparation in geology and environmental geosciences may, with approval, substitute graduate courses in other departments for required geology and environmental geosciences courses. Conversely, non-majors entering the doctoral program will need to strengthen their background in fundamental geologic principles.

The student entering the Ph.D. program with a B.S. or B.A. degree who does not elect to undertake a master's thesis must take the non-thesis option M.S. examination in the semester in which he or she will have completed 30 semester hours of graduate study. The student must complete this examination satisfactorily in order to continue in the Ph.D. program.

Candidacy Examination

No later than the semester in which 30 semester hours of graduate study beyond the M.S. (or beyond satisfactory performance on the non-thesis M.S. examination–see above) are completed, but at least 8 months before the dissertation defense, the student must successfully complete a candidacy examination consisting of both written and oral portions. Details concerning this examination may be obtained from the Department of Geology and Environmental Geosciences.

Language Requirement

There is no general foreign language/research tool requirement for the Ph.D. degree in geology. Each doctoral student's adviser will identify any language/tool competencies to be required for that student and will decide when satisfactory competence has been achieved.

Internship

Before or during tenure in the Ph.D. program, the student must intern for a minimum period of one semester with industry, a public or private research organization, or a government agency. The internship position and arrangements must be approved by the department. The internship must be in a geoscience setting or organization and appropriate to the candidate's program. This requirement may be waived in special cases where a degree candidate has previous practical experience in the subject matter.

Dissertation

The student must complete an approved research project and prepare a dissertation. It must be a substantial contribution to knowledge, in which the student exhibits original scholarship and the ability to conduct independent research. An oral defense of the student's work and dissertation is required; this will be held before the university community and under the supervision of the student's doctoral committee, in accordance with Graduate School regulations.

Each doctoral candidate is required to make an oral presentation of research progress once each academic year to his or her dissertation director and to a dissertation progress committee chosen by the student and the dissertation director. The committee will evaluate the presentation and will inform the student in writing of its assessment of the progress of the research.

Each doctoral candidate is required to make at least one public presentation of his or her research results through a departmental colloquium.

Certificate of Graduate Study

Earth Science Education (18)

This certificate is designed for individuals wishing to attain graduate-level preparation in content and pedagogy for teaching earth science in middle and high schools. It is open to those concurrently pursuing an initial teaching certificate. Credit earned for the certificate may be applied toward the M.S. degree in geology with approval of the department.

EPS 501 - Psychological Foundations of Education (3)
  OR EPS 508 - Theories and Research in Adolescent Behavior and Development (3)
GEOL 429 - Inquiry-Based Field Experiences for Earth Science Teachers (3)
GEOL 495X - Teaching of Physical Sciences (3)
One of the following (3)
  EPFE 510 - Philosophical Foundations of Education (3)
  EPFE 511 - Philosophical Analysis of Current Educational Thought (3)
  EPFE 520 - Historical Foundations of Education (3)
  EPFE 521 - Historical Foundations of Education in the United States (3)
Additional course work in geoscience courses numbered 500 and above (6)

Teacher Certification

Students wishing to receive initial certification in general science (geology area) or physical science (geology area) to teach in grades 6-12 (Standard High School Certificate) must schedule an interview with the departmental certification coordinator to formulate a specific plan of study. Consulting the coordinator before registering for the initial term will facilitate expeditious completion of the program.

The specific plan of study for meeting certification or endorsement requirements must be approved by the departmental certification coordinator. Students must consult with the coordinator each semester before registering and are responsible for timely submission of the several required applications and permits.

Students who are also pursuing an advanced degree in geology should consult their academic adviser and the certification coordinator before registering for their first term at NIU. Students seeking teacher certification or endorsement without enrollment in the degree program should, prior to their first registration, consult the departmental certification coordinator.

Also see "Teacher Certification Information."

[1] Requirements listed in these sections are minimum requirements. Meeting these requirements will not guarantee students admission to the geology teacher certification program or courses.

Admission Requirements[1]

Application in writing to the departmental certification coordinator.

Minimum undergraduate GPA of 2.50 overall and 2.70 in courses in physical and biological sciences and mathematics.

Completion[2] of COMS 100, ENGL 103, ENGL 104, and MATH 155 with a grade of C or better (higher numbered courses may be substituted, if approved by the coordinator); ILAS 301; and 9 semester hours of NIU geology and environmental geosciences courses for graduate credit; and a passing score on the ICTS Basic Skills Test.

Satisfactory interview with the coordinator, in which the student demonstrates attitudes and motivations appropriate to the professional educator.

Retention[1]

GPA at NIU of 2.50 in undergraduate courses taken as a graduate student or student-at-large and 3.00 in graduate courses.

Satisfactory review of progress with the departmental certification coordinator each semester before registration for the following semester.

Appropriate progress each semester towards completion of a portfolio demonstrating competency in the State of Illinois required standards for initial teacher certification.

Passing score on the ICTS Content Area Test prior to student teaching.

For general science, prior to student teaching, completion of 8 semester hours of biological sciences, including at least 3 semester hours numbered 200 or above.

Endorsement Requirements[1,2]

To meet public school needs, students are required to qualify for endorsements to teach in another area. This may be done by

EITHER
completing 15 semester hours of course work in another area of physical science (e.g., chemistry and physics) and qualification for endorsement to teach in that area.
OR
completing course work sufficient to qualify for endorsement in a field other than a physical science (e.g., mathematics or biological sciences).

Completion Requirements

All retention and endorsement requirements listed above
One of the following (3-4)
- GEOL 105 - Environmental Geology (3)
- GEOL 120 - Introductory Geology (3)
- GEOL 120 - Introductory Geology (3), and GEOL 121, Introductory Geology Laboratory (1)

GEOL 320 - Environments and Life Through Time (4)
GEOL 325 - Solid Earth Composition (4)
GEOL 330 - Global Cycles (4)
GEOL 335 - Dynamics and Structure of the Earth (4)
GEOL 429 - Inquiry-Based Field Experiences for Earth Science Teachers (3)
GEOL 482 - Transition to the Professional Earth Science Teacher (1)
GEOL 487 - Student Teaching (Secondary) in Geology/Earth Science (7-12)
GEOL 495X - Teaching of Physical Sciences (3)
Course work in two areas selected from space science, atmospheric science, and oceanography (6)
Upper-division course work in earth science (6)

The State of Illinois has established course and standards-based requirements for certification. Approved certification programs must have requirements that meet or exceed the state requirements. A list of the current state minimum requirements is available from the Illinois State Board of Education web page. The department's certification program requirements are designed to prepare candidates both to meet state course requirements and to demonstrate that they meet state teaching standards.

Current requirements include the possession of an appropriate baccalaureate degree from an accredited institution, a minimum of 32 hours in the field, pre-student teaching clinical experiences at the 6-12 level or proof of teaching experience at the 6-12 level, student teaching or an approved teaching experience, passage of the basic skills and secondary certificate subject matter examinations of the Illinois Certification Testing System, and demonstration that the candidate has met science teaching standards.

Contact the certification coordinator for information on the necessary criteria that experiences must meet to demonstrate fulfillment of certification requirements.

Other Requirements

Students should consult with the departmental certification coordinator.

Course List

Students-at-large may enroll in graduate courses in geology and environmental geosciences only by consent of the department.

402. SEDIMENTOLOGY (3). Introduction to the study of sediments and sedimentary rocks: texture, structure, composition, and interpretation. Emphasis on depositional processes, sedimentary facies, and analysis of different environments and depositional systems. Procedures for sedimentary analysis. Lecture, two hours of laboratory, and field trips. PRQ: GEOL 320 and GEOL 330, or consent of department.

405. STRATIGRAPHY (3). Introduction to methods of stratigraphic data gathering and analysis. Construction of stratigraphic cross-sections and stratigraphic columns. Analysis of field data and virtual field trips to collect data and synthesize it. Overview of the stratigraphy of North America including development of the major stratigraphic patterns of the continent, models for their development, and sequences related to major natural resources. PRQ: GEOL 320 and GEOL 325, or consent of department.

410. STRUCTURAL AND DETERMINATIVE MINERALOGY (3). Crystal structures and the chemical and physical factors that govern them. Mineralogical techniques including X-ray, thermal, infra-red, and microprobe analyses are emphasized in the laboratory. PRQ: CHEM 211T, CHEM 213, and GEOL 325, or consent of department.

411. OPTICAL MINERALOGY (3). Principles of optics, optical properties of minerals, and the relationship between optical properties and crystallography; measurement of optical properties and mineral identification by the immersion method and in thin section. PRQ: GEOL 325 or consent of department.

412. PETROGRAPHY (3). Study of igneous and metamorphic rocks in both hand specimen and thin section. Detailed rock and mineral identification. Lectures, laboratory, and a field experience. PRQ: GEOL 325 or consent of department.

419. ELEMENTS OF GEOCHEMISTRY AND COSMOCHEMISTRY (3). Chemical principles applied to the study of mineral equilibria and to solving geologic problems, with emphasis on high-temperature (igneous and metamorphic) processes. Origin and abundances of the elements; aspects of the composition of the solar system and of the earth's interior. PRQ: CHEM 211T, CHEM 213, and GEOL 325, or consent of department.

420. GEOCHEMISTRY OF THE EARTH'S SURFACE (3). Natural chemical processes occurring at and near the earth's surface: carbonate equilibria, chemical weathering, oxidation-reduction reactions, and mineral stability relations. Introduction to geochemical cycles and the evolution of sedimentary rocks. PRQ: CHEM 211T and CHEM 213 and GEOL 325, or consent of department.

[1] Requirements listed in these sections are minimum requirements. Meeting these requirements will not guarantee students admission to the geology teacher certification program or courses.
[2] Some or all of these requirements may be met by prior course work.

421. ENVIRONMENTAL GEOCHEMISTRY (3). Exploration of topics in pollution geochemistry including hydrologic and geochemical framework; human-influenced distribution and circulation of metals, radioactive materials, and complex organic compounds; and governmental response to current pollution problems. PRQ: Any 100- or 200-level geology course, and CHEM 211T and CHEM 213, or consent of department.

425. ENGINEERING GEOLOGY (3). Utilization and characterization of earth materials for geotechnical and environmental engineering. Assessment of soils and rock quality, Atterberg limits, soil and rock mechanics, geotechnical testing, compaction theory, dewatering, slope stability, and seismic hazards. Case histories and problem solving. PRQ: GEOL 325, GEOL 335, MATH 230, and PHYS 210 or PHYS 253, or consent of department.

427. PLANETARY GEOSCIENCE (3). Origin, evolution, surfaces, and interiors of planetary bodies with emphasis on results from recent space probe missions. Includes topics such as planetary surface processes, structure and geodynamics of planetary interiors, geophysical exploration of planets, planetary remote sensing, engineering properties of planetary soils and rocks, water on Mars, and the search for extraterrestrial life. PRQ: Any 100-level GEOL class or consent of department.

429. INQUIRY-BASED FIELD EXPERIENCES FOR EARTH SCIENCE TEACHERS (3). Field and library survey of the salient geological features and landforms of northern Illinois and southern Wisconsin. Open only to certified teachers and students pursuing teacher certification. PRQ: Introductory course in physical and historical geology, and consent of department.

442. GEOMORPHOLOGY (3). *Crosslisted as GEOG 442X.* Systematic study of geologic processes affecting the evolution of the earth's surface. Emphasis on glacial, fluvial, and coastal processes and their relationship to the development of landforms under diverse climates of the past and present. Lecture, laboratory, and field trips. PRQ: GEOG 101 and GEOG 102, or GEOL 105, or GEOL 120, or GEOL 120A, or consent of department.

444. ECONOMIC GEOLOGY (3). Introduction to metallic and nonmetallic resources, including coal, petroleum, and groundwater. Investigation of ore-forming processes, including studies of ore minerals and suites. Economic, geopolitical, and geological factors related to resource development. Lectures, laboratory, and field trips. PRQ: GEOL 335 or consent of department.

447. QUANTITATIVE TECHNIQUES IN GEOLOGY (3). Survey of the methods and practices of quantifying, collecting, analyzing, and summarizing geologic data. PRQ: MATH 155, MATH 210, MATH 229, or consent of department.

458X. VERTEBRATE PALEONTOLOGY (3). *Crosslisted as BIOS 458*. Survey of the history of vertebrates, focusing on key evolutionary innovations such as the evolution of bone, the invasion of land, and the origin of endothermy. Examination of fossils and the interpretation of them in the context of their geological settings.

460. PLATE TECTONICS (3). History, fundamentals, and consequences of plate tectonic theory. Early ideas, including continental drift and sea-floor spreading. Using magnetics and seismicity to determine plate motions. Performing plate rotations. Study of driving forces, and interactions at plate boundaries. Competing ideas, such as the expanding Earth theory. PRQ: GEOL 335 or consent of department.

468. GEOMICROBIOLOGY (3). *Crosslisted as BIOS 468X*. Role of microorganisms in diverse environments at and below the surface of the earth. Topics include life in extreme environments, biodegradation and remediation, biogeochemical cycling, and astrobiology, examined from the perspectives of geochemistry, microbial ecology, molecular biology, and ecosystem studies. PRQ: GEOL 120 or BIOS 205T, or consent of department.

470. INVERTEBRATE PALEONTOLOGY (3). *Crosslisted as BIOS 469X.* Principal invertebrate fossil forms of the geologic record, treated from the standpoint of their evolution, and the identification of fossil specimens. Several field trips required. PRQ: Major in biological sciences or geology.

471. INTRODUCTION TO MICROPALEONTOLOGY (3). Morphology, classification, paleogeography, stratigraphic application, and geochemistry of calcareous, siliceous, and phosphatic microfossils. PRQ: BIOS 205 and GEOL 320, or consent of department.

477. FIELD METHODS IN ENVIRONMENTAL GEOSCIENCES (4). Field camp designed to train students in field methods and integrative problem solving related to environmental geosciences covering topics such as field methods in hydrogeology, surface-water and vadose-zone hydrology, water quality analysis, ecosystem health, environmental surface geophysics, site evaluation and techniques, and regional landscape history and environmental change. Offered during summer session only. PRQ: GEOL 325, GEOL 330, GEOL 335, and either GEOL 390 or GEOL 490, or consent of department.

480. THEORETICAL PETROLOGY (3). Origin of igneous and metamorphic rocks with emphasis on theoretical principles of phase equilibria, thermodynamics, kinetics, and elemental and isotopic evolution and partitioning. PRQ: GEOL 325 or consent of department.

481. SEDIMENTARY PETROLOGY (3). Emphasis on laboratory analysis of siliciclastic and carbonate rocks to determine depositional and diagenetic histories. Lectures and two-hour laboratory per week. PRQ: GEOL 325 and GEOL 330 or consent of department.

484X. USE OF TECHNOLOGY IN SECONDARY SCIENCE TEACHING (2). *Crosslisted as PHYS 494.* Selected methods for the evaluation and use of technology in both the instructional and laboratory setting in secondary science education. Topics may include the interfacing of computers for data acquisition in the laboratory, strategies for integrating the Internet into the curriculum, and use of video/multimedia equipment. PRQ: Consent of department.

485. VOLCANOLOGY (3). Examination of volcanoes, types of volcanic eruptions, magma sources and storage, lava flows, and pyroclastic deposits. PRQ: GEOL 325 or consent of department.

486X. SCIENCE TEACHING IN THE ELEMENTARY, MIDDLE, AND JUNIOR HIGH SCHOOL: GRADES K-9 (3). *Crosslisted as PHYS 492.* Selected instructional methods and materials for teaching science in elementary, middle, and junior high schools with emphasis on the physical sciences. Analysis of modern curricula and practice in the use of associated laboratory materials developed for use at all levels from grades K-9. Designed for the classroom teacher and pre-teacher, but open to science supervisors and administrators. PRQ: A general physical science course or equivalent and consent of department.

488. ENVIRONMENTAL CHANGE (3). Examination of the physical, chemical, and biological processes that cause environments to change naturally or under the influence of human activities. Environments at several different size scales will be considered, from small water-sheds/ forests, to larger lake systems, to the global atmospheric-ocean system. Emphasis on the roles of positive and negative feedback in controlling the state of environments and their susceptibility to change. PRQ: Any 100- or 200-level BIOS, GEOG, GEOL course; CHEM 210T and CHEM 212; and MATH 229 or MATH 210; or consent of department.

490. HYDROGEOLOGY (3). Comprehensive introduction to hydrogeology; groundwater occurrence, physics of flow, aquifer characteristics, basic groundwater chemistry, aspects of groundwater contamination, resources, and environmental hydrogeology. PRQ: Any 100- or 200-level geology course and MATH 211 or MATH 229, or consent of department.

491. GEOPHYSICAL WELL LOGGING (3). Qualitative and quantitative interpretation of electric, sonic, radioactive, and other well logs. Physical and electrical properties of saturated rock and soil applied to petroleum, mining, and groundwater exploration. PRQ: GEOL 496 or consent of department.

492X. HYDROLOGY (3). *Crosslisted as GEOG 492.* Quantitative examination of the properties, occurrence, distribution, and circulation of water near the earth's surface and its relation to the environment. Emphasis on applying fundamental physical principles to understand surface and subsurface hydrological processes. Lecture, laboratory, and field trip. PRQ: GEOG 101 and GEOG 102, or GEOL 120; MATH 210 or MATH 229; and PHYS 150 or PHYS 250; and consent of department.

493. GROUNDWATER GEOPHYSICS (3). Survey of geophysical methods commonly employed in groundwater investigations. Applications of geophysics to groundwater exploration, contaminant migration, and aquifer evaluation as well as the theoretical basis for surface and borehole geophysical measurements. Case histories illustrate field procedures and interpretation methods. PRQ: GEOL 490, MATH 230, and PHYS 251A, or consent of department.

495X. TEACHING OF PHYSICAL SCIENCES (3). *Crosslisted as PHYS 495*. Preparation for certification in grades 6-12 in one or more of the fields of physical science: physics, chemistry, earth science, and general science. Examination and analysis of modern curricula: classroom and laboratory organization: microteaching and observation of teaching; lesson planning; multicultural education; teaching science to the exceptional child; reading and the teaching of science; methods of evaluation. PRQ: Consent of department. CRQ: ILAS 401 or consent of department.

496. GEOPHYSICS (3). Intended for majors in all areas of geology. An introduction to the basic principles of geophysical techniques applicable to the solution of geological and environmental problems that range in scale from local to global. PRQ: MATH 211 or MATH 229 and PHYS 210 or PHYS 253, or consent of department.

497. REGIONAL FIELD GEOLOGY (1 to 3). Extended field trips to regions of broad geologic interest. Emphasis on understanding the region as a whole, as well as its relationships to adjacent areas. May be repeated to a maximum of 3 semester hours. PRQ: Consent of department.

500. CLAY MINERALOGY (3). Study of structure, properties, and origin of clay minerals and the mineralogy, sedimentation, diagenesis, and physical properties of argillaceous sediments. PRQ: GEOL 410 or consent of department.

501. PHYSICAL SEDIMENTOLOGY (3). Overview of major physical processes producing mechanically formed features of detrital sediments. Emphasis on texture and structures of sediments and how they originate. PRQ: GEOL 481 or consent of department.

502. GEOLOGICAL REMOTE SENSING (3). Theoretical principles, instrumentation, software, and systems applications used in geological remote sensing analysis. Elements of photogeology, processing of multi-and single-band digital imagery, and merged raster-vector data analysis. Data types include aerial photographs, multispectral imagery, and high resolution digital imagery. Applications focus on resource exploration, logistics, and environmental analysis as well as geological interpretations. Lectures and laboratory. PRQ: GEOL 325 and PHYS 251 or PHYS 251A; or ELE 454; or consent of department.

504. INSTITUTE FOR SCIENCE TEACHERS (1 to 8). Lectures, demonstrations, laboratory experiences, and field trips designed for the classroom teacher. Topics drawn from the spectrum of geological activities that affect society. May be repeated to a maximum of 16 semester hours. On application to institute director and by invitation only. S/U grading.

506. PETROLEUM GEOLOGY (3). Study of the origin and occurrence of oil and natural gas as well as surface and subsurface applications to their exploration and development. Two lectures, one two-hour laboratory.

520. GEOCHEMISTRY OF LOW-TEMPERATURE AQUEOUS SYSTEMS (3). Review of thermodynamics. Carbonate equilibria. The H-O-S system at 25 degrees Celsius. Residence times of important ions in surface aqueous systems. Natural isotope tracers. PRQ: GEOL 420 or consent of department.

524. STABLE ISOTOPE GEOLOGY (3). Isotope fractionation in natural systems containing D/H, carbon, oxygen, and sulfur. Application of stable isotope studies to paleoclimatology and geothermometry. Stable isotopes as tracers in crust-mantle differentiation processes and in hydrologic processes. Two hours of lecture and one laboratory session per week. PRQ: GEOL 325 or consent of department.

525. RADIOACTIVE ISOTOPE GEOLOGY (3). Radioactive decay schemes useful for determining ages of rocks and minerals and investigating the histories of the earth, moon, and meteorites. Use of isotopes as tracers in the study of geologic processes, such as magmatic and metamorphic processes and the evolution of earth's crust and mantle. PRQ: GEOL 325 or consent of department.

530. GROUNDWATER MODELING (3). Mathematical and numerical modeling of groundwater flow, with emphasis on finite-difference modeling. PRQ: GEOL 490 and calculus, or consent of department.

532. ADVANCED GROUNDWATER HYDROLOGY (3). Quantitative examination of groundwater physical hydrology in porous and fractured media, including hydraulic tests (pumping, slug, packer), groundwater flow and permeability characteristics, saline-freshwater relations, and application to practical problems. PRQ: GEOL 490 or consent of department.

535. GROUNDWATER GEOLOGY (3). Examination of the geologic controls of groundwater occurrence and movement, hydrogeology of different geologic terrains, and hydrogeology of Illinois. PRQ: GEOL 490 or consent of department.

537. CONTAMINANT HYDROGEOLOGY (3). Sources and types of groundwater contamination; contaminant transport processes and modeling; monitoring, sampling, and assessment; chemical reactions and attenuation processes of organic and inorganic contaminants; remediation. PRQ: GEOL 420 or GEOL 421, and GEOL 490, or consent of department.

544. GLACIAL GEOLOGY (3). Physical properties of ice and the fundamentals of glacier and ice sheet dynamics as they relate to processes of glacier erosion, sediment transport, and deposition. Glacial isostasy of continental interiors and margins, global sea level changes, and late Cenozoic climate cycles. PRQ: GEOL 442 or consent of department.

547. QUATERNARY STRATIGRAPHY (3). Systematic study of glacigenic processes responsible for the formation of complex glacial drift sequences in the mid-continent. Stratigraphic and geochronological methods. Pedological, geotechnical, and hydrogeological properties of unconsolidated deposits examined in regard to environmental properties. PRQ: GEOL 442 or GEOL 544, or consent of department.

548. STRATIGRAPHY (3). Systematic study of selected aspects of the North American stratigraphic record with emphasis on broad sedimentary patterns and tectonic development.

549. ADVANCED STRUCTURAL GEOLOGY (3). Origin and the mechanics involved in the formation of various structural features occurring in nature. PRQ: GEOL 335 or consent of department.

550. APPLIED GEOPHYSICS: GRAVITY AND MAGNETIC FIELDS (3). Theory and application of gravity and magnetic techniques to investigations of the earth's structure and its physical properties. PRQ: PHYS 251A and MATH 232 or MATH 336, or consent of department.

551. APPLIED GEOPHYSICS: SEISMIC AND ELECTRICAL (3). Theory and application of seismological and electrical techniques to investigations of the earth's structure and its physical properties. PRQ: PHYS 251A and MATH 232, or consent of department.

552. PETROLOGY OF CLASTIC SEDIMENTS AND ROCKS (3). Origin of terrigenous clastic sediments and their occurrence in modern environments. Texture, composition, and sedimentary structures of sediments and rocks by megascopic and microscopic methods, including thin sections, emphasized in the laboratory. PRQ: GEOL 411 or consent of department.

553. PETROLOGY OF PRECIPITATED SEDIMENTS AND ROCKS (3). Biogenic and inorganically precipitated modern sediments and their ancient rock analogs: origins, environments, mineralogy, textures, and methods of study, including thin sections. Lectures and laboratory. PRQ: GEOL 411 or consent of department.

554. GEOPHYSICAL FIELD METHODS (3). Application of geophysical laboratory and field instrumentation and techniques to the investigation of geological problems. CRQ: GEOL 496 or consent of department.

555. ADVANCED GEOPHYSICS (3). Regional geophysical measurements and properties of earth's interior and their implications for geodynamics. PRQ: GEOL 550 or GEOL 551, or consent of department.

558. POTENTIAL THEORY (3). Development of potential theory with application to geophysics. Problem of the nonuniqueness and limits of theoretical approximations. PRQ: GEOL 496 and MATH 232, or consent of department.

560. GEOPHYSICAL TIME SERIES ANALYSIS (3). Analysis of time series with emphasis on applications of spectral techniques and linear filtering in the earth sciences. Properties of continuous and discrete Fourier transforms; sampling, design, and use of linear filters; stochastic processes; spectral and cross-spectral density; and fast Fourier transforms. Applications to geophysics, hydrology, and meteorology. PRQ: MATH 232 and CSCI 230, or consent of department.

565. EARTHQUAKE SEISMOLOGY (3). Development of 1-, 2-, and 3- dimensional wave theory. Effects of rheology on seismic wave propagation. Constitutive relations. Body waves and surface waves. Focal mechanisms, body wave modeling, and source parameters. Inverse problems including earthquake location and seismic tomography. PRQ: MATH 240 or consent of department.

570. SPECIAL PROBLEMS IN EARTH SCIENCES (1 to 3). Independent study under supervision of an adviser. May be repeated to a maximum of 9 semester hours.

575. IGNEOUS PETROLOGY (3). Study of igneous rocks in the earth's crust and mantle, emphasizing phase equilibria, kinetics, and geochemistry. PRQ: GEOL 480 or consent of department.

580. METAMORPHIC PETROLOGY (3). Study of chemical and petrological principles and processes relevant to metamorphic rocks. Evaluation of metamorphic environment and the controlling factors of metamorphism. PRQ: GEOL 480 or consent of department.

590. SILICEOUS MICROPALEONTOLOGY (3). In-depth discussion of siliceous microfossils, their geologic occurrence, and their application to the problems of earth sciences, emphasizing current research advancement. PRQ: GEOL 470 and GEOL 471, or consent of department.

591. ADVANCED PALEONTOLOGY (3). Biostratigraphy and paleoecology of various fossil groups, and use of fossils to solve stratigraphic, structural, mapping, and paleo-oceanic problems. PRQ: GEOL 471 or consent of department.

599. MASTER'S THESIS (1 to 6). May be repeated to a maximum of 6 semester hours.

610. GEODYNAMICS (3). Rigorous examination of the processes associated with plate tectonics. Development of the concepts of stress, strain, elasticity, and flexure, and their application to the earth's lithosphere. Analysis of heat flow within the earth, including conduction and convection. Introduction to fluid mechanics as it pertains to the driving forces of plate motions. Effects of crustal and mantle rheology on plate motions and convection. Gravity and seismology as tools for understanding plate tectonics. PRQ: MATH 334 or consent of department.

620. DEPARTMENTAL SEMINAR (1). Weekly talks by graduate students, staff, and guests. Required each semester of all graduate students. Enrollment may be waived by the department chair when student's circumstances preclude attendance. Credit earned in GEOL 620 may not be applied to semester-hour requirements for graduate degrees in the department. May be repeated to a maximum of 20 semester hours. S/U grading. PRQ: Consent of department.

625. WATER RESOURCE GEOCHEMISTRY (3). Chemical composition of water in surface and subsurface aquifers. Equilibrium and disequilibrium chemical reactions occurring in aquifers. Relation between health, disease, and the geochemistry of drinking water. PRQ: GEOL 520 or consent of department.

630. ADVANCED GEOCHEMISTRY (3). Current and classic readings on topics such as nucleosynthesis, evolution of the earth, composition of the earth's interior, petrogenesis, and development of the atmosphere and ocean. PRQ: GEOL 419, and GEOL 524 or GEOL 525, or consent of department.

635. SOIL MECHANICS (3). Mechanical behavior of soils (unconsolidated earth materials) and use in geotechnical and environmental engineering. Engineering classification of soils, Atterberg limits, field and laboratory testing methods, consolidation and compaction, foundation performance, liquefaction, piping, slope stability, seismic response, and importance of soil mechanics in solid waste disposal. Case histories and problem solving. PRQ: GEOL 325, MATH 230, PHYS 250, or PHYS 250A, or consent of department.

645. GROUND VIBRATIONS AND INSTRUMENTATION (3). Application of the theory of periodic motion to the design of geophysical instruments, particularly the seismograph and gravimeter, and to the understanding of seismic wave propagation within the earth. PRQ: GEOL 551 or consent of department.

646. GEOLOGY AND ENVIRONMENTAL GEOSCIENCES SEMINAR (1 to 9).
A. Mineralogy
B. Petrology
C. Stratigraphy and Sedimentation
D. Remote Sensing
E. Geomorphology
J. Quaternary Stratigraphy
M. Structural Geology
Q. Hydrogeology
V. Precambrian Geology
W. Tectonics
Y. Micropaleontology
May be repeated. One to 9 semester hours may be earned in each subdivision.

647. GEOCHEMISTRY SEMINAR (1 to 9).
A. General Geochemistry
B. Isotope Geochemistry
C. Environmental Geochemistry
May be repeated. One to 9 semester hours may be earned in each subdivision.

648. GEOPHYSICS SEMINAR (1 to 9).
A. General Geophysics
D. Environmental Geophysics
E. Remote Sensing
J. Engineering Geology
May be repeated. One to 9 semester hours may be earned in each subdivision.

650. INTERPRETATION METHODS IN POTENTIAL FIELDS (3). Application of various interpretation methods to the solution of geophysical problems using gravity and magnetic data. PRQ: GEOL 550 and working knowledge of FORTRAN, or consent of department.

651. REFLECTION SEISMOLOGY (3). Principles and applications of seismic reflection interpretation techniques used in oil, gas, groundwater exploration, and deep crustal imaging. PRQ: GEOL 493 or GEOL 496 and a working knowledge of FORTRAN, or consent of department.

670. INDEPENDENT RESEARCH IN GEOLOGY (1 to 3). Individual investigation of special problems in the field of geology under supervision of one or more staff members. May be repeated to a maximum of 6 semester hours. PRQ: 22 semester hours of graduate work in the earth sciences, or consent of department.

680. BASIN ANALYSIS (3). Investigation of sedimentary and biological processes and engineering on continental margins and intracratonic basins. Ancient basin analysis from modern analogues. PRQ: Consent of department.

690. GEOLOGIC PROBLEMS OF THE MIDWEST (3). The nature of geologic problems in midwestern urban and rural environments, including water supply, stream and groundwater pollution, chemical and human waste disposal, and the utilization of and construction in earth materials.

695. APPLIED GEOSCIENCE INTERNSHIP (1 to 9). At least one semester in duration, during which the student performs the functions of a geoscientist under the direct supervision of qualified personnel approved by the department. May be repeated to a maximum of 9 semester hours.

699. DOCTORAL RESEARCH AND DISSERTATION (credit arranged). May be repeated to a maximum of 39 semester hours.

Department of History (HIST)

Chair: Kenton Clymer

Graduate Faculty

Anita M. Andrew, associate professor, Ph.D., University of Minnesota
E. Taylor Atkins, associate professor, Ph.D., University of Illinois
Jerome D. Bowers II, assistant professor, Ph.D., Indiana University
Rachel H. Cleves, assistant professor, Ph.D., University of California, Berkeley
Kenton Clymer, professor, Ph.D., University of Michigan
Sundiata Djata, associate professor, Ph.D., University of Illinois
Sean Farrell, assistant professor, Ph.D., University of Wisconsin
Heide Fehrenbach, professor, Ph.D., Rutgers University
Rosemary Feurer, associate professor, Ph.D., Washington University
Aaron S. Fogleman, professor, Ph.D., University of Michigan
Valerie L. Garver, assistant professor, Ph.D., University of Virginia
Glen A. Gildemeister, assistant professor, Ph.D., Northern Illinois University
Michael J. Gonzales, Presidential Research Professor, Ph.D., University of California at Berkeley
Anne G. Hanley, associate professor, Ph.D., Stanford University
Jason Hawke, assistant professor, Ph.D., University of Washington
Beatrix Hoffman, associate professor, Ph.D., Rutgers University
Eric Jones, assistant professor, Ph.D., University of California at Berkeley
David E. Kyvig, Distinguished Research Professor, Ph.D., Northwestern University
Vera Lind, associate professor, D.Phil., Christian-Albrechts-Universität Kiel
Eric W. Mogren, associate professor, Ph.D., University of Michigan
Barbara M. Posadas, professor, Ph.D., Northwestern University
Brian Sandberg, assistant professor, Ph.D., University of Illinois
James D. Schmidt, associate professor, Ph.D., Rice University
J. Harvey Smith, associate professor, Ph.D., University of Wisconsin
Nancy Wingfield, associate professor, Ph.D., Columbia University
Christine D. Worobec, Presidential Research Professor, Ph.D., University of Toronto

The Department of History offers programs leading to the M.A. and Ph.D. degrees. The department views historical study not only as a scholarly analysis of the past but also as a means of providing sophisticated learning that will be of practical significance to society and the individual. Traditionally graduate work in history, especially at the doctoral level, has led into the world of scholarship and teaching, but it has also led to many other successful careers in the private and public sectors. Historical training provides recognized skills in administration, management, research, writing, policy analysis, consulting, and editing; and trained historians have been successful in fields ranging from business, education, journalism, and law to government, publishing, and archival or museum work. Graduate study in history also is appropriate for individuals seeking self-fulfillment or a better understanding of the human experience and predicament.

Graduate courses in history are principally of three types: advanced lecture-discussion courses, reading seminars designed to acquaint the student with the literature and problems of a selected field, and research seminars in which intensive research on a particular historical topic provides experience in historical methodology and in the use of primary and secondary source materials.

Admission

Admission to the M.A. program in history is based upon consideration of the following factors: general undergraduate GPA; preparation and GPA in undergraduate history courses; scores on the GRE, especially on the verbal and analytical sections of the General Test; letters of recommendation; special requirements in the applicant's proposed field of study; a brief essay submitted by the applicant; and, where appropriate, proficiency in foreign language(s) or quantitative methods.

The department endeavors to review application data in a comprehensive manner and to avoid mechanical judgments. It prefers, however, that applicants have a general GPA of 3.00 or higher in the last two years of undergraduate work, a GPA of 3.25 or higher in all undergraduate history courses, and GRE verbal and analytical scores in the 60th percentile or higher. The GRE Subject Test in history is not required. Applicants need not have an undergraduate major in history, but those with fewer than 18 semester hours of undergraduate history courses may be required to enroll in one or more undergraduate courses on a deficiency basis. Applicants to the M.A. program in history are accepted twice a year for fall and spring admission (see website www.niu.edu/historygrad for deadlines). Applicants are typically notified of an admission decision within six weeks of receipt of all required application materials.

Applicants for admission to the doctoral program are expected to have established an outstanding record at the master's level and to have demonstrated a capacity for effective research and writing. Admission to the Ph.D. program requires at least average proficiency in one approved foreign language or in quantitative methods. Applications to the Ph.D. program in history are accepted once a year for fall admission only (see website www.niu.edu/historygrad for deadline). Applicants are typically notified of an admission decision within two months of receipt of all required application materials.

A student who has enrolled as a student-at-large before being admitted to the history program may, with department permission, count up to 15 semester hours of graduate course work taken at NIU towards his or her M.A. and/or Ph.D. degree provided the courses fit his or her program. The director of graduate studies may, upon good cause being demonstrated, allow additional student-at-large hours to be counted towards an M.A. or Ph.D. degree.

Advising

At the time of admission to a degree program, a student will be assigned a departmental adviser who will be responsible for implementing department and Graduate School regulations. As early as practical the student should initiate the selection of a field adviser from among the faculty. M.A. students should have at least one such adviser, and Ph.D. students should normally have two. The field advisers are primarily responsible for assisting students in planning a program of study, selecting appropriate courses, outlining problems unique to a particular field, and determining appropriate areas of research. Departmental requirements are detailed in the departmental booklet, *Handbook for History Graduate Students.*

Master of Arts in History

Students pursuing the M.A. degree in history must satisfactorily complete 30 semester hours of approved credits. A minimum of 24 semester hours must normally be in history courses. The balance may be in history courses or in courses in an approved cognate field or fields. The 30 semester hours required for the M.A. must include a minimum of 18 semester hours in a primary field (of which a minimum of 9 semester hours must be in research credits) and a minimum of 6 semester hours in a secondary field. Within the total of 30 semester hours the student must present a minimum of 9 semester hours in reading seminars. The primary and secondary fields offered in the M.A. program are Asian, ancient, medieval, early modern, modern European (including British), Russian and Eastern European, Latin American, United States, and global history. The secondary field may instead be an approved cognate field outside of history.

Various means are available for M.A. students to fulfill the 9 semester hours research requirement of the M.A. degree, but all students must satisfactorily complete at least one formal research seminar. The balance of the credits required may be fulfilled through additional research seminars, completion of a thesis, or independent research. The method selected by the student to fulfill the research requirement must be approved by the department. M.A. students who intend to apply for admission to the Ph.D. program will be expected to submit their M.A. research paper(s) or thesis for review by faculty responsible for approving admission into the Ph.D. program.

All M.A. students, except those majoring in United States or British history who are not planning to continue in the Ph.D. program, must demonstrate at least average proficiency in an approved foreign language or, if appropriate, in quantitative methods. Average proficiency in an approved foreign language can be demonstrated through a translation examination or, in selected languages, through successful completion of one of the special summer courses offered by the Department of Foreign Languages and Literatures. Average proficiency in quantitative methods can be demonstrated by achieving a grade of C or better in an approved course in statistics (STAT 208 or STAT 301) and a grade of B or better in HIST 501.

Students in the M.A. program must satisfactorily complete a written comprehensive examination in their primary field. At the discretion of either the examining committee or the student, the written M.A. comprehensive may be followed by an oral examination about one week after the evaluation of the written examination. There is no examination in the student's secondary field, but students must achieve a grade of B or better in at least 6 semester hours of course work in that field.

If the student receives a recommendation from the comprehensive examining committee for admission to the Ph.D. program and otherwise makes application and qualifies for such admission, the M.A. comprehensive examination will serve as the Ph.D. qualifying examination.

Concentration in Public History

The M.A. with a concentration in public history has been designed to meet the needs of those students seeking special educational preparation for careers in public and private historical agencies, archives, museums and historical societies, and research and consulting firms.

Students pursuing the M.A. concentration in public history must satisfactorily complete 36 semester hours of approved credits. A minimum of 24 semester hours in history courses must be completed to meet the normal requirements for the traditional M.A. degree described above. A secondary field is not required.

The remaining 12 semester hours required for this concentration normally must be distributed as follows.

Course Requirements (12)

ART 465 - Introduction to Museum Studies (3),
  OR HIST 492 - Principles of Public History (3)
HIST 500 - Internship in Public History (3 to 6)
Electives (3 to 6)
  Recommended Electives
    ANTH 462 - Museum Methods (3)
    ART 554 - Museum Administration (3)
    ART 555 - Curatorial Practice (3)
    ART 556 - Museum Exhibitions and Interpretation (3)
    ART 557 - Museum Education (3)
    HIST 497 - Oral History (3)
  Other Available Electives
    ARTH 493 - History of Architecture III: From 1900 (3)
    ARTH 496A - History of Decorative Arts: Furniture (3)
    ARTH 496B - History of Decorative Arts: Minor Arts and Crafts (3)
    ARTH 498 - History of Architecture II: 1400-1900 (3)
    ARTH 596 - Studies in American Art (3)
    COMS 450X - Instructional Video I (3)
    COMS 457 - The Documentary Tradition (3)
    COMS 559X - Instructional Television II (3)

Comprehensive Examination

Students in the M.A. degree program taking the concentration in public history must satisfactorily complete a written comprehensive examination in a traditional primary field area and an internship-related report, project, or research paper.

Doctor of Philosophy in History

The doctoral program in history at NIU is designed to prepare students for the twin vocations of research and teaching. Accordingly, it is awarded only to those who have demonstrated that they have completed rigorous preparation for both of the components of the degree and that through their doctoral dissertation they have made a genuine contribution to scholarship.

The doctorate is offered with course work in a broad range of areas including the history of the United States, East and Southeast Asia, Western Europe, Eastern Europe and Russia, and of Latin America. Each of these areas, in turn, can be explored under a number of different subheadings (including politics, intellectual life, society, economy, culture, gender, and ethnicity) and through a variety of methodologies.

Admission

Admission to the Ph.D. program is subject to the approval of the departmental Graduate Committee. Applicants must already possess a master's degree or equivalent in an appropriate subject and will be judged on the basis of their master's thesis or research paper, their performance in course work at the master's level, their GRE General Test scores (especially verbal and analytical), and the recommendations of faculty with whom they have worked. The committee always takes into consideration the availability of appropriate faculty in the probable area of the applicant's dissertation.

Semester-Hour Requirements

Students in the Ph.D. program in history must complete a minimum of 90 semester hours beyond the baccalaureate as part of the degree program. Approved course work from the master's or equivalent may be counted, but all Ph.D. students must satisfactorily complete an additional 6 semester hours of research beyond those required for the master's degree. A maximum of 36 semester hours may be counted for HIST 699, Doctoral Research and Dissertation

Language/Research-Skills Requirement

To be admitted to candidacy, Ph.D. students must demonstrate average proficiency in two foreign languages or in one foreign language and in quantitative methods, or high proficiency in one foreign language. In some areas, however, the department may find it appropriate to set higher requirements than this minimum. The means for demonstrating proficiency in the use of a foreign language or languages and/or quantitative methods are set by Graduate School policy, but regardless of how the proficiency requirements are met, they should be fulfilled in their entirety no later than the fifth semester after a full-time student has entered the doctoral program.

Examinations

Qualifying Examination

Students with a master's degree in history from NIU who enter the Ph.D. program may be required to pass an oral qualifying examination on the recommendation of their master's comprehensive examination committee. All Ph.D. students with a master's degree from another university, as well as NIU students who received their master's degree in a discipline other than history, are ordinarily required to pass an oral qualifying examination before the end of their first semester in the Ph.D. program. However, the qualifying examination requirement may be waived by the director of graduate studies after taking into consideration the student's previous academic record, his or her performance in the first semester of doctoral work, and the recommendation of his or her adviser.

Candidacy Examination

Ph.D. students must pass written and oral candidacy examinations. The exact character of each field will be determined on an individual basis, but a provisional list of fields and examiners must be submitted to the Graduate Committee for its approval no later than the beginning of the student's second year of full-time Ph.D. study; any subsequent change in examiners or fields must also be approved by the committee. One of the examination fields may be designated as a teaching field in which the student must demonstrate the capacity to teach a survey or upper-division course outside the field of the prospective dissertation.

Students may take each of the five written field examinations whenever they and the examiner agree that the student is adequately prepared. When all five written examinations have been completed, there will be an oral examination, which should normally be taken no later than the fifth semester after a full-time student has entered the doctoral program. At the conclusion of the oral examination the examination committee will decide whether the student has passed the candidacy examination as a whole.

A student who fails a written Ph.D. candidacy field examination will normally be permitted to take the examination a second time after the lapse of an appropriate time interval. A second failure will ordinarily be final and result in termination of the student from the Ph.D. program in history. There are a limited number of circumstances in which a student who has failed a field examination twice may substitute a different field. Under no circumstances, however, will any student who has failed two different field examinations be allowed to continue in the doctoral program.

Doctoral Dissertation

In order for the department to recommend students to the Graduate School for doctoral candidacy in history they must have completed a minimum of 54 semester hours of graduate course work, including any course work from the master's degree counted towards the doctoral requirements. These 54 semester hours should also include the required 6 semester hours of doctoral research. In addition, students admitted to candidacy must have passed their candidacy oral examination and fulfilled the language/research skills requirement. An acceptable dissertation proposal must also be submitted to a three-person dissertation-approval committee no later than the end of the semester following the one in which the oral candidacy examination was successfully completed.

The Department of History cannot guarantee a doctoral student a director and cannot necessarily supply the expertise for any topic a student may choose, even a viable one. Rather, it is the responsibility of the student to find a topic which is workable within the resources available in the department and to demonstrate that he or she has the talents to complete it.

Not more than three years after a doctoral candidate's dissertation topic has been approved, he or she must present a public colloquium on the dissertation-in-progress. This colloquium will be evaluated by a faculty committee and must be found satisfactory before the candidate may continue his or her progress towards completion of the doctoral degree requirements. Any student who fails to meet this colloquium requirement will be put on written notice of the deficiency and, if after an additional year the requirement remains unmet, admission to the doctoral program will be terminated. Candidates who are terminated because of this provision may petition the departmental Graduate Committee for reinstatement by submitting an acceptable plan for meeting the colloquium requirement.

When a Ph.D. candidate's dissertation topic and dissertation director have been approved, the candidate and the dissertation director will identify the appropriate faculty to serve on the candidate's dissertation committee. The oral defense of the dissertation will be scheduled when the dissertation has been substantially approved by the director and at least two other members of the committee. Prior to the defense, the dissertation should have been read in a defensible version by all members of the committee and one copy of this version of the dissertation must have been submitted to the Graduate School. The committee to conduct the defense will consist of four or five voting faculty members and will be chaired by the dissertation director. One member must be from an academic department outside the Department of History.

All doctoral students in history must complete and successfully defend their dissertations within six years of admission to candidacy. Failure to meet this requirement will result in the candidate's admission to the doctoral program being terminated. Candidates whose admission to the program is terminated for this reason may petition the departmental Graduate Committee for reinstatement by submitting an acceptable plan for completing the dissertation and by identifying an appropriate dissertation committee, which need not be identical to the original committee but which must meet the same conditions.

Foreign Study in History

The Department of History encourages students to take advantage of study-abroad programs, which provide students of history and allied disciplines an opportunity to study at first hand the historical developments and traditions of other peoples and their cultures. Courses carry either undergraduate or graduate credit. Interested students should first consult the Division of International Programs for relevant details of forthcoming offerings and then contact the director of graduate studies in history and appropriate departmental faculty about including study-abroad courses in their NIU program. For further information see "International Programs."

Course List

General

492. PRINCIPLES OF PUBLIC HISTORY (3). Introduction to the practical application of historical knowledge in such areas as historic preservation, manuscript and archival management, editing, genealogy and family history, oral history, and museum work. PRQ: Consent of department.

496. HISTORY AND SOCIAL SCIENCE INSTRUCTION IN GRADES 6-12 (3). *Crosslisted as ANTH 496X, ECON 496X, GEOG 496X, POLS 496X, PSYC 496X, and SOCI 496X.* Organization and presentation of materials for history and social science courses at the middle school, junior high, and senior high school levels. PRQ: Admission to the history or social science teacher certification program and permission of Department of History's office of teacher certification.

497. ORAL HISTORY (3). Introduction to the theory and practice of interviewing as a way of creating, documenting, and interpreting historical evidence. Attention given to the systematic analysis and practice of editing, indexing, recording, preserving, and transcribing tapes and to the application of oral history to historical research and writing.

498. SPECIAL TOPICS IN HISTORY (3).
A. Ancient
B. Medieval
C. Early Modern European (including British)
D. Modern European (including British)
E. Russian and Eastern European
G. African
J. Asian
M. United States
N. Latin American
R. General/Comparative
U. Global
Selected themes or problems. Topics announced. Each lettered topic may be repeated to a maximum of 9 semester hours when subject varies; however, a maximum of 9 additional semester hours of HIST 498 may be counted toward the M.A. program in history, and a maximum of 9 additional semester hours may be counted toward the Ph.D. program in history.

500. INTERNSHIP IN PUBLIC HISTORY (3 to 6). Work experience in history-related institutions, such as archives, museums, and historical societies and sites, and editing projects. Students present reports on their activities and participate in seminars and colloquia led by specialists in the field. May be repeated to a maximum of 15 semester hours, but no more than 6 semester hours may apply to the master's degree. PRQ: Consent of department.

501. QUANTITATIVE METHODS FOR HISTORICAL SOCIAL ANALYSIS (3). Introduction to the concepts, methods, and techniques involved in the quantitative-behavioral analysis of societal development, including the potentialities and the limitations of data processing and computerized statistical analysis for historians. PRQ: STAT 208 or STAT 301, or consent of department.

590. READING SEMINAR IN GENERAL/COMPARATIVE HISTORY (3). Intensive reading and discussion in historical topics that combine or fall outside of conventional subject fields. Topics announced. Certain topics may be counted toward a student's primary or secondary field requirement with permission of the director of graduate studies. May be repeated to a maximum of 12 semester hours when topic varies. PRQ: Consent of department.

595. SEMINAR IN COLLEGE TEACHING OF HISTORY (1). Introduction to the teaching of history at the college level through a weekly seminar for beginning history graduate assistants, students entering the Ph.D. program, and any other students planning careers as professional historians. Discussion of professional preparation for entry into academic careers as well as alternatives to such careers. S/U grading.

599. MASTER'S THESIS (1 to 6). Open only to students engaged in writing a thesis for the M.A. program. May be repeated to a maximum of 6 semester hours. PRQ: Consent of graduate adviser in history.

636. INDEPENDENT STUDY (1 to 3).
A. Ancient
B. Medieval
C. Early Modern European
D. Modern European
E. Russian and Eastern European
G. African
J. Asian
M. United States
N. Latin American
R. General/Comparative
U. Global
Open to qualified students in accordance with department guidelines. Consent of the faculty member with whom the student wishes to study is necessary. Each topic may be repeated to a maximum of 15 semester hours. PRQ: Consent of graduate adviser in history.

656. DIRECTED RESEARCH (3 to 6).
A. Ancient
B. Medieval
C. Early Modern European
D. Modern European
E. Russian and Eastern European
G. African
J. Asian
M. United States
N. Latin American
R. General/Comparative
U. Global
Open to qualified students in accordance with department guidelines. Consent of the faculty member with whom the student wishes to study is necessary. May be repeated to a maximum of 15 semester hours. S/U grading may be used. PRQ: Consent of graduate adviser in history.

699. DOCTORAL RESEARCH AND DISSERTATION (1 to 15). Open only to Ph.D. candidates. May be repeated to a maximum of 36 semester hours. PRQ: Consent of graduate adviser in history.

Ancient and Medieval History

408. MEDIEVAL EVERYDAY LIFE (3). Examination of the economic and social changes underlying the formation of medieval civilization. Attention given to demographic change, urbanization, and social movements.

530. READING SEMINAR IN ANCIENT AND MEDIEVAL HISTORY (3).
A. Ancient
B. Medieval
Intensive reading and discussion in one or more areas of ancient and medieval history, designed to acquaint the student with the literature and problems of the field. Specified areas announced in *Schedule of Classes.* Any one area may be repeated to a maximum of 12 semester hours when the subject varies. PRQ: Consent of department.

630. RESEARCH SEMINAR IN ANCIENT AND MEDIEVAL HISTORY (3).
A. Ancient
B. Medieval
Selected problems in the ancient and medieval periods. Specific areas announced in *Schedule of Classes.* Any one area may be repeated to a maximum of 15 semester hours. PRQ: Consent of department.

European History[1]

402. GENDER AND SEXUALITY IN HISTORY (3). Evolution of gender and sexual identity, roles, and occupations in the industrializing world. Topics include the production of femininities and masculinities, sexual difference, interpersonal desire, kinds of friendship, romantic love, sexual ethics, and sexual orientation in history.

413. FAMILY, SEXUALITY, AND SOCIETY SINCE 1400 (3). History of the family in Western society as seen in household structures, marriage customs, childbirth and child rearing, sex roles, the life-cycle, and attitudes towards sexual deviance.

415. EUROPEAN THOUGHT IN THE 17TH CENTURY (3). European and British thought of the 17th century; the rise of modern science; and baroque and classical art and literature.

[1]HIST 424, HIST 426, HIST 570C, and HIST 670 (described under Russian and Eastern European History) may also be taken to fulfill the field requirements in European history.

416. THE AGE OF ENLIGHTENMENT (3). Various main aspects of the intellectual revolution that preceded the American and French revolutions, including the growth of secularism and rationalism; the rise of scientific thought; the formulation of political liberalism and radicalism; and the enrichment of the humanist tradition.

417. EUROPEAN CULTURAL HISTORY 1780-1870 (3). Arts and letters of the Enlightenment, romantic, and Victorian periods, including work by Rousseau, Shelley, Darwin, Marx, Dostoevsky, Flaubert, Zola, impressionists, and Wagner.

418. EUROPEAN CULTURAL HISTORY 1870-PRESENT (3). Major thinkers of the modern period on the meaning of existence: Nietzsche, Freud, Sartre, Simone de Beauvoir. Modernism in literature and art: Conrad, Mann, Kafka, Proust, Joyce, Woolf, Cezanne, Picasso.

419. HISTORY OF MARXIST THOUGHT AND WRITING (3). Analytically oriented course elucidating the historical corpus of Marx and the historiography which has developed from it.

420. THE RENAISSANCE (3). Social, political, and ideological breakdown of medieval Europe with consideration of the reaction of the new class of artists and intellectuals to the special problems of their age.

421. THE CATHOLIC AND PROTESTANT REFORMATIONS (3). Examination of the religious reforms and institutional breaks, Catholic and Protestant, official and heretical, which ended the medieval unity of Christendom.

422. EARLY MODERN EUROPE (3). Analytical survey emphasizing the changing role of European nobilities, the construction of absolute monarchies, the rise of capitalism, baroque civilization, and the interaction of learned and popular culture.

423. THE FRENCH REVOLUTION AND NAPOLEON (3). Origins of the Revolution of 1789; moderate and radical phases; the Terror and the Thermidorian reaction; the rise of Napoleon; the Napoleonic wars and the remaking of Europe; the revolutionary legacy.

425. WORLD WAR II (3). History of World War II, including objectives and ideologies of Nazi Germany, Imperial Japan, and Allied Powers, with attention to cultural and social developments.

428. EUROPEAN DIPLOMATIC HISTORY SINCE 1914 (3). Great power rivalries and competition for empire; two world wars and their consequences; decolonization; cold war and the division of Europe.

429. NAZI GERMANY (3). History of National Socialism from the origins of the party to the end of World War II. Emphasis on the means used for seizing and consolidating power; social, cultural, and foreign policies of the Third Reich; anti-Semitism and the Holocaust.

450. TUDOR AND STUART ENGLAND (3). Constitutional and legal foundations of bourgeois England; Elizabethan and Jacobean culture; and the origins of capitalism.

452. EMPIRE AND NATION IN MODERN BRITAIN (3). Examines interaction between empire and nation in Britain from the 18th century to the present. Themes to be discussed include the impact of the "New British History" on how we view the British past, the relationship between industrialization and imperial expansion, the gendering of nation and empire, and the impact of decolonization on evolving notions of British identity.

454. INDUSTRY, STATE, AND SOCIETY IN MODERN BRITAIN (3). Impact of industrialization on British society between 1750 and 1914. Working class formation and elite reaction, urbanization, shifting conceptions of gender and work, and the changing nature of the state.

540. READING SEMINAR IN EUROPEAN HISTORY (3).
A. Early Modern European
B. Modern European
Intensive reading and discussion over a selected field of European history from the medieval period to modern times, designed to acquaint the student with the literature and problems of the field. Specified areas announced in *Schedule of Classes*. Any one area may be repeated to a maximum of 12 semester hours when the subject varies. PRQ: Consent of department.

640. RESEARCH SEMINAR IN EUROPEAN HISTORY (3).
A. Early Modern European
B. Modern European
Selected problems in European history from the medieval period to the modern era. Specific topics announced in *Schedule of Classes.* Any one area may be repeated to a maximum of 15 semester hours. PRQ: Consent of department.

Russian and Eastern European History

424. HABSBURG MONARCHY, 1815-1918 (3). Cultural, political, social, and diplomatic history of the Habsburg lands from the zenith of the monarchy at the Congress of Vienna to its destruction at the end of the First World War. Topics include the Congress of Vienna, the revolutions of 1848, the growth of national identity and class antagonisms, and cultural continuity and change.

426. EAST CENTRAL EUROPE, 1914-PRESENT (3). Cultural, political, and social history of Austria, Czechoslovakia, Hungary, Poland, and Romania from the beginning of the First World War to the present. Topics include the First and Second World Wars, anti-Semitism, fascism, modernism, and the Prague Spring.

434. THE RUSSIAN REVOLUTION (3). Causes and consequences of the Bolshevik triumph in the Russian Revolution. Emphasis on the conflict of historical forces and personalities in the three revolutions between 1905 -1917, and on the international context.

435. STALIN AND STALINISM (3). Stalin's role as a revolutionary before 1917, his career to his death in 1953, and his legacy in Russia today. Focus on political, economic, cultural, and moral issues associated with Stalin's rule over the Soviet Union.

570. READING SEMINAR IN RUSSIAN AND EASTERN EUROPEAN HISTORY (3).
A. Imperial Russia
B. Soviet and Post-Soviet Russia
C. Eastern European
Designed to acquaint student with the literature and problems of the field. Specified areas announced in *Schedule of Classes*. HIST 570A and HIST 570B may each be repeated to a maximum of 12 semester hours, HIST 570C to a maximum of 6 semester hours, when the subject varies. PRQ: Consent of department.

670. RESEARCH SEMINAR IN RUSSIAN AND EASTERN EUROPEAN HISTORY (3). Selected problems in Russian or Eastern European history. May be repeated to a maximum of 15 semester hours. PRQ: Consent of department.

Asian History

445. THE CHINESE REVOLUTION (3). Intellectual and social backgrounds of the nationalist revolutionary movement; political history of the revolutionary period to the present.

446. HISTORY OF THAILAND (3). History and culture of Thailand from the prehistoric period to the present, with appropriate references to Thai relations with Laos and Cambodia.

447. HISTORY OF BURMA (3). History and culture of Burma from prehistoric times to the present.

448. HISTORY OF INDONESIA (3). Indonesian political, social, and cultural life from prehistory to the present. Attention given to the cultures of the various peoples of Indonesia and the efforts of the modern state to create a national sense of identity.

449. HISTORY OF MALAYSIA AND SINGAPORE (3). The Malay world from prehistory to the present. Topics include early Malay trade, classical Malay culture, British imperialism, Chinese immigration, and the modern states of Malaysia, Singapore, and Brunei.

560. READING SEMINAR IN ASIAN HISTORY (3). Intensive reading and discussion on one or more countries of Asia, designed to acquaint the student with the literature and problems of the field. Specified areas announced in Schedule of Classes. May be repeated to a maximum of 12 semester hours when subject varies. PRQ: Consent of department.

660. RESEARCH SEMINAR IN ASIAN HISTORY (3). Selected problems in the history of one or more countries of south, southeast, or east Asia. Southeast Asian seminar usually emphasizes Thailand, Burma, Malaysia, Indonesia, and the Philippines. Specific topics announced in *Schedule of Classes.* May be repeated to a maximum of 15 semester hours. PRQ: Consent of department.

United States History

459. THE ATLANTIC WORLD, 1500-1800 (3). Encounters among African, European, and Native American men and women in the Atlantic world during the early modern era. Examination of major themes in political, economic, social, and cultural history in a comparative, integrated way to provide students of African, Latin American, European, and North American history with a broader context for understanding those regions.

460. COLONIAL AMERICA TO 1763 (3). Survey of the first two centuries of English settlement in America. Emphasis on the emergence of a colonial culture formed by the interaction of Old World civilizations with the conditions and opportunities posed by the New World.

461. THE AMERICAN REVOLUTION AND NEW NATION: 1763-1815 (3). Examination of the period 1763-1815 dealing with causes, character, and results of the American Revolution, the confederation period and the Constitution, the presidencies of Washington, Adams, Jefferson, and Madison, the First Party System, and the War of 1812.

463. JACKSONIAN AMERICA: 1815-1850 (3). The United States from the Era of Good Feeling through the Jacksonian democratic movement and the age of Manifest Destiny.

464. CIVIL WAR AND RECONSTRUCTION: 1850-1877 (3). Slavery and the sectional crisis, the war and emancipation, national reconstruction, and economics and race in the postwar South.

465. INDUSTRIAL AMERICA: 1877-1901 (3). Impact of industry and the city on vital aspects of American life and society, with emphasis on the response of farmers, workers, politicians, and intellectuals to the problems of an emerging urban-industrial society.

466. CORPORATE AMERICA: 1900-1929 (3). The U.S. in the era of Theodore Roosevelt, Woodrow Wilson, and Herbert Hoover. Topics include the rising corporate order, labor militance, the origins of the modern state, America's response to war and revolution, 1920s style prosperity, and the Great Crash.

467. LIBERAL AMERICA: 1929-1961 (3). The U.S. in the Great Depression, World War II, and the Cold War. Topics include Franklin D. Roosevelt and the New Deal, the road to Pearl Harbor, total war, social and political change in mid-century America, the Truman Doctrine and Stalinism, the Korean War, the Fifties, civil rights, the Eisenhower presidency, and the American response to revolutions in East Asia.

468. AMERICA SINCE 1960 (3). Analysis of social, economic, political, cultural, and intellectual trends from the Kennedy years through the post-Cold War era. Topics include the civil rights movement, the Kennedy-Johnson foreign policies toward Cuba and East Asia, the Great Society programs, the Vietnamese civil war, the "counterculture," Nixon and Watergate, the Reagan years, and the Persian Gulf conflict and the 1990s.

469. THE VIETNAM WAR (3). History of the American involvement in Vietnam between 1940 and 1975 that examines the evolving circumstances and policies leading to the American defeat.

470. AMERICA AND ASIA (3). Relationships between Asian nations and the United States. Topics include cultural and economic exchanges, experiences of Asian immigrants and their descendants in the U.S., competing strategic aspirations and value systems, and U.S. interventions in Asian wars. Emphasis varies according to instructor.

471. WORKERS IN U.S. HISTORY, 1787-PRESENT (3). Role of workers in American history from the early national period to the present. Emphasis on working class formation, labor conflict, and power relations in developing capitalist economy; how class, race, and gender shaped workers' experiences; rise and decline of labor unions; the role of law and government in limiting or expanding workers' power.

472. TOPICS IN AFRICAN-AMERICAN HISTORY (3). Selected problems in interpretation relating to the history of people of African descent in the Americas. Emphasis on the African-American populations of the United States with some attention given to the question of race relations. May be repeated to a maximum of 6 semester hours when topic varies.

473. TOPICS IN WOMEN'S HISTORY (3). Selected issues in interpretation relating to the history of women and gender relations. May be repeated to a maximum of 6 semester hours when subject varies.

474. HISTORY OF IMMIGRATION AND ETHNICITY (3). Survey of the nature and impact of immigration in American history from the colonial era to the present focusing on ethnic group origins, persistence, modification, and interaction. Includes comparative analysis of European, Latino, and Asian immigration. Examination of assimilation, acculturation, and accommodation theories, nativism, immigration legislation, multiculturalism, and minority relations.

475. THE UNITED STATES AND SOUTHEAST ASIA AND THE INDIAN SUBCONTINENT (3). Focus on 20th century, including American acquisition and governance of the Philippine Islands, the American response to nationalism and independence movements, the war in Vietnam, the successive tragedies in Cambodia, and U.S.-China rivalries in the region.

476. AMERICAN FOREIGN RELATIONS TO 1914 (3). Diplomacy of the American Revolution and the new nation, diplomatic aspects of the war with Mexico and continental expansion, and the rise of the United States as a world power in the late 19th and early 20th centuries, with emphasis on imperial expansion overseas.

477. AMERICAN FOREIGN RELATIONS SINCE 1914 (3). Diplomatic aspects of the two world wars, the origins and development of the Cold War in Europe and Asia, and the American response to Third World nationalism, including the war in Vietnam.

478. AMERICAN LEGAL HISTORY TO 1865 (3). American legal development, including English backgrounds, the colonial and revolutionary eras, and the evolution of the federal Constitution to 1865, with consideration of the economic, political, and intellectual factors which have contributed to its growth.

479. AMERICAN LEGAL HISTORY SINCE 1865 (3). American legal development since 1865, including Reconstruction, the impact of the industrial revolution, and such significant 20th-century constitutional issues as civil liberties, segregation, and the government's role in the economy.

510. READING SEMINAR IN U.S. HISTORY (3).
A. Early American History
B. 19th Century American History
C. 20th Century American History
Intensive reading and discussion over a selected field in U.S. history, designed to acquaint the student with the literature and problems of the field. Specified areas announced in *Schedule of Classes*. Any one area may be repeated to a maximum of 12 semester hours when subject varies. PRQ: Consent of department.

610. RESEARCH SEMINAR IN U.S. HISTORY (3 to 6).
A. Early American History
B. 19th Century American History
C. 20th Century American History
Selected problems in U.S. history. Topics announced. Any one area may be repeated to a maximum of 15 semester hours. PRQ: Consent of department.

Latin American History

482. MEXICO SINCE 1810 (3). The quest for independence–political, economic, and cultural–with particular attention to the revolution of 1910-1920.

484. HISTORY OF BRAZIL (3). Survey of Brazilian history from first encounters between Europeans and Americans to the present; evolution of Brazil's politics, economy, society, and culture.

485. MODERN LATIN AMERICAN REVOLUTIONS (3). Major social revolutions of the 19th and 20th centuries, with emphasis on Mexico, Cuba, and Central America. Social, economic, and political causes, ideology, international influences, and current areas of conflict.

486. POVERTY AND PROGRESS IN LATIN AMERICA (3). Exploration of the persistent gap between rich and poor in Latin America and the poverty of Latin America relative to the developed world. Inquiry into how Latin America fell behind and other issues, including the legacy of colonialism, opportunities and limitations of the 19th century export booms, industrialization and urbanization in the 20th century, and distribution of burdens and benefits in Latin America society, polity, and economy.

520. READING SEMINAR IN LATIN AMERICAN HISTORY (3). Intensive reading and discussion over a selected field in Latin American history, designed to acquaint the student with the literature and problems of the field. Specified areas announced in *Schedule of Classes*. May be repeated to a maximum of 12 semester hours when subject varies. PRQ: Consent of department.

620. RESEARCH SEMINAR IN LATIN AMERICAN HISTORY (3). Selected problems in Latin American history. May be repeated to a maximum of 15 semester hours. PRQ: Consent of department.

Department of Mathematical Sciences (MATH, STAT)

Chair: William D. Blair

Graduate Faculty

Gregory Ammar, professor, Ph.D., Case Western Reserve University
Sanjib Basu, professor, Ph.D., Purdue University
John A. Beachy, Distinguished Teaching Professor, Ph.D., Indiana University
Hamid Bellout, professor, Ph.D., Purdue University
William D. Blair, Presidential Teaching Professor, Ph.D, University of Maryland
Harvey I. Blau, Presidential Teaching Professor, Ph.D., Yale University
Richard Blecksmith, professor, Ph.D., University of Arizona
Frederick Bloom, Distinguished Research Professor, Ph.D., Cornell University
Douglas Bowman, associate professor, Ph.D., University of California, Los Angeles
Biswa N. Datta, Distinguished Research Professor, Ph.D., University of Ottawa
Karabi Datta, associate professor, Ph.D., University of Campinas, Brazil
Sien Deng, associate professor, Ph.D., University of Washington
Nader Ebrahimi, professor, Ph.D., Iowa State University
Harald Ellers, associate professor, Ph.D., University of Illinois
John A. Ewell, professor emeritus, Ph.D., University of California, Los Angeles
Daniel Grubb, associate professor, Ph.D., Kansas State University
Sudhir Gupta, professor, Ph.D., University of Kent
Bernard Harris, director of graduate studies, professor, Ph.D., University of Wales
Ellen Hines, associate professor, Ed.D., Northern Illinois University
Kitty L. Holland, associate professor, Ph.D., University of Illinois, Chicago
Yoo Pyo Hong, associate professor, Ph.D., Johns Hopkins University
Balakrishna Hosmane, associate professor, Ph.D., University of Kentucky
Hui Hu, associate professor, Ph.D., Stanford University
Helen A. Khoury, associate professor, Ph.D., Florida State University
Qingkai Kong, professor, Ph.D., University of Alberta
Ying C. Kwong, associate professor, Ph.D., University of Wisconsin
Rama T. Lingham, director, Division of Statistics, associate professor, Ph.D., Purdue University
Anders Linnér, associate professor, Ph.D., Case Western Reserve University
Donald B. McAlister, professor emeritus, Ph.D., Queen's University (Belfast)
Thomas W. O'Gorman, associate professor, Ph.D., University of Iowa
Ching-Tsuan Pan, associate professor, Ph.D., North Carolina State University
Alan Polansky, associate professor, Ph.D., Southern Methodist University
Mohsen Pourahmadi, professor, Ph.D., Michigan State University
David Rusin, associate professor, Ph.D., University of Chicago
Mary Shafer, assistant professor, Ph.D., University of Wisconsin
Gleb Sirotkin, assistant professor, Ph.D., Indiana University/ Purdue University Indianapolis
Linda R. Sons, Distinguished Teaching Professor, Ph.D., Cornell University
Diana Steele, associate professor, Ph.D., University of Florida
Joseph B. Stephen, associate professor, Ph.D., University of Nebraska
Jeffrey L. Thunder, professor, Ph.D., University of Colorado
Peter Waterman, associate professor, Ph.D., University of Aberdeen
John Wolfskill, assistant chair, associate professor, Ph.D., California Institute of Technology
Hongyou Wu, professor, Ph.D., University of Kansas
Zhuan Ye, professor, Ph.D., Purdue University
Anton Zettl, Distinguished Research Professor, emeritus, Ph.D., University of Tennessee
Alan Zollman, associate professor, Ph.D., Indiana University

The Department of Mathematical Sciences offers graduate programs leading to the M.S. in applied probability and statistics, the M.S. in mathematics, and the Ph.D. in mathematical sciences. Applicants to these graduate programs are normally notified of an admission decision within three weeks of receipt of the complete application.

If a student in an M.S. program has already completed a required 400-level course with a grade of C or better as an undergraduate at NIU, that course requirement will be waived in the student's M.S. program. Other graduate course work will be substituted to complete the required program, with the approval of the student's adviser.

Master of Science in Applied Probability and Statistics

At the time of admission each student is expected to have completed a standard three-course sequence in calculus and a course in elementary linear algebra. Courses equivalent to CSCI 230 and one from STAT 470 and STAT 473, must also have been completed. Any deficiencies should be removed at the beginning of the student's program.

Requirements

Complete at least 33 semester hours of graduate work, not more than 50 percent of which may be in courses numbered 400-499. At least 15 semester hours must be courses offered by the Department of Mathematical Sciences and numbered 500 or above.

Follow a program of study approved by the Department of Mathematical Sciences.

Pass a comprehensive examination based upon his or her plan of study. Usually, a student pursuing full-time graduate study will be required to take the comprehensive examination within two academic years of admission to the Graduate School. A student who fails the examination may, with the permission of the department, repeat it once.

Course Requirements

With the consent of the department, a student may include STAT 599, Master's Thesis, for 3 semester hours of credit, in the 33 semester hours required for a master's degree.
STAT 472 - Introduction to Mathematical Statistics (3)
STAT 474 - Statistical Methods and Models II (3)
STAT 572 - Theory of Statistics (3)
STAT 573 - Linear Models (3)
STAT 591 - Statistical Consulting (3)
Four of the following (12)
- STAT 471 - Probability Models and Applications (3)
- STAT 478 - Statistical Methods of Forecasting (3)
- STAT 568 - Methods in Biostatistics (3)
- STAT 569 - Methods for Quality Control and Improvement (3)
- STAT 574 - Design and Analysis of Experiments (3)
- STAT 575 - Multivariate Methods of Statistics (3)
- STAT 576 - Distribution-Free Statistics (3)
- STAT 577 - Sampling Techniques (3)

One additional STAT course numbered above 500

Master of Science in Mathematics

The Department of Mathematical Sciences offers specializations in pure mathematics, applied mathematics, computational mathematics, and mathematics education within the M.S. degree. Applicants are expected to have completed the equivalent of the requirements for the appropriate emphasis for the B.S. in mathematical sciences at NIU. This requirement may be modified for applicants with promising undergraduate records.

Requirements

The student must complete at least 30 semester hours of graduate work, not more than 50 percent of which may be in courses numbered 400-499. At least 24 of these hours must be in mathematical sciences. All courses outside the Department of Mathematical Sciences must have departmental approval in advance.

The student must follow a program of study approved by the department. The program will be designed by the student and his or her adviser and will be built on the requirements listed under one of the specializations. Students with inadequate backgrounds may be required to remove specific deficiencies.

The student must pass a comprehensive examination in mathematics. Normally, students pursuing full-time graduate study will be required to take the comprehensive examination within two academic years of admission to the graduate school. A student who fails the examination may, with the permission of the department, repeat it once.

With the consent of the department, a student specializing in pure mathematics, applied mathematics, or mathematics education may include MATH 599, Master's Thesis, for 3 semester hours of credit in the 30 semester hours required for a master's degree. Students specializing in computational mathematics are usually required to complete a thesis.

Specialization in Pure Mathematics
MATH 450 - Introduction to Topology (3)
MATH 520 - Algebraic Structures I (3)
MATH 530 - Real Analysis I (3)
MATH 532 - Complex Analysis (3)
At least one of the following
- MATH 521 - Algebraic Structures II (3)
- MATH 550 - Topology (3)

Specialization in Applied Mathematics
MATH 423 - Linear and Multilinear Algebra (3)
MATH 530 - Real Analysis I (3),
OR MATH 539 - Computational and Analytical Methods in the Sciences (3)
MATH 532 - Complex Analysis (3),
OR MATH 440 - Elements of Complex Analysis (3)
MATH 536 - Ordinary Differential Equations I (3),
OR MATH 438 - Theory of Differential Equations (3)
MATH 542 - Partial Differential Equations I (3),
OR MATH 442 - Elements of Partial Differential Equations (3)
MATH 562 - Numerical Analysis (3)
At least one of the following
- MATH 523 - Modern Applied Algebra (3)
- MATH 540 - Applied Mathematics (3)
- MATH 564 - Numerical Linear Algebra (3)
- MATH 566 - Numerical Differential Equations (3)
- MATH 584 - Combinatorial Mathematics I (3)
- MATH 640 - Topics in Applied Mathematics (3)

Specialization in Computational Mathematics
At the time of admission, each student must have completed courses equivalent to CSCI 230 and MATH 444. Students are strongly advised to take MATH 423, MATH 430, and MATH 431 during their first year, if they have not previously taken these or equivalent courses.

MATH 434 - Numerical Linear Algebra (3)
MATH 435 - Numerical Analysis (3)
MATH 539 - Computational and Analytical Methods in the Sciences (3)
MATH 564 - Numerical Linear Algebra (3)
MATH 566 - Numerical Differential Equations (3)
MATH 568 - Nonlinear Programming (3)

Thesis Option. The thesis option is usually recommended by the department. Each student pursuing this option must enroll in MATH 599, Master's Thesis, and submit a written thesis. Three semester hours credit in MATH 599 may be applied toward the degree. The student's thesis adviser serves as chair of the graduate committee that administers a defense of the thesis.

*Non-Thesis Option.*The non-thesis option is primarily for students who intend to pursue doctoral work in the mathematical sciences at NIU, or who wish to acquire breadth in the mathematical sciences by taking additional courses. With departmental consent, the student must complete a 30-semester hour program of courses approved by the department and pass a written comprehensive examination.

Specialization in Mathematics Education
MATH 421 - Algebra II (3),
OR MATH 423 - Linear and Multilinear Algebra (3)
MATH 430 - Advanced Calculus I (3)
MATH 510 - Theoretical Foundations of Mathematics Education (3)
Four courses in the Department of Mathematical Sciences numbered 421-587 (except MATH 502-MATH 517), including at least one course numbered above 500 (12)
Two of the following (6)
- MATH 511 - Introduction to Mathematics Education Research (3)
- MATH 512 - The Learning and Teaching of Mathematics, Grades 6-9 (3)
- MATH 513 - The Learning and Teaching of Algebra (3)
- MATH 514 - The Learning and Teaching of Geometry (3)
- MATH 515 - Using Technology in the Teaching of Mathematics (3),
  OR MATH 517 - Assessment and Evaluation in School Mathematics: Grades K-12 (3)

One additional course approved by the department in mathematics, mathematics education, statistics, or supporting work from other departments (3)

Doctor of Philosophy in Mathematical Sciences

Admission

A student seeking admission to the Ph.D. program in mathematical sciences must meet all requirements for admission to the Graduate School and shall have satisfied the requirements (or equivalent) for the B.S. in mathematical sciences at NIU. In addition, each student is required to have completed an approved year-long sequence of courses in probability and statistics prior to admission to the program, or to take an approved sequence of graduate courses in probability and statistics as part of the doctoral program. Students seeking admission who possess a master's degree in mathematical sciences will also be expected to have met the above requirements.

Course Requirements

The Graduate Studies Committee of the department will be responsible for approving each student's program to meet the course requirements specified below. Each student will complete at least 90 hours of course work. The committee will assess all work done at other institutions and will grant transfer credit for any graduate work deemed acceptable and subsequently approved by the dean of the Graduate School. The Graduate Studies Committee of the department will also be responsible for the administration of the qualifying and candidacy examinations.

Core Courses (24)
MATH 520 - Algebraic Structures I (3)
MATH 530 - Real Analysis I (3)
MATH 532 - Complex Analysis (3)
MATH 562 - Numerical Analysis (3)
One of the following groups of courses (12)
- Group A–four of the following
  - MATH 521 - Algebraic Structures II (3)
  - MATH 531 - Real Analysis II (3)
  - MATH 536 - Ordinary Differential Equations I (3)
  - MATH 542 - Partial Differential Equations I (3)
  - MATH 550 - Topology (3)
- Group B
  - MATH 510 - Theoretical Foundations of Mathematics Education (3)
  - MATH 511 - Introduction to Mathematics Education Research (3)
  - MATH 513 - The Learning and Teaching of Algebra (3)
  - MATH 514 - The Learning and Teaching of Geometry (3)
- Group C
  - STAT 570 - Probability Theory (3)
  - STAT 572 - Theory of Statistics (3)
  - STAT 573 - Linear Models (3)
  - STAT 579 - Advanced Statistical Methods (3)
- Group D[1]–four of the following
  - MATH 539 - Computational and Analytical Methods in the Sciences (3)
  - MATH 542 - Partial Differential Equations I (3)
  - MATH 564 - Numerical Linear Algebra (3)
  - MATH 566 - Numerical Differential Equations (3)
  - MATH 568 - Nonlinear Programming (3)

At least 21 semester hours of elective topics courses and seminars. One seminar must be elected outside the student's area of study. The topics courses should ordinarily be chosen from the list below.[2] Repetitions of topics courses and seminars are allowed as subjects vary.

- MATH 610A - Topics in Mathematics Education: Learning and Teaching (3)
- MATH 610B - Topics in Mathematics Education: Curriculum and Evaluation (3)
- MATH 620 - Topics in Algebra (3)
- MATH 630 - Topics in Analysis (3)
- MATH 640 - Topics in Applied Mathematics (3)
- MATH 650 - Topics in Geometry and Topology (3)
- MATH 660 - Topics in Computational Mathematics (3)
- MATH 670 - Topics in Probability Theory (3)
- MATH 680 - Topics in Number Theory (3)
- STAT 675 - Topics in Statistics (3)

The applications-involvement component including 3-9 semester hours in MATH 692 - Applications Experience (1-9) or equivalent experience

At least 24 hours in MATH 699 - Doctoral Research and Dissertation

An additional 12-18 semester hours of electives at the graduate level[2]

Qualifying Examination

Whether admission to the program follows completion of a baccalaureate or a master's degree, each student is required to pass a written qualifying examination administered by the Graduate Studies Committee of the department.

Candidacy Examination

The candidacy examination is an oral examination in the student's primary area of study and is taken later than the qualifying examination. The committee to hear the candidacy examination will be nominated by the chair of the department and appointed by the dean of the Graduate School.

Language Requirements

The student must demonstrate average reading proficiency in two of the following foreign languages: French, German, and Russian; or average reading proficiency in one of these languages, combined with a translation of a mathematical research article in this language to the satisfaction of the Graduate Studies Committee of the department.

Computer Project Requirement

The student must complete a project in which a computer is used in a nonroutine way. The project will normally be related to the candidate's primary area of study and must be approved by the candidate's dissertation adviser and the Graduate Studies Committee.

Dissertation Committee

The dissertation committee for each student will be nominated by the chair of the department and appointed by the dean of the Graduate School. This committee will consist of three to five graduate faculty members and be chaired by the dissertation adviser who has been appointed by the chair of the department.

External Examiner

An external examiner for the doctoral dissertation will be nominated by the chair of the department and appointed by the dean of the Graduate School. The examiner shall submit a written report on the dissertation to the chair of the department, the dean of the Graduate School, and the student's dissertation committee prior to the oral dissertation defense.

Oral Dissertation Defense

An oral examination on the dissertation will be conducted by the dissertation committee according to the rules of the Graduate School. This defense will be open to the university community.

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[1] Students who take Group D are expected to fulfill at least 12 semester hours of their elective requirement with a coherent, approved program of courses outside the Department of Mathematical Sciences.
[2] Elective course work should be chosen so that the program contains a coherent selection of 6 semester hours at the 500-level or above in the mathematical sciences, outside the student's broad area of study, or in a related discipline.

Certificates of Graduate Study

Applied Statistics (12)

This certificate is designed for graduate students in a variety of disciplines, including engineering, the humanities, social sciences, and sciences, who seek to advance their skills and expertise in data analyses, statistical modeling, and quantitative research. Courses taken to meet the requirements of the certificate may be applied towards the M.S. degree in applied probability and statistics with approval of the department.

Four of the following (12)
- STAT 565 - Regression Analysis (3)
- STAT 566 - Discrete Multivariate Data Analysis (3)
- STAT 569 - Methods for Quality Control and Improvement (3)
- STAT 574 - Design and Analysis of Experiments (3)
- STAT 575 - Multivariate Methods of Statistics (3)
- STAT 577 - Sampling Techniques (3)

Elementary Mathematics Teaching (12)

This certificate is for an inservice for elementary teachers.

MATH 503 - Whole Number Sense and Numeration (3)
MATH 504 - Geometry, Spatial Sense, and Measurement (3)
MATH 505 - Understanding Rational Numbers (3)
MATH 506 - Algebraic Thinking (3)

Teacher Certification in Grades 6-12

A graduate student or a student-at-large may pursue teacher certification in mathematics for grades 6-12. Completing the teacher certification requirements and pursuing a graduate degree may be done simultaneously but are independent. Teacher certification candidates must complete requirements which include courses within the Department of Mathematical Sciences and courses outside the department. Obtaining a teaching endorsement in a second teaching area is desirable to enhance placement opportunities.

Requirements for certification are in three areas: mathematics, professional education, and general education. Forty semester hours of mathematics, beginning with MATH 229 (Calculus I), are required. Professional education requirements total 22 semester hours and can be taken either on the graduate or undergraduate level. General education requirements are usually fulfilled at the undergraduate level. Specific mathematics requirements are listed in the departmental section of the *Undergraduate Catalog*. Also see the section "Teacher Certification Information" in this catalog as well as "Secondary Teacher Certification" in the College of Liberal Arts and Sciences section of this catalog. Graduate-level professional education courses are listed in the departmental advising document. All students who decide to pursue certification should consult a teacher certification adviser in the Department of Mathematical Sciences as soon as possible. Students completing the certification program in mathematics will automatically meet the requirements for the middle school endorsement in mathematics.

Course List

Mathematics (MATH)

402. METHODS OF INSTRUCTION IN THE MATHEMATICS CURRICULUM FOR ELEMENTARY SCHOOL (3). *Crosslisted as TLEE 402X.* Methods, techniques, materials, curricular issues, learning theories, and research utilized in the teaching of elementary school mathematics. Attention given to the teaching of exceptional students and to planning for multicultural learning situations. Intended for students in education. Accepted for credit as an elementary mathematics methods course, but not as an upper-division mathematical content course. Not open for credit toward the major or minor in mathematical sciences. PRQ: MATH 201 with a grade of C or better or consent of department.

412. METHODS OF INSTRUCTION IN THE MATHEMATICS CURRICULUM FOR SECONDARY SCHOOL (3). Objectives and organization of the curriculum and instructional materials for mathematics programs for secondary school with attention to methods of instruction, the needs of exceptional students, reading techniques in mathematics, and planning for multicultural learning situations. Accepted for credit toward the major or minor only for those preparing to teach. Accepted for credit as a methods course for secondary school, but not as an upper-division mathematical content course. CRQ: MATH 353 and consent of department.

415. USES OF TECHNOLOGY IN THE MATHEMATICS CURRICULUM FOR GRADES K-12 (3). Hands-on experiences working with current technology (scientific calculators, graphic calculators, computers, and computer software) for elementary, middle school, and secondary school mathematics. Presentation and evaluation of methods and strategies for employing technology as a regular part of instruction and assessment, including discussion of educational foundations. Accepted as mathematical sciences credit only for those preparing to teach. Not accepted for credit as an upper-division mathematical content course for certification purposes. Not used in major GPA calculations. CRQ: MATH 402, MATH 410, or MATH 412, or consent of department.

420. ALGEBRA I (3). Introduction to group theory. Properties of the integers, functions, and equivalence relations. A concrete approach to cyclic groups and permutation groups; isomorphisms and the theorems of Lagrange and Cayley. PRQ: MATH 240 or consent of department.

421. ALGEBRA II (3). Continuation of MATH 420. Homomorphisms and factor groups; introduction to commutative rings, with emphasis on polynomial rings; and fields and algebraic extensions. Applications to classical geometric problems. PRQ: MATH 420 or consent of department.

423. LINEAR AND MULTILINEAR ALGEBRA (3). General theory of vector spaces, linear transformations, and matrices. Topics selected from determinants, tensor products, canonical forms, and bilinear and quadratic forms. PRQ: MATH 240 and MATH 420, or consent of department.

430. ADVANCED CALCULUS I (3). Reexamination of the calculus of functions of one variable: convergence, continuity, differentiation, the mean-value theorem, and the Riemann integral. PRQ: MATH 232 and MATH 240, or MATH 334, or consent of department.

431. ADVANCED CALCULUS II (3). Further study of sequences and series of functions; functions of several variables. PRQ: MATH 430 or consent of department.

432. ADVANCED CALCULUS III (3). Line and surface integrals, the Riemann-Stieltjes integral, gamma and beta functions, and Fourier series and integrals. Applications to probability theory and mathematical physics. PRQ: MATH 431 or both MATH 334 and PHYS 385, or consent of department.

434. NUMERICAL LINEAR ALGEBRA (3). *Crosslisted as CSCI 434X.* Roundoff errors and computer arithmetic. Direct and iterative methods for solving linear systems; norms and condition numbers, iterative refinement. Linear least squares problems: the normal equations and QR approach for overdetermined systems. Numerical methods for eigenvalues: an introduction to the QR iteration. Extensive use of computers. PRQ: MATH 232, MATH 240, and CSCI 230, CSCI 240, or approved equivalent; or consent of department.

435. NUMERICAL ANALYSIS (3). *Crosslisted as CSCI 435X.* Polynomial interpolation, numerical solutions of nonlinear equations, least squares approximation by polynomials, orthogonal polynomials, economization of power series. Numerical integration including quadrature formulae, adaptive quadrature, composite quadrature formulae, and Romberg integration. Numerical methods for initial value problems including Taylor series methods, Runge-Kutta methods, and multistep methods. Extensive use of computers. PRQ: MATH 232, MATH 240, and CSCI 230, CSCI 240, or approved equivalent; or consent of department.

438. THEORY OF DIFFERENTIAL EQUATIONS (3). Topics include linear systems, existence and uniqueness of solutions, nonlinear equations, and stability. PRQ: MATH 232, MATH 240, and either MATH 334 or MATH 336, or consent of department.

439. ENGINEERING MATHEMATICS II (3). Green's functions and integral transform solutions of partial differential equations. Coordinate transformations and tensor analysis. Gamma, beta and error functions. Elliptic functions. Asymptotic series. Series solutions of ordinary and partial differential equations. Orthogonal expansions. Probability. Numerical methods. Not open for graduate credit in mathematical science programs. PRQ: MATH 339 with a grade of C or better or consent of department.

440. ELEMENTS OF COMPLEX ANALYSIS (3). Beginning course in complex analysis emphasizing the applications of complex function theory. PRQ: MATH 232 and MATH 240, or MATH 334; or consent of department.

442. ELEMENTS OF PARTIAL DIFFERENTIAL EQUATIONS (3). Introduction to partial differential equations emphasizing constructive methods of solution for the wave equation, heat equation, and the Laplace and Poisson equations. Separation of variables, Fourier series, Fourier integral, method of characteristics, maximum principles, Green's functions, eigenfunction expansions, and the Laplace and Fourier transforms. PRQ: Either MATH 334, or MATH 232 and MATH 336, or consent of department.

450. INTRODUCTION TO TOPOLOGY (3). Basic notions of metric and topological spaces; additional topics from combinatorial and algebraic topology may be included. PRQ: MATH 430 or consent of department.

456. LINEAR GEOMETRY (3). Treatment of affine and related geometries using the techniques of linear algebra. PRQ: MATH 420 or consent of department.

460. MODELING DYNAMICAL SYSTEMS (3). Involves students in the process of translating some questions about the observed world into mathematical form, combining formal reasoning with intuitive insights. Phenomena susceptible to formulation in terms of difference equations and various kinds of differential equations are investigated. Concepts of equilibrium, stability, bifurcation, limit cycles, and chaos illustrated. PRQ: MATH 232, MATH 240, MATH 336, PHYS 250A, and PHYS 251A; or consent of department.

480. NUMBER THEORY (3). Divisibility, primes, congruences, quadratic reciprocity, Diophantine equations, continued fractions, and selected topics. PRQ: MATH 420 or consent of department.

492. SCHOOL MATHEMATICS (1 to 6).
A. Elementary School
B. Junior High–Middle School
C. Secondary School
Intensive study of selected mathematical topics in curriculum and instruction as they relate to the teaching of mathematics. Not open for credit toward the major in mathematical sciences. Course may be repeated to a maximum of 12 semester hours as topic changes. PRQ: Consent of department.

502. TOPICS FOR TEACHERS OF ELEMENTARY SCHOOL MATHEMATICS (3). Contemporary curricula, learning theories and strategies, materials of learning and supporting empirical evidence. PRQ: MATH 402 or consent of department.

503. WHOLE NUMBER SENSE AND NUMERATION (3). Contemporary curricula, learning theories and strategies, and tools for learning how to help children develop meaning for whole numbers and whole number operations. Not open for credit for students in mathematical science graduate degree programs. PRQ: MATH 402 or consent of department.

504. GEOMETRY, SPATIAL SENSE, AND MEASUREMENT (3). Contemporary curricula, learning theories and strategies, and tools for learning how children learn to think geometrically. Topics include spatial reasoning, measurement concepts, and logical reasoning. Not open for credit for students in mathematical science graduate degree programs. PRQ: MATH 402 and MATH 503, or consent of department.

505. UNDERSTANDING RATIONAL NUMBERS (3). Contemporary curricula, learning theories and strategies, and tools for learning how to help children develop meaning for rational numbers and rational number operations. Not open for credit for students in mathematical science graduate degree programs. PRQ: MATH 402, MATH 503, and MATH 504, or consent of department.

506. ALGEBRAIC THINKING (3). Contemporary curricula, learning theories and strategies, and tools for learning how to help children develop algebraic thinking. Topics include recognizing, describing, generalizing, and representing patterns in concrete situations. Not open for credit for students in mathematical science graduate degree programs. PRQ: MATH 402, MATH 503, MATH 504, and MATH 505, or consent of department.

510. THEORETICAL FOUNDATIONS OF MATHEMATICS EDUCATION (3). Survey of current developments in areas of human learning that relate directly to mathematics curriculum and instruction. Consideration of curriculum concerns, and an introduction to methods of critical reading of research reports. PRQ: Consent of department.

511. INTRODUCTION TO MATHEMATICS EDUCATION RESEARCH (3). Introduction to the structure and scope of mathematics education research; reading and evaluation of original research; issues of validity and reliability in research; assembling components for the writing of research. PRQ: MATH 510 and at least one additional course numbered from MATH 502 through MATH 517, or consent of department.

512. THE LEARNING AND TEACHING OF MATHEMATICS, GRADES 6-9 (3). Curriculum goals and issues; recent developments in curriculum; learning research; alternate modes of presentation. Previous teaching experience recommended. PRQ: MATH 510 or consent of department.

513. THE LEARNING AND TEACHING OF ALGEBRA (3). Contemporary approaches to secondary school algebra; treatment of selected topics; instructional aids; individualized instruction; relevant research. Previous teaching experience recommended. PRQ: MATH 510 or consent of department.

514. THE LEARNING AND TEACHING OF GEOMETRY (3). Current programs, aims, issues, and trends in high school geometry; treatment of selected topics; instructional aids; relevant research. Previous teaching experience recommended. PRQ: MATH 510 or consent of department.

515. USING TECHNOLOGY IN THE TEACHING OF MATHEMATICS (3). Application of technology such as graphing calculators and microcomputers to the teaching of mathematics in secondary schools and the theoretical foundations of these applications; evaluation and analysis of software and graphing calculator activities designed to facilitate learning in such content areas as algebra, geometry, statistics, precalculus, and calculus. PRQ: MATH 510 and consent of department.

517. ASSESSMENT AND EVALUATION IN SCHOOL MATHEMATICS: GRADES K-12 (3). A balanced study of theoretical research-based foundations and classroom-reform-based perspectives on assessment and evaluation in school mathematics. Consideration of alternate forms of assessment and evaluation of mathematics teaching and of students' mathematical learning. Topics include assessment standards, scoring rubrics, authentic and performance assessment, and portfolios. PRQ: MATH 510 or consent of department.

520. ALGEBRAIC STRUCTURES I (3). Group theory including the Sylow theorems, the basis theorem for finite Abelian groups. Polynomial rings, field theory, Galois theory, solvable groups, and solvability of equations by radicals. PRQ: MATH 421 or consent of department.

521. ALGEBRAIC STRUCTURES II (3). Ring theory including the Artin-Wedderburn theorem, the Jacobson radical. Commutative algebra, Noetherian rings, and Dedekind domains. PRQ: MATH 520 or consent of department.

522. HOMOLOGICAL ALGEBRA (3). Categories and functors, projective and injective modules, complexes and homology, Ext, Tor, and dimensions. Applications to cohomology of groups and ring theory. PRQ: MATH 521 or consent of department.

523. MODERN APPLIED ALGEBRA (3). Concepts and techniques of modern algebra which are useful in applied mathematics. Topics include applications of group theory to coding, applications of lattice theory to switching theory, and applications of ring theory to linear automata. PRQ: MATH 420 or consent of department.

530. REAL ANALYSIS I (3). Theory of functions of a real variable, emphasizing Lebesgue measure and the Lebesgue integral. Basic properties of the classical Lebesgue function spaces are developed. PRQ: MATH 431 or consent of department.

531. REAL ANALYSIS II (3). Functional analysis; topics include normed linear spaces, general measure theory, Banach and Hilbert spaces, and operator theory. PRQ: MATH 450 and MATH 530, or consent of department.

532. COMPLEX ANALYSIS (3). Theory of functions of a complex variable including analytic functions and their properties, sequences and power series, Cauchy's theorem on integration and its consequences, and evaluation of real integrals using residue theory. PRQ: MATH 431 or consent of department.

536. ORDINARY DIFFERENTIAL EQUATIONS I (3). Theory of ordinary differential equations including existence of solutions, uniqueness, stability, oscillation. Introduction to boundary value problems including eigenfunction expansions. PRQ: MATH 430 and either MATH 336 or MATH 438, or consent of department.

537. ORDINARY DIFFERENTIAL EQUATIONS II (3). Continuation of MATH 536. PRQ: MATH 536 or consent of department.

539. COMPUTATIONAL AND ANALYTICAL METHODS IN THE SCIENCES (3). Theory and computation of mathematical transforms. Application of mathematical transforms in the sciences and engineering. Construction of mathematical models of transport phenomena, wave propagation, and diffusion. Analysis of the resulting models using computational and analytical tools. PRQ: MATH 431 or consent of department.

540. APPLIED MATHEMATICS (3). Boundary value problems for ordinary differential operators in one space dimension, Green's functions, theory of distributions, eigenfunction expansions, integral equations. Background in Hilbert space theory. PRQ: MATH 431 or consent of department.

541. APPLIED FUNCTIONAL ANALYSIS (3). Concepts and techniques of functional analysis needed in applied mathematics. Topics include basic principles of Banach and Hilbert space theory with applications to convex optimization, integral and differential equations, and variational inequalities. PRQ: MATH 530 or consent of department.

542. PARTIAL DIFFERENTIAL EQUATIONS I (3). Introduction to the theory and applications of partial differential equations. Linear and quasi-linear equations, characteristic curves, and classification and canonical forms with emphasis on first order equations. Introduction to the equations of mathematical physics. PRQ: MATH 431 or consent of department. MATH 432 is strongly recommended.

543. PARTIAL DIFFERENTIAL EQUATIONS II (3). Introduction to Sobolev spaces, elliptic and parabolic equations. Weak solutions, regularity. Approximation of solutions. PRQ: MATH 531 and MATH 542, or consent of department.

548. APPLIED MATHEMATICS MODELING (3). Survey of problems arising in one or more areas of application of mathematics which are of current research interest, e.g., mechanics, nonlinear continuum theories, wave propagation, nonlinear optics and electromagnetic theory, nonlinear elasticity and viscoelasticity. Concurrent development of the relevant mathematical techniques. PRQ: MATH 530 and one or more of MATH 536, MATH 540, or MATH 542 as appropriate, and consent of department.

550. TOPOLOGY (3). Survey of some major areas of modern topology. Detailed study of compactness and connectedness, introduction to combinatorial methods for classifying manifolds, and examination of homotopy theory for maps between topological spaces. PRQ: MATH 421 and MATH 450, or consent of department.

560. AUTOMATA THEORY (3). Introduction to the algebraic theory of automata. PRQ: MATH 420 or CSCI 462, or consent of department.

562. NUMERICAL ANALYSIS (3). Fundamental ideas and tools of numerical analysis and computational mathematics. Analysis of floating-point computations, rootfinding algorithms, interpolation and least-squares approximation by polynomials, numerical integration, direct and iterative methods for linear systems of equations, and numerical solution of initialvalue problems for ordinary differential equations. Additional topics as time permits. Emphasis on mathematical analysis of algorithms and the applicability and use of software modules. Not available for credit to students with credit in MATH 434 and MATH 435. PRQ: MATH 431, knowledge of FORTRAN programming, and consent of department.

563. VECTOR AND PARALLEL COMPUTATIONS IN NUMERICAL LINEAR ALGEBRA (3). Basic concepts of parallel and vector computations. Development of machine-independent algorithms for vector and parallel computations of basic linear algebra problems. Vector and parallel algorithms for linear systems, least squares and eigenvalue problems, and aspects of their implementations on both distributed and shared-memory computers. Emphasis on use of portable software packages such as LAPACK. Applications to engineering as time permits. PRQ: MATH 434 and good knowledge of the UNIX operating system, or consent of department.

564. NUMERICAL LINEAR ALGEBRA (3). Development and analysis of fundamental techniques of matrix computation, including triangular and orthogonal matrix factorizations, linear equations and least-squares problems, algorithms for symmetric and nonsymmetric matrix eigenvalue problems, and the singular value decomposition. Perturbation analysis and roundoff error analysis. PRQ: MATH 562, or MATH 423 and MATH 434, or consent of department.

566. NUMERICAL DIFFERENTIAL EQUATIONS (3). Survey of the theory and application of numerical solutions for ordinary and partial differential equations. Includes methods for solving initial value problems, boundary value problems, and eigenvalue problems. Error and stability analyses discussed. PRQ: MATH 431, MATH 434, and MATH 435, or consent of department.

568. NONLINEAR PROGRAMMING (3). Basic computational methods for minimizing a nonlinear function of one or more variables subject to constraints. Treats both numerical and theoretical problems. PRQ: MATH 430 and MATH 444, or consent of department.

580. ANALYTIC NUMBER THEORY (3). Prime number theorem, primes in an arithmetic progression, L-series, and Dirichlet series. PRQ: MATH 440 and MATH 480, or consent of department.

581. ALGEBRAIC NUMBER THEORY (3). Algebraic number fields, splitting of primes, units, and class numbers. PRQ: MATH 480 and MATH 520, or consent of department.

584. COMBINATORIAL MATHEMATICS I (3). Problems of enumeration, distribution, and arrangement. Inclusion-exclusion, generating functions, combinatorial identities. Finite designs, systems of distinct representatives, graph theory. PRQ: Consent of department.

585. COMBINATORIAL MATHEMATICS II (3). Continuation of MATH 584. PRQ: MATH 584 or consent of department.

586. RECURSIVE FUNCTION THEORY AND COMPUTABILITY (3). Study of recursive functions and Turing machines including a proof of the equivalence of the recursive functions and the Turing computable functions. PRQ: CSCI 462 or consent of department.

591. CURRICULUM AND INSTRUCTION IN MATHEMATICAL SCIENCES AT THE COLLEGE LEVEL (3). Study of various components of pedagogy and curriculum in the mathematical sciences at the college level.

592. INTERNSHIP IN MATHEMATICAL SCIENCES (2 to 6). May be either industrial, consisting of an approved project in industry, or academic, consisting typically of association with a master teacher in the design and implementation of a course. May be repeated to a maximum of 12 semester hours, with no more than 6 semester hours counting toward the M.S. degree. PRQ: Consent of department.

596. TOPICS IN CONTEMPORARY MATHEMATICS EDUCATION (1 to 9). Intensive study of special topics in mathematics and mathematics education selected to meet the needs of teachers of mathematics at the precollege level. May be repeated to a maximum of 18 semester hours. PRQ: Consent of department.

597. GRADUATE READING IN MATHEMATICAL SCIENCES (1 to 9).
A. Pure Mathematics
B. Applied Mathematics
E. Mathematics Education
May be repeated to a maximum of 9 semester hours. PRQ: Consent of department.

598. TOPICS IN CONTEMPORARY MATHEMATICS (1 to 6). Faculty and student discussion of selected topics in contemporary mathematics. May be repeated to a maximum of 12 semester hours. PRQ: Consent of department.

599. MASTER'S THESIS (1 to 6). May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

610. TOPICS IN MATHEMATICS EDUCATION (3).
A. Learning and Teaching
B. Curriculum and Instruction
Content varies; may include courses on theoretical issues concerned with learning, instruction, and curriculum in mathematics. May be repeated to a maximum of 15 semester hours. PRQ: Consent of department.

620. TOPICS IN ALGEBRA (3). Content varies; may include courses in semigroup theory, finite group theory, ring theory, and homological algebra. May be repeated to a maximum of 15 semester hours. PRQ: Consent of department.

630. TOPICS IN ANALYSIS (3). Content varies; may include courses in real analysis, complex analysis, functional analysis, and differential equations. May be repeated to a maximum of 15 semester hours. PRQ: Consent of department.

640. TOPICS IN APPLIED MATHEMATICS (3). Content varies; may include courses in differential equations and mathematical physics. May be repeated to a maximum of 15 semester hours. PRQ: Consent of department.

650. TOPICS IN GEOMETRY AND TOPOLOGY (3). Content varies; may include courses in algebraic topology, point set topology, and algebraic geometry. May be repeated to a maximum of 15 semester hours. PRQ: Consent of department.

660. TOPICS IN COMPUTATIONAL MATHEMATICS (3). Content varies; may include courses in numerical analysis, mathematical programming, mathematical modeling, and computational complexity. May be repeated to a maximum of 15 semester hours. PRQ: Consent of department.

670. TOPICS IN PROBABILITY THEORY (3). Content varies. May be repeated to a maximum of 15 semester hours. PRQ: Consent of department.

680. TOPICS IN NUMBER THEORY (3). Content varies; may include courses in algebraic, analytic, computational, and combinatorial number theory. May be repeated to a maximum of 15 semester hours. PRQ: Consent of department.

690. SEMINAR IN THE MATHEMATICAL SCIENCES (1 to 9).
A. Algebra
B. Analysis
C. Applied Mathematics
D. Geometry and Topology
E. Computational Mathematics
J. Probability Theory
K. Number Theory
M. Mathematics Education
Lectures and discussions on topics in advanced mathematics. May be repeated to a maximum of 24 semester hours, not more than 15 of which may be selected in a single area. PRQ: Consent of department.

692. APPLICATIONS EXPERIENCE (1 to 9). Field experience for the doctoral student in applications of the mathematical sciences. May be repeated to a maximum of 18 semester hours with no more than 9 semester hours counting toward the Ph.D. degree. PRQ: Consent of department.

699. DOCTORAL RESEARCH AND DISSERTATION (1 to 15). May be repeated to a maximum of 36 semester hours.

Statistics (STAT)

470. INTRODUCTION TO PROBABILITY THEORY (3). Includes probability spaces, random variables, discrete, continuous, mixed probability distributions, moment generating functions, multivariate distributions, conditional probability, conditional expectation, special distributions, laws of large numbers, and central limit theorem. PRQ: MATH 232 and MATH 240, or consent of division.

471. PROBABILITY MODELS AND APPLICATIONS (3). Introduction to elementary stochastic processes and their applications to various phenomena in engineering, management science, the physical and social sciences, and operations research. PRQ: STAT 470 or consent of division.

472. INTRODUCTION TO MATHEMATICAL STATISTICS (3). Includes distributions of functions of random variables, interval estimation, sufficiency, completeness, point estimation, statistical hypotheses, analysis of variance, and the multivariate normal distribution. PRQ: STAT 470 or consent of division.

473. STATISTICAL METHODS AND MODELS I (3). A first course in statistical methods and models including exploratory data analysis and graphical techniques, regression analysis, experimental design, and basic sampling techniques. Extensive use of statistical computer packages. PRQ: MATH 211 and STAT 301, or STAT 350, or consent of division. CRQ: STAT 473A.

473A. STATISTICAL COMPUTING PACKAGES (1). Introduction to statistical computing with the aid of software packages. Data entry, transformations, simple plots, summary statistics, and statistical procedures. No previous computer experience is required. PRQ: MATH 211 and STAT 301, or STAT 350, or consent of division. CRQ: STAT 473 or consent of division.

474. STATISTICAL METHODS AND MODELS II (3). Continuation of STAT 473. Topics include factorial experiments: interactions, nested models, and randomized block designs. Categorical response data analysis: ordinal data, measures of association, Cochran-Mantel-Haenszel Test, logistic regression, and measues of agreement. PRQ: STAT 473 and STAT 473A, or consent of division.

478. STATISTICAL METHODS OF FORECASTING (3). Introduction to forecasting including use of regression in forecasting; removal and estimation of trend and seasonality; exponential smoothing; stochastic time series models; stochastic difference equations; autoregressive, moving average, and mixed models; model identification and estimation; diagnostic checking; and the use of time series models in forecasting. PRQ: STAT 473 or consent of division.

481. PROBABILISTIC FOUNDATIONS OF ACTUARIAL SCIENCE (3). Actuarial populations. Univariate parametric actuarial distributions including Weibull and Pareto. Multivariate actuarial distributions. Exact and asymptotic relationships among these distributions. Mixtures of distributions. Jointly discrete, continuous, and mixed distributions. Moment, cumulant, and probability generating functions. Transformations of variables for multivariate distributions. Basic theory of individual and collective risk models for aggregate loss from insurance policies. PRQ: STAT 470 or consent of division.

565. REGRESSION ANALYSIS (3). Simple and multiple linear regression, estimation, confidence intervals and tests, and prediction. Diagnostic methods using residuals, transformations, outliers, and influence analysis. Polynomial regression, stepwise variable selection, and collinearity. PRQ: STAT 474 or consent of division.

566. DISCRETE MULTIVARIATE DATA ANALYSIS (3). A first course in the analysis of discrete data including two-dimensional tables, the log linear model, goodness-of-fit of the model, measures of dependence, three and higher dimensional tables, hierarchical models, model selection, ordered categories, logit model, zero frequency problem, and introduction to Bayesian analysis of categorical data. PRQ: STAT 472 and STAT 474, or consent of division.

567. RELIABILITY AND LIFE TESTING (3). Survival function, failure rate, types of censored data, estimation for parametric models, accelerated life tests, competing risks, and Bayesian analysis of survival data. PRQ: STAT 472 and STAT 474, or consent of division.

568. METHODS IN BIOSTATISTICS (3). Survival function, failure rate, types of censored data, life tables, regression models for life-time data, bioassay, direct assay, indirect assays with quantitative response, and clinical trials. PRQ: STAT 472 and STAT 474, or consent of division.

569. METHODS FOR QUALITY CONTROL AND IMPROVEMENT (3). Control charts for attributes and variables, special control charts, process control techniques, acceptance sampling, process capability, Taguchi's approach to improving quality of a product, and the philosophy of Deming. PRQ: STAT 472 and STAT 474, or consent of division.

570. PROBABILITY THEORY (3). Review of measures, measurable functions, and algebras of events. Random variables and their moments and characteristic function. Sequences of random variables and various modes of convergence. Borel-Cantelli Lemma and Kolmogorov 0-1 law. Weak and strong laws of large numbers. Convergence in distributions and central limit theorems. Conditional expectation and martingales. Brownian motion and stochastic processes. PRQ: MATH 530 and STAT 470, or consent of division.

571. STOCHASTIC PROCESSES (3). Markov chains and processes. Brownian motion and Gaussian processes. Point processes and renewal processes. Martingales and weakly dependent stochastic processes. Convergence of stochastic processes. PRQ: STAT 570 or consent of division.

572. THEORY OF STATISTICS (3). Exponential class, elements of decision theory, unbiased estimation, shrinkage estimators, methods for estimating standard errors, multiparameter estimation, generalized likelihood ratio tests, sequential probability ratio test, and linear models. PRQ: STAT 472 or consent of division.

573. LINEAR MODELS (3). Theory of linear models with applications to the analysis of variance and regression and to the design of experiments. PRQ: STAT 472 and STAT 474, or consent of division.

574. DESIGN AND ANALYSIS OF EXPERIMENTS (3). Intermediate course in the design and analysis of experiments including linear models of less than full rank, distributions of quadratic forms, estimable functions; confounding, fractional replication; incomplete block, hierarchical, Latin square, cross-over, split plot, repeated measures and related designs, response surface methods, covariance analysis. PRQ: STAT 472 and STAT 474, or consent of division.

575. MULTIVARIATE METHODS OF STATISTICS (3). Introduction to the techniques of multivariate analysis including description of multivariate data, reducing the dimension, principal components, factor analysis, estimation and testing for the parameters in multinormal populations, and multivariate analysis of variance. Problems which involve the use of computers will be treated. PRQ: STAT 472 or STAT 474, or consent of division.

576. DISTRIBUTION-FREE STATISTICS (3). Survey of nonparametric statistical techniques and their logical foundations including the distributions of order statistics and ranks, tests of hypotheses, confidence intervals and Hodges-Lehmann estimators for one-sample, two-sample, and paired sample location problems, the two-sample dispersion problem, analysis of one-way and two-way layouts, tests of independence, goodness-of-fit tests, linear rank statistics, and U-statistics. PRQ: STAT 472 or STAT 474, or consent of division.

577. SAMPLING TECHNIQUES (3). Introduction to sample survey techniques and sampling theory including estimation of population parameters based on simple random sampling, cluster sampling, stratified sampling, and ratio sampling. Includes a summary of recent advances in sampling theory and discussions of practical problems and sources of error in surveys. PRQ: STAT 472 or STAT 474, or consent of division.

578. TIME SERIES ANALYSIS (3). Models for analysis of time series data including mean and covariance functions of stationary time series, moving average, autoregressive and mixed models, identification and estimation in ARMA (p,q) models, asymptotic properties of estimators, periodogram and spectral analysis, and regression with time series error. PRQ: STAT 472 and STAT 474, or consent of division.

579. ADVANCED STATISTICAL METHODS (3). Various topics discussed from the perspective of modeling and analyzing data. Emphasis on application of statistical methodology. Data analytic techniques illustrated with several types of data including categorical data, multivariate data, survival data, linear and nonlinear regression data, time series data, and data from designed experiments. Extensive use of modern statistical software. PRQ: STAT 472 and STAT 474, or consent of division. Recommended: MATH 562.

591. STATISTICAL CONSULTING (1½ or 3). Content varies; topics may include techniques for problem formulation; identification of parameters and solutions; client-consultant interaction techniques; ill-posed problems and their formulation; management of consulting time, facilities, and personnel. Participation under supervision in actual consulting projects. May be repeated to a maximum of 3 semester hours. PRQ: Consent of division.

593. GRADUATE READING IN PROBABILITY AND STATISTICS (1 to 9). May be repeated to a maximum of 9 semester hours. PRQ: Consent of division.

599. MASTER'S THESIS (1 to 6). May be repeated to a maximum of 6 semester hours. PRQ: Consent of division.

675. TOPICS IN STATISTICS (3). Content varies; may include courses in linear models, estimation, hypothesis testing, decision theory, and Bayesian inference. May be repeated to a maximum of 15 semester hours. PRQ: Consent of division.

690. SEMINAR IN STATISTICS (1 to 9). Discussions on topics in advanced probability and statistics as scheduled. Topics include but are not limited to probability theory, stochastic processes, statistical inference, nonparametric statistics, multivariate analysis, linear and nonlinear models, discrete data analysis, time series. One to 9 semester hours as scheduled. May be repeated to a maximum of 24 semester hours, not more than 15 of which may be on a single topic. PRQ: Consent of division.

Department of Philosophy (PHIL)

Chair: David J. Buller

Graduate Faculty

Michael Bishop, associate professor, Ph.D., University of California, San Diego
Harold I. Brown, Distinguished Research Professor, emeritus, Ph.D., Northwestern University
David J. Buller, professor, Ph.D., Northwestern University
Mylan Engel, Jr., associate professor, Ph.D., University of Arizona
Charles M. Gelven, Distinguished Research Professor, Ph.D., Washington University
James L. Hudson, associate professor, Ph.D., Johns Hopkins University
Tomis Kapitan, professor, Ph.D., Indiana University
Theodore J. Kisiel, Distinguished Research Professor, emeritus, Ph.D., Duquesne University
Jennifer Lackey, assistant professor, Ph.D., Brown University
Baron Reed, assistant professor, Ph.D., Brown University
Sharon Sytsma, associate professor, Ph.D., Loyola University
William E. Tolhurst, associate professor, Ph.D., University of Connecticut

The Department of Philosophy offers a graduate program leading to the M.A. degree which is designed to prepare students for teaching and research in philosophy and for doctoral-level graduate work in philosophy and in other disciplines, as well as for positions in government and industry where a broad liberal arts background with strong critical training is desired. Students planning to enroll for graduate courses in philosophy should consult their advisers before registering.

Admission requirements are those established for admission to the Graduate School, plus the baccalaureate degree with a major or strong minor in philosophy. In addition, the Department of Philosophy may require a student to remedy specific deficiencies in preparation by enrolling without graduate credit in certain courses.

Master of Arts in Philosophy

All students pursuing the M.A. in philosophy are required to complete a minimum of 30 semester hours of graduate study and pass a comprehensive examination. In completing these 30 semester hours a student may complete the minimum of 30 semester hours in philosophy; complete a minimum of 24 semester hours in philosophy and receive an additional 6 semester hours of credit for writing a thesis (PHIL 599); complete a minimum of 24 semester hours in philosophy and receive up to 6 semester hours of credit for courses taken outside the field of philosophy; or complete a minimum of 18 semester hours in philosophy, receive an additional 6 semester hours for writing a thesis (PHIL 599), and receive up to 6 semester hours credit for courses taken outside the field of philosophy.

All courses are to be chosen with the approval of the student's adviser, thereby insuring adequate coverage of the various fields of philosophy represented on the comprehensive examination.

Course List

402. PHILOSOPHY OF LOGIC (3). Consideration of the various definitions of logic and theories of its role in mathematics, natural science, and philosophy with texts selected from such philosophers as Aristotle, Hegel, Mill, Peirce, Bradley, Dewey, and Strawson. PRQ: PHIL 302 or consent of department.

403. PHILOSOPHY OF MATHEMATICS (3). Problems in the interpretation of mathematics, e.g., the philosophical importance of non-Euclidean geometries, the arithmetization of analysis, Godel's incompleteness theorem, and such general philosophies of mathematics as formalism, intuitionism, and logicism. Readings from such philosophers as Kant, Frege, Russell, Poincare, and Quine. PRQ: 6 semester hours of philosophy at the 300 level or consent of department.

404. PHILOSOPHY OF LANGUAGE (3). Study of philosophical problems concerning language, including issues of syntax, semantics, pragmatics, and hermeneutics. Topics include meaning, reference, logical form, modalities, tenses, metaphor, indexical terms, indirect discourse, anaphora, theories of truth, and semantic paradoxes.

405. INTERMEDIATE LOGIC (3). Review of symbolic logic including propositional logic, quantification theory, relations, and identity. Additional topics in formal logic and the philosophy of logic selected by the instructor such as proof theory, modal logic, theory of types, formal semantics, and the relation between the formal and the informal understanding of validity.

410. TOPICS IN METAPHYSICS OR EPISTEMOLOGY (3). Intensive study of a major theory or issue in metaphysics or epistemology. May be repeated to a maximum of 6 semester hours toward any one degree provided no repetition of subject matter occurs.

411. THEORIES AND PROBLEMS OF KNOWLEDGE (3). Study of various contemporary views of knowledge. Consideration of such problems as the conditions of meaning; the nature of truth; the relationship between sensation, perception, and intuition; the difference between knowing and believing; methods of verification; and types of judgment. Analysis of the works of such philosophers as Meinong, Husserl, Brentano, Russell, Lewis, Wittgenstein, and Austin. Emphasis on either analyzing several theories of knowledge or tracing a problem through the thought of several philosophers.

412. METAPHYSICS (3). Study of contemporary speculative and descriptive metaphysical theories dealing with such areas as cosmology and ontology. Critical exegesis of the writing of philosophers such as Whitehead, Bergson, Goodman, Sartre, and Strawson.

420. TOPICS IN THE HISTORY OF PHILOSOPHY (3).
A. Major Philosophers
B. 19th and 20th Century History of Philosophy
C. Philosophical Movements
Each topic may be repeated to a maximum of 6 semester hours toward any one degree provided no repetition of subject matter occurs. PRQ: Consent of department.

421. PLATO (3). PRQ: Consent of department.

422. ARISTOTLE (3). PRQ: Consent of department.

423. MEDIEVAL PHILOSOPHY (3). PRQ: Consent of department.

424. 17TH AND 18TH CENTURY EMPIRICIST PHILOSOPHIES (3). A critical exegesis of selected writings by such philosophers as Hobbes, Locke, Berkeley, Hume, and Reid. PRQ: Consent of department.

425. 17TH AND 18TH CENTURY RATIONALIST PHILOSOPHIES (3). A critical exegesis of selected writings by such philosophers as Descartes, Malebranche, Spinoza, Leibniz, and Wolff. PRQ: Consent of department.

426. KANT (3). PRQ: Consent of department.

427. 19TH CENTURY PHILOSOPHY (3). A critical exegesis of selected writings representative of significant philosophical developments in 19th century thought with emphasis on post-Kantian idealism. Texts chosen from the writings of such philosophers as Hegel, Schopenhauer, Kierkegaard, Comte, J. S. Mill, Nietzsche, and Mach. PRQ: Consent of department.

428. 20TH CENTURY PHENOMENOLOGICAL PHILOSOPHIES (3). A critical exegesis of selected writings by such phenomenological philosophers as Husserl, Heidegger, Sartre, Merleau-Ponty, Ricoeur, Levinas, and Derrida. Examination of the phenomenological method and its relation to scientific, structuralist, hermeneutic and/or literary/deconstructive methods. PRQ: Consent of department.

429. 20TH CENTURY ANALYTIC PHILOSOPHIES (3). A critical exegesis of selected writings by such philosophers as Moore, Russell, Wittgenstein, Carnap, C.I. Lewis, Ryle, and Austin. PRQ: Consent of department.

430T. TOPICS IN ETHICS (3). Intensive study of a major theory, issue, or movement in historical or contemporary ethics. May be repeated to a maximum of 6 semester hours toward any one degree provided no repetition of subject matter occurs. PRQ: 3 semester hours of philosophy at the 300 level and consent of department.

431. CONTEMPORARY ETHICAL THEORY (3). Study of the major problems and theories under discussion by specialists in ethical theory. Emphasis on meta-ethical problems and the analysis of ethical concepts. Readings selected from such philosophers as Toulmin, Nowell-Smith, Baier, Hare, and Rawls. PRQ: 6 semester hours of philosophy at the 300 level or consent of department.

442. THEORIES OF VALUE (3). Study of the major theories of value experience, evaluation, and the language of value. Analysis of the works of major theorists such as Dewey, Croce, C. I. Lewis, Perry, and Stevenson, as well as recent articles in the field. PRQ: 6 semester hours of philosophy at the 300 level or consent of department.

452. CONTEMPORARY PHILOSOPHY OF SCIENCE (3). Analysis of recent literature dealing with the structure and methods of science. Issues centering around topics such as induction, description, concept formation, and verification discussed in terms of the works of such philosophers as Hanson, Margenau, Hempel, Nagel, and Toulmin. PRQ: 6 semester hours of philosophy at the 300 level or consent of department.

462. PHILOSOPHY OF CULTURE (3). Various philosophical theories of culture and the areas of cultural life such as myth, religions, language, art, history, and sciences. Consideration of the works of such philosophers as Collingwood, Cassirer, Dewey, Whitehead, and Ortega y Gasset. Emphasis on the relevance of an analysis of culture for philosophical understanding. Designed to be of interest to advanced students in the humanities. PRQ: 6 semester hours of philosophy at the 300 level or consent of department.

471. CLASSICAL THEORIES IN THE PHILOSOPHY OF RELIGION (3). Analysis of some of the views which have achieved major importance in this field. Texts selected from such key works as Hume's *Dialogues Concerning Natural Religion,* Kant's *Religion within the Limits of Reason Alone*, Schleiermacher's *On Religion*, and Feuerbach's *Essence of Christianity*. PRQ: 6 semester hours of philosophy at the 300 level or consent of department.

482. CLASSICAL AMERICAN PHILOSOPHERS (3). Analysis of some of the major figures in American thought from the colonial period through the 20th century. Selections from the works of such philosophers as Edwards, Emerson, Royce, Peirce, Dewey, Santayana, and Cohen will be studied. PRQ: Consent of department.

490. SEMINAR IN PHILOSOPHY (3). Intensive study of one major problem or position in historical or contemporary philosophy. May be repeated to a maximum of 9 semester hours toward any one degree provided no repetition of subject matter occurs. PRQ: Consent of department.

491. DIRECTED READINGS (1 to 4). Enrollment contingent on student's proposed course of study and approval of it by the faculty member selected to supervise the reading. May be repeated to a maximum of 9 semester hours toward any one degree provided no repetition of subject matter occurs. PRQ: Consent of department.

501. ADVANCED SYMBOLIC LOGIC (3). Varied topics selected from characteristic issues such as foundations of quantification theory, including Herbrand's theorem, Lowenheim-Skolem theorem, Godel's completeness theorem; basic proof theory, including Godel's incompleteness theorem; elements of recursive function theory and undecidability theorems; and axiomatic set theory. Relevance of symbolic logic to the analysis of philosophical problems. PRQ: Graduate standing in philosophy or consent of department.

511. EPISTEMOLOGY (3). Topics in the theory of knowledge. Consideration of such problems as what kinds of knowledge there are, what constitutes knowing that something is true, the difference and relationship between knowing and believing, the nature of truth, the nature of perception, and methods of verification. PRQ: Graduate standing in philosophy or consent of department.

512. METAPHYSICS (3). Topics such as space, time, causation, freedom, matter, mind, universals, and self. PRQ: Graduate standing in philosophy or consent of department.

520. TOPICS IN HISTORY OF PHILOSOPHY (3).
A. Major Philosophers
B. Ancient and Medieval Philosophy
C. 17th and 18th Century Philosophy
D. 19th and 20th Century Philosophy
E. Philosophical Movements
Each topic may be repeated to a maximum of 6 semester hours provided no repetition of subject matter occurs. PRQ: Consent of department.

531. ADVANCED ETHICAL THEORY (3). Special topics in advanced ethical theory. May be repeated to a maximum of 6 semester hours as the subject matter changes. PRQ: Graduate standing in philosophy or consent of department.

533. AESTHETICS (3). Detailed study of one or more classical or modern works on aesthetics or study of selected topics in aesthetics such as art and the individual, the nature of aesthetic judgment, the existence of an aesthetic attitude, or the nature of aesthetic experience. PRQ: Graduate standing in philosophy or consent of department.

540. PHILOSOPHY OF MIND (3). Recent developments in philosophy having a bearing on such concepts as perception, thought, intentionality, belief, and the role of these concepts in such philosophical problems as the relation of mind and body, the veridicality of perception, and the nature of personal identity. PRQ: Graduate standing in philosophy or consent of department.

550. POLITICAL AND SOCIAL PHILOSOPHY (3). Critical study of selected political and social concepts such as justice, equality, freedom, and related issues with reference to the views of representative contemporary thinkers. PRQ: Graduate standing in philosophy or consent of department.

552. PHILOSOPHY OF SCIENCE (3). Topics in the philosophy of science. Consideration of such problems as confirmation, the ontological status of theoretical entities, the role of conventions in science, the logic of discovery, and the nature of scientific progress. PRQ: Graduate standing in philosophy or consent of department.

570. PHILOSOPHY OF RELIGION (3). Detailed analysis of one or more key issues in contemporary analytic philosophy of religion, or in important recent theories of the nature and function of religion. PRQ: Graduate standing in philosophy or consent of department.

591. SPECIAL TOPICS IN RECENT PHILOSOPHY (3). May be repeated to a maximum of 6 semester hours as topic changes. PRQ: graduate standing in philosophy or consent of department.

595. SPECIAL STUDIES AND RESEARCH (1 to 4). Guided research for students wishing to do special studies of an advanced nature. Students expected to write a number of short papers with research topics selected in consultation with the instructor. May be repeated to a maximum of 12 semester hours, providing no repetition of subject matter occurs. PRQ: Graduate standing in philosophy or consent of department.

599. THESIS (1 to 6). Guidance in the writing of the master's thesis. May be repeated to a maximum of 6 semester hours. PRQ: Graduate standing in philosophy or consent of department.

Department of Physics (PHYS)

Chair: Susan M. Mini

Graduate Faculty

Carl Albright, Distinguished Research Professor, emeritus, Ph.D., Princeton University
Ralph L. Benbow, associate professor, Ph.D., Iowa State University
Gerald Blazey, Distinguished Research Professor, Ph.D., University of Minnesota
Courtlandt L. Bohn, professor, Ph.D., University of Chicago
Dennis E. Brown, associate professor, Ph.D., Stanford University
Dhiman Chakraborty, assistant professor, Ph.D., State University of New York, Stony Brook
Omar Chmaissem, assistant professor, Ph.D., Université Joseph Fourier (Grenoble)
Bogdan Dabrowski, Distinguished Research Professor, Ph.D., Northwestern University
Bela Erdelyi, assistant professor, Ph.D., Michigan State University
Michael Fortner, associate professor, Ph.D., Brandeis University
David Hedin, director of graduate studies, Distinguished Research Professor, Ph.D., University of Wisconsin
Zdenek D. Hurych, Distinguished Research Professor, emeritus, Ph.D., Charles University (Prague)
Yasuo Ito, associate professor, Ph.D., Cambridge University
Clyde Kimball, Distinguished Research Professor, emeritus, Ph.D., St. Louis University
Lawrence Lurio, associate professor, Ph.D., Harvard University
Stephen P. Martin, Presidential Research Professor, Ph.D., University of California at Santa Barbara
Susan M. Mini, professor, Ph.D., Southern Illinois University
Philippe Piot, assocate professor, Ph.D., Universite de Grenoble (France)
John C. Shaffer, professor emeritus, Ph.D., University of Delaware
Carol Thompson, professor, Ph.D., University of Houston
Michel van Veenendaal, associate professor, Ph.D., Rijksuniversity (Groningen)
Suzanne Willis, professor, Ph.D., Yale University
Augden Windelborn, assistant professor, Ed.D., Northern Illinois University
Roland Winkler, associate professor, Ph.D., University of Regensburg (Germany)
Zhili Xiao, associate professor, Ph.D., University of Konstanz (Germany)

Master of Science in Physics

A student pursuing the M.S. in physics must complete a minimum of 30 semester hours and satisfy the requirements in one of the specializations described below.

The proficiency examination in any of the specializations should be taken during the first or second semester of residence. It normally should be passed in the second semester in order for the student to be considered for continuing financial assistance.

All graduate students are required to register for PHYS 698, Physics Seminar, each semester. This requirement may be waived for a student whose circumstances in a particular semester preclude such enrollment, with the approval of the graduate studies director or the department chair.

Specialization in Basic Physics

Completion of 24 semester hours in physics, including the following.

PHYS 400 - Analytical Mechanics II (3),
OR PHYS 500 - Classical Mechanics (3)
PHYS 560 - Quantum Mechanics I (3)
PHYS 561 - Quantum Mechanics II (3)
PHYS 570 - Electromagnetic Theory I (3),
OR PHYS 571 - Electromagnetic Theory II (3)

Passage of a proficiency examination in mechanics, electricity and magnetism, thermodynamics, optics, and modern physics.

Submission of an acceptable thesis and passage of an oral examination thereon.

Specialization in Applied Physics

Three of the following (9-11)
PHYS 420 - Acoustics I (3)
PHYS 430 - Optics (4)
PHYS 463 - Thermodynamics, Kinetic Theory, and Statistical (3)
PHYS 474 - Methods of Experimental Physics (3)
PHYS 475 - Laboratory Electronics II (4)
PHYS 480 - Introduction to Materials Science (3)
Two of the following (6)
PHYS 501 - Mechanics of Continuous Media (3)
PHYS 560 - Quantum Mechanics I (3)
PHYS 563 - Statistical Physics I (3)
PHYS 566 - Solid State Physics I (3)

Passage of a proficiency examination which may include a special area examination (e.g., acoustics, biophysics, geophysics) in place of one section of the proficiency examination.

Submission of an acceptable thesis and passage of an oral examination thereon.

Specialization in Physics Teaching

Completion of 24 semester hours in physics, including at least 12 semester hours at the 500 level or above.

Passage of proficiency examination with an option of course work in a related science substituted for one area of proficiency examination.

Submission of an acceptable thesis and passage of an oral examination thereon; or submission of two papers, one of which may pertain to teaching of physics or history and philosophy of physics.

PHYS 592 - Seminar on College Teaching of Physics (3), or one year of successful teaching experience

See also “Teacher Certification Information.”

Doctor of Philosophy in Physics

Admission

Students seeking admission to the Ph.D. program in physics must have a background equivalent to that attained by acquiring the B.S. degree in physics at NIU. Although applicants are not required to submit scores other than the GRE General Test score required for admission to the Graduate School, the submission of scores from the GRE Subject Test in physics could enhance their application.

Course Requirements

The Graduate Studies Committee of the department is responsible for approving each student's program to meet the course requirements specified below. Each student must complete at least 90 semester hours of graduate course work. The committee will assess all work done at other institutions and will recommend acceptance of transfer credit for any graduate work deemed appropriate, subject to the policies of and approval by the Graduate School. The Graduate Studies Committee of the department is also responsible for the administration of the qualifying and candidacy examinations. All students are required to complete the following.

Core Courses (18)
PHYS 500 - Classical Mechanics (3)
PHYS 560 - Quantum Mechanics I (3)
PHYS 561 - Quantum Mechanics II (3)
PHYS 563 - Statistical Physics I (3)
PHYS 570 - Electromagnetic Theory I (3)
PHYS 571 - Electromagnetic Theory II (3)

Distribution Requirements (9)
All students are required to take 9 semester hours in physics at or above the 500 level distributed over two areas of the discipline. These must be in addition to the core courses. The areas and the courses chosen to meet this distribution requirement must be approved in each case by the Graduate Studies Committee of the department.

Dissertation (24)
A minimum of 24 semester hours in PHYS 699, Doctoral Research and Dissertation.

Elective Course Work (39)
This may include dissertation work as well as graduate course work in physics and the other natural sciences, engineering, mathematics, and computer science. The courses chosen to meet this requirement are subject to the approval of the Graduate Studies Committee.

Qualifying Examination

A student without a master's degree in physics is required to pass a qualifying examination which will consist of the proficiency examination for one of the specializations in the M.S. physics program. Students admitted to the program with a master's degree in physics are exempt from the qualifying examination.

Candidacy Examination

The candidacy examination is a written examination based on the core courses and other graduate courses. The examination is to be taken within one year of completion of the core courses.

Language/Research-Tool Requirements

There are no foreign-language or extra-departmental research tool requirements. The mathematics prerequisites to undergraduate physics courses constitute a sufficient researchtool requirement.

Dissertation Committee

The dissertation committee for each student will be nominated by the chair of the department and appointed by the dean of the Graduate School. This committee will consist of three to five graduate faculty members and will otherwise meet the specifications of the Graduate School. It will be chaired by the dissertation director, who is appointed by the chair of the department and the deans of the College of Liberal Arts and Sciences and of the Graduate School.

Oral Dissertation Defense

An oral examination on the dissertation will be conducted by the dissertation committee according to Graduate School regulations.

Course List

400. ANALYTICAL MECHANICS II (3). Motion of complex systems. Study of oscillating, rotating, and vibrating systems, non-linear mechanics, mechanics of continuous media, and relativistic mechanics. Use of Fourier analysis, tensors, and Lagrangian and Hamiltonian formulation. PRQ: PHYS 300 or consent of department.

410. COMPUTATIONAL PHYSICS (3). Techniques of physics problem solving using computers. Application of numerical analysis, linear analysis, iterative methods, and Monte Carlo simulation to problems in classical and modern physics. Use of equation-solving software and high-level programming languages. PRQ: CSCI 240, PHYS 300, and PHYS 370, or consent of department.

420. ACOUSTICS I (3). Vibrating strings, bars and plates, acoustic wave equation, transmission and absorption of sound, radiation, and filters. PRQ: PHYS 367 or MEE 322; and MATH 334 or MATH 336; or consent of department.

430. OPTICS (4). Geometrical, physical, quantum, and experimental optics with emphasis on topics of current interest. Three lectures plus a threehour laboratory weekly. PRQ: PHYS 370 or consent of department.

434. NUCLEAR ENERGY AND RADIATION (3). Radiation from nuclear reactions and the interaction of radiation with matter. Nuclear fission, fusion, radioactivity, radiation detection, dose determinations, and shielding. PRQ: PHYS 260 or PHYS 261 or PHYS 283, or consent of department.

460. QUANTUM PHYSICS (3). Schrodinger wave equation, eigen-values and eigen-functions, methods of approximation, and applications to the square well, the harmonic oscillator, and hydrogen-like atoms. PRQ: PHYS 300 and PHYS 370, or consent of department.

461. MODERN PHYSICS (3). Applications of quantum physics to atoms, molecules, solids, nuclei, and elementary particles. PRQ: PHYS 460 or consent of department.

463. THERMODYNAMICS, KINETIC THEORY, AND STATISTICAL (3). Review of such topics as the laws of thermodynamics, the entropy concept, and thermodynamic potentials. Probability, distribution functions, and transport phenomena. Introductory treatment of classical and quantum-mechanical statistical mechanics. Emphasis on applications to areas of modern physics. PRQ: PHYS 320 or consent of department.

467. NOISE AND VIBRATION CONTROL (3). Includes mechanical vibrations, damping, resonance, vehicle noise, acoustical enclosures, and techniques of noise abatement and measurement. PRQ: PHYS 300, PHYS 367, or TECH 367, or consent of department.

470. ELECTRICITY AND MAGNETISM II (3). Maxwell's equations; propagation, reflection, and transmission of electromagnetic waves; wave guides; dipole radiation; radiation by point charges; electrodynamics in special relativity. PRQ: PHYS 300 and PHYS 370, or consent of department.

472. PHYSICAL MEASUREMENTS (2). Special laboratory problems. PRQ: Consent of department.

474. METHODS OF EXPERIMENTAL PHYSICS (3). Basic techniques of experimental physics, including high-vacuum techniques, digital electronics, design and construction of research apparatus, radiation safety, etc. Open to graduate students and advanced undergraduate students in all sciences. Strongly recommended for all graduate students in physics. PRQ: PHYS 375 or consent of department.

475. LABORATORY ELECTRONICS II (4). Applications and use of integrated circuits for experimental measurement and control. Includes digital electronics, digital-to-analog and analog-to-digital conversion, mini and microcomputers, power supplies, and active filters and oscillators. Includes lecture and one 3-hour laboratory period a week. PRQ: PHYS 375 or consent of department.

477. ASTROPHYSICS (3). Kepler's laws and solar system, analysis of solar radiations, nuclear reactions in the sun, and other selected topics. PRQ: PHYS 283 and PHYS 300, or consent of department.

480. INTRODUCTION TO MATERIALS SCIENCE (3). Mechanical, thermal, electrical, optical, and structural properties of modern engineering materials. PRQ: PHYS 300 and PHYS 370, or consent of department.

485. METHODS OF MATHEMATICAL PHYSICS II (3). Tensor analysis. Functions of complex variable, residue calculus, partial differential equations of mathematical physics and Green's function. PRQ: PHYS 385 or consent of department.

492. SCIENCE TEACHING IN THE ELEMENTARY, MIDDLE, AND JUNIOR HIGH SCHOOL: GRADES K-9 (3). *Crosslisted as GEOL 486X*. Selected instructional methods and materials for teaching science in elementary, middle, and junior high schools with emphasis on the physical sciences. Analysis of modern curricula and practice in the use of associated laboratory materials developed for use at all levels from grades K-9. Designed for the classroom teacher and pre-teacher, but open to science supervisors and administrators. Not available for credit in the major. PRQ: A general physical science course and consent of department.

494. USE OF TECHNOLOGY IN SECONDARY SCIENCE TEACHING (2). *Crosslisted as GEOL 484X*. Selected methods for the evaluation and use of technology in both the instructional and laboratory setting in secondary science education. Topics may include the interfacing of computers for data acquisition in the laboratory, strategies for integrating the Internet into the curriculum, and use of video/multimedia equipment. PRQ: Consent of department.

495. TEACHING OF PHYSICAL SCIENCES (3). *Crosslisted as CHEM 495X, GEOG 495X, and GEOL 495X*. Preparation for certification in grades 6-12 in one or more of the fields of physical science: physics, chemistry, earth science, and general science. Examination and analysis of modern curricula; classroom and laboratory organization; microteaching and observation of teaching; lesson planning; multicultural education; teaching science to the exceptional child; reading and the teaching of science; and methods of evaluation. PRQ: Consent of department. CRQ: ILAS 401 or consent of department.

500. CLASSICAL MECHANICS (3). Hamiltonian formulation, canonical transformations, Hamilton-Jacobi theory, special relativity, continuous media and fields. PRQ: PHYS 400 or consent of department.

501. MECHANICS OF CONTINUOUS MEDIA (3). Dynamics of fluids and elastic media in the linear approximation; streamline flow and turbulence; wave propagation in fluids; vibrations and wave propagation in elastic solids; introduction to non-linear mechanics of continua. PRQ: PHYS 400 or consent of department.

505. INSTITUTE FOR SCIENCE TEACHERS (1 to 8). Lectures, demonstrations, laboratory work, and field trips, designed for the science teacher. Subject matter from the fields of chemistry, physics, biology, and earth sciences. May be repeated to a maximum of 16 semester hours. On application to institute director and by invitation only.

520. ACOUSTICS II (3). Acoustic wave theory and applications, including sound radiation, transmission, and absorption, acoustical measurements, nonlinear waves, and vibration. PRQ: PHYS 420 or consent of department.

521. PHYSICAL AND APPLIED ACOUSTICS (3). Topics of current interest in acoustics including quantum effects, interaction of sound and light, bioacoustics, architectural acoustics, transducers, physics of musical instruments, speech acoustics, and psychoacoustics. PRQ: PHYS 520 or consent of department.

524. ACOUSTICS LABORATORY (3). Methods of analysis of sound and vibration, including holographic interferometry, FFT analysis, experimental modal testing, audio tests and measurements, acoustic diffraction and interference, sonoluminescence, acoustic fields, and psychoacoustics. PRQ: PHYS 429 or consent of department.

530. ADVANCED OPTICS (3). Quantum optics and lasers. Topics in nonlinear optics, to include frequency doubling crystals, parametric crystals, acoustic scattering. Fourier optics. Kirchhoff-Fresnel theory of diffraction. Other contemporary topics at discretion of instructor. PRQ: PHYS 430, PHYS 470, or PHYS 460, or consent of department.

545. SURFACE PHYSICS (3). Topics include surface crystallography, thermodynamics, electronic structure, reconstruction, clean surfaces, chemisorption, physisorption, and experimental techniques of surface analysis including Low-Energy Electron Diffraction (LEED) desorption, stimulated desorption, various electron spectroscopies, electron microscopy, and X-ray scattering. Topics limited to discretion of instructor. PRQ: PHYS 560 and PHYS 566, or consent of department.

559. SPECIAL PROBLEMS IN PHYSICS (1 to 10). Special problems in physics under supervision of staff. Problems may be technical in nature or concerned with teaching procedure. May be repeated to a maximum of 15 semester hours, but no more than 10 semester hours may apply toward a master's degree. PRQ: Consent of department.

560. QUANTUM MECHANICS I (3). Linear vector spaces, operators, and the formal structure of quantum theory; elementary treatment of simple systems; matrix mechanics; angular momentum and spin, time-independent and dependent perturbation methods, variational principle; applications to simple atoms and molecules. PRQ: Consent of department.

561. QUANTUM MECHANICS II (3). Identical particles, exclusion principle and exchange effects; interaction of electromagnetic radiation with matter; introduction to scattering theory, partial wave analysis, and Born approximation; simple many-body theory in the Hartree-Fock framework. PRQ: PHYS 560 or consent of department.

563. STATISTICAL PHYSICS I (3). Classical and quantum distribution functions, entropy and temperature, connection with themodynamics; partition function, quantum gases, non-ideal gases; Boltzmann equation and the H-theorem; fluctuation and transport phenomena; phase transitions and critical phenomena, non-equilibrium problems, scaling and critical behavior; introduction to renormalization group methods. CRQ: PHYS 461 or consent of department.

566. SOLID STATE PHYSICS I (3). Crystal symmetry, lattice vibrations, free and Bloch electrons, Brillouin zones and band structures; introduction to lattice dynamics and transport properties; Fermi surfaces; semiconductors; simple treatment of mechanical, thermal, electrical, optical, and magnetic properties of solids. PRQ: PHYS 460 or consent of department.

567. SOLID STATE PHYSICS II (3). Magnetism, superconductivity, optical properties, screening and dielectric response in solids; electrodynamics of metals, phonons, elasticity and anharmonicity; second-order phase transitions, disordered systems. PRQ: PHYS 566 or consent of department.

570. ELECTROMAGNETIC THEORY I (3). Maxwell's equation, plane waves in isotropic and anisotropic dielectrics, conducting media, wave guides and plasmas, dipole radiation and diffraction. PRQ: PHYS 470 or consent of department.

571. ELECTROMAGNETIC THEORY II (3). Radiation from moving charges, relativistic formulation of electrodynamics, collisions and scattering, multipole radiation, radiation damping and self forces. PRQ: PHYS 470 or consent of department.

574. METHODS OF EXPERIMENTAL PHYSICS II (3). Various experimental methods and applications including spectroscopy (optical, nuclear, Mössbauer, X-ray diffraction), methods of particle detection, and research uses of accelerators (nuclear and particle physics, synchrotron radiation studies). PRQ: Consent of department.

584T. INTRODUCTION TO HIGH ENERGY PHYSICS AND ASTROPHYSICS (3). Quarks, leptons, and gauge bosons; fundamental interactions and their unification in the standard model of particle physics; big bang cosmology. PRQ: PHYS 461 or consent of department.

585. METHODS OF THEORETICAL PHYSICS (3). Topics selected from integral equations, integral transforms, elements of finite group theory, Lie groups, Lie algebras, and representation theory. PRQ: PHYS 485 or consent of department.

586. PHENOMENOLOGY OF PARTICLE PHYSICS (3). Advanced topics in the standard model of quarks, leptons, gauge bosons, and their fundamental interactions. Particle production and decay phenomenology. PRQ: PHYS 584T or consent of department.

592. SEMINAR ON COLLEGE TEACHING OF PHYSICS (3). Traditional and nontraditional methods for teaching physics at the college and community college levels. Laboratory and demonstration apparatus discussed. May include teaching classes under the guidance of an experienced teacher. May not be applied toward the master's degree. PRQ: Consent of department.

599. MASTER'S THESIS (1 to 6). Individual investigation of a problem under the supervision of an adviser in the department. May be repeated to a maximum of 6 semester hours. PRQ: Consent of research supervisor and the department.

651. GENERAL RELATIVITY (3). Special relativity on a flat space-time metric, manifolds and curvature, Einstein's equation, Schwarzschild solution. PRQ: PHYS 500 and PHYS 570, or consent of department.

652. ASTROPHYSICS (3). Big bang cosmology, Robertson-Walker metric, open and closed universe, dark matter, inflationary universe, stellar evolution, black holes. PRQ: PHYS 584T or PHYS 651, or consent of department.

660. QUANTUM MECHANICS III (3). Lagrangian field theory, introduction to the Klein-Gordon and Dirac equations and properties of simple relativistic systems; elements of second quantization theory; introduction to quantum electrodynamics and renormalization theory. PRQ: PHYS 561 or consent of department.

668. QUANTUM THEORY OF SOLIDS (3). Theory of groups and group representations; crystal field and spin-orbit interactions; Hartree-Fock theory and electron-electron interactions, electron-phonon interactions; elementary excitations, electron dynamics and transport; Landau-Fermi liquid theory, BCS theory of superconductivity; elastic properties and defects in solids. PRQ: PHYS 567 or consent of department.

676. PARTICLE PHYSICS (3). Structure of elementary particles, constituent models of electroweak and strong interactions, and associated phenomenological techniques. PRQ: PHYS 660 or consent of department.

686. GAUGE THEORIES (3). Gauge principles, spontaneous symmetry breaking, Higgs mechanism, standard model of particle physics, application to electroweak interactions and quantum chromodynamics. PRQ: PHYS 660 or consent of department.

690. SPECIAL TOPICS IN PHYSICS (1 to 6).
A. Solid State Physics
B. Elementary Particle Physics
C. Other Topics of Current Interest
Lectures and discussions on topics in various fields of physics at the graduate level. May be repeated in one or more fields of physics to a maximum of 9 semester hours in any one area, but no more than 15 semester hours may apply toward a master's degree, and no more than 24 semester hours toward a Ph.D. PRQ: Consent of department.

698. PHYSICS SEMINAR (1). Discussion of current problems in physics under guidance of staff.

699. DOCTORAL RESEARCH AND DISSERTATION (1 to 15). May be repeated to a maximum of 100 semester hours, but no more than 40 semester hours may apply toward the Ph.D. degree. PRQ: Consent of department.

Department of Political Science (POLS, PSPA)

Chair: Daniel R. Kempton

Graduate Faculty

Larry Arnhart, professor, Ph.D., University of Chicago
James M. Banovetz, adjunct professor, Ph.D., University of Minnesota
Andrea Bonnicksen, Presidential Research Professor, Ph.D., Washington State University
Barbara C. Burrell, associate professor, Ph.D., University of Michigan
Paul J. Culhane, associate professor, Ph.D., Northwestern University
J. Dixon Esseks, adjunct professor, Ph.D., Harvard University
Morton J. Frisch, adjunct professor, Ph.D., Pennsylvania State University
Gerald T. Gabris, director, Division of Public Administration, Presidential Teaching Professor, Ph.D., University of Missouri
Gary D. Glenn, Distinguished Teaching Professor, Ph.D., University of Chicago
Christopher M. Jones, associate professor, Ph.D., Syracuse University
Lynn Kamenitsa, associate professor, Ph.D., Indiana University
Daniel R. Kempton, associate professor, Ph.D., University of Illinois
Dwight Y. King, director of graduate studies, professor, Ph.D., University of Chicago
Heidi O. Koenig, adjunct associate professor, Ph.D., Syracuse University
Lettie M. McSpadden, adjunct professor, Ph.D., University of Wisconsin
Donald C. Menzel, adjunct professor, Ph.D., Pennsylvania State University
William R. Monat, adjunct Regency Professor, Ph.D., University of Minnesota
Clark D. Neher, Distinguished Presidential Teaching Professor, adjunct, Ph.D., University of California, Los Angeles
Kimberly L. Nelson, assistant professor, Ph.D., North Carolina State University
James Ockey, assistant professor, Ph.D., Cornell University
Michael T. Peddle, associate professor, Ph.D., Northwestern University
Bruce A. Rocheleau, professor, Ph.D., University of Florida
Irene S. Rubin, professor, Ph.D., University of Chicago
Gregory Schmidt, professor, Ph.D., Cornell University
Matthew Streb, assistant professor, Ph.D., Indiana University
Brendon Swedlow, assistant professor, Ph.D., University of California, Berkeley
M. Ladd Thomas, adjunct, professor, Ph.D., Fletcher School of Law and Diplomacy, Tufts University
Kurt M. Thurmaier, professor, Ph.D., Syracuse University
Daniel H. Unger, associate professor, Ph.D., University of California, Berkeley
Y. K. Wang, assistant professor, Ph.D., University of Chicago
Artemus Ward, assistant professor, Ph.D., Syracuse University
Mikel Wyckoff, associate professor, Ph.D., University of Maryland

The Department of Political Science offers graduate programs leading to the M.A., M.P.A., and Ph.D. degrees. Seven fields are available in political science: American government and politics, public administration, public policy, political theory, comparative politics, international relations, and politics and the life sciences. Graduate study may lead to careers in government service (federal, state, and local), international business, teaching, and professional writing and research. The public administration program offers professional preparation, including internship opportunities in government agencies as part of course work, toward a graduate degree; active efforts are made to place students in career government positions upon completion of their studies. Foreign study and overseas internship opportunities also exist. All programs are related to the students' career objectives by their departmental advisers.

In addition to the requirements below, students are expected to comply with the regulations contained in the graduate handbook appropriate to their program available from either the department or the division of public administration.

Master of Arts in Political Science

Students interested in pursuing the M.A. in political science normally should have at least 9 undergraduate semester hours in political science or the equivalent. When this is lacking, a student may be required to make up deficiencies by enrolling in and successfully completing designated courses, by auditing designated courses, or by engaging in supervised reading without graduate credit.

Requirements

Of the minimum 30 semester hours of graduate credit required for the degree, at least 9 semester hours are to be taken in one of the fields listed above and at least 3 semester hours in POLS 590. PSPA 561 is required for study in the field of public administration leading to the M.A. degree. A maximum of 3 semester hours of POLS 590 may be counted toward the 30 semester hour minimum. No more than 3 semester hours in courses outside the department may be applied to the degree.

Students may apply 3 semester hours to the writing of a thesis. If a thesis is to be written the student must register for POLS 599, Thesis (1-6). Students not writing a thesis must submit and successfully defend two research papers prepared in graduate courses, one in the student's primary field and the other outside it. Prior to submission to the department for this purpose, each paper must be approved for such submission by the instructor for the course in which it was written. An oral comprehensive examination is required upon completion of all course work, or during the last term of study.

Master of Public Administration

The mission of the Division of Public Administration is to advance excellence in public management by preparing men and women for public service careers. The M.P.A. program focuses principally on the dynamics of public policy formulation and administrative leadership for persons who wish to address political, social, economic, environmental, and administrative problems in the public and non-profit sectors.

Admission

Application for admission to the M.P.A. program is made directly to the Graduate School. A completed application consists of the Graduate School application, a two-page statement of career

goals, three letters of recommendation, transcripts from all undergraduate and graduate institutions attended, and the official score report on the Graduate Record Examination (GRE) General Test.

Pre-career students should request at least two letters of recommendation from previous instructors who can judge their ability to do graduate work. If pre-career students have public sector experience, they should request a letter from an employer who can judge their potential as future public administrators. In-service students should request at least one letter of recommendation from a previous instructor and remaining letters from public sector employers.

Prerequisites for admission to the program are 9 semester hours in the social sciences, including at least one course in U.S. government, and appropriate undergraduate work in mathematics or statistics. With the approval of the student's adviser, a maximum combined total of 15 semester hours of graduate credit transferred from other accredited institutions plus graduate credit earned in courses at Northern Illinois University as a student-at-large may be counted toward meeting the requirements of the M.P.A. degree. The limit on student-at-large hours may be waived in special circumstances, with the approval of the director of the Division of Public Administration.

Requirements

The M.P.A. degree normally requires the completion of a minimum of 39 to 50 semester hours of approved graduate study in the public policy/management core and a selected specialization. The student must complete a minimum of 39 semester hours of course work exclusive of internship hours.

In addition to credit-hour requirements, students must also develop a basic familiarity with the utilization of computers; submit a capstone paper while registered for PSPA 599; and pass a comprehensive examination. The capstone paper is a culminating research/analysis presentation, based on an approved research design and original field research, which is expected to be of professional, publishable quality. Students must have completed a minimum of 27 semester hours of approved graduate study, exclusive of internship courses; have maintained a GPA above 3.00; be carrying no "incompletes"; and have completed the capstone paper to be eligible to sit for the comprehensive examination.

Public Policy/Management Core (24)

PSPA 500 - Scope and Dynamics of Public Administration (3)
PSPA 501 - Data Analysis in Public Administration (3)
PSPA 504 - Public Program Evaluation Methods (3)
PSPA 505 - Organization Theory and Behavior (3)
PSPA 509 - Public Personnel Management (3)
PSPA 510 - Public Budgeting and Financial Management (3)
PSPA 512 - Information Management and Decision Support in Public Organizations (3)
PSPA 599 - Public Sector Research (3)

Students with appropriate previous course work or professional experience may petition program faculty for permission to substitute elective courses for PSPA 501, PSPA 509, or PSPA 510. Permission for such a substitution involving PSPA 501 will not be granted until after the student has demonstrated his or her competence by passing an examination administered by the faculty for that purpose. In no case will any semester hours be waived. Students are also held responsible on the comprehensive examination for knowledge/skill areas from all public policy/ management core courses, irrespective of any approved substitutions.

Specialization

Students must also complete the requirements of one of the following specializations, thus permitting the development of expertise in a particular field of academic and professional interests. Students will normally be expected to select elective courses from curricula other than public administration (PSPA) courses.

Specialization in Comparative and Developmental Administration

A thorough study of the economic and social problems of development administration, and an examination of bureaucratic functioning in other cultures.

PSPA 571 - Readings in Comparative Public Administration (3),
OR PSPA 572 - Administrative Problems of Less Developed Countries (3)
Two of the following (6)
POLS 521 - Comparative Public Policy (3)
POLS 533 - International Biotechnology Policy (3)
POLS 568 - Seminar in the Political Economy of Developing Areas (3)
POLS 584 - Political Economy of International Relations (1-3)
PSPA 571[1] - Readings in Comparative Public Administration (3)
PSPA 572[1] - Administrative Problems of Less Developed Countries (3)
Approved graduate course work (6)

Specialization in Fiscal Administration

The critical examination of techniques and problems in the areas of fiscal management, accountancy, budgetary policy, and political economy.

PSPA 552 - Public Sector Revenue Management (3)
PSPA 557X - Accounting for Public Administration (3)
Approved graduate course work (9)
PSPA 595[2] - Internship in Public Administration (1-3)

Specialization in Human Services Administration

An intensive review of fundamental problems involved in the development and administration of programs in social services, mental health, developmental disabilities, health planning, workforce planning, aging, youth services, and related topics.

PSPA 526 - Social Policy (3)
Approved graduate course work (12)
PSPA 595[2] - Internship in Public Administration (1-3)

Specialization in Public Management and Leadership

A study of public administration focusing principally on knowledge of and leadership skills for the management of public organizations.

PSPA 550 - Leadership in Public Sector Organizations (3),
OR POLS 520 - Study of Public Policy (3),
OR PSPA 560 - Ethics and Public Service in America (3)
Approved graduate course work (12)
PSPA 595[2] - Internship in Public Administration (1-3)

Specialization in Urban Management

An analysis of urban problems, especially the political and administrative problems of city management and community organization activities.

PSPA 530 - Local and Metropolitan Government (3)
PSPA 531 - Urban Planning and Zoning (3),
OR PSPA 532 - Problems of Municipal Administration (3),
OR PSPA 535 - Local Economic Development Policy (3)
PSPA 595[2] - Internship in Public Administration (1-3)
Approved graduate course work (9)

[1]If not counted above.
[2] The requirement for PSPA 595 may be waived if a student has had appropriate professional experience.

Simultaneous Enrollment in M.P.A. and J.D. Degree Programs

The Division of Public Administration and the College of Law offer the opportunity for simultaneous enrollment in the M.P.A. and J.D. degree programs to qualified graduate students. Students must be admitted to both the M.P.A. program and the J.D. program. Matriculation in the two programs must be within 18 months of each other.

Since students enroll in two separate degree programs, to receive both degrees students must meet all of the graduation requirements for both degree programs. A student may obtain either degree prior to completing all requirements for the other degree. Under the simultaneous enrollment plan, students are required to take at least 111 total semester hours, 81 from the College of Law and 30 from the Division of Public Administration (not including the internship). Up to 9 semester hours of College of Law course work may be applied toward the 39 semester hours required for the M.P.A. degree, and up to 9 semester hours of M.P.A. course work with a grade of B or better may be applied toward the 90 semester hours required for the J.D. degree.

Doctor of Philosophy in Political Science

While the Ph.D. in political science has traditionally been the badge of distinction of college and university teachers, doctoral programs in political science are also designed with other career objectives in mind such as professional research, public service, and university administration. The Department of Political Science is conscious of these several career objectives.

Admission

An applicant may be admitted to the Ph.D. program without a prior degree in political science or public administration if the discipline of the prior degree(s) is relevant to his or her primary fields of doctoral study. If the applicant has not completed a prior degree in political science or public administration, he or she must have completed the equivalent of 9 semester hours of undergraduate political science course work or the department may require that introductory political science courses appropriate to his or her fields of study be taken as a condition of admission.

An applicant to the Ph.D. program in political science is usually expected to have completed both a baccalaureate and an M.A. degree; however, an individual with a baccalaureate degree may be admitted directly into the Ph.D. program. Such an applicant must have GRE scores, strong letters of recommendation, and an undergraduate record which present conclusive evidence of an ability to begin high quality work at the doctoral level immediately.

Students with a baccalaureate degree who are admitted directly into the Ph.D. program must complete all requirements for the master's degree in political science with at least a 3.20 GPA in graduate political science courses exclusive of thesis and independent study courses. Having met the master's degree requirements, they will be strongly encouraged to apply for and receive an M.A. in political science.

Course Requirements

The Department of Political Science requires that 90 semester hours of graduate course work be completed with a cumulative GPA of 3.00 or higher. These hours may include no more than 30 semester hours of credit in POLS 590, Political Science Research, POLS 591, Teaching of Political Science, POLS 699A, Doctoral Research and Dissertation, or any combination thereof.

In completing the remaining required 60 semester hours of course work, students must include POLS 502, Scope and Methods of Political Science I (3), and POLS 503, Scope and Methods of Political Science II (3). Students who have not completed the scope and methods sequence prior to entering the Ph.D. program should do so in their first year of doctoral studies. Students with a field in public administration or public policy may substitute PSPA 504 for POLS 502 with the approval of their advisory committee.

The department requires the completion of two fields. The fields offered by the department are American government and politics (POLS 500 required), public administration (PSPA 561 required), public policy (POLS 520 and PSPA 504 required), political theory (POLS 550 and POLS 551 required), comparative politics (POLS 560 required), international relations (POLS 580T required), and politics and the life sciences (POLS 530 required). Course work is also available in political economy and urban governance. Graduate students in the doctoral program must take comprehensive written and oral examinations (candidacy examinations) in both fields.

The student must complete 15 semester hours of course work in a primary field and a minimum of 12 semester hours in the second field, both designated by the student. Doctoral students must take a minimum of three 500- or 600-level seminars in their first field and a minimum of two 500- or 600-level seminars in their second field. Students who take the minimum semester hours in either field may not count any independent study courses toward the minimum. No more than one course outside of political science may be counted toward the hours required in a field. A minimum of 6 semester hours of POLS 590 must be completed beyond any hours counted toward the M.A. degree. Students who have passed candidacy examinations must register for 3 semester hours of POLS 590 each semester until the dissertation proposal has been formally approved. POLS 590 credit does not count toward the minimum course requirement in either of the two fields. No more than 15 semester hours may be taken outside of political science. Exceptions to any of these rules must be approved by the department graduate committee, to which such requests must be submitted in writing through the student's advisory committee.

Students will be expected to consult initially with an interim adviser, and subsequently with members of the advisory committee, once these have been appointed, regarding a program of studies. Such consultation will help to insure that the student's doctoral work is related to career and professional interests, and conforms to Graduate School and departmental requirements. Registration for courses without the adviser's approval might lead to the accumulation of graduate credits in political science and related disciplines, but provides no assurance that the department will support an application for admission to candidacy for the Ph.D.

Teaching-Skill Requirement

All students in the Ph.D. program will be required to participate in a training program in classroom techniques. Ordinarily the requirement will be met through direct involvement in the instructional program for at least one semester under the close supervision of a faculty member. Exceptions are authorized only upon recommendation of the student's committee and approval of the department graduate committee.

Language/Research-Tool Requirement

The student working toward a Ph.D. in political science must demonstrate an ability to make use of research tools by showing proficiency in using language and/or quantitative research tools. The choice of specific language/research tools will relate to the student's fields of study, and will be made with the approval of the student's advisory committee. Proficiency in any foreign language can be demonstrated in accordance with the procedures described in the section "Ph.D. Language and/or Research-Tool Requirement" under "Requirements for Graduate

Degrees" earlier in this catalog. This includes the possibility of demonstrating average proficiency in French, German, or Spanish through the reading courses indicated. In addition, with the approval of the appropriate faculty member of the Department of Foreign Languages and Literatures, average proficiency in other languages can be demonstrated by passing a translation examination administered as part of the final examination in the fourth or later semester of study. Proficiency in a research tool is normally demonstrated by successfully completing designated courses with a grade of A or B. In certain cases, a student's committee may approve the use of a proficiency examination in lieu of course requirements for a research tool. Any one of the following will satisfy the language/research-tool requirement.

Two foreign languages, average reading proficiency
One foreign language, high level of reading proficiency
One foreign language, average reading proficiency, and one research tool, average proficiency
Two research tools, average proficiency
One research tool, high level of proficiency

The language/research-tool requirement must be completed before the student takes doctoral candidacy examinations, unless the department grants an exception.

Candidacy Examinations

The student will take candidacy examinations after completing most or all of his or her course work. Written candidacy examinations will be administered in the two fields in a student's program, followed by an oral examination covering both fields. A student who successfully completes this requirement will be recommended to the Graduate School for admission to candidacy for the doctorate in political science. A student must take all three examinations in one examination period. Any student who fails a written examination may, with the permission of the advisory committee, retake that particular examination in the next examination period. A student who fails two written examinations in the same field, or more than three in different fields, will not be permitted to continue.

Certificate of Graduate Study

Public Management (15)

Offered by the Division of Public Administration, this certificate should be of interest to public sector employees and professionals as well as students enrolled in other NIU graduate degree programs and individuals who hold a master's degree in a related discipline. Credit earned for a certificate may be applied toward the M.P.A. degree with the advice and approval of the division director.

Admission to pursue the certificate is based on an overall assessment of the applicant's education needs and career objectives. Each applicant must complete an admissions form furnished by the Division of Public Administration and submit a written statement describing the applicant's work experience in the public sector. Additionally, a brief statement indicating how the applicant's career objectives can be enhanced by completing the certificate should be submitted.

A student's program of study must be reviewed and approved by the division director or the M.P.A. coordinator. A maximum of 3 semester hours earned in another department or program may be applied toward the certificate with the consent of the division director or M.P.A. coordinator.

At least three of the following (9-15)
PSPA 500 - Scope and Dynamics of Public Administration (3)
PSPA 501 - Data Analysis in Public Administration (3)
PSPA 504 - Public Program Evaluation Methods (3)
PSPA 505 - Organization Theory and Behavior (3)
PSPA 509 - Public Personnel Management (3)
PSPA 510 - Public Budgeting and Financial Management (3)
PSPA 512 - Information Management and Decision Support in Public Organizations (3)

Other 500-level PSPA courses with the exception of PSPA 561, PSPA 571, PSPA 592, PSPA 595, and PSPA 599 (0-6)

Course List

Political Science (POLS)

Course numbering system. Many courses offered by the department relate to more than one field of political science. However, as a general guide to students, the following numbering system is used.

–00 to –19, American government
–20 to –29, public policy
–30 to –39, politics and the life sciences
–50 to –59, political theory
–60 to –79, comparative politics
–80 to –89, international relations

The following numbers are for courses not in any of the above fields.

–40 to –49, methodology
–90 to –99, general

403. INTEREST GROUPS IN AMERICAN POLITICS (3). Examination of the growing influence of interest groups in American politics including the roles of major economic interest groups, the emergence of political action committees, the involvement of interest groups in campaign financing, personnel recruitment for the executive branch, and direct lobbying. PRQ: POLS 305 or consent of department.

407. POLITICAL ATTITUDE AND VALUE FORMATION (3). Formation, transmission, maintenance, and change of political attitudes. Topics include strategies for the conceptualization and measurement of attitudes and major theories of attitude change. PRQ: POLS 340 or consent of department. Recommended: POLS 304.

408. POLITICAL PARTICIPATION AND BEHAVIOR (3). Focus on the structural, psychological, and sociological factors associated with participation in the political process including both electoral and non-electoral participation. Attention will be directed to the impact of various levels and types of participation on the American and other major political systems. PRQ: POLS 407 or consent of department.

410. CONSTITUTIONAL LAW I (3). Judicial, legislative, and executive powers, war and emergency powers, federalism, the commerce clause, taxing and spending powers, the state police power, inter- and intrastate relations, and the Supreme Court and economic policy. PRQ: POLS 100 or consent of department.

411. CONSTITUTIONAL LAW II (3). Economic liberties and property rights, equal protection of the law, due process, incorporation of the Bill of Rights, right to counsel, right against compelled self-incrimination, right against cruel and unusual punishment, and right against unreasonable searches and seizures. PRQ: POLS 100 or consent of department.

412. CONSTITUTIONAL LAW III (3). The First Amendment: freedoms of speech, association, assembly, press, and religion, and the right to privacy. PRQ: POLS 100 or consent of department.

414. TOPICS IN LAW AND SOCIAL PROBLEMS (3). Examination and analysis of the enduring questions of importance for the legal system. Problems illustrating the intersection of law, morality, and politics are set in the context of contemporary issues. Specific focus of the course changes each semester. May be repeated once as topic changes. PRQ: POLS 100 or consent of department.

415. CRIMINAL LAW (3). Focus on substantive criminal law: functions of the criminal law, crimes against the person, crimes against property, attempt, conspiracy, solicitation, and crimes without victims. May include elements of criminal procedures.

439. INTERNSHIP IN ADMINISTRATION (3). Admission upon written departmental approval. Two days a week or equivalent in a government agency. S/U grading. Recommended: POLS 331.

440. MAJOR MODES OF EMPIRICAL THEORY (3). Selected major empirical theoretical approaches: institutional analyses, the role of elites, systems and communications networks, game theory, decision making, and phenomenology. PRQ: POLS 340 or consent of department.

450. AMERICAN POLITICAL THOUGHT I (3). Analysis of the political thought of selected American statesmen and stateswomen having political responsibility at the critical moments in American history. Attention given to the relationship between the political philosophy in their thinking and the political actions they initiated.

451. AMERICAN POLITICAL THOUGHT II (3). Analysis of topics in American political thought which reflect major political controversies in American history, for example, liberty and equality, liberalism and conservatism, American political rhetoric. Topics change each semester. May be repeated to a maximum of 6 hours.

452. RELIGION AND THE CONSTITUTION (3). Examination of the constitutional relation of religion and American politics in light of modern political philosophy, the Founders' political thought, and historical and contemporary constitutional controversies involving religion.

456. WAR, EMPIRE, AND ETHICS (3). Examination of questions of justice and interest as they arise in the context of war and imperial politics. Study of views of political philosophers, historians, and political leaders. Representative authors include Thucydides, Machiavelli, Kant, and Churchill. PRQ: Consent of department.

469. TOPICS IN LATIN AMERICAN POLITICS (3). Comparative analysis of politics and government in Latin America, focusing on specific countries or issues. May be repeated once as topic changes. PRQ: POLS 381 or consent of department.

480. INTERNATIONAL LAW AND ORGANIZATION (3). Principles of the international law of peace, war, and neutrality. The origins, structure, and functioning of the United Nations and its specialized agencies. Contemporary problems. Recommended: POLS 285.

483. RUSSIAN FOREIGN POLICY (3). Examination of contemporary Russian foreign policy, with emphasis on the determinants, objectives, and strategies. Recommended: POLS 366.

493X. SEMINAR IN POLITICAL ECONOMY (3). *Crosslisted as ECON 493*.
A. Decision Making in the Public Sector
B. International Relations
C. Metropolitan Studies
D. Human Resources and Training Policy
Topics announced. Each lettered topic may be taken once. PRQ: Consent of department.

495. SEMINAR IN CURRENT PROBLEMS (3). Contemporary issues and policies in government and politics. May be repeated to a maximum of 6 semester hours.

496X. HISTORY AND SOCIAL SCIENCE INSTRUCTION IN GRADES 6-12 (3). *Crosslisted as HIST 496.* Organization and presentation of materials for history and social science courses at the middle school, junior high, and senior high school levels. PRQ: Admission to the history or social science teacher certification program and permission of Department of History's office of teacher certification.

498. SEMINAR ABROAD (3 to 9). A foreign study program to be arranged with the department chair.

500. SEMINAR IN AMERICAN POLITICS (3). Reading seminar in the major literature and research approaches to the study of American politics and government.

501. TOPICS IN AMERICAN POLITICS (3). Reading seminar which in any one semester will focus on either the American Executive, comparative state politics, government and the economic system, or some other topic in American politics. May be repeated to a maximum of 6 semester hours as topic changes.

502. SCOPE AND METHODS OF POLITICAL SCIENCE I (3). Survey of research methods and design in political science. Required in the first year for all students in the Ph.D. program and strongly recommended for all M.A. students planning to pursue a Ph.D.

503. SCOPE AND METHODS OF POLITICAL SCIENCE II (3). Social science theories of knowledge and orientation to the discipline of political science. Required in the first year for all students in the Ph.D. program and strongly recommended for all M.A. students planning to pursue a Ph.D.

505. SEMINAR IN POLITICAL PARTIES (3). Survey of the literature and research pertaining to American political parties.

506. INTERGOVERNMENTAL RELATIONS (3). Analysis of national-state, national-local, state-local, interstate, and interlocal relationships within the United States. Nature of federalism, constitutional and statutory power bases, and cooperative problem-solving.

507. URBAN POLITICS (3). Theory of urban politics with emphasis on urban research design.

508. LEGISLATIVE BEHAVIOR (3). Functioning of legislative bodies, actions of members, coalitions, policy outputs, decision processes, and constituency relationships.

509. THE ROOTS OF POLITICAL BEHAVIOR (3). Examination of the foundations of political behavior of individuals and groups; a survey of the research methods used to study such behavior. May be repeated for a total of 6 semester hours.

510. SEMINAR IN THE JUDICIAL PROCESS (3). Judicial systems and roles, judicial selection, organization and management of litigation, influences on judicial decision-making, impact and enforcement of judicial decisions, relationships among courts and other policy makers in the political system.

512. CONSTITUTIONAL POLITICS (3). Relationship between doctrines of constitutional law and the political values of prevailing coalitions on the U.S. Supreme Court. Attention given to selected cases.

518. THEORIES OF LEGAL JUSTIFICATION (3). Alternative frameworks for the justification of judicial decisions.

519. TOPICS IN PUBLIC LAW (3). May be repeated to a maximum of 6 semester hours.

520. STUDY OF PUBLIC POLICY (3). Survey of the theoretical approaches to public policymaking rooted in the fields of American politics, public administration, and urban politics.

521. COMPARATIVE PUBLIC POLICY (3). Comparative analysis of the policies of both developed and developing nations in the areas of budgetary, development, foreign, military, and social welfare policies.

524. NATURAL RESOURCES POLICY (3). Policymaking and political management regarding environmental issues such as pollution regulation, water resources development, and environmental impact assessment. Enrollment open to students in both natural and social sciences.

526. HEALTH POLICY (3). Examination of political issues relating to the allocation and rationing of health resources in democratic and in other societies. Includes health policies and case studies of governmental decision making.

529. TOPICS IN PUBLIC POLICY (3). Selected issues concerning public policymaking in the U.S. and/or other nations. May be repeated to a maximum of 9 semester hours as the topic changes.

530. BIOPOLITICAL THEORY (3). History, approaches, problems, and critiques of biopolitics.

531. BIOMEDICAL POLICY (3). Detailed examination of state and federal government policies related to biomedical issues. Emphasis on policies relating to human genetics (counseling, screening, therapy), reproductive technologies, and organ transplantation. PRQ: Consent of department.

532. BIOTECHNOLOGY AND POLITICAL STRUCTURES (3). Intensive examination of the role of the executive, legislative, and judicial branches of government in the regulation of biotechnology research and development. Exploration of questions of industry-academic relations in biotechnology.

533. INTERNATIONAL BIOTECHNOLOGY POLICY (3). Examination of the social and political implications of developments in biotechnology for international relations. Topics include international regulatory, economic, and legal issues in biotechnology as well as the uses of biotechnology in terrorism and warfare.

537. EVOLUTION AND POLITICAL THEORY (3). Theoretical and methodological problems in biopolitical studies with attention to the political implications of Darwinian evolution, ethology, and sociobiology. PRQ: Consent of department.

541. INTRODUCTORY ANALYSIS OF POLITICAL DATA (3). Consideration of basic concepts in data analysis and statistics such as central tendency, dispersion, probability, confidence intervals, statistical significance, correlation, and bivariate regression.

542. INTERMEDIATE ANALYSIS OF POLITICAL DATA (3). Regression analysis techniques in political research. Simple bivariate statistical models through structural modeling. PRQ: POLS 340 or POLS 541, or consent of department.

543T. ADVANCED ANALYSIS OF POLITICAL DATA (1 to 3). Review and application of the general linear model to selected techniques from among the following: analysis of binary or categorical dependent variables, such as logistic regression; time-series analysis, including ARIMA; factor analysis; structural equation modeling using software such as LISREL or AMOS. May be repeated to a maximum of 6 semester hours when topic changes. PRQ: POLS 542 or consent of department.

545. QUALITATIVE RESEARCH METHODS (3). Examination of the philosophical underpinnings and rigorous design of qualitative research in political science, with emphasis on giving students sufficient skills to do qualitative research. Topics include selecting and defining cases, structuring qualitative interviews, coding and analyzing qualitative data, and generalizability. Techniques and applications include participant observation, case studies, elite interviews, and oral histories.

550. BASIC PROBLEMS IN ANCIENT POLITICAL PHILOSOPHY (3). Analysis of a major work or major works of classical political philosophy. May be repeated to a maximum of 12 semester hours when topic varies.

551. TOPICS IN MODERN POLITICAL PHILOSOPHY (3). Analysis of a major work or major works illustrative of modern political philosophy. May be repeated to a maximum of 15 semester hours when topic varies.

552. THEORY OF AMERICAN DEMOCRACY I: THE FEDERAL CONVENTION (3). Theoretical consideration of the American political order as it is revealed in its founding decade, with attention given to the Proceedings of the Federal Convention and related philosophical and historical materials.

553. THEORY OF AMERICAN DEMOCRACY II: THE FEDERALIST (3). Theoretical consideration of the American political order as it is revealed in the founding decade, with attention given to The Federalist as a work of political philosophy, to the anti-Federalist writings, and to related philosophical and historical materials.

554. PRINCIPLES OF PLATO'S POLITICAL THEORY (3). Analysis of Plato's political dialogues. May be repeated to a maximum of 6 semester hours for different dialogues.

560. SEMINAR IN COMPARATIVE POLITICAL ANALYSIS (3). Reading seminar in the major theoretical and methodological concerns of the field of comparative government.

562. SEMINAR IN POLITICAL CULTURE (3). Analysis of politics as a cultural manifestation; comparative analysis of the cultural bases of national political systems. Research on selected topics of political culture.

563. POLITICAL ECONOMY OF THE COMMUNIST WORLD (3). Analysis of the context and dynamics of communist political economies. Interaction of communist politics with economic structures and constraints. PRQ: Consent of department.

566. RUSSIAN POLITICS AND GOVERNMENT (3). Examination of contemporary Russian politics and government, including the major political institutions, parties, and leaders. Attention also given to the evolution of Russian federalism.

567. SEMINAR IN POLITICAL DEVELOPMENT (3). Reading seminar devoted to a comprehensive survey of the literature on the problems of political development and social modernization in the developing nations.

568. SEMINAR IN THE POLITICAL ECONOMY OF DEVELOPING AREAS (3). Examination of the political determinants and consequences of economic development programs in underdeveloped nations. Attention given to the politics of the planning process, the internal impact of foreign assistance, the politicization of economic conflict, and the evolution of public policy in selected developing countries.

569. THE POLITICS OF ECONOMIC POLICY IN INDUSTRIALIZED COUNTRIES (3). Attention given to various forms of planning, regulation, participation, and industrial relations in industrialized countries, including the U.S., USSR, Japan, and selected European countries.

570. READING SEMINAR IN SOUTHEAST ASIAN POLITICS (3). Examination of the literature concerning the diverse political cultures of Southeast Asia, the salient political forces, and the major political problems of development, integration, and stability in the area.

573. FOREIGN AREA POLITICS (3).
A. India and Pakistan
C. Africa
E. The Middle East
G. East Asia
J. Western Europe
K. Latin America
M. Communist Political Systems
N. Thailand
R. Indonesia
Focus on political institutions, processes, behaviors, and the impact of sociocultural change in the area of concern. May be repeated to a maximum of 9 semester hours; however, individual topics may not be repeated.

575. SEMINAR IN COMPARATIVE POLITICAL INSTITUTIONS AND PROCESSES (3). Examination of the literature dealing with selected institutions and processes, such as parties, interest organizations, elites, legislatures, and executives, in a comparative framework and the methodology used in examining these phenomena.

580. THEORIES OF INTERNATIONAL RELATIONS (3). Seminar surveying the major theories and methods used in contemporary international relations. Consideration of the nature of international relations and provides a broad sampling of systemic and subsystemic approaches.

582. SEMINAR IN INTERNATIONAL LAW AND ORGANIZATION (3). Selected topics and cases in international law. Structural and functional problems of the United Nations and its specialized agencies.

584. POLITICAL ECONOMY OF INTERNATIONAL RELATIONS (1 to 3). The mutual influence of economic and political factors in international relations, including the roles of multinational corporations, international economic organizations, and national foreign economic policies. In-depth examination of relevant theories including theories of imperialism and dependency. May be repeated to a maximum of 3 semester hours.

585. AMERICAN FOREIGN POLICY-MAKING (3). Seminar exploring the actors, politics, and processes involved in the formulation and implementation of contemporary American foreign policy. Role and relative influence of domestic institutions, public opinion, and the international system. Examination of relevant theories of foreign policy making.

586. SEMINAR IN INTERNATIONAL RELATIONS (3). Research and analysis of selected topics or selected world regions in the field of international relations. May be repeated to a maximum of 9 semester hours when topic varies.

587. SOUTHEAST ASIA AND INTERNATIONAL POLITICS (3). Examination of Southeast Asia's role in contemporary international politics with emphasis on conflict and cooperation among neighboring states, commitment vs. neutrality in the cold war, and participation in international organizations.

588. EAST ASIAN SECURITY (3). Great power relations in East Asia. Focus on patterns of conflict and cooperation among China, Japan, Russia, and the United States. Examination of security challenges facing Korea and Taiwan.

590. POLITICAL SCIENCE RESEARCH (1 to 3). Supervised research training in planning, design, execution, and analysis of political science research. Required of all graduate students in political science. Doctoral students may repeat to a maximum of 24 semester hours. S/U grading.

591. TEACHING OF POLITICAL SCIENCE (1 to 3). Orientation to and supervised teaching of political science. Required of all doctoral students for 1 semester hour and may not be repeated except by students who are teaching assistants. Teaching assistants may repeat to a maximum of 18 semester hours. Credit may not be applied toward the hours required for a master's degree, and is not accepted toward field requirements for the Ph.D. degree. May be counted toward the 90 semester hours required for the Ph.D. degree. S/U grading. PRQ: Consent of department.

596. INDEPENDENT STUDY IN POLITICAL SCIENCE (1 to 6). Open to qualified master's students who wish to do individual advanced work in political science. May be repeated to a maximum of 9 semester hours.

599. THESIS (1 to 6). May be repeated to a maximum of 6 semester hours.

601. RESEARCH SEMINAR IN AMERICAN POLITICS AND POLICY (3). Open to advanced doctoral students in American government, politics and the life sciences, and public policy who wish to work on a dissertation proposal.

602. RESEARCH SEMINAR IN COMPARATIVE AND INTERNATIONAL POLITICS (3). Open to advanced doctoral students in comparative politics and international relations who wish to work on a dissertation proposal.

650. SEMINAR IN POLITICAL THEORY (3). Research and discussion of selected topics. May be repeated to a maximum of 9 semester hours as topic changes.

696. INDEPENDENT STUDY IN POLITICAL SCIENCE (1 to 6). Open to students admitted to the doctoral program who wish to do individual advanced work in political science. May be repeated to a maximum of 9 semester hours.

698. FOREIGN STUDY AND INTERNSHIP (3 to 9). Individual research, study, and work abroad.

699A. DOCTORAL RESEARCH AND DISSERTATION (3 to 15). S/U grading. May be repeated to a maximum of 30 semester hours. PRQ: Successful completion of candidacy examinations, approval of dissertation proposal, and appointment of a dissertation director, or consent of department.

699B. DOCTORAL DISSERTATION (1). S/U grading. PRQ: Successful completion of oral defense of dissertation and departmental approval of final revisions to the dissertation.

Public Administration (PSPA)

500. SCOPE AND DYNAMICS OF PUBLIC ADMINISTRATION (3). Examination of the history of public administration and the basic issues which confront it including administrative responsibility and ethics, and the formulation and implementation of public policy.

501. DATA ANALYSIS IN PUBLIC ADMINISTRATION (3). Examination of techniques for the collection, manipulation, interpretation, and presentation of data and information in public policy/management processes, and demonstrates applications of the techniques using micro-computer technology.

504. PUBLIC PROGRAM EVALUATION METHODS (3). Examination of the techniques of evaluation and their application to selected policy areas, including a discussion of experimental, quasi-experimental, and other evaluative tools. Requires design of a research project. PRQ: PSPA 501 or consent of department.

505. ORGANIZATION THEORY AND BEHAVIOR (3). Survey of theory and research on organizations relevant to public administration, with a focus on key organizational functions and ways of defining and responding to organizational problems. PRQ: PSPA 500 or consent of department.

509. PUBLIC PERSONNEL MANAGEMENT (3). Examination of techniques, methods, and policies concerning the management of personnel in public and quasi-public organizations.

510. PUBLIC BUDGETING AND FINANCIAL MANAGEMENT (3). Examination of the public budgetary process and related financial management techniques.

512. INFORMATION MANAGEMENT AND DECISION SUPPORT IN PUBLIC ORGANIZATIONS (3). Introduction to concepts and skills concerning the management of information technology in the public sector. Covers topics related to managing computers and using software (including spreadsheets and data base management systems) to support the decision-making process. PRQ: PSPA 501 or consent of department. Recommended PRQ: PSPA 505.

526. SOCIAL POLICY (3). Introduction to the policies related to the delivery of social services in the United States, including such service systems as income maintenance, personal social services, housing, health care, disability policy, and employment and training policy. Emphasis on policy analysis, planning, community organization, and administration of social programs.

527. TOPICSIN HEALTH ANDMENTAL HEALTH ADMINISTRATION (3).
A. The Politics of Mental Health
B. Clinical Administration: Treatment through Institutional Change
C. Planning and Policy Making in Health and Mental Health
D. Mental Health Administration
Examination of political and administrative aspects of organizing, maintaining, and delivering health and mental health services.

530. LOCAL AND METROPOLITAN GOVERNMENT (3). Discussion of the operational and administrative aspects of local and metropolitan government in the United States, including design and structure, municipal law, finance, administrative organization, local political systems, and intergovernmental relations.

531. URBAN PLANNING AND ZONING (3). Basic theory, techniques, and practice of modern urban planning and land use regulation; current trends and problems; social, political, and economic characteristics of urban, suburban, and metropolitan political systems.

532. PROBLEMS OF MUNICIPAL ADMINISTRATION (3). Administration of local government services in urban and metropolitan areas. Analysis of particular problems faced by local governments in the performance of line and staff functions.

535. LOCAL ECONOMIC DEVELOPMENT POLICY (3). Introduction to the tools, institutions, analytical techniques, financing instruments, and policy issues relevant to economic development policy at the state, local, and regional level.

550. LEADERSHIP IN PUBLIC SECTOR ORGANIZATIONS (3). Examination of leadership models and exploration of leadership theory historically and how conceptions of leadership have evolved, changed, and adapted. Leadership development, training, and practices in public sector organizations.

552. PUBLIC SECTOR REVENUE MANAGEMENT (3). Investigation of theories and politics of taxation, impacts of alternative taxes, fiscal federalism, mechanics of raising funds, macroeconomic impacts, and principles of municipal investment. PRQ: PSPA 510 or consent of department.

554. INFORMATION SYSTEMS AND GOVERNMENT (3). Examination of management issues, innovative applications, and research involving information systems and government. Covers topics such as geographic information systems, expert systems, pert/cpm software, and political and legal issues involved in public information systems. PRQ: PSPA 512 or consent of department.

555. ORGANIZATION DEVELOPMENT IN THE PUBLIC SECTOR (3). Examination of the theoretical basis of organization development (OD) and total quality management (TQM). Demonstrates how OD and TQM technologies can be applied to public sector organizations for improving program quality and performance.

556. MANAGEMENT OF NOT-FOR-PROFIT AGENCIES (3). Comprehensive study of the not-for-profit organization as an integrated and complex model. Examination of not-for-profit management principles and objectives, program services, planning, resource development and fund raising, volunteer development, and public relations.

557X. ACCOUNTING FOR PUBLIC ADMINISTRATION (3). *Crosslisted as ACCY 557*. Survey of governmental and other public sector accounting for non-accounting majors. Topics include an introduction to accounting, budgeting, auditing, and financial statement analysis as applied to state and local governments, hospitals, colleges, universities, and other nonprofit organizations. PRQ: Consent of Division of Public Administration or Department of Accountancy.

558. LABOR-MANAGEMENT RELATIONS IN THE PUBLIC SECTOR (3). Federal, state, and local government employee-management relations with emphasis on legislative, judicial, political, and social considerations. Attention given to selected occupational groups such as police and fire in the public sector. Comparisons with the private sector and the special bargaining problems of various units in the public sector.

559. TOPICS IN PUBLIC ADMINISTRATION (3). Selected issues concerning the policy and administrative processes of public organizations. May be repeated to a maximum of 9 semester hours as the topic changes.

560. ETHICS AND PUBLIC SERVICE IN AMERICA (3). Examination of contemporary and historical ethical dimensions of public service in the United States, with focus on the duties and responsibilities of the public administrator to act ethically and with integrity.

561. THEORY AND ANALYSIS IN PUBLIC ADMINISTRATION (3). Examination of the major theoretical and conceptual concerns of public administration as a field of academic inquiry. Not available to candidates for the M.P.A. degree.

564. POLITICS OF PUBLIC BUDGETING (3). Focus on political aspects of budgeting with attention to the local level. Covers topics such as how deficits occur, the relationship of machine and reform governments to spending level and balance, and the politics of taxation and tax revolt. Consideration of the broader questions of how governments gain support or fail to gain support for spending and revenue decisions in a democracy. Recommended PRQ: PSPA 510.

571. READINGS IN COMPARATIVE PUBLIC ADMINISTRATION (3). Survey of research literature and discussion of administrative processes and methods in various governments.

572. ADMINISTRATIVE PROBLEMS OF LESS DEVELOPED COUNTRIES (3). Examination of selected problems of public administration in less developed countries.

592. INDEPENDENT STUDY IN PUBLIC ADMINISTRATION (1 to 3). Open to qualified M.P.A. students who wish to do individual advanced work in public administration. May be repeated to a maximum of 6 semester hours.

595. INTERNSHIP IN PUBLIC ADMINISTRATION (1 to 3). Preprofessional experience composed of three elements: administrative or staff service in a public or quasi-public agency; seminar meetings consisting of student presentations and action exercises; and presentations by practicing public administrators and scholars in the field of public affairs. May be repeated to a maximum of 8 semester hours. S/U grading. PRQ: Consent of department.

599. PUBLIC SECTOR RESEARCH (1 to 3). Research and writing related to the completion of the capstone paper requirement for the M.P.A. degree. To be taken for 3 semester hours upon first enrollment and 1 semester hour in each term thereafter until departmental acceptance of the completed research project. May be repeated to a maximum of 12 semester hours. S/U grading. PRQ: PSPA 504 or consent of department.

620. SEMINAR IN PUBLIC ADMINISTRATION (3). Research and discussion of selected topics. May be repeated to a maximum of 9 semester hours as topic changes.

623. SEMINAR IN ADMINISTRATIVE THEORY (3). Intensive examination of selected topics related to the science of public management, the politics of administration, and the role of government agencies in the formulation of public policy.

625. INDEPENDENT STUDY IN PUBLIC ADMINISTRATION (1 to 6). Open to students admitted to a program of doctoral study at NIU who wish to do individual advanced work in public administration. May be repeated to a maximum of 6 semester hours.

635. SEMINAR IN COMMUNITY GOVERNANCE (3). Survey of the scholarly literature focusing on the systems of governance in American communities and on the problems confronting community governance, with emphasis on urban issues.

Department of Psychology (PSYC)

Chair: Charles E. Miller

Graduate Faculty

M. Anne Britt, associate professor, Ph.D., University of Pittsburgh
James V. Corwin, Presidential Research Professor, Ph.D., University of Kentucky
Michelle K. Demaray, associate professor, Ph.D., University of Wisconsin
Amanda M. Durik, assistant professor, Ph.D., University of Wisconsin, Madison
Lisa M. Finkelstein, associate professor, Ph.D., Tulane University
Joseph E. Grush, professor, Ph.D., University of Illinois
Peter M. Gutiérrez, associate professor, Ph.D., University of Michigan
Elisa Krackow, assistant professor, Ph.D., State University of New York, Binghamton
Mary C. Lovejoy, associate professor, Ph.D., University of Iowa
Joseph P. Magliano, associate professor, Ph.D., University of Memphis
Christine K. Malecki, associate professor, Ph.D., University of Wisconsin
Elise F. Masur, professor, Ph.D., University of Minnesota
Leslie Matuszewich, assistant professor, Ph.D., University of Buffalo
Charles E. Miller, professor, Ph.D., University of Michigan
Keith K. Millis, professor, Ph.D., Memphis State University
Joel S. Milner, Distinguished Research Professor, Ph.D., Oklahoma State University
Nina S. Mounts, associate professor, Ph.D., University of Wisconsin
George A. Neuman, associate professor, Ph.D., Illinois Institute of Technology
Holly K. Orcutt, associate professor, Ph.D., State University of New York, Buffalo
Christopher P. Parker, associate professor, Ph.D., Rice University
Bradford H. Pillow, associate professor, Ph.D., Stanford University
Laura D. Pittman, assistant professor, Ph.D., University of Connecticut
Alan Rosenbaum, professor, Ph.D., State University of New York at Stony Brook
Brad J. Sagarin, associate professor, Ph.D., Arizona State University
Frederick M. Schwantes, professor, Ph.D., University of Iowa
John J. Skowronski, professor, Ph.D., University of Iowa
David P. Valentiner, associate professor, Ph.D., University of Texas
Gregory A. Waas, associate professor, Ph.D., University of Wisconsin, Madison
Douglas Wallace, assistant professor, Ph.D., Kent State University
Karen J. White, director, Psychological Services Center, Ph.D., Florida State University
Katja Wiemer-Hastings, assistant professor, Ph.D., University of Memphis
Kevin D. Wu, assistant professor, Ph.D., University of Iowa

The Department of Psychology offers programs leading to the M.A. and Ph.D. degrees. Preference will be given to applicants who show potential for doctoral work. The department offers a continuous program leading to the doctorate and the master's thesis is regarded as a part of this training. An entitlement program leading to qualification for state certification as a school psychologist may be completed in conjunction with either the M.A. or the Ph.D. degree.

The majority of applications for graduate programs in psychology are accepted or rejected within six weeks, with deferral of decision on other applications until the month of April. In order to insure full consideration for admission, applications to the clinical area should be completed by December 15; applications to the social and industrial/organizational area should be completed by January 15; applications to the cognitive-instructional-developmental-school psychology area should be completed by February 1; and applications to the neuroscience and behavior area should be completed by March 1.

Admission

In considering applicants for admission to its graduate programs, the department evaluates the general undergraduate GPA, preparation in undergraduate psychology courses, background in science and mathematics, GRE General Test scores, and letters of recommendation. An attempt is made to select the best applicants on a combination of indices, recognizing that no index is absolute. While there are no minimum requirements, applicants should have a GPA of at least 3.00 (on a 4.00 scale) during the last two years of undergraduate work. Exceptions may be made under special conditions.

Master of Arts in Psychology

The M.A. degree program in psychology requires a minimum of 30 semester hours in psychology. The total combined number of semester hours of graduate transfer credit plus graduate credit earned at NIU as a student-at-large which can be applied toward the M.A. degree may not exceed 15.

Course Requirements

PSYC 504 - Advanced Psychological Statistics (3)
PSYC 506 - Experimental Design (3)
Three of the following (9)
- PSYC 501 - Fundamentals of Learning (3),
  OR PSYC 511 - Cognitive Psychology I (3)
- PSYC 503 - Biopsychology (3)
- PSYC 520 - Experimental Social Psychology (3)
- PSYC 541 - Psychopathology (3)
- PSYC 565 - Behavioral Development (3)

PSYC 504 and PSYC 506 must be completed during the first calendar year and the remaining course requirements must be completed by the end of the second calendar year.

PSYC 590, Psychological Research (1-3), must be taken each fall and spring semester. These hours will not count toward the 30 semester hours required for the master's degree.

Registration for a minimum of 12 semester hours is required each fall and spring semester unless granted permission for a reduced load by the department chair or a leave of absence is obtained from the department chair and the office of the dean of the Graduate School. Registration for fewer than 12 semester hours without permission may result in termination from the program.

In addition, 15 semester hours must be completed in either the thesis or non-thesis option.

Thesis Option
PSYC 599 - Master's Thesis (6), and other courses in psychology determined by the student and adviser (9).

Non-Thesis Option
Other courses in psychology determined by the student and adviser (15). Students electing the non-thesis option will not be considered for admission to the doctoral program.

Other Requirements
Students in the M.A. program must maintain at least a 3.00 GPA in graduate psychology courses exclusive of thesis and independent study courses. Failure to meet this requirement will result in academic probation for one semester following which the GPA must be at least 3.00 or the student will be removed from the program.

The student must successfully complete a master's comprehensive examination.

Other special requirements may be determined by the department and the curricular area in which the student chooses to study. The student is responsible for obtaining the *Psychology Department Graduate Student Manual* and for complying with the regulations in that manual.

Doctor of Philosophy in Psychology

The Ph.D. program in psychology is built around the areas of clinical psychology, cognitive-instructional-developmental-school psychology, neuroscience and behavior, and social and industrial/organizational psychology. All four areas place strong emphasis on research, teaching, and the development of appropriate applied skills.

The curriculum is designed to fulfill several purposes: development of knowledge of methodologies; acquaintance with basic literature; integration of course work, research experience, and practical experience; in-depth understanding in at least one area; and study in related fields when appropriate.

Requirements
As a part of the doctoral program a student must complete a master's degree in psychology with at least a 3.20 GPA in graduate psychology courses exclusive of thesis and independent study courses, including at least a 3.00 GPA in the master's foundation courses and an acceptable research thesis. Continuation in the doctoral program is subject to a recommendation from the department upon completion of the M.A. degree. Students entering NIU with a master's degree in psychology from another institution must complete the master's foundation courses. With departmental approval, students with adequate background may be exempted from individual courses.

The student must complete 90 semester hours beyond the baccalaureate degree, including at least 75 semester hours in psychology, at least 18 of which must be in PSYC 699, Ph.D. Dissertation. Exceptions to the 75-hour requirement may be granted with the consent of the curricular area faculty and approval of the department chair. The total number of semester hours of graduate credit earned at NIU as a student-at-large which can be applied toward the Ph.D. degree may not exceed 15. The total combined number of semester hours of graduate transfer credit plus graduate credit earned at NIU as a student-at-large which can be applied toward the Ph.D. degree may not exceed 45 semester hours beyond the baccalaureate degree.

A minimum of 30 semester hours of graduate course work beyond the master's degree in psychology, exclusive of dissertation, must be completed in the Department of Psychology at NIU.

Registration in PSYC 590, Psychological Research (1-3), each fall and spring semester prior to approval of the dissertation proposal is required. These hours will not count toward the 90 semester hours required for the Ph.D.

The student must register for a minimum of 12 semester hours each fall and spring semester unless granted permission for a reduced load by the department chair or a leave of absence is obtained from the department chair and the office of the dean of the Graduate School. Registration for fewer than 12 semester hours without permission may result in termination from the program.

Students in clinical or school psychology must complete a year of internship.

Before admission to candidacy for the doctorate in psychology, the student must demonstrate an average proficiency in using two research tools or high proficiency in using one research tool. The selection of these research tools must be approved by the student's adviser. Proficiency is normally demonstrated by the successful completion of such courses as are designated by the department and approved by the Graduate School.

The student must pass an extensive written candidacy examination covering the student's curricular area.

The student must complete a dissertation which will be a substantial contribution to knowledge in which the student exhibits original scholarship and the ability to conduct independent research. Prior to the time the student begins gathering the dissertation research data, a proposal of a dissertation must be approved by a dissertation advisory committee and filed with the department. Normally, an advisory committee will be made up of the dissertation director and at least two additional committee members.

The student is responsible for obtaining the *Psychology Department Graduate Student Manual* and for complying with the regulations in that manual.

After all other requirements for the Ph.D. in psychology have been met, including submission of a complete manuscript that has been tentatively approved by the dissertation advisory committee, a student must successfully defend the dissertation. The defense will be conducted by and in the presence of an oral examining committee made up of the advisory committee plus additional members serving as readers; however, other members of the department and the faculties of other disciplines will be invited to attend and participate. The dean of the Graduate School or a dean's designee may serve as an ex officio, nonvoting member of the dissertation defense committee.

Other special requirements may be determined by the department and the curricular area in which the student chooses to study.

Course List

400. PSYCHOLOGY OF LANGUAGE (3). Examination of cognitive, motor, and physiological processes involved in production and comprehension of spoken and written language from a psychological perspective. Emphasis on issues, methods, and explanatory models in psychology relevant to the transmission of information via reading, writing, listening, and speaking. Topics include reader/text and listener/speaker characteristics, mental representations, memory, conversational interchanges, and pragmatics. PRQ: PSYC 245 or PSYC 345, or consent of department.

417. PRINCIPLES OF BEHAVIOR MODIFICATION (3). Introduction to the psychological principles, methods, and issues in behavior modification. Emphasis on theoretical and empirical foundations of various strategies for producing behavior change and on ethical issues involved in the use of behavioral techniques. Not available for credit toward graduate degrees in psychology. PRQ: Either PSYC 315 or PSYC 316, or consent of department.

425. ADULT DEVELOPMENT AND AGING (3). Behavioral development from early adulthood through old age. Emphasis on biological, motor, cognitive, social, and personality characteristics at various stages of development. PRQ: PSYC 324 or consent of department.

426. THEORIES OF PERSONALITY (3). Systematic study of the theoretical contributions of major psychologists to basic understanding of the dynamics of human personality. PRQ: Either PSYC 332 or PSYC 372, or consent of department.

428. HISTORY OF PSYCHOLOGY (3). Review of the historical roots of the science of psychology and the development of the field to contemporary times. PRQ: At least 3 semester hours of upper-division undergraduate credit in psychology, or consent of department.

465. ADVANCED DEVELOPMENTAL PSYCHOLOGY (3). Fundamental theories, issues, and concepts in developmental psychology are examined in depth and illustrated within one or more content areas, such as physical, cognitive, perceptual, language, personality, and/or social aspects of development. Not available for credit toward graduate degrees in psychology. PRQ: PSYC 324 or consent of department.

471. INDUSTRIAL-ORGANIZATIONAL PSYCHOLOGY (3). Contribution of psychology in theory, research, and practice to the understanding of such topics as employee selection, placement, and training, job satisfaction, work motivation and performance, problem solving and decision making, leadership and supervision, work design, and organizational development. Not available for credit toward graduate degrees in psychology. PRQ: Either PSYC 351 or PSYC 372, or consent of department.

473. SOCIAL JUDGMENT (3). Examination of research and theory dealing with how people evaluate and form judgments of other people. Research dealing with judgments made both by individuals and by groups. In addition to critical study of basic judgment processes, addresses applied aspects of social judgment such as moral, clinical, and trial jury decisions. Not available for credit toward graduate degrees in psychology. PRQ: PSYC 372 or consent of department.

481. DRUGS AND BEHAVIOR (3). Basic techniques, current data, and interpretations from neurochemical, neuropharmacological, and behavioral approaches to the investigation of behaviorally active drugs. Some knowledge of the structure and functioning of the mammalian nervous system assumed. PRQ: PSYC 300 or consent of department.

495. SEMINAR IN SPECIAL TOPICS (3). Topics announced. May be repeated once as topics change. PRQ: At least 3 semester hours of upper-division undergraduate credit in psychology, or consent of department.

496X. HISTORY AND SOCIAL SCIENCE INSTRUCTION IN GRADES 6-12 (3). *Crosslisted as HIST 496.* Organization and presentation of materials for history and social science courses at the middle school, junior high, and senior high school levels. PRQ: Admission to the history or social science teacher certification program and permission of Department of History's office of teacher certification.

501. FUNDAMENTALS OF LEARNING (3). Analysis of methodology, empirical findings, and theoretical attempts in the area of learning with emphasis on classical and instrumental conditioning. PRQ: Graduate standing in psychology or consent of department.

502. INTRODUCTION TO EXPERIMENTAL PERSONALITY (3). Introduction to methods and empirical findings in the area of personality, with emphasis on experimental investigation. Study of several key topics of current interest in the field to illustrate typical methods and findings. PRQ: Graduate standing in psychology or consent of department.

503. BIOPSYCHOLOGY (3). Selected review of current research concerned with biological and chemical bases of behavior. PRQ: Graduate standing in psychology or consent of department.

504. ADVANCED PSYCHOLOGICAL STATISTICS (3). Probability and probability models; linear functions of independent random variables; sampling; the binomial, hypergeometric, normal, t, chi-square, and F distributions; estimation of parameters; tests of statistical hypotheses; correlation; introduction to nonparametric methods. PRQ: A course in statistics or consent of department.

506. EXPERIMENTAL DESIGN (3). Basic course in experimental design and data analysis, including such designs as factorial experiments, randomized blocks, Latin squares, incomplete blocks, and nested designs; the uses of confounding and fractional replication; some nonparametric tests related to the analysis of variance designs. PRQ: PSYC 504 or consent of department.

507. PSYCHOMETRIC TECHNIQUES (3). Consideration of assumptions involved and techniques available in psychometrics. Consideration made of development of psychological tests. PRQ: PSYC 504 or consent of department.

509. FUNDAMENTALS OF PERCEPTION (3). Major theories of perception and their historical antecedents, classical and contemporary psychophysics, some basic auditory and visual phenomena, and selected topics from current research literature. PRQ: Graduate standing in psychology or consent of department.

511. COGNITIVE PSYCHOLOGY I (3). Theories, issues, and research in fundamental areas of human cognition. Topics include human learning and memory, attention, concepts and categories, and knowledge representation. PRQ: Graduate standing in psychology or consent of department.

512. COGNITIVE PSYCHOLOGY II (3). Contemporary research and theories on higher-order processes in human cognition. Topics include discourse processing, problem solving, reasoning, and decision making. PRQ: PSYC 511 or consent of department.

514X. INSTRUCTIONAL PSYCHOLOGY (3). *Crosslisted as EPS 614.* Models and theories of instructional psychology as related to contemporary research in cognition. PRQ: EPS 613, a course in cognitive psychology, or consent of department.

515. PERSONNEL PSYCHOLOGY (3). Contribution of psychology in theory, research, and practice to the understanding of such topics as job analysis, personnel selection and placement, performance appraisal, and training. PRQ: Graduate standing in psychology or consent of department.

516. ORGANIZATIONAL PSYCHOLOGY (3). Contribution of psychology in theory, research, and practice to the understanding of such topics as job satisfaction, work motivation and performance, group and organizational problem solving and decision making, leadership and supervision, conflict resolution, and organizational design, development, and effectiveness. PRQ: Graduate standing in psychology or consent of department.

517. INDIVIDUAL ASSESSMENT WITHIN ORGANIZATIONAL SETTINGS (3). Theories, topics, and measurement techniques essential to the study and practice of individual assessment in industrial/organizational psychology. Measurement instruments used for assessment of individual cognitive ability, personality, and vocational interests pertinent to industrial/organizational settings examined and critiqued in light of psychological theory, research, and applications.

518. EVALUATION RESEARCH (3). Systematic examination of the theory and practice of research strategies for planning and evaluating various programs. Critical review of models of experimental and quasi-experimental designs, cost-benefit, decision-theoretic, and systems approaches. Illustrations of the models taken from compensatory education, public health, mental health, employment training, income maintenance, and the criminal justice system. PRQ: Consent of department.

519. PSYCHOLOGY OF ORGANIZATIONAL DEVELOPMENT AND TRAINING (3). Psychological theories and research bearing on the use of training techniques and organizational development as means of increasing organizational effectiveness. Critical examination of the psychological components to be considered in the management of planned change in organizations. Topics include organizational needs assessment, effectiveness of interventions and transfer of training techniques on performance, and reactions to organizational change. PRQ: PSYC 516 or consent of department.

520. EXPERIMENTAL SOCIAL PSYCHOLOGY (3). In-depth survey of topics of current interest in the study of social interaction. Emphasis on experimental approaches to the social behavior of humans, but developments in animal social experimentation also utilized. Topics include, but not necessarily limited to, attitudes and persuasion, conformity, social judgment, aggression, and interpersonal attraction. PRQ: Graduate standing in psychology or consent of department.

521. SMALL GROUP BEHAVIOR (3). Social interaction in small groups. Emphasis on experimental evidence regarding group processes. Topics include competition and cooperation, bargaining and coalitions, choice and decision behavior, and group influence and problem solving. PRQ: PSYC 520 or consent of department.

522. THEORIES IN SOCIAL PSYCHOLOGY (3). Survey and critical analysis of current theoretical approaches to social behavior. Relevant experimental evidence examined in several critical areas of research. PRQ: Graduate standing in psychology or consent of department.

524. ATTITUDE CHANGE (3). Survey of current theories of attitude change. Review of research which demonstrates the success or failure of these theories to predict attitude change. Consideration of important theoretical and research issues in the attitude area. PRQ: Graduate standing in psychology or consent of department.

525. SOCIAL COGNITION (3). Topics at the interface between social psychology and cognitive psychology, addressing how cognitive processes, structures, and theories are related to and influence people's understanding of themselves, others, and the social world. Discussion of these processes, structures, and theories in the context of classic topics in social psychology, including impression formation, attribution, person memory, stereotyping, prejudice, self-perception, and autobiographical memory. PRQ: PSYC 520 and graduate standing in psychology, or consent of department.

527. NEUROANATOMICAL BASES OF BEHAVIOR (3). *Crosslisted as BIOS 527X.* Gross, microscopic, and ultramicroscopic anatomy of the nervous system; basic subdivisions of the central, peripheral, and autonomic components of the nervous system; histology and ultrastructure of nervous tissue; neuroanatomical mechanisms in the regulation of behavior. PRQ: Graduate standing in psychology or PSYC 503, or consent of department.

528. NEUROANATOMICAL BASES OF BEHAVIOR: LABORATORY (3). *Crosslisted as BIOS 528X.* Gross, microscopic, and ultramicroscopic examination of tissues from the nervous systems of selected species.PRQ or CRQ: PSYC 527.

529. NEUROPHYSIOLOGICAL BASES OF BEHAVIOR (3). Excitation, conduction, and transmission in the nervous system; neural coding and the transformation and representation of information in the nervous system; limbic and hypothalamic regulation of drives and reinforcement. PRQ: Graduate standing in psychology and PSYC 527, or consent of department.

530. NEUROCHEMICAL BASES OF BEHAVIOR (3). *Crosslisted as BIOS530X.* Biochemistry of the nervous system; chemical composition, metabolism, and chemistry of neurons and glia; chemical bases of learning, motivation, and other categories of behavior. PRQ: Graduate standing in psychology, PSYC 529, or consent of department.

539. PROFESSIONAL SCHOOL PSYCHOLOGY (3). Review of the history and development of school psychology, types of problems handled, methods employed, and current perspectives on psychological work in schools with emphasis on research functions and the utilization of principles of learning. PRQ: Consent of department.

540. THEORY AND ASSESSMENT OF INTELLECTUAL FUNCTIONING (3). Historical review of theory and research concerning the definition and measurement of intelligence. Topics include intellectual development, factor analytic and computer models of intelligence, and the construction and use of intelligence tests. Supervised practice in administering, scoring, and reporting intelligence test results and evaluating their implications for intellectual functioning and for such clinical problems as retardation, brain damage, and thought disorders. PRQ: Graduate standing in psychology or consent of department.

541. PSYCHOPATHOLOGY (3). Evaluation of criteria, definitions, and classificatory schemes of psychopathology. Review of theoretical and research contributions to understanding the etiology and maintenance of behavior problems. Instruction in obtaining information, conceptualizing, and formulating treatment plans with special clinical groups. PRQ: Consent of department.

542. PERSONALITY ASSESSMENT (3). Examination of theoretical and practical issues in the assessment of personality with emphasis on problems of reliability, validity, and test construction in this area. Review and evaluation of the use and research on specific personality measures. Supervised practice in administering, evaluating, and reporting the results of structured and projective technique. PRQ: PSYC 540 or PSYC 541, or consent of department.

543. THEORIES OF PSYCHOTHERAPY (3). Examination and evaluation of major theoretical approaches to psychotherapy including the psychoanalytic schools, client-centered, existential, and learning models. PRQ: PSYC 541 or consent of department.

544. COGNITIVE-BEHAVIORAL THEORY AND TECHNIQUES (3). Presentation and discussion of various intervention techniques associated with behavior and learning theories and derived from empirical research on behavior change. PRQ: PSYC 543 or consent of department.

545. CHILD PSYCHOPATHOLOGY (3). Examination of research and theoretical contributions to understanding the etiology and maintenance of psychopathology in children from infancy through adolescence. Instruction in diagnosis and the formulation of treatment plans for children with various social, emotional, and intellectual disorders at various stages of development. PRQ: PSYC 541 or consent of department.

546. PSYCHOLOGICAL ASSESSMENT OF CHILDREN (3). Examination of the concepts and techniques relating to the clinical assessment of children from infancy through adolescence. Covers a variety of assessment techniques including standardized tests, behavioral observations, and parent inventories. Supervised practice in administering, interpreting, and reporting the results of intellectual and personality test batteries, and in evaluating the implications of their findings for the child's functioning at home and at school. PRQ: PSYC 540, PSYC 542, and PSYC 544, or consent of department.

547. PSYCHOLOGICAL INTERVENTION WITH CHILDREN AND THEIR FAMILIES (3). Examination of the concepts and techniques relating to clinical psychological intervention with children and their families. Emphasis on theoretical, ethical, and practical issues as well as on the psychological research on the efficacy of each therapeutic modality. Topics cover the major techniques of child-oriented psychotherapy, with attention given to their appropriateness for children of various ages and levels of functioning and with various forms of psychopathology. PRQ: PSYC 543 and PSYC 544, or consent of department.

548. CONSULTATIVE INTERVENTIONS IN SCHOOL AND COMMUNITY SETTINGS (3). Examination of consultation theory, research, and practice as applied by school psychologists. Emphasis on the major models of consultation employed within school and community settings. Empirical research related to outcome of consultation. Application of consultative interventions to specific psychological disorders commonly found in school and community settings. PRQ: Consent of department.

551. CLERKSHIP IN CLINICAL PSYCHOLOGY (1 to 3). Pre-internship experience in institutional settings, such as the school system, clinics, and hospitals. Student assigned to one or more institutions where a supervised work program will be designed involving psychological assessment and intervention consistent with the student's experience and training. May be repeated to a maximum of 3 semester hours. PRQ: Admission to the clinical training program.

553. PRACTICUM IN SCHOOL PSYCHOLOGY (1 to 3). Experience in psychological work in schools. Activities vary depending on the prior experience of the student but may include observation and analysis of behavior, assessment of learning dysfunctions, research work, design of learning programs, and consultation with school personnel. May be repeated, but only 6 semester hours may be applied toward a graduate degree in psychology. PRQ: PSYC 539 or consent of department.

554. PRACTICUM IN PSYCHOTHERAPY (1 to 3). Supervised experience in planning and executing a therapeutic program with clients who have sought help for adjustment and personality problems. May be repeated, but only 15 semester hours may be applied toward a graduate degree in psychology. PRQ: Approval of the clinical training area.

555. INTERNSHIP IN CLINICAL PSYCHOLOGY (6 to 12). A period of one year in a setting such as a hospital or clinic where student performs the functions of a clinical psychologist under the direct supervision of qualified personnel. Internship must have approval of the clinical psychology faculty. Student must register for 12 semester hours during each of the fall and spring semesters and for 6 semester hours during the summer session for a total of 30 semester hours, of which 4 may be applied to the 90 semester hours required for the doctoral program. PRQ: Departmental approval for the doctoral program.

556. INTERNSHIP IN SCHOOL PSYCHOLOGY (12). A period of one year in a school setting where student performs the functions of a school psychologist under the direct supervision of qualified personnel. Internship must have approval of the school psychology faculty. Student must register for 12 semester hours in each of the fall and spring semesters for a total of 24 semester hours, of which 4 may be applied to the hours required in the Ph.D. program. PRQ: Consent of department. Recommended: At least 2 semester hours of PSYC 553.

565. BEHAVIORAL DEVELOPMENT (3). Intensive review of the processes involved in behavioral development with focus on factors affecting these processes, rather than on a cross-sectional description of characteristic behavioral changes related to age. PRQ: Psychology major or consent of department.

570. STUDIES IN EXPERIMENTAL PSYCHOLOGY (1 to 6).
A. Learning
B. Perception
C. Motivation
D. Sensory Processes
E. Physiological
J. Comparative
K. Mathematical
Specific topics in the area of experimental psychology offered under the appropriate heading. May include lecture, laboratory, seminar, or a combination of these methods. Topics and semester hours of credit vary. May be repeated to a maximum of 21 semester hours.

571. STUDIES IN GENERAL PSYCHOLOGY (1 to 6).
A. Behavioral Development
B. Individual Differences
C. Personality
D. Quantitative Methods
E. Instrumentation
J. Social Behavior
Specific topics in the area of general psychology offered under the appropriate heading. May include lecture, laboratory, seminar, or a combination of these methods. Topics and semester hours of credit vary. May be repeated to a maximum of 18 semester hours.

572. STUDIES IN CLINICAL PSYCHOLOGY (1 to 6).
A. Clinical Methods
B. Behavioral Pathology
C. Group Processes
D. Child-Clinical
E. Psychotherapy
Specific topics in the area of clinical psychology offered under the appropriate heading. May include lecture, laboratory, seminar, or a combination of these methods. Topics and semester hours of credit vary. May be repeated to a maximum of 15 semester hours.

575. DEVELOPMENT OF LANGUAGE ACQUISITION (3). Critical evaluation of recent research and theory in developmental psychology on the processes underlying normal language acquisition and development. Background in developmental psychology assumed; background in language development desirable.

576. SOCIAL-PERSONALITY DEVELOPMENT (3). Development of social behavior and personality characteristics throughout the life-span with emphasis on the changes occurring throughout childhood. Topics include attachment, aggression, sex-role development, moral development, socialization processes, parent-child relations, peers and the impact of television, and social-class and crosscultural comparisons.

577. DEVELOPMENT OF PERCEPTION AND LEARNING (3). Development of perception and children's learning with emphasis on the basic processes and changes which occur during childhood. Topics include visual attention in infancy, form and pattern perception, the development of visually guided behavior, perceptual integration, information processing approaches to perceptual development, infant learning, and higher-order learning and motivation.

578. DEVELOPMENT OF COGNITION AND MEMORY (3). Development of cognitive skills and memory with emphasis on the basic processes and changes which occur during childhood. Topics include overview of cognitive theorists, conceptualizations of cognitive growth patterns, concept development, problem solving, cognitive styles, developmental aspects of obtaining and storing stimulus information, selective attention, and metamemory.

579X. CULTURAL PERSPECTIVES ON HUMAN DEVELOPMENT (3). *Crosslisted as EPS 579.* Cultural perspectives on parenting, home-school relations, psychological development, and education. Case materials drawn from western and nonwestern societies.

580. SEMINAR IN PSYCHOLOGY (1 to 3).
A. Psychotherapy
B. School Psychology
C. Professional Problems
Specialized topics of professional concern to those entering the field of psychology. May be repeated to a maximum of 7 semester hours in each subsection. PRQ: Consent of department.

581A. PRACTICUM IN COLLEGE TEACHING OF PSYCHOLOGY (1 to 3). Supervised experience in teaching selected undergraduate courses in psychology. Instructional techniques, materials, and methods of evaluation. May be repeated, but only 8 total semester hours of PSYC 581A and PSYC 581B may be applied toward a graduate degree in psychology. S/U grading. PRQ: Consent of department.

581B. PRACTICUM IN COLLEGE TEACHING OF PSYCHOLOGY (1 to 3). Individual supervision of teaching selected undergraduate courses in psychology. May be repeated, but only 8 total semester hours of PSYC 581A and PSYC 581B may be applied toward a graduate degree in psychology. S/U grading. PRQ: PSYC 581A or consent of department.

585. INDEPENDENT STUDY (1 to 6). May be repeated, but only 6 semester hours may be applied toward the M.A. degree and only 15 semester hours may be applied toward the Ph.D. degree.

590. PSYCHOLOGICAL RESEARCH (1 to 3). Supervised research training in planning, design, execution, and analysis of psychological research. Required of all graduate students in psychology each semester prior to the approval of a dissertation proposal. May be repeated without limit, but may not be used to meet the minimum credit hour requirements for a graduate degree in psychology. S/U grading.

599. MASTER'S THESIS (1 to 6). May be repeated to a maximum of 6 semester hours. Registration requires prior appointment of a thesis adviser and consent of department.

699A. PH.D. DISSERTATION (3 to 15). May be repeated to a maximum of 80 semester hours, but only 24 semester hours may be applied toward a graduate degree in psychology. Registration requires prior appointment of a dissertation adviser and consent of department.

699B. PH.D. DISSERTATION (1). Open only to students who have successfully completed the oral defense of the dissertation research and received departmental approval of the final version of the dissertation document.

Department of Sociology (SOCI)

Chair: Kay B. Forest

Graduate Faculty

Abu B. Bah, assistant professor, Ph.D., New School for Social Research
Charles L. Cappell, associate professor, Ph.D., University of Chicago
Kay B. Forest, associate professor, Ph.D., Cornell University
Carla D. Goar, assistant professor, Ph.D., Texas A&M University
Adam B. King, assistant professor, Ph.D., Indiana University
George A. Kourvetaris, professor, Ph.D., Northwestern University
David F. Luckenbill, professor, Ph.D., University of California at Santa Barbara
Fred E. Markowitz, associate professor, Ph.D., State University of New York at Albany
J. Kirk Miller, assistant professor, Ph.D., North Carolina State University
W. William Minor, associate professor, Ph.D., Florida State University
Robin D. Moremen, associate professor, Ph.D., Yale University
Kristen A. Myers, associate professor, Ph.D., North Carolina State University
Kei Nomaguchi, assistant professor, Ph.D., University of Maryland
Deirdre A. Oakley, assistant professor, Ph.D., State University of New York at Albany
Diane Rodgers, assistant professor, Ph.D., University of Missouri, Columbia
Jim Thomas, Distinguished Teaching Professor, Ph.D., Michigan State University

The Department of Sociology offers graduate courses and research opportunities leading to the M.A. degree. Graduate work in sociology is designed to prepare students for teaching and research in sociology, for positions in public and private agencies, and for further advanced study.

Master of Arts in Sociology

Applicants for admission to the program should have a background equivalent to 3 semester hours in sociological theory, sociological methods, and statistics. Students with deficiencies in these areas may be required to take appropriate course work to remove these deficiencies as soon as possible after enrollment. Students admitted to these programs with stipulated deficiencies will be informed by the graduate adviser of the courses that must be taken.

Graduate courses are classified into six fields: theory, research methods and statistics, social organization and institutions, social psychology, sociology of health and aging, and criminology. The specific classification of courses by field can be obtained from the sociology office.

Students must earn an overall GPA of 3.00 or higher and a grade of A or B in SOCI 575, SOCI 576, and either SOCI 570 or SOCI 571.

The M.A. degree can be earned by the successful completion of either a thesis or a non-thesis option in the program. Students planning to pursue the doctorate should enroll in the thesis option. Students planning to enter or resume careers at the master's degree level should enroll in the non-thesis option. All new master's students are required to consult with the departmental graduate adviser before being admitted to courses.

No more than 12 semester hours in 400-level graduate courses may be included in the student's program for the master's degree with a thesis option, and no more than 15 hours in 400-level graduate courses may be included in the student's program for the master's degree with a non-thesis option.

The comprehensive examination requirement may be met by a written examination or by an oral presentation of research conducted by the student. In the latter case, the examining committee will ask questions about related theoretical and methodological issues in sociology, as well as about the research itself.

Thesis Option

The thesis option is designed primarily for pre-doctoral students or for those desiring a traditional liberal arts master's degree. Students pursuing the thesis option will be required to complete a minimum of 30 semester hours either in the track in general sociology or in the specialization in criminology.

General Sociology

SOCI 570 - Classical Sociological Theory (3)
SOCI 571 - Contemporary Sociological Theory (3)
SOCI 575 - Sociological Statistics (3)
SOCI 576 - Advanced Research Methodology (3)
SOCI 599 - Master's Thesis (6)
One course selected in consultation with the graduate adviser (3)
Three courses in one of the following areas: theory, research methods and statistics, social organization and institutions, social psychology, sociology of health and aging, or criminology (9)

Specialization in Criminology

SOCI 570 - Classical Sociological Theory (3),
OR SOCI 571 - Contemporary Sociological Theory (3)
SOCI 575 - Sociological Statistics (3)
SOCI 576 - Advanced Research Methodology (3)
SOCI 581 - Theories of Delinquency and Crime (3)
SOCI 589 - Criminal Justice in Society (3)
SOCI 599 - Master's Thesis (6)
Two electives in criminology selected from graduate offerings in consultation with the graduate adviser (6)
One course selected in consultation with the graduate adviser (3)

Non-Thesis Option

The non-thesis option is designed for those students who expect to follow careers that do not require the doctorate. Students pursuing the non-thesis option will be required to complete a minimum of 36 semester hours including 6 semester hours of SOCI 502, Internship, a set of core courses (9 semester hours), an applied sequence (9 semester hours), and the track in general sociology or the specialization in criminology (12).

At the discretion of the department, the requirement for ILAS 502 may be waived if a student has had appropriate professional experience. In such cases, ILAS 502 will be replaced by 6 semester hours of electives chosen in consultation with the graduate adviser.

Core Courses

SOCI 570 - Classical Sociological Theory (3),
OR SOCI 571 - Contemporary Sociological Theory (3)
SOCI 575 - Sociological Statistics (3)
SOCI 576 - Advanced Research Methodology (3)

Applied Sequence

The applied sequence is a set of courses thought to have particular relevance for types of employment appropriate for master's-level sociology graduates and is intended to complement a traditional sociological education, not to replace a professional degree in another field. The applied sequence consists of a set of three courses in one of the following areas: public health applications, quantitative methods, applied social research, organizational analysis, community programs and development, social policy analysis, modeling skills, budgeting and planning, or a specially designed applied sequence approved in advance by the graduate adviser. A list of courses approved for these applied sequences is available in the Department of Sociology office.

General Sociology

Twelve semester hours (6 semester hours each in two areas) must be completed in the areas of theory, research methods and statistics, social organization and institutions, social psychology, sociology of health and aging, or criminology.

Specialization in Criminology

SOCI 581 - Theories of Delinquency and Crime (3)
SOCI 589 - Criminal Justice in Society (3)
Two criminology elective courses selected from graduate offerings in consultation with the graduate adviser (6)

Course List

Students-at-large may enroll in graduate courses in sociology only by consent of the department.

450. SOCIAL INEQUALITY (3). Causes and consequences of inequality; economic, political, ethnic, and power dimensions; sources of conflict and class behavior; analysis and measurement of social stratification and mobility. PRQ: SOCI 170 or SOCI 250 or SOCI 260 or SOCI 270, or consent of department.

451. MEDICAL SOCIOLOGY (3). Introductory examination and comparison of organizational structures and social roles within medical institutions. Attention given to sociological perspectives for understanding antecedents and consequences of mental and physical health problems and how medical institutions relate to other institutions in society. PRQ: SOCI 250 or SOCI 251, or consent of department.

452. PEACE AND SOCIAL JUSTICE (3). Examination of the contemporary and historical forms of peace and social justice from the sociological perspective. Analysis of the nature, origins, and types of social conflict and violence—ranging from the interpersonal to the international. Examination of the social and cultural sources of war and peace, the process and conditions for the peaceful resolution of conflicts, peacemaking as a form of everyday life, and social justice as the foundation for a peaceful society. PRQ: SOCI 170 or SOCI 250 or SOCI 260 or SOCI 270, or consent of department.

453. SOCIOLOGY OF EDUCATION (3). Relationship of the educational system to the social structure; changing function of education in an advanced industrial society; impact of education on technological changes and social mobility; a comparison of systems in various cultures. PRQ: SOCI 170 or SOCI 250 or SOCI 260 or SOCI 270, or consent of department.

454. RACIAL AND ETHNIC MINORITY FAMILIES (3). Examination and comparison of the historical colonization, immigration, and assimilation patterns of minority racial/ethnic groups in our society, focusing on the diversity of family life and gender relations within these communities. Attention given to institutionalized discrimination within the United States and the adaptive responses of minority families as they attempt to retain distinct cultural identities as well as access the American opportunity structure. PRQ: SOCI 170 or SOCI 250 or SOCI 260 or SOCI 270, or consent of department. Recommended: SOCI 354.

455. ENVIRONMENTAL SOCIOLOGY (3). Relationship of the physical environment ("natural" and "built") to human behavior and social structure. Topics include population and urbanization, technological development, energy resources, housing, architectural design, natural disasters, occupational health and safety, industrial waste and pollution, and changes in agricultural production. PRQ: SOCI 170 or SOCI 250 or SOCI 260 or SOCI 270, or consent of department.

457. FAMILIES IN GLOBAL PERSPECTIVE (3). Examination and comparison of family institutions in selected societies, focusing on the impact of globalization on traditional family organization, gender roles within family and community, and modes of household production. Attention given to influences of modernization efforts on the status of women and children, the family division of labor, and tensions between family household economics and wage labor in the global market. PRQ: SOCI 170 or SOCI 250 or SOCI 260 or SOCI 270, or consent of department. Recommended: SOCI 354.

458. OCCUPATIONS IN THE SOCIAL STRUCTURE (3). Cultural definitions of work; the concepts of career and mobility; occupational choice theories; consequences of occupational specialization for social integration. Problems of disengagement from work. PRQ: SOCI 170 or SOCI 250 or SOCI 260 or SOCI 270, or consent of department.

459. POLITICAL SOCIOLOGY (3). Relationship between political and social structures with emphasis on the concepts of power, ideology, elites, class, and politics. PRQ: SOCI 170 or SOCI 250 or SOCI 260 or SOCI 270, or consent of department.

460. SOCIAL STRUCTURE AND THE LIFE COURSE (3). Aging as a life-long process of development through socially structured, historically conditioned stages. Topics include role transitions, intergenerational relations, and age norms. Emphasizes stages prior to old age. PRQ: SOCI 170 or SOCI 250 or SOCI 260 or SOCI 270, or consent of department.

461. INTERGROUP RELATIONS (3). Analysis and exposition of cultural and social-psychological influences underlying relations among racial, ethnic, and other minority and majority groups. Emphasis on problems of prejudice and discrimination, and the promotion of harmonious intergroup relations. PRQ: SOCI 170 or SOCI 250 or SOCI 260 or SOCI 270, or consent of department.

462. AGING AND SOCIETY (3). Interpersonal, structural, and cultural aspects of age and aging. Emphasizes old age. PRQ: SOCI 170 or SOCI 250 or SOCI 260 or SOCI 270, or consent of department.

463. TOPICS IN SOCIAL PSYCHOLOGY (3). Treatment of recent developments in social psychology. Possible topics include social influence processes, attitude formation and change, leadership, group dynamics, personality in social structures, and person perception and attribution processes. PRQ: SOCI 260 or consent of department.

473. SOCIOLOGICAL THEORY (3). Sociological theory as a body of unifying principles and as a guide for research. The significant contributions of outstanding sociologists past and present. Does not count for credit toward the M.A. or M.S. in sociology. PRQ: SOCI 170 or SOCI 250 or SOCI 260 or SOCI 270, or consent of department.

475. HEALTH ORGANIZATIONS AND DELIVERY OF SERVICES (3). Social structure of hospitals, public health, and ambulatory care settings. Comparison of health care systems in U.S. and selected other nations, differences in financing, utilization, staffing, and relations with other social institutions. PRQ: SOCI 250 or SOCI 251, or consent of department.

476. SEMINAR IN SOCIOLOGICAL RESEARCH METHODS (4).
A. Survey Methods
B. Experimental Methods
D. Quantitative Methods
E. Field Methods
M. Multi-methods
N. Evaluation Research Methods
May be repeated to a maximum of 12 semester hours as topic changes. PRQ: SOCI 377A or SOCI 377B; SOCI 473; and STAT 208 or STAT 301; or consent of department.

482. SOCIOLOGY OF DEATH AND DYING (3). Systematic study of the last stage of the life cycle. How people cope with various forms of death, the bereavement process, and growing old alone. The social organization of dying and the treatment of death in the hospital setting. PRQ: SOCI 170 or SOCI 250 or SOCI 260 or SOCI 270, or consent of department.

484. SOCIETY AND JUDICIAL PROCESSES (3). Social factors affecting definition and application of criminal adjudication, especially problems in theory and practice of justice. Social foundations of criminal and police procedures. PRQ: SOCI 289 or consent of department.

486. POLICE IN A DEMOCRATIC SOCIETY (3). Examination of the police, their organization, and their functions, with attention to political and social factors that affect their activities. Police relations with the community and particularly with minority groups; the problems of brutality, corruption, and political involvement. PRQ: SOCI 289 or consent of department.

488. JUVENILE DELINQUENCY (3). Social and psychological factors in delinquent behavior; causation, prevention, and rehabilitation; the role of community agencies; the juvenile court. May include visits to juvenile correctional agencies. PRQ: SOCI 288 or consent of department.

492. COMPARATIVE CRIMINOLOGY (3). Historical and comparative analysis of crime and the criminal justice system in Europe, the United States, underdeveloped countries, and socialist societies. PRQ: SOCI 288 and SOCI 289, or consent of department.

496X. HISTORY AND SOCIAL SCIENCE INSTRUCTION IN GRADES 6-12 (3). *Crosslisted as HIST 496.* Organization and presentation of materials for history and social science courses at the middle school, junior high, and senior high school levels. PRQ: Admission to the history or social science teacher certification program and permission of Department of History's office of teacher certification.

502. INTERNSHIP (3 to 6). Work as an intern in an agency engaged in activities related to sociology. Reading and preparation of a paper under the supervision of a department faculty member. May be repeated to a maximum of 6 semester hours. PRQ: Admission to M.A. program in sociology or consent of department.

550. COMPLEX ORGANIZATIONS (3). Comparative analyses of the functioning of complex groupings; growth, authority, leadership and decision-making, centralization and dispersion, survival and change in various types of organizations. PRQ: SOCI 170 and one other course in sociology, or consent of department.

552. COMMUNITY ANALYSIS (3). Selected topics and studies in the structure and functioning of urban communities. Attention given to urbanization and other processes and associated factors. PRQ: 9 semester hours of sociology or consent of department.

553. SOCIAL DYNAMICS (3). The constants of social change, variability of rates of change, factors involved from a sociological point of view in the various forms of revolution typified by the industrial revolution, the Protestant Reformation and various political movements. PRQ: 9 semester hours of sociology or consent of department.

559. SOCIAL STRUCTURE AND DEVELOPMENT (3). Comparative analysis of social structural change resulting from industrialization and modernization in developing societies. PRQ: Consent of department.

560. SOCIAL STRUCTURE AND PERSONALITY (3). Interrelationships between social systems and personality over the life cycle. PRQ: 9 semester hours in sociology including a course in social psychology, or consent of department.

563. WOMEN'S HEALTH ISSUES (3). Critical analysis of selected health issues that affect the life experiences of women. Emphasis on feminist theories and the intersections of race, class, and culture to interpret these health-related experiences of women.

564. RESEARCH FIELDS AND PROBLEMS IN SOCIAL PSYCHOLOGY (3). Historical developments related to recent research in experimental social psychology, small groups, and related fields. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department. Recommended: A course in social psychology.

570. CLASSICAL SOCIOLOGICAL THEORY (3). Critique of Durkheim, Weber, and other early theorists. PRQ: SOCI 370 or consent of department.

571. CONTEMPORARY SOCIOLOGICAL THEORY (3). Critique of Mead, Parsons, Becker, Homans, Merton, and other recent theorists. PRQ: SOCI 473 or consent of department.

572. PROSEMINAR IN SOCIOLOGY (3). Analysis and synthesis of current research, concepts, and issues in various areas. May be repeated to a maximum of 6 semester hours. PRQ: Consent of department.

575. SOCIOLOGICAL STATISTICS (3). Methods of sampling and testing hypotheses; statistical inference; correlation and other measures of association; and methods of treating both quantitative and nonquantitative variables. PRQ: 3 semester hours in statistics or consent of department.

576. ADVANCED RESEARCH METHODOLOGY (3). The scientific approach, selection of problems, design, and methods of analysis. PRQ: SOCI 476 or consent of department.

581. THEORIES OF DELINQUENCY AND CRIME (3). Relation of theories of delinquency and crime to general biological, sociological, and psychological theories. PRQ: SOCI 488 or consent of department.

582. LAW AND SOCIAL CONTROL (3). Institutional relationships among social order, law, justice, and legal coercion. Emphasis on factors underlying the enactment, enforcement, and administration of the law, including interest-group politics, social structure, and economic institutions. Court and police tensions, the changing role of policing in America, and minority pressures on the law and the police. PRQ: SOCI 488 or consent of department.

583. RACE, CLASS, GENDER, AND CRIME (3). Analysis of crime, law, and social inequality. Consideration of how structural location influences patterns of criminal participation, arrest and prosecution, and punishment. Explores causes and consequences of differential treatment for racial/ ethnic minorities, the poor, and women.

587. PENOLOGY AND PENAL INSTITUTIONS (3). Justice and punishment; penal reformers and their social context; penitentiaries and reformatories in the 19th century; the designs and origination of modern prisons; the prison system; the courts and modern prisons. PRQ: SOCI 488 or consent of department.

589. CRIMINAL JUSTICE IN SOCIETY (3). Police, courts, and corrections in America: their organizations and policies, their patterns of recruitment and promotion, plea bargaining, police power, treatment of minorities, and sensitivity to social and political issues. Examination of selected communities. PRQ: Previous course in criminology or consent of department.

590. INDEPENDENT STUDY IN SOCIOLOGY (1 to 3). Supervised readings and research in special areas of sociology. May be repeated to a maximum of 6 semester hours. PRQ: Written permission of department.

599. MASTER'S THESIS (1 to 6). May be repeated to a maximum of 6 semester hours.

651. SEMINAR IN SOCIAL INSTITUTIONS AND SOCIAL ORGANIZATION (3). Recent research in particular institutions (religion, family, education, or other topics) or in aspects of social organizations (stratification, population, or other selected topics). May be repeated to a maximum of 6 semester hours as topic changes. PRQ: Consent of department.

661. SEMINAR IN SOCIAL PSYCHOLOGY (3). Theory, experimental social psychology, small groups, gerontology, or other topics. May be repeated to a maximum of 9 semester hours. PRQ: A graduate course in social psychology or consent of department.

662. SEMINAR IN SOCIOLOGY OF HEALTH/AGING (3). Recent developments in the sociological study of health and/or aging. May be repeated to a maximum of 6 semester hours as topic changes. PRQ: Consent of department.

670. SEMINAR IN SOCIOLOGICAL THEORY (3). Analyses of viewpoints, such as functionalism, systems theory, conflict theory, symbolic interactionism, or areas such as logic of research, social change, sociology of knowledge, or other topics. May be repeated to a maximum of 9 semester hours. PRQ: SOCI 571 or SOCI 572, or consent of department.

675. SEMINAR IN RESEARCH METHODS (3). Recent developments in methods of sociological research (systems analysis, survey methods, statistical techniques, or other specific methodological problems). May be repeated to a maximum of 6 semester hours as topic changes. PRQ: Consent of department. Recommended: SOCI 576.

681. SEMINAR IN SOCIAL DISORGANIZATION/CRIMINOLOGY (3). Analysis of conflict, war, revolution, natural catastrophes, social change; or delinquency and crime, prison systems, criminal law, or criminal justice. May be repeated to a maximum of 6 semester hours as topic changes. PRQ: Consent of department. Recommended: SOCI 581.

College of Visual and Performing Arts

Dean: Harold Kafer, Ph.D.
Associate Dean: Richard T. Holly, M.M.

School of Art
School of Music
School of Theatre and Dance

Certificate of Graduate Study

Museum Studies (15)

This certificate is jointly administered by the College of Visual and Performing Arts and the College of Liberal Arts and Sciences. The certificate has been designed to prepare students for careers in public and private museums and related historical societies, archives, or other agencies or institutions which work with artistic, cultural, or historical materials.

ART 465 - Introduction to Museum Studies (3)
One of the following (3)
- ANTH 493 - Anthropology Field Study (1-6)[1]
- ART 665 - Museum Internship (3)
- HIST 500 - Internship in Public History (3)
- ILAS 502 - Internship (3)[1]

At least two of the following (6-9)
- ANTH 462 - Museum Methods (3)
- ART 554 - Museum Administration (3)
- ART 555 - Curatorial Practice (3)
- ART 556 - Museum Exhibitions and Interpretation (3)
- ART 557 - Museum Education (3)
- HIST 492 - Principles of Public History (3)

Additional electives (0-3) chosen in consultation with chair of Museum Studies Committee

[1]May meet the certificate requirements when substantial treatment of museum studies is included.

School of Art (ART)

Director: Adrian Tió

Graduate Faculty

Jeffrey Adams, associate professor, M.F.A., Cranbrook Academy of Art
Leif Allmendinger, associate professor, M.F.A., Rhode Island School of Design
Jon Ashmann, professor, B.S., Illinois Institute of Technology
Michael Barnes, associate professor, M.F.A., University of Iowa
Douglas G. Boughton, professor, Ph.D., University of Alberta, Canada
Karen Brown, associate professor, M.F.A., California State University, Fullerton
Todd Buck, assistant professor, M.S.M.E., University of Illinois, Chicago
Andrew Byrom, associate professor, B.A. Honors, University of East London, England
Yale Factor, graduate coordinator, professor, M.F.A., East Texas State University
Kerry Freedman, professor, Ph.D., University of Wisconsin
Billie Giese, assistant professor, M.F.A., University of Kansas
Aleksandra Giza, associate professor, Ph.D., Silesian University (Katowice, Poland)
Debra Grall, associate professor, M.F.A., University of Wisconsin
Lawrence J. Gregory, assistant director, associate professor, M.F.A., Ohio University
Manuel Hernandez, associate professor, M.F.A., Northern Illinois University
Rebecca Houze, assistant professor, Ph.D., University of Chicago
Barbara Jaffee, associate professor, Ph.D., University of Chicago
Katherine Kahn, associate professor, M.F.A., Yale University
Jeff K. Kowalski, professor, Ph.D., Yale University
Frank Kulesa, associate professor, M.F.A., Northern Illinois University
Yih-Wen Kuo, professor, M.F.A., Southern Illinois University
Andrew Liccardo, assistant professor, M.F.A., Texas Tech University
Christine LoFaso, associate professor, M.F.A., School of the Art Institute of Chicago
Kimberly Martens, associate professor, M.S.M.E., University of Illinois, Chicago
Ronald S. Mazanowski, professor, M.F.A., University of Wisconsin
Helen Nagata, assistant professor, Ph.D., Stanford University
Ashley Nason, assistant professor, M.F.A., University of Tennessee
James Obermeier, assistant professor, M.F.A., Indiana University
Mary Quinlan, associate professor, Ph.D., University of Chicago
Steven Quinn, associate professor, B.Ed., University of Colorado
Catherine Raymond, associate professor, Ph.D., Sorbonne, Paris, France
Charlotte Rollman, professor, M.F.A., University of Illinois
Kurt Schultz, associate professor, M.F.A., Northern Illinois University
John Senseney, assistant professor, Ph.D., University of California, Santa Barbara
Lee Sido, associate professor, M.F.A., Northern Illinois University
Deborah Smith-Shank, professor, Ph.D., Indiana University
Kryssi Staidkidis, assistant professor, Ed.D., Columbia University
Mary Stewart, associate professor, M.F.A., Indiana University
Adrian Tió, professor, M.F.A., University of Cincinnati
Frank Trankina, associate professor, M.F.A., School of the Art Institute of Chicago
Elizabeth Vallance, associate professor, Ph.D., Stanford University
Ann van Dijk, assistant professor, Ph.D., Johns Hopkins University
Harry J. Wirth, professor, B.S., University of Wisconsin, Milwaukee

The School of Art offers graduate programs leading to the M.A., M.S., and M.F.A. degrees. Its programs are accredited by the National Association of Schools of Art and Design.

The M.S. in art with a specialization in art education is designed for those students who wish to prepare for a specialist role in art education in addition to classroom teaching. The M.A. is designed for those students who wish to pursue a specialization in studio art or art history. The M.F.A. is primarily designed for and directed toward students who desire to achieve a current, high-level professional mastery in a discipline related to the fine arts or design. The M.F.A. is a terminal degree in the field of art.

Admission to graduate programs in the School of Art usually requires a baccalaureate degree in a field of art related to the program for which the student is applying. Applicants who do not have a major in art or in their field of study may be assigned deficiencies by faculty in the program area to which the student is admitted based upon review of admissions materials. Deficiencies will be listed in the letter of admission from the Graduate School or in the student's program of courses.

A faculty adviser in the student's area of interest is assigned upon acceptance into the Graduate School. The student must establish contact with the adviser immediately. The adviser will assist in forming the three-member (minimum) graduate advisory committee which will guide the student in all subsequent activities required for the completion of the respective degree.

With the consent of the School of Art and the dean of the Graduate School, a maximum of 9 semester hours of graduate transfer credit may be accepted from other accredited colleges or universities toward an M.A. or M.S. in art. A maximum of 15 semester hours of graduate credit from an M.A. program completed at another institution may be accepted toward the M.F.A. degree. A maximum of 15 semester hours of graduate credit earned at NIU as a student-at-large may be accepted toward an M.A., M.S., or M.F.A. degree. However, in meeting the requirements for a graduate degree in art, the credit transferred from other accredited institutions plus that earned at NIU as a student-at-large may not exceed 15 semester hours.

A graduate student admitted to any M.A. or M.F.A. program in the School of Art may take up to 6 elective credits outside the school, subject to prior approval of the student's graduate advisory committee. Courses in this category must be entered on the official program of courses; subject to prior approval of the student's graduate advisory committee or for those enrolled in an M.S. in art, up to 9 semester hours outside the school.

The School of Art may retain reproductions of any work produced in classes or presented for the one-person exhibition or presentation.

Comprehensive examinations are typically scheduled to occur during the student's last academic year. The nature of the

comprehensive examination is determined by the student's graduate advisory committee.

Other information concerning the various programs can be obtained upon request from the graduate coordinator in the School of Art.

Special Requirements for Studio Degrees

The GRE is not required for admission to the M.F.A. or the M.A. specialization in studio art. The School of Art requires a portfolio from all applicants for admission to the Graduate School who wish to pursue a studio degree in art (M.A. or M.F.A.). A prospective student must submit 10 35mm color slides of his or her work as it relates to the intended course of graduate study. An additional 10 slides may be submitted if desired in another area of competency in studio work. Each slide is to be identified with the name of applicant, title of work, date of execution, medium, and size. The slide should be marked with a red dot on the lower left.

Applicants may substitute film and/or electronic media in lieu of slides where applicable to the field of study. The materials must be submitted in reusable containers acceptable for the U.S. postal service mailing requirements, return postage included. All materials must be clearly identified with the name of the applicant, title of work, date of execution, medium, and return address. Although all possible care is taken, the School of Art cannot assume responsibility in case of loss or damage.

February 1 is the primary date for receiving all application materials for summer, fall, or spring admission to any graduate studio degree program including portfolio, a listing of works in the portfolio, and all materials required by the Graduate School. Applicants meeting the January deadline are eligible for consideration for both graduate admissions and graduate assistantships.

Slides and/or other appropriate visual documentation to be considered for admission purposes should be sent to the graduate coordinator in the School of Art; other application materials are to be submitted to the Graduate School.

Art Education

Master of Science in Art

The M.S. in art requires a minimum of 33 semester hours of graduate work and successfully passing a comprehensive examination.

Specialization in Art Education (33)

Applicants for the M.S. degree with a specialization in art education should have an undergraduate degree in art, art education, or other related field approved by the School of Art. Students must complete 33 semester hours as follows.

ARTE 582 - Curriculum Theory and Development in Art Education (3)
ARTE 584 - History and Philosophy of Art Education (3)
ARTE 585 - Research Readings in Art Education (3)
Electives in art education (6)
Additional electives in art education and/or electives in art history, studio art, or related professional courses as approved by the School of Art (18)
A maximum of 9 semester hours may be taken outside the School of Art. Any program requires the written approval of the major adviser.

Teacher Certification[1]

Persons holding a baccalaureate degree may complete requirements for the State of Illinois Standard Special (K-12) Certificate through the art education division of the School of Art as part of the degree program for the M.S. in art with a specialization in art education. With adviser approval, graduate-level requirements for certification can be part of the 33 semester hours required for this specialization.

Admission Requirements

Successful completion of the Illinois Test of Basic Skills.
Completion of ARTE 342 with a grade of at least C.
Admission to the School of Art.

Retention

Students must remain in good standing in the Graduate School. In addition students must maintain an average 3.00 GPA or higher, and receive no final grade lower than C in art education methods courses (ARTE 342, ARTE 344, ARTE 463, and ART 582).

Admission to Student Teaching

In addition to meeting retention requirements, during the semester prior to student teaching or earlier, students must pass the final portfolio review per the art education division's portfolio review procedures. Also see "Teacher Certification Information."

Requirements

Studio and art history courses may be assigned as deficiencies if not taken as part of an undergraduate degree. Subject to approval by the chair of the graduate advisory committee, courses in art history, ceramics, design, drawing, fiber arts, metal work or jewelry, painting, printmaking, and/or sculpture may be taken at the graduate or undergraduate level, in NIU's School of Art or at other recognized institutions.

ARTE 342, Introduction to Art Education: Content and Clinical Experience at the Elementary Level (3)
ARTE 344, Resources and Methods in Art Education: Content and Clinical Experience at the Middle Level (3)
ARTE 345, Curriculum Development in Art Education: Content and Clinical Experience at the High School Level (3)
ARTE 463 - Application of Aesthetics, Art History, and Criticism in Art Education (3)
ARTE 488A, Student Teaching in Elementary Art (6)
ARTE 488B, Student Teaching in Secondary Art (6)
ARTE 579 - Art Education for Special Needs Populations (3), OR TLSE 457 - Systems for Integrating the Exceptional Student in the Regular Classroom (3)
ARTE 582 - Curriculum Theory and Development in Art Education (3)
ARTE 584 - History and Philosophy of Art Education (3)
ARTE 587 - Evaluation and Assessment in Art Education (3)
EPS 501 - Psychological Foundations of Education (3)
EPS 508 - Theories and Research in Adolescent Behavior and Development (3)
LTIC 501 or TLRN 501X - Multicultural Education: Methods and Materials (3)

Also see "Teacher Certification Information."

Specialization in Art Education under the Doctor of Education in Curriculum and Instruction

This is a professional degree, offered through the College of Education, intended to prepare superior teachers, administrators, service personnel, and scholars of art education. In addition to other functions, the program prepares individuals for teaching at the college level. Preparation for research responsibilities both as producer and as consumer is an integral part of each program. The specialization in art education focuses on preparing students to be knowledgeable practitioners, scholars, and leaders in the field of art education. Students study art education research, theory, and practice. A commitment to scholarship and research, as well as practice, is required of students so as to improve the quality of art education for all learners.

[1]Students with an undergraduate degree must be admitted to the M.S. program in art with a specialization in art education to enter the certification program.

Applicants for the Ed.D. program are expected to have a broad base of general education in the humanities, sciences, and social sciences and are required to present evidence of a minimum of three years of acceptable professional experience and/or demonstrated field leadership.

Admission

Decisions about admission to the Ed.D. specialization in the School of Art are made once each academic term. To be assured of consideration, completed applications containing all required data (application forms, official transcripts, GRE or MAT scores, and letters of recommendation) must be received by the Graduate School no later than March 1 for admission for the fall term, November 1 for admission for the spring term, and March 1 for admission for the summer session.

An applicant for admission is generally expected to

Have a minimum GPA of 3.20 in previous graduate work.

Submit scores on the General Test of the GRE or Miller Analogies Test (MAT).

Provide three letters of recommendation from professors, employers, or supervisors which provide supportive evidence of an applicant's professional qualifications.

Demonstrate satisfactory academic and professional progress as indicated by data included in the application for admission to the Graduate School.

Demonstration of writing competencies and participation in a pre-admission interview is required of qualified applicants before a final admission decision is made.

Prospective students who fail to satisfy either the GPA or the GRE/MAT criterion may request special consideration of their applications. Such a request must be in writing, must include compensatory evidence related to the deficiencies, and should accompany the application for admission to the Graduate School. Final decisions regarding admissions are made by the School of Art on the basis of a total profile of an individual's qualifications. Appeals of a decision made by the School of Art may be made to the coordinator of doctoral studies in the School of Art. Appeals must be submitted in writing and must explain the basis for the appeal.

Deficiency Study

In cases in which a student's background in art education is limited, the individual may be required to fulfill deficiency requirements. Where significant deficiencies are found by the student's advisory committee, additional semester hours above the 93 required for the doctoral degree may be prescribed.

Requirements

The doctoral program in curriculum and instruction with a specialization in art education requires the equivalent of at least three years of full-time academic work, or a minimum of 93 semester hours of graduate work beyond the baccalaureate degree including the following.

TLCI 603 - Design of Curriculum and Instruction (3)
TLCI 604 - Research Seminar in Curriculum and Instruction (3)
Course work constituting common requirements in research understandings and skills, learning and development theories, and socio-cultural analyses of education (15)
Course work (excluding dissertation hours)in the specialization (12)
A cognate component selected from outside the specialization to provide a broader base of knowledge, a supportive professional skill, or more sophisticated research competencies

Examinations

A candidacy examination encompassing the principal areas of professional knowledge, the common requirements, and students' special fields will be scheduled and administered at least twice each year. A graduate student eligible to take this examination, with the permission of the chair of the doctoral committee, will have completed at least two-thirds of his or her studies including the common requirements. Application for the examination can be made to the Division of Art Education, School of Art.

A final oral examination related to the dissertation is required and is conducted in accordance with the general requirements of the Graduate School.

Master of Arts in Art

The M.A. in art requires a minimum of 30 semester hours of graduate work.

Specialization in Studio Art

Students who select the specialization in studio art must elect an area of study in fine arts (ARTS) and/or design (ARTD) courses and must pass a portfolio examination during the first academic year or prior to the completion of 12-15 graduate semester hours for continuance in their M.A. degree program.

Students who choose to change the field of study to which they have been admitted must do so prior to the portfolio examination and with the approval of the faculty in the new field.

ART 580 - Seminar (3)
Art history electives (6)
Studio art electives (18)
ART 599B - One-Person Exhibition or Presentation and Documentation for the M.A. Studio Degree (3)

Students must register for ART 599B during the term of the oneperson exhibition or presentation and documentation.

Documentation of the one-person exhibition or presentation and documentation (the format of the show and two copies of the documentation as approved by the student's graduate advisory committee) and the approval of documentation form must be returned to the graduate coordinator's office by the end of the term.

Approval of the M.A. one-person exhibition or presentation and documentation is by a majority of the student's graduate advisory committee consisting of at least three members. The majority of the committee members must be regular faculty members at NIU; a majority should be members of the graduate faculty in the School of Art; and the chair should be a graduate faculty member in the School of Art and an appropriate specialist in the specific discipline.

Specialization in Art History

Students who select the specialization in art history must complete a thesis, pass a comprehensive examination, and demonstrate a reading knowledge of one modern foreign language by earning an A or B in FLFR 202, FLGE 202, or FLIT 202; receiving an S in FLFR 382 or FLGE 382, or passing an average-proficiency translation examination in French, German, or Italian arranged through the NIU Office of Testing Services, with the concurrence of the student's major adviser. Traditionally, French, German, or Italian is the language chosen, particularly by students interested in pursuing doctoral study. However, another language may be substituted with the approval of the student's graduate advisory committee. If another language is approved, students may satisfy the requirement by obtaining a grade of A or B in the final semester of the intermediate 200-level course of the language in question (e.g., FLRU 202, FLSP 202, FLPO 202, FLJA 204, FLBU 204, FLCH 204, FLIN 204, FLTH 204), or by passing an average proficiency translation examination for the language in question arranged through the NIU Office of Testing Services. It is recommended that students planning to pursue doctoral studies in art history confirm their reading knowledge of the qualifying language either by receiving an S in FLFR 382 or FLGE 382 or by passing an average-proficiency translation examination for the language in question arranged through the NIU Office of Testing Services.

ARTH 601 - Seminar in Art History (6)
Art history electives (minimum–18)
ART 599A - Thesis (3)

A student in the art history specialization who has not taken ARTH 486 as an undergraduate must do so as a graduate student; this work may be for graduate credit.

Students applying for the specialization in art history must submit a sample of academic writing (e.g., a research paper for an academic course).

Master of Fine Arts in Art

The M.F.A. degree in the School of Art is primarily designed for and directed toward students who desire to achieve a current, high-level professional mastery in a discipline related to the fine arts or design. This is a terminal degree in the fields of studio art and design.

Admission

The basic requirements for admission after the completion of the baccalaureate degree are those indicated in the section "General Requirements for Admission to the Graduate School." A baccalaureate degree in a field of art related to the student's intended area of study is usually required. Students with an M.A. degree who wish to continue in an M.F.A. program must have a minimum 3.20 GPA in graduate work to be admitted.

Students seeking admission to the M.F.A. program in the School of Art should send slides to the graduate coordinator in the School of Art. Other application materials are to be submitted to the Graduate School.

Limitation of Time

All requirements for the degree Master of Fine Arts must be completed within the seven consecutive years immediately preceding the date of the student's graduation from that degree program. This time limit applies to enrollment in all graduate course work in the student's program including work for which transfer credit is allowed. At the discretion of the School of Art, the seven-year limit need not apply to some or all of the earliest 15 semester hours of credit included in the student's M.F.A. program of courses.

If an NIU course taken to complete the requirements for an M.F.A. degree does not fall within the seven-year period indicated in the preceding paragraph, the School of Art may require the student to retake the course for credit or may allow the student to demonstrate current knowledge of the subject matter. In the latter case, currency must be demonstrated to the satisfaction of the department offering the course through successful completion of an appropriate examination or other assessment if available from the department. Otherwise, the outdated course work must be deleted from, and other course work must be substituted in, the program of courses. Except as provided in the previous paragraph, transfer courses falling outside the limitation of time cannot be used in the M.F.A. program.

Courses for Which Graduate Credit is Allowed

At NIU only courses which are numbered 400-499, 500-599, and 600-699 carry credit toward the master's degree. At least 50 percent of the minimum number of semester hours required for the M.F.A. degree must be earned in courses numbered 500 and above.

Some courses numbered in the 400s carry only undergraduate credit. See "Graduate Credit for 400-level Courses."

Student-at-Large and Transfer Credit

For a student pursuing the M.F.A. degree in art, up to 30 semester hours of course work from the M.A. program in art at NIU may be counted toward meeting the requirements of the M.F.A. degree, with the consent of the student's M.F.A. advisory committee. With the consent of the School of Art and the office of the dean of the Graduate School, a maximum of 15 semester hours of graduate credit from an M.A. in art program completed at another institution may be accepted toward the M.F.A. degree in art. A maximum of 15 semester hours of graduate credit earned at NIU as a student-at-large may be accepted toward an M.F.A. degree in art. However, in meeting the requirements for a graduate degree in art, the combined total of graduate credit accepted in transfer from other accredited institutions, plus that earned at NIU as a student-atlarge may not exceed 15 semester hours.

Requirements

Students in the M.F.A. program must complete a minimum of 60 semester hours of graduate work beyond a baccalaureate degree, exclusive of work taken to remove deficiencies, with a GPA of at least 3.00 in all graduate courses (excluding deficiency courses taken for graduate credit) as well as in all graduate course work taken at NIU. Students must choose an area of study in design (ARTD) and/or fine arts (ARTS) courses early in their work toward the degree. Students must pass a portfolio examination during the first academic year or prior to the completion of 15-18 graduate semester hours for continuance in their M.F.A. degree program.

Students who choose to change the area of study to which they have been admitted must do so prior to the portfolio examination and with the approval of the faculty in the new area.

Design

Course work from the following (6)
- ARTS 515 - Introduction to Studio Practices (3)
- ARTS 615 - Professional Studio Practices (3)
- ART 580 - Seminar (3),
- ARTE 583 - Seminar in Art Education (3),
- ARTH 601 - Seminar in Art History (3)

Art history electives (12)
Design (ARTD) electives (21)
Studio art electives (18)
ART 699B - One-Person Exhibition or Presentation and Documentation for the M.F.A. Studio Degree (3)

Students must register for ART 699B during the term of the oneperson exhibition or presentation.

Fine Arts

ARTS 515 - Introduction to Studio Practices (3)
ARTS 615 - Professional Studio Practices (3)
ART 580 - Seminar (3),
OR ARTE 583 - Seminar in Art Education (3),
OR ARTH 601 - Seminar in Art History (3)
Art history electives (12)
Fine arts (ARTS) electives (21)
Studio art electives (15)
ART 699B - One-Person Exhibition or Presentation and Documentation for the M.F.A. Studio Degree (3)

Students must register for ART 699B during the term of the one person exhibition or presentation.

Documentation of the one-person exhibition or presentation (the format of the show and two copies of the documentation as approved by the student's graduate advisory committee) and the approval of documentation form must be returned to the graduate coordinator's office by the end of the term.

One-Person Exhibition or Presentation

In the M.F.A. program in the School of Art, the student's work must culminate in a one-person exhibition or presentation. Instructions for documentation of the exhibition or presentation are available from the School of Art, graduate office.

In special situations, and only with the approval of the graduate advisory committee(s), students may collaborate on some aspects of the work contributing to their one-person exhibition

or presentation. However, each exhibition or presentation documentation submitted to the Graduate School for approval must be a unique product with the degree candidate as the sole author and with due acknowledgment of the contributions of collaborators; and the author must demonstrate to his or her committee satisfactory command of all aspects of the work presented.

The student's graduate advisory committee will judge the acceptability of the work in meeting degree requirements. Approval of the M.F.A. one-person exhibition or presentation is by a majority of the student's graduate advisory committee consisting of at least three members. The majority of the committee members must be regular faculty members at Northern Illinois University, a majority must be members of the graduate faculty in the School of Art, and the chair must be a senior graduate faculty member in the School of Art and an appropriate specialist in the specific discipline.

Application for Graduation

During the term in which a student plans to graduate, the student must submit an application for graduation to the Graduate School. See "Graduation."

Foreign Study Programs

The School of Art sponsors a foreign study program designed to investigate, experience and analyze the art and culture of other parts of the world. This program was initiated in 1960 and has featured study tours to all the countries of Western Europe, to Russia, and to China and Japan, as well as to many of the Middle and Near Eastern countries. Residence programs have been sponsored in Italy, France, Austria, and Mexico.

A varied foreign study program is planned for the future. Interested students should contact the director of the School of Art for current information.

Course List

All art courses designated with the phrase "may be repeated" are repeatable to a maximum number of semester hours to be determined be the student's major adviser. Credit-hour limitations for other art courses are cited in their descriptions. Course enrollment of more than 6 credit hours per semester in one course requires consent of the School of Art.

Foundations and General (ART)

ART 465. INTRODUCTION TO MUSEUM STUDIES (3). Survey of the history and philosophy of museums and museum typology. Overview of the purposes, structure, and operations of museums with attention to current issues and practices relating to ethics, collections, exhibitions, and education. Lectures, discussion, museum field trips, museum practicum. Research project. PRQ: Consent of school.

ART 554. MUSEUM ADMINISTRATION (3). Theory and practice of museum administration focusing on governance, legal issues, fund raising, financial and personnel management, planning, public relations, security, and physical facilities. Lectures, case studies, and discussion. PRQ: ART 465 or consent of school.

ART 555. CURATORIAL PRACTICE (3). Philosophy, practices, and issues involved in acquisition and care of collections, including collection policy, registration and cataloging methods, documentation/ research of collections, conservation, and ethics. Lectures, case studies, museum visits, and museum practicum. PRQ: ART 465 or consent of school.

ART 556. MUSEUM EXHIBITIONS AND INTERPRETATION (3). Theory and practices of exhibition planning, design, installation, and evaluation with emphasis on the interpretative function of exhibitions through labels, brochures, AV, and interactive devices. Lectures, practicum, exhibit critiques, class projects, and museum visits. Culminates in an exhibition by the class in an NIU gallery/museum. PRQ: ART 465 or consent of school.

ART 557. MUSEUM EDUCATION (3). History, philosophy, and practice of museum education. Study and practical application through class projects and practicum of planning and implementing public programming, tour techniques, museum-school services, and development and evaluation of educational materials and outreach programs. Lectures, individual projects, observation in museums, and practicum. PRQ: ART 465 or consent of school.

ART 580. SEMINAR (3). Discussion of historical and contemporary issues in the arts. Topics announced. May be repeated.

ART 589. TOPICS IN ART (1 to 6). Concentrated study in art. Studio, lecture and discussion, or field trip. Topics announced. May be repeated for a maximum of 6 semester hours as elective credit to be applied toward an advanced degree with school approval. May not be substituted for art history or seminar.

ART 590. INDEPENDENT STUDY (1 to 9). Work on individual problems in student's chosen field. May be repeated. PRQ: Consent of school and instructor. ART 599A. THESIS (1-3).

ART 599A. THESIS (1 to 3).

ART 599B. ONE-PERSON EXHIBITION OR PRESENTATION AND DOCUMENTATION FOR THE M.A. STUDIO DEGREE (1 to 3).

ART 665. MUSEUM INTERNSHIP (3 to 6). Work experience in a museum, gallery, arts center, or other approved institution with collection(s) of related cultural or aesthetic objects and artifacts under the supervision of a member of the professional staff. Requires regular experience in day-to-day museum operations and completion of a major project arranged with the intern's museum supervisor and a museum studies faculty member. May be repeated to a maximum of 9 semester hours. PRQ: Consent of school.

ART 680. TEACHING ART AT THE COLLEGE LEVEL: INTERNSHIP (3). Teaching art at the college level under the supervision of a master teacher.

ART 699B. ONE-PERSON EXHIBITION OR PRESENTATION AND DOCUMENTATION FOR THE M.F.A. STUDIO DEGREE (1 to 3).

Art Design (ARTD)

ARTD 409. ADVANCED INTERACTIVITY (3). Advanced studies in interactive art with emphasis on structured and individual projects. May be repeated to a maximum of 9 semester hours. PRQ: ARTD 367 or consent of school.

ARTD 410. STUDIES IN INTERACTIVE MEDIA (3). Exploration in interactive art with emphasis on individual projects. Topics announced. May be repeated to a maximum of 9 semester hours. PRQ: ARTD 409 or consent of school.

ARTD 420. DESIGN FIELD EXPERIENCE (1 to 6).
A. Time Arts
C. Visual Communication
D. Photography
Cooperative work experience for design students. Cooperatively supervised professional practice with selected and/or approved design firms to provide a learning experience complementary to the student's area of study in design. May be repeated to a maximum of 6 semester hours. S/U grading. PRQ: Approval of the faculty field experience adviser in the design student's area of study.

ARTD 473. ADVANCED ANIMATION (3). Intensive work in animation using 2-D and/or 3-D techniques with emphasis on individual projects. May be repeated to a maximum of 9 semester hours. PRQ: ARTD 373 or consent of school.

ARTD 505. STORE PLANNING (3, 6 or 9). Study in interior space planning with emphasis on problem analysis and detailed problem solution. May be repeated. PRQ: Acceptance into M.A. or M.F.A. degree program, or consent of school.

ARTD 506. RESEARCH IN INTERIOR ARCHITECTURE (3). Examination of theoretical and empirical methodology for research in interior architecture culminating in designing and evaluating interior spaces. May be repeated. PRQ: Consent of school.

ARTD 507. INTERIOR ARCHITECTURE I (3, 6 or 9). Special problems in interior architecture and space planning stressing preliminary proposals. Topics announced. May be repeated. PRQ: Acceptance into M.A. or M.F.A. degree program, or consent of school.

ARTD 509. NEW MEDIA DESIGN I (3, 6 or 9). Selected problems in design with emphasis on computer-aided design. May be repeated. PRQ: Acceptance into M.A. or M.F.A. degree program, or consent of school.

ARTD 510. DESIGN (3). Selected problems in design. May be repeated. PRQ: Acceptance into M.A. or M.F.A. degree program, or consent of school.

ARTD 511. VISUAL COMMUNICATION (3 or 6). Advanced problems in visual communication. May be repeated. PRQ: Acceptance into M.A. or M.F.A. degree program, or consent of school.

ARTD 512. STUDIES IN DESIGN (3). Varied topics in design. Studio, lecture, and discussion or field trip. Topics announced. May be repeated. PRQ: Acceptance into M.A. or M.F.A. degree program, or consent of school.

ARTD 513. PHOTOGRAPHY I (3 to 6). Advanced work in photography with emphasis on experimentation and development of an individual approach. May be repeated. Students may enroll in two separate sections concurrently. PRQ: Acceptance into M.A. or M.F.A. degree program, or consent of school.

ARTD 540. DESIGN AND TECHNOLOGY (3). Impact of technology on theory and practice of the design process from a historical as well as a contemporary viewpoint. Application of technology to design, both as a creative and as a management tool. Demonstrations, lectures, and case studies. PRQ: Consent of school.

ARTD 566. TIME ARTS I (3, 6 or 9).
A. Animation
B. Video Art
C. Interactivity
D. Intermedia Arts
Advanced study in media arts with emphasis on individual approaches and independent research. Students may enroll in one, two, or three of the above listed subject areas concurrently, for 3, 6, or 9 credit hours in one of these subject areas, or any combination thereof with a maximum of 9 hours per semester. May be repeated. PRQ: Acceptance into M.A. or M.F.A. degree program, or consent of school.

ARTD 607. INTERIOR ARCHITECTURE II (3, 6 or 9). Advanced problems in interior architecture including both commercial and domestic fields. May be repeated. PRQ: Acceptance into M.F.A. degree program or consent of school.

ARTD 609. NEW MEDIA DESIGN II (3, 6 or 9). Advanced research problems in computer-aided design. May be repeated. PRQ: Acceptance into M.F.A. degree program or consent of school.

ARTD 612. RESEARCH AND VISUAL COMMUNICATION (3 or 6). Research in specialized laboratory problems. May be repeated. PRQ: Acceptance into M.F.A. degree program or consent of school.

ARTD 613. PHOTOGRAPHY II (3 or 6). Investigation of creative problems in photography through extended independent study. May be repeated. Students may enroll in two separate sections concurrently. PRQ: Acceptance into M.F.A. degree program or consent of school.

ARTD 666. TIME ARTS II (3, 6 or 9).
A. Animation
B. Video Art
C. Interactivity
D. Intermedia Arts
Advanced development of media arts. Students may enroll in one, two, or three of the above-listed subject areas concurrently, for 3, 6, or 9 semester hours in one of these subject areas, or any combination thereof with a maximum of 9 hours per semester. May be repeated. PRQ: Acceptance into M.F.A. degree program or consent of school.

Art Education (ARTE)

ARTE 463. APPLICATION OF AESTHETICS, ART HISTORY, AND CRITICISM IN ART EDUCATION (3). Thematic, interdisciplinary, and multicultural approach to the application of aesthetic, art historical, and critical theory and methods to instructional practice in museums and elementary and secondary schools. Emphasis on alternative methods of presenting the content of aesthetics, art history, and criticism, and on the use of teacher-made and commercial instructional resources. PRQ: Admission to teacher certification or consent of school.

ARTE 480. ALTERNATIVE TEACHING EXPERIENCES (3 to 12). Internship teaching in community centers, social agencies, and other facilities offering educational programs outside of the public school pattern. Cooperatively supervised field experiences in alternative modes of instruction. PRQ: Approval of art education faculty adviser.

ARTE 483. ART IN ELEMENTARY SCHOOLS (3). Adapting visual arts concepts derived from art history, art criticism, studio arts, and aesthetics as appropriate to the elementary child and the self-contained classroom. Field trip, lecture, studio, critique, and micro teaching experiences. Not open to art majors.

ARTE 484. INTERRELATED ARTS EDUCATION (3). Exploration of aesthetic concepts pertinent to education in the arts. Analysis of curricular structures that accommodate an education in combined arts and basic assumptions underlying these structures. Planning, developing, and implementing arts programs in the context of visual arts in K-12 educational systems.

ARTE 579. ART EDUCATION FOR SPECIAL NEEDS POPULATIONS (3). Philosophies, instructional methods, practice, and experience with appropriate materials, resources, and opportunities related to art education for special needs populations. Designed for students in elementary, middle level, secondary, special education, and art education. Lecture, discussion, and field experience.

ARTE 581. LEARNING THEORY IN ART EDUCATION (3). Study of those theories of learning specifically related to the creative experience. Results of this study applied to the problems of learning and teaching in art education; to questions of method, scope, and sequence in art programs.

ARTE 582. CURRICULUM THEORY AND DEVELOPMENT IN ART EDUCATION (3). Investigation of multicultural, developmental, psychological, and perceptual forces influencing curricular emphases. Analysis of the history and current trends in curriculum development. Learning to structure varieties of curriculum and to formulate objectives for development of concepts and skills in art. Arrangements for a clinical experience, with a minimum of 25 hours, will be provided to students not currently teaching in a classroom.

ARTE 583. SEMINAR IN ART EDUCATION (3). Investigation and discussion of topics in art education as they relate to issues in the visual arts, society, and education programs.

ARTE 584. HISTORY AND PHILOSOPHY OF ART EDUCATION (3). Survey and appraisal of the historical and philosophical basis for teaching of art. Consideration of current objectives with implications for change.

ARTE 585. RESEARCH READINGS IN ART EDUCATION (3). Critical evaluation of primary research. Applying criteria for evaluating: theoretical, descriptive (historical, ethnographic, empirical, and case studies), and experimental research.

ARTE 586. POLICY STUDIES FOR THE ADMINISTRATION AND SUPERVISION OF ART PROGRAMS (3). Analysis of historical, social, political, and economic influences on the formation and implementation of art education policy. Examination of organization, staffing, and administration of art and art-related programs.

ARTE 587. EVALUATION AND ASSESSMENT IN ART EDUCATION (3). Intent, function, and consequences of evaluation and assessment in art education. Survey of evaluation of art programs and teaching. Diagnostic, formative, and summative assessment of art. Methods and instrumentation related to evaluation in art education. PRQ: Teaching experience or at least 25 clock hours of clinical experience, or consent of school.

ARTE 588. ALTERNATIVE METHODS OF INSTRUCTION IN ART (3). Exploration of teaching approaches in art that vary in response to desired outcomes of learning. Use of models in the identification of teaching styles and in obtaining feedback. Planning and teaching for learning situations specific to K-12 art education.

ARTE 681. RESEARCH TOPICS: INDEPENDENT STUDY (3 or 6). A. Administration and Supervision of Arts Programs
C. Art Curriculum
D. Ethnicity in Art Education
E. Evaluation in Art Education
G. Art Museum Education
J. History and Philosophy of Art Education
K. Interrelated Arts Education N. Learning Theory and Art Education
Q. Alternative Methods of Instruction in Art Education
R. Research Methods in Art
U. Art and Special Education
W. Media Aesthetics
Y. Special Topics
Independent research of a selected topic related to art teaching, therapy, or museum education. Credit limited to one topic per semester. May be repeated to a maximum of 6 semester hours. PRQ:

ARTE 684, and at least one 500-level course in art related to topic selected, and completion of all other requirements for the M.S. degree and approval of the art education adviser.

ARTE 683. DOCTORAL SEMINAR IN ART EDUCATION (1). Analysis of selected problems and issues in art education. May be repeated to a maximum of 4 semester hours, but credit limited to 1 hour each semester. PRQ: Admission to the Ed.D. program in curriculum and instruction.

ARTE 684. RESEARCH METHODS IN ART EDUCATION (3). Methods for conducting theoretical, descriptive, and experimental research including statistical analysis of data. PRQ: ARTE 581 and ARTE 585, or consent of school.

ARTE 690. FOUNDATIONS OF ART-BASED EDUCATIONAL PROGRAMS: RESEARCH AND THEORY (3). Curriculum theory and research in art education; historical and current trends in art programming; development of expert knowledge about central concepts, ideas, structures, and debates in the professional field; and critical discussion of the organizational arrangements of school and community programs needed to lay a foundation for student research, theory development, and leadership.

ARTE 691. CRITICAL FOUNDATIONS IN ART AND AESTHETICS (3). Traditions of criticism in the arts looking at standards and criteria for responding to and judging art and other cultural artifacts, as the basis of critiquing and creating educational programs, research methodologies, and analytical approaches to assessing state goals, curriculum objectives, and the content of school and museum art education programs. Emphasis on assessing the actual and potential impact of various critical traditions on the goals of art education programs in schools and museums. PRQ: Admission to the art education specialization in the Ed.D. program in curriculum and instruction, or consent of school.

ARTE 692. PHILOSOPHIES OF ART, CULTURE, AND PEDAGOGY (3). Critical discourse of cultural art world practices and theories through the lenses of theoretical philosophy. Emphasis on aesthetics and ethics in Western civilization.

Art History (ARTH)

ARTH 476. ART OF THE EASTERN MEDITERRANEAN AND ANATOLIA (3). Analytical study of the art and architecture of the Eastern Mediterranean, Western Asia Minor, Anatolia, and the Levant Coast from the beginning of the Stone Age to the downfall of the Phoenician commercial empire.

ARTH 486. ART HISTORICAL METHODOLOGY (3). Studies of various methodological approaches and tools employed in the discipline of art history. PRQ: 6 semester hours of art history survey or consent of school.

ARTH 487. SOUTHEAST ASIAN ART (3). The art of Burma, Thailand, Malaysia, Cambodia, Laos, North Vietnam, South Vietnam, and Indonesia.

ARTH 491. HISTORY OF PRINTS AND GRAPHIC PROCESSES (3). Development of woodcuts, etching, engraving, lithography, etc., in the history of art.

ARTH 492. CONTEMPORARY ART (3). Study of current art directions, styles and attitudes and their relationships to contemporary society.

ARTH 493. HISTORY OF ARCHITECTURE III: FROM 1900 (3). Study of building styles, theories, form, and construction as exemplified by major architectural monuments from 1900 to the present.

ARTH 496A. HISTORY OF DECORATIVE ARTS: FURNITURE (3). Chronological survey from ancient Egypt to the present.

ARTH 496B. HISTORY OF DECORATIVE ARTS: MINOR ARTS AND CRAFTS (3). Chronological survey from ancient Egypt to the present.

ARTH 497. HISTORY OF ARCHITECTURE I: TO 1400 (3). Building styles, theories, form, and construction as exemplified by the major architectural monuments from the ancient world through the end of the Middle Ages.

ARTH 498. HISTORY OF ARCHITECTURE II: 1400-1900 (3). Building styles, theories, form, and construction as exemplified by the major architectural monuments from the Renaissance through the 19th century.

ARTH 591. STUDIES IN MEDIEVAL ART (3).
A. Early Christian and Early Byzantine Art: ca. 330-843
B. Middle and Late Byzantine Art: ca. 843-1453
C. Early Medieval Art: ca. 500-1000
D. Romanesque and Gothic Art: ca. 1000-1400
May be repeated to a maximum of 12 semester hours, but credit limited to 3 semester hours per topic.

ARTH 592. STUDIES IN ITALIAN RENAISSANCE ART (3).
A. Early Renaissance Art
B. High Renaissance Art
May be repeated to a maximum of 6 semester hours, but credit limited to 3 semester hours per topic.

ARTH 593. STUDIES IN NORTHERN RENAISSANCE ART (3).
A. 1300 to ca. 1480. Manuscript Illumination and Panel Painting.
B. 1480 to ca. 1600. Manuscript Illumination, Panel Painting, and Printmaking.
May be repeated to a maximum of 6 semester hours, but credit limited to 3 semester hours per topic.

ARTH 594. TOPICS IN BAROQUE AND ROCOCO ART (3). Topics announced. May be repeated to a maximum of 6 semester hours, but credit limited to 3 semester hours per topic.

ARTH 595. STUDIES IN 19TH CENTURY ART (3). Specific subjects in 19th century art from the time of the French Revolution to ca. 1900. May be repeated to a maximum of 6 semester hours, but credit limited to 3 semester hours per subject.

ARTH 596. STUDIES IN AMERICAN ART (3). Specific subjects chosen from the development of art in America from ca. 1670 to the present. May be repeated to a maximum of 6 semester hours, but credit limited to 3 semester hours per subject.

ARTH 598. STUDIES IN ORIENTAL ART (3).
A. Chinese Art
B. Japanese Art
C. Indian and Southeast Asian Art
D. Islamic Art
May be repeated to a maximum of 12 semester hours, but credit limited to 3 semester hours per topic.

ARTH 600. STUDIES IN ANCIENT ART (3).
A. Egyptian Art
B. Mesopotamian Art–Near East
C. Aegean Art: Minoan/Mycenaean
D. Classical Art: Greece
E. Etruscan and Roman Art
May be repeated to a maximum of 15 semester hours, but credit limited to 3 semester hours per topic.

ARTH 601. SEMINAR IN ART HISTORY (3). Investigation of specific topics in art history. Topics announced. May be repeated to a maximum of 12 semester hours, but credit limited to 3 semester hours per topic.

ARTH 602. STUDIES IN LATIN-AMERICAN ART (3). Specific subjects chosen from the arts of Central or South America. May be repeated to a maximum of 6 semester hours, but credit limited to 3 semester hours per subject.

ARTH 603. INDEPENDENT STUDY IN THE HISTORY OF ART (3). Individual research in special problems and original subjects in art history as determined by student and adviser. May be repeated to a maximum of 9 semester hours, but credit limited to 3 semester hours per topic. PRQ: Permission of adviser.

ARTH 604. STUDIES IN THE ART OF AFRICA, OCEANIA, AND THE AMERICAS (3).
A. African
B. Oceanic
C. Native American
D. Pre-Columbian
E. Integrative Studies in Africa, Oceania, and the Americas
May be repeated to a maximum of 9 semester hours, but credit limited to 3 semester hours per lettered topic.

ARTH 605. STUDIES IN 20TH CENTURY ART (3). Specific subjects chosen from the development of contemporary art from ca. 1900 to the present. May be repeated to a maximum of 6 semester hours, but credit limited to 3 semester hours per subject.

ARTH 685. TOPICS IN ART HISTORY (3). In-depth research on specific artists, movements, periods, or problems in the history of art. Topics announced. May be repeated to a maximum of 15 semester hours, but credit is limited to 3 semester hours per topic.

2-D and 3-D Studio (ARTS)

ARTS 424. ATELIER DRAWING (3). Directed study to expand knowledge of a specific style of drawing with emphasis on the current philosophies, instructional methods, practice, and experiences. May be repeated to a maximum of 6 semester hours. PRQ: Consent of school.

ARTS 425. ATELIER PAINTING (3). Directed study to expand knowledge of a specific style of painting with emphasis on the current philosophies, instructional methods, practice, and experiences. May be repeated to a maximum of 6 semester hours. PRQ: Consent of school.

ARTS 515. INTRODUCTION TO STUDIO PRACTICES (3). Lecture/discussion course to introduce and develop the skills related to the development of the student entering the M.F.A. program. Includes artists' presentations, portfolio documentation, resume writing, group critiques, faculty presentations, studio/materials safety, and selected readings.

ARTS 520. DRAWING I (3 or 6). Analytical studies of style and structure. May be repeated to a maximum of 24 semester hours. Students may enroll in two separate sections concurrently. PRQ: Acceptance into M.A. or M.F.A. degree program, or consent of school.

ARTS 523. PAINTING I (3, 6 or, with consent of school, 9). Development of individual style in painting. Extended independent study. May be repeated to a maximum of 24 semester hours. Students may take two sections (3 semester hours each) concurrently with the same instructor or with different instructors. PRQ: Acceptance into M.A. or M.F.A. degree program, or consent of school.

ARTS 530. PRINTMAKING I (3 or 6).
A. Intaglio
B. Lithography
C. Relief
D. Serigraphy
Individual development of skills and techniques in any of the stated areas of printmaking. May be repeated to a maximum of 24 semester hours. Students may enroll in two separate areas concurrently. PRQ: Acceptance into M.A. or M.F.A. degree program, or consent of school.

ARTS 541. CERAMICS I (3, 6, or, with consent of school, 9). Exploration of three-dimensional forms using clay and related materials. May be repeated to a maximum of 24 semester hours. Students may enroll in two separate sections concurrently. PRQ: Acceptance into M.A. or M.F.A. degree program, or consent of school.

ARTS 551. METALWORK AND JEWELRY I (3, 6, or, with consent of school, 9). Intensive studio work in selected techniques and processes. May be repeated to a maximum of 24 semester hours. Students may enroll in two separate sections concurrently. PRQ: Acceptance into M.A. or M.F.A. degree program, or consent of school.

ARTS 561. SCULPTURE I (3, 6, or, with consent of school, 9). Advanced individual development through work in various media. May be repeated to a maximum of 24 semester hours. Students may enroll in two separate sections concurrently. PRQ: Acceptance into M.A. degree program or consent of school.

ARTS 570. FIBER/INTERDISCIPLINARY I (3, 6, or, with consent of school, 9). Individual development through studio work in fiber and interdisciplinary art media emphasizing skills of execution, articulation and criticism. May be repeated to a maximum of 21 semester hours. PRQ: Acceptance in M.A. or M.F.A. degree program, or consent of school.

ARTS 615. PROFESSIONAL STUDIO PRACTICES (3). Lecture/discussion course to assist students in the development of skills related to the professional practice of art. Includes exhibition preparation, art career preparation, the teaching dossier, business practice for the studio artist, grant writing, field trips to galleries and museums, artist presentations, and selected readings. PRQ: ARTS 515 or consent of school.

ARTS 620. DRAWING II (3 or 6). Advanced problems in drawing. May be repeated to a maximum of 30 semester hours. Students may enroll in two separate sections concurrently. PRQ: Acceptance into M.F.A. degree program or consent of school.

ARTS 623. PAINTING II (3, 6, or, with consent of school, 9). Individual development of style. Extended independent study. May be repeated to a maximum of 30 semester hours. Students may enroll in two separate sections concurrently. PRQ: Acceptance into M.F.A. degree program or consent of school.

ARTS 628. TECHNICAL AND HISTORICAL RESOURCES OF THE ARTIST: PAINTING, DRAWING, PRINTMAKING (3). Media and processes of the artist and their historical significance. Emphasis on selected techniques from 14th through 20th centuries. Studio and lecture. PRQ: Consent of school.

ARTS 629. TECHNICAL AND HISTORICAL RESOURCES OF THE ARTIST: ADVANCED INDEPENDENT STUDY (3). In-depth research and/or studio application in specific historical techniques. May be repeated to a maximum of 12 semester hours. PRQ: Consent of school. Recommended: ARTS 628.

ARTS 630. PRINTMAKING II (3 or 6).
A. Intaglio
B. Lithography
C. Relief
D. Serigraphy
Individual technical exploration and aesthetic development in any of the stated areas of printmaking. May be repeated to a maximum of 30 semester hours. Students may enroll in two separate areas concurrently. PRQ: Acceptance into M.F.A. degree program or consent of school.

ARTS 641. CERAMICS II (3, 6, or, with consent of school, 9). Individual technical exploration and professional development in clay and related materials. May be repeated to a maximum of 30 semester hours. Students may enroll in two separate sections concurrently. PRQ: Acceptance into M.F.A. degree program or consent of school.

ARTS 651. METALWORK AND JEWELRY II (3, 6, or, with consent of school, 9). Emphasis on expression and competence of execution in individualized studio work. May be repeated to a maximum of 30 semester hours. Student may enroll in two separate sections concurrently. PRQ: Acceptance into M.F.A. degree program or consent of school.

ARTS 661. SCULPTURE II (3, 6, or, with consent of school, 9). Individual studies in selected media. May be repeated to a maximum of 30 semester hours. Students may enroll in two separate sections concurrently. PRQ: Acceptance into M.F.A. degree program or consent of school.

ARTS 670. FIBER/INTERDISCIPLINARY II (3, 6, or, with consent of school, 9). Advanced individual development through studio work in fiber and interdisciplinary art media emphasizing skills of execution, articulation and criticism. May be repeated to a maximum of 24 semester hours. PRQ: Acceptance into M.A. or M.F.A. degree program, or consent of school.

School of Music (MUSC)

Director: Paul Bauer

Graduate Faculty

Shmuel D. Ashkenasi, professor emeritus, Diploma, Curtis Institute of Music
Gregory Barrett, assistant professor, D.Mus., Indiana University
Paul Bauer, professor, D.M., Northwestern University
Gregory Beyer, assistant professor, D.M.A., Manhattan School of Music
Tim Blickhan, assistant director, coordinator of graduate studies, professor, D.M.A., University of Illinois
Thomas Bough, assistant professor, D.M.A., Arizona State University
Ronald Carter, professor, M.S., University of Illinois
Ricardo Castañeda, applied artist, M.M., Northwestern University
Robert Chappell, Presidential Teaching Professor, M.M., University of North Texas
Elizabeth Cifani, assistant professor, M.M., Northwestern University
Glenda Cosenza, assistant professor, D.M.A., Temple University
Arthur Davis, applied artist, M.M., University of Illinois
Stephen Duke, Distinguished Research Professor, M.M., North Texas State University
John Fairfield, professor, M.M., Northwestern University
Robert Fleisher, professor, D.M.A., University of Illinois
William Goldenberg, Distinguished Teaching Professor, D.Mus., Indiana University
Fareed Haque, associate professor, B.M., Northwestern University
Brian Hart, associate professor, Ph.D., Indiana University
Janet Hathaway, assistant professor, Ph.D., New York University
Ted Hatmaker, visiting assistant professor, Ph.D., University of Iowa
Nancy Henninger, applied artist, M.M., American Conservatory of Music
Richard T. Holly, professor, M.M., East Carolina University
Richard Hoskins, applied artist, M.M., Northwestern University
Eric Johnson, associate professor, D.M.A., University of Illinois
Marc Johnson, professor, M.M., Catholic University of America
Harold Kafer, professor, Ph.D., University of North Texas
JeongSoo Kim, assistant professor, M.A., New England Conservatory
Edward Klonoski, associate professor, Ph.D., Ohio State University
William Koehler, Presidential Teaching Professor, D.M.A., University of Texas, Austin
David Maki, visiting assistant professor, D.M.A., University of Michigan
Peter Middleton, professor, M.A., University of California, San Diego
Myron Myers, professor, M.M., University of Southern California
John K. Novak, associate professor, Ph.D., University of Texas
James Phelps, associate professor, D.M.A., University of North Texas
Willie Pickens, applied artist, B.S., University of Wisconsin
Mark Ponzo, associate professor, D.M.A., Eastman School of Music
Diane Ragains-Slawin, professor emeritus, M.M., Chicago Conservatory of Music
Marlene Rosenberg, applied artist, B.M., University of Illinois
Charles Schuchat, associate professor, B.M., Northwestern University
Robert L. Sims, associate professor, Artistic Diploma, Northwestern University
Katherine Stubbins-Benitez, applied artist, M.M., Northwestern University
Mathias J. Tacke, professor, Diploma, Northwest German Music Academy
Liam Teague, assistant professor, M.M., Northern Illinois University
James Tucker, applied artist, M.M., University of Wisconsin
Rodrigo Villanueva, assistant professor, M.M., University of North Texas
Melvin Warner, professor emeritus, M.M., University of Southern California
William Watson, applied artist, B.A., Carthage College
Ronnie Wooten, associate professor, D.M.A., Michigan State University
Richard Young, professor, M.M., Catholic University

The School of Music offers the M.M. degree and a Performer's Certificate in music. The School of Music is fully accredited by the National Association of Schools of Music.

Master of Music

The M.M. degree is a 32-semester hour program consisting of 13 semester hours of core requirements plus 19 semester hours taken within one of three areas of study: music education, music performance, or individualized study.

Admission

Normally, a baccalaureate degree in music or a diploma from an accredited conservatory or music school is required for admission to the M.M. program. In special circumstances, applicants whose undergraduate degree is in a field other than music may be admitted to a specific area of study within the M.M. program. Other admission requirements will vary, depending upon the area of study that is selected.

Music Education: Applicants are admitted to this area of study only upon the recommendation of a committee of the music education faculty after an interview and transcript evaluation. Students accepted in music education must take the School of Music diagnostic examinations in music theory and history administered immediately prior to the term for which they are admitted.

Performance: Applicants are admitted to this area of study only upon the recommendation of a committee of the performance faculty after an audition and transcript evaluation. Students accepted in performance must take the School of Music diagnostic examinations in music theory and history administered immediately prior to the term for which they are admitted.

Individualized Study: Applicants are admitted to this area of study only upon the recommendation of a committee of the music faculty after an in-depth examination for competence in music and/or other applicable fields. Depending upon the nature of the proposed course for study, the evaluation committee may require an applicant to take all or part of the School of Music diagnostic examinations in music theory and history, and/or other specialized diagnostic examinations, administered immediately prior to the term for which he or she is admitted.

Applicants for admission to the M.M. program are not required to take the General Test of the GRE. Applicants whose current preparation for advanced study is found to be deficient may be granted admission to the M.M. program with stipulations, and they will be required to make up all such deficiencies. Applicants who are admitted to the M.M. program in a specific area of study and who then wish to change to another area of study must meet all admission requirements for the new area of study before the change is approved. Applicants for admission to the M.M. program are normally notified of an admission decision as soon as administratively feasible following completion of all Graduate School and School of Music entrance requirements.

Requirements

In partial fulfillment of graduate requirements, a student pursuing the M.M. degree in the performance area of study must prepare and perform a full-length public recital. Students pursuing the M.M. degree within the music education or individualized areas of study may present a formal public recital, write a thesis, or complete a final project.

Students in the areas of music education and performance are permitted to take 6 semester hours of selected studies in music (MUSC 619, MUSC 639, MUSC 669, MUSC 689) as part of their program of courses. Students in the individualized area of study may take 12 semester hours of selected studies in music (MUSC 619, MUSC 639, MUSC 669, MUSC 689) as part of their program of courses.

All students pursuing the M.M. degree must fulfill the following core requirements.

Core Requirements (13)

MUSC 533 - Seminar in Musical Research (3), or MUSC 584 - Techniques of Research in Music (3), as appropriate to the area of study and as approved by the student's adviser, in consultation with the coordinator of graduate studies
A course in music history approved by the music history area coordinator in consultation with the music history faculty (3)
A course in music theory approved by the music theory area coordinator in consultation with the music theory faculty (3)
MUSC 599A - Final Recital (4),
OR MUSC 599B - Thesis (4),
OR MUSC 599C - Composition (4),
OR MUSC 599D - Final Project (4)

Each student must also fulfill the requirements of one of the following areas of study.

Music Education (19)

MUSC 585 - Foundations of Music Education (3)
Music education course work (6-9)
Music performance course work chosen from private keyboard, voice, or instrumental study (primary or secondary); music performance (including conducting); and/or ensembles (3)
Electives (4-7)

See also "Teacher Certification" in this section and "Teacher Certification Information" in the front section.

Performance (19)

One of the following tracks

Band and Orchestral Instruments

Private instrumental study (8)
Ensembles (3)
MUSC 591 - Instrumental Ensemble (1)
Additional ensemble courses (2)
One of the following (2-3)
MUSC 464 - Workshop in Movement and Performing Awareness (3)
MUSC 561 - Advanced Instrumental Techniques and Conducting (3)
MUSC 570 - Music Instructional Techniques and Materials: Woodwinds (2)
MUSC 571 - Music Instructional Techniques and Materials: Brasses (2)
MUSC 572 - Music Instructional Techniques and Materials: Percussion (2)
MUSC 574 - Music Instructional Techniques and Materials: Strings (2)
Electives (5-6)

Keyboard Instruments

Private keyboard study (6)
MUSC 565 - Accompanying (1)
MUSC 591J - Keyboard Ensemble (1)
One of the Following (11)
Solo Performance
Private keyboard study (2)
MUSC 538 - Seminar in Piano Literature (2),
OR MUSC 539 - Seminar in Organ Literature (2)
MUSC 575A - Keyboard Methods and Materials: Piano (3),
OR MUSC 575B - Keyboard Methods and Materials: Harpsichord (3),
OR MUSC 575C - Keyboard Methods and Materials: Organ (3)
Electives (4)
Keyboard collaborative arts
MUSC 537 - Chamber Music Studies (3)
MUSC 565 - Accompanying (1)
MUSC 591J - Keyboard Ensemble (1)
Electives (6)

Voice

Private voice study (8)
MUSC 581 - Pedagogy of Singing (3)
MUSC 590B - Opera Workshop (1)
MUSC 590A - Chamber Choir (1),
OR MUSC 590B - Opera Workshop (1),
OR MUSC 595 - Concert Choir (1)
Electives (6)

Individualized Study (19)

A student may design an individualized area of study with course work selected from existing courses, seminars, independent study, internships, or special projects, offered both on and off campus. While this individual area of study may share some features of other areas of study, its thrust should be distinctive. Individualized study may consist in part of interdisciplinary or multidisciplinary courses which combine music study with such areas as anthropology, art, business, computer science, dance, theater, electronics, ethnic studies, mental health, or special education; or they may concentrate entirely on music. Examples of individualized study areas pursued by M.M. students include music history, music theory, composition, world music, jazz, recording techniques, and computer music and new media technology.

After acceptance, each student will be assigned an adviser with whom he or she will prepare an individualized proposal. This proposal must be approved by a committee representing the School of Music, which may in turn seek the advice of another department whose courses are included in the proposal. Normally, at least one half of the individualized area of study will be in the School of Music. At the conclusion of study, the student must substantiate to the committee that the specified goals have been met.

Performer's Certificate

The Performer's Certificate is not a graduate degree. The purpose of the Performer's Certificate program is to permit students to attain greater mastery of their chosen fields than they can achieve in formal study through the master's degree level. This

24- semester-hour program includes private instruction, research related to performance, and performance experience designed to develop fully independent professional musicians.

Admission

Applicants for the Performer's Certificate program should consult with the School of Music director or coordinator of graduate studies. To be eligible for admission, students must normally have completed work equivalent to that required for the M.M. degree at NIU. Applicants are not required to take the GRE general test; however, they will be required either to perform an audition, or submit a cassette recording representative of their performance ability.

In some cases, students who demonstrate exceptional performing abilities, equivalent to a Master of Music level or beyond, and who have completed a baccalaureate degree from an accredited institution or appropriate diploma from a recognized conservatory or music school, may be recommended by the faculty of the School of Music for admission directly into the Performer's Certificate program. However, persons admitted to the Performer's Certificate program in this manner must reapply to the Graduate School if they seek entry into a graduate degree program.

Credit Requirements

The Performer's Certificate program requires a minimum of 24 semester hours of credit with a GPA of at least 3.00. The minimum GPA of 3.00 must be earned over all courses required in the student's program of courses as well as over all graduate courses taken at NIU.

Limitation of Time

The student must fulfill all of the requirements of the Performer's Certificate program within the six consecutive years immediately preceding the date of the student's graduation from that program.

If a course taken to complete the requirements for the Performer's Certificate does not fall within this time limitation, the School of Music may require the student to retake the course for credit or may allow the student to demonstrate current knowledge of the subject matter. In the latter case, currency must be demonstrated to the satisfaction of the department offering the course through successful completion of an appropriate examination or other assessment if available from the department. Otherwise, the outdated course work must be deleted from, and other course work must be substituted in, the program of courses.

Student-at-Large and Transfer Credit

No student-at-large or transfer credit is accepted as part of the program of courses required for the Performer's Certificate.

Dual Credit for Course Work

Students pursuing the Master of Music degree and the Performer's Certificate, either simultaneously or consecutively, may have up to 6 semester hours of graduate course work accepted for credit in both programs.

Requirements

Private applied study (8)
Ensembles (2)
Electives in music performance (6)
MUSC 690C, Internship in Music: Performance (0-4)
MUSC 699, Performer's Certificate Research and Performance (4-8)

A series of at least four performances and presentations is required, consisting of at least two full-length recitals and such other presentations or performance experiences as master classes, lecture recitals, professional internships, and concerto performances, as determined by the adviser and program committee. Normally, only one full-length recital may be presented in a single semester. Because the program is highly specialized and concentrated, students are expected to enroll in a full course load during each term they attend. (See "Course Load.")

Final Recital

Each student must successfully present a final recital and should consult with the School of Music concerning applicable procedures and deadlines for this recital.

A student must be enrolled and must be in good academic standing, both overall and in the Performer's Certificate program, in the term of the final recital to be eligible for its presentation. A student who fails to perform the final recital successfully may, with the permission of the School of Music, repeat it no sooner than the following academic term. A student who fails a second time, or is not granted approval for a second attempt, will not be permitted to continue work toward the Performer's Certificate, and admission to that program will be terminated.

Composition of Final Recital Committee

The Performer's Certificate final recital committee must consist of at least three members. The majority of the committee must be regular faculty members at NIU; a majority must be members of the graduate faculty; and the chair must be a graduate faculty member in the School of Music.

Application for Graduation

When nearing completion of requirements for a graduate degree, a student must submit an application for graduation to the Graduate School. See "Graduation."

Teacher Certification

Graduate students may complete NIU requirements for the State of Illinois Standard Special (K-12) Certificate through the music education area of the School of Music as part of the program for the M.M. in music with an area of study in music education. With adviser approval, graduate-level requirements for certification can be part of the 32 semester hours required for the degree.

Also see "Teacher Certification Information."

Admission to Teacher Certification

To be admitted to the teacher certification program, the student must obtain program recommendations from the music education graduate certification coordinator, successfully complete the State of Illinois Basic Skills Test, complete MUSC 175 and MUSC 275 with grade of C or better, and be admitted to the Master of Music program with an area of study in music education.

Retention

To be retained in the teacher certification program, students must remain in good standing in the Graduate School. In addition, students can receive no final grade lower than C in music education courses (MUSC 275, MUSC 371, MUSC 372, MUSC 484), and must have and maintain an overall minimum GPA of 2.50 in all undergraduate course work required for certification. Students who fall below the required GPA in undergraduate certification course work may request one probationary term by

filing a written appeal with the music education area coordinator. Students may not student teach if minimum GPA requirements are not met.

Admission to Student Teaching

At the end of the semester prior to student teaching, students will be screened to determine readiness for student teaching. The screening will consist of a review of academic records, the completion of all pre-student-teaching requirements, the presentation of an up-to-date professional folio, and an interview with the coordinator of teacher certification for the College of Visual and Performing Arts.

Cooperative Education/Internship Program

Master of Music candidates are eligible to submit an application for cooperative education/internship experience. Those students selected may participate in full- or part-time assignments with approved organizations whose functions are complimentary to the students' career goals. Variable S/U credit hours are assigned on the basis of the length and/or nature of the experience. Credit applies towards music elective credit requirements. Students are limited to a maximum of 4 semester hours of cooperative education/internship credit in the School of Music. Students in any M.M. program (including those in the individualized major) may apply for the Cooperative Education/Internship Program.

Interested students must consult with a faculty member closely associated with the appropriate field. The student then applies to the School of Music for participation in Northern's Cooperative Education/Internship Program. Applications must be approved by the director of the School of Music and the graduate coordinator. Enrollment in this program must be reflected in the student's program of courses by enrollment in MUSC 690. Applications will be reviewed on the basis of GPA, instructor recommendation(s), professional promise, and demonstrated interest and competence in the area of study. The student must possess a minimum 3.00 overall GPA. All students (including transfer students) must have completed a minimum of 9 semester hours of graduate-level course work in the NIU School of Music.

Although academically supervised by School of Music faculty, all internships are coordinated by the Cooperative Education/ Internship Program. The latter office requires completion of an application and resume.

Course List

599A. FINAL RECITAL (1 to 4). Preparation and completion of a graduate recital. May be repeated to a maximum of 4 semester hours.

599B. THESIS (1 to 4). Preparation and completion of a thesis. May be repeated to a maximum of 4 semester hours.

599C. COMPOSITION (1 to 4). Preparation and completion of a composition. May be repeated to a maximum of 4 semester hours.

599D. FINAL PROJECT (1 to 4). Preparation and completion of a final project. May be repeated to a maximum of 4 semester hours.

690. INTERNSHIP IN MUSIC (1 to 4).
A. Composition and Arranging
B. Recording Techniques
C. Performance
D. Music Industry
E. Music Education
Cooperatively supervised, full or part-time professional field experience with approved organizations or individuals, to provide a learning experience complementary to the student's anticipated career goals. May be repeated to a maximum of 4 semester hours. S/U grading. PRQ: Consent of school.

Music History and Literature

421. TOPIC STUDIES IN ETHNOMUSICOLOGY (3). Studies and reports on special topics in world music: bibliography, discography, instruments, etc. May be repeated to a maximum of 6 semester hours. PRQ: Consent of school.

422. JAZZ HISTORY (3). Significant changes and developments in jazz. Analysis of the styles of a number of jazz performers. PRQ: MUSC 230 or consent of school.

423. BLACK MUSIC (3). Historical examination of black music from 1619 to the present. Analysis of musical styles including blues, rag, jazz, rhythm and blues, and soul, within the social and cultural context of American life.

426. AMERICAN MUSIC IN THE CONCERT TRADITION (3). Development of solo, chamber, symphonic, and choral music, and opera from the Moravians of colonial America to the American experimental composers of the 20th century. PRQ: MUSC 321 or consent of school.

427. AMERICAN MUSIC IN THE FOLK AND POPULAR TRADITIONS (3). Survey of American vernacular and popular music since colonial times including folk songs and spirituals, the music of New England tunesmiths, music for social and entertainment purposes, and an introduction to the music of Native Americans. PRQ: MUSC 321 or consent of school.

431. MUSIC OF SOUTHEAST ASIA (3). Study of the music of Southeast Asia with emphasis on the music of Indonesian gamelan. PRQ: Consent of school.

432. MUSIC OF CHINA (3). Study of the music of China with emphasis on existing genres. PRQ: Consent of school.

433. CHORAL LITERATURE I (2). Survey of choral literature from 1400 to 1750. PRQ: Consent of school.

434. CHORAL LITERATURE II (2). Survey of choral literature from 1750 to the present. PRQ: Consent of school.

435. ORGAN LITERATURE I (2). Survey of organ literature from 1300 to 1750, including the works of J. S. Bach. PRQ: Consent of school.

436. ORGAN LITERATURE II (2). Survey of the organ works after J. S. Bach and classical, romantic, and contemporary literature. PRQ: Consent of school.

437. PIANO LITERATURE I (2). Survey of clavier and piano literature to the mid-19th century. PRQ: MUSC 340 or consent of school.

438. PIANO LITERATURE II (2). Survey of romantic and contemporary piano literature. PRQ: MUSC 340 or consent of school.

439. GUITAR LITERATURE (2). Survey of lute, vihuela, and guitar literature from the Renaissance to the present. PRQ: MUSC 202 or consent of school.

521. MUSIC HISTORY REVIEW I (2). Development of western art music from its origins to 1750. Does not satisfy graduate music history requirements for any degree program. Credit earned does not count toward the M.M. degree or Performer's Certificate.

522. MUSIC HISTORY REVIEW II (2). Development of western art music from 1750 to 1900. Does not satisfy graduate music history requirements for any degree program. Credit earned does not count toward the M.M. degree or Performer's Certificate.

523. 20TH CENTURY IDIOMS I (3). Musical developments from 1890 to 1950; impressionism, primitivism; expressionism; jazz influences; early serial techniques.

527. THE RENAISSANCE (3). Music in the Renaissance (ca. 1450-1600), with study of representative styles.

528. BAROQUE IDIOMS AND STYLES (3). Selected studies in music of the baroque period.

529. THE CLASSIC ERA (3). European music from ca. 1730-1820. PRQ: MUSC 321 and MUSC 322, or consent of school.

530. THE ROMANTIC ERA (3). European music from ca. 1820-1900. PRQ: MUSC 321 and MUSC 322, or consent of school.

531. 20TH CENTURY IDIOMS II (3). Historical, organizational, and theoretical aspects of avant garde and experimental compositions, including electronic and computer music. PRQ: MUSC 523 or consent of school.

533. SEMINAR IN MUSICAL RESEARCH (3). The technique of writing and speaking about music. Reading and critical evaluation of writings about music. Survey of resources for musical research, such as reference materials and the means of locating sources and editions.

534. SEMINAR IN MUSIC HISTORY AND LITERATURE (3). Research and analysis in selected areas of music history and literature. May be repeated to a maximum of 6 semester hours. PRQ: Consent of school.

537. CHAMBER MUSIC STUDIES (3). Independent studies in chamber music analysis and performance practices.

621. OPERATIC LITERATURE (3). History and development of the opera from the Florentine camerata to the present.

622. SYMPHONIC LITERATURE (3). Study of orchestral music, with emphasis on the symphony and solo concerto. Analytical techniques applied to selected works.

639. SELECTED STUDIES IN MUSIC HISTORY AND LITERATURE (1 to 4). Independent or small-group study of selected topics. Participation in more than one independent study per semester permitted by consent of school director. May be repeated to a maximum of 20 semester hours. See specific degree requirements for limitations. PRQ: Consent of school.

Music Theory and Composition

400. RECORDING TECHNIQUES (3). Laboratory study of the techniques of professional recording as applied directly to all phases of musical storage and reproduction. Emphasis on gaining expertise with microphones, acoustics, multitrack recording, professional mixing techniques, etc. PRQ: Ability to read music and consent of school.

401. ADVANCED RECORDING PROJECTS (3). Continuation of MUSC 400. Microphone theory and applications, audio console operation including, but not restricted to, signal processing, monitor mixing, overdubbing, and multitrack techniques; preparation of master tape suitable for disc recording; some study of current practices in digital recording and console automation. May be repeated to a maximum of 9 semester hours. PRQ: MUSC 400 or consent of school.

407. MODAL COUNTERPOINT (3). Class performance, analysis, and writing of counterpoint in Renaissance style as exemplified by works of such composers as Josquin, Lassus, and Palestrina. Preliminary study of Gregorian chant. PRQ: MUSC 202 or consent of school.

409. TONAL COUNTERPOINT (3). Class performance, analysis, and writing of counterpoint as employed in 18th century style. PRQ: MUSC 202 or consent of school.

412. DEVELOPMENT AND PRACTICE OF ELECTRONIC MUSIC (3). Comprehensive examination of the development and practices of all phases of electronic and computer music with both historical and projected examinations of applications in composition, performance and research. PRQ: Consent of school.

418. PHYSICS OF MUSICAL INSTRUMENTS AND SOUND (3). The science of musical sound and the physical principles involved in the production of music by the various instruments and the voice. Elements of architectural acoustics of music rooms and acoustical engineering of electronic recorders and reproducers. Open to nonmusic majors by consent of school.

500. COMPOSITION: SECONDARY (1). Selected studies in the techniques of composing for acoustic media. Not open to composition majors. May be repeated to a maximum of 12 semester hours. PRQ: Consent of school.

501. MUSIC THEORY REVIEW (2). Review of harmony, analytical techniques, part-writing procedures, and listening strategies necessary for graduate-level study of tonal music. Does not satisfy graduate music theory requirements for any degree program. Credit earned does not count toward the M.M. degree or Performer's Certificate.

504. SEMINAR IN THEORY AND COMPOSITION (3). Projects and studies in theory and composition. Topics announced. May be repeated to a maximum of 6 semester hours.

505. ORCHESTRATION (3). The scoring of original and other works for various combinations of instruments as well as one complete score for full symphony orchestra. PRQ: Consent of school.

507. WIND AND PERCUSSION SCORING (3). Scoring for diverse wind and percussion ensembles. PRQ: Consent of school.

509. JAZZ ARRANGING I (2). Scoring techniques for jazz and popular ensembles. PRQ: MUSC 202 and MUSC 205, or consent of school.

510. JAZZ ARRANGING II (2). Continuation of MUSC 509. Advanced scoring techniques for jazz and popular ensembles. PRQ: MUSC 509 or consent of school.

511. ELECTRONIC AND COMPUTER MUSIC I (2). Techniques of electronic music composition. Emphasis on tape techniques, analog and digital synthesis. PRQ: Consent of school.

512. ELECTRONIC AND COMPUTER MUSIC II (2). Further study and experimentation with techniques introduced in MUSC 511, Electronic and Computer Music I. Emphasis on implementing techniques studied thus far in more extensive electronic music compositions. PRQ: MUSC 511 and consent of school.

517. MUSIC THEORY PEDAGOGY (3). Examination of pedagogical philosophies, strategies, and techniques for teaching music theory and aural skills at the college and pre-college levels.

518. TONAL ANALYTICAL TECHNIQUES (3). Study and application of theoretical principles and analytical techniques appropriate to the music of the 17th, 18th, and 19th centuries.

519. POST-TONAL ANALYTICAL TECHNIQUES (3). Study and application of theoretical principles and analytical techniques appropriate to the music of the 20th century including neo-tonality, symmetry, atonality, set theory, serialism, minimalism, aleatory techniques, and eclecticism.

600. COMPOSITION: PRIMARY (2 to 4). Individualized and/or group study and writing of small and large musical forms. May be repeated to a maximum of 12 semester hours. PRQ: Consent of school.

611. ELECTRONIC AND COMPUTER MUSIC III (2). Algorithmic composition. Study of how composers have used computers to create and perform musical works. Emphasis on design of original algorithms and their use in the composition/performance of musical works. PRQ: MUSC 512 and consent of school.

612. ELECTRONIC AND COMPUTER MUSIC IV (2). Further study and experimentation with algorithmic composition. Emphasis on creating more expansive computer music systems through the integration of hardware and software. PRQ: MUSC 611 and consent of school.

613. SOFTWARE SYNTHESIS AND DIGITAL AUDIO PROCESSING (3). Advanced musical composition using software synthesis and digital audio processing techniques. Projects can include personal and network media as well as the creation of both musical compositions and original software components. May be repeated to a maximum of 12 semester hours.

619. SELECTED STUDIES IN MUSIC THEORY (1 to 4). Independent or small-group study of selected topics. Participation in more than one independent study per term permitted by consent of school director. May be repeated to a maximum of 20 semester hours. See specific degree requirements for limitations. PRQ: Consent of school.

Music Performance

462. SURVEY OF THE MUSIC INDUSTRY (2). Study of the basic workings of the music business including copyright law, contracts, the record industry, music publishing, artist management, and other music-related careers.

464. WORKSHOP IN MOVEMENT AND PERFORMING AWARENESS (3). *Crosslisted as TH-D 464X.* Lectures, demonstrations, and related activities regarding the work of Moshe Feldenkrais as it applies to the training of performing artists. May be repeated to a maximum of 12 semester hours. PRQ: Consent of school.

563. SPECIAL CONTEMPORARY PERFORMANCE SKILLS: EXPERIMENTAL MUSIC (2). Analysis and class performance of experimental music including the development of skills related to the interpretation of modernized and invented notation, improvisation, and verbal instruction. PRQ: Consent of school.

567. DICTION FOR PIANISTS I (2). Italian and German pronunciation, using the International Phonetic Alphabet as a basis. Faculty-supervised vocal coaching in class and at rehearsals. Enrollment limited to graduate keyboard Area 2 students.

569. DICTION FOR PIANISTS II (2). French and English pronunciation, using the International Phonetic Alphabet as a basis. Faculty-supervised vocal coaching in class and at rehearsals. Enrollment limited to graduate keyboard Area 2 students. PRQ: MUSC 567 or consent of school.

669. SELECTED STUDIES IN MUSICAL PERFORMANCE (1 to 4). Independent or small-group study of selected topics. Participation in more than one independent study per term permitted by consent of school director. May be repeated to a maximum of 20 semester hours. See specific degree requirements for limitations. PRQ: Consent of school.

699. PERFORMER'S CERTIFICATE RESEARCH AND PERFORMANCE (1 to 4). A series of performances and presentations with accompanying research, prepared in consultation with the adviser and approved by the program committee. May be repeated to a maximum of 8 semester hours. PRQ: Admission to the Performer's Certificate program.

Conducting

561. ADVANCED INSTRUMENTAL TECHNIQUES AND CONDUCTING (3). Advanced problems in baton techniques and score reading and the analysis of graded band and orchestra literature.

562. ADVANCED CHORAL TECHNIQUES AND CONDUCTING (3). Practical exposition of all facets of choral directing, effective rehearsal procedures, score study, and organization of choral ensembles

660. CONDUCTING (2 or 4). Individual study in the student's major medium of performance. May be repeated to a maximum of 24 semester hours for the Performer's Certificate and each degree undertaken. Students who wish to take primary private study must pass an audition in the appropriate performance area. PRQ: Consent of school.

Keyboard Instruments

538. SEMINAR IN PIANO LITERATURE (2). Focused study of a major component of the piano literature, including research, analysis, and discussion of performance practices. Topics announced. May be repeated to a maximum of 6 semester hours.

539. SEMINAR IN ORGAN LITERATURE (2). In-depth study of Baroque, Romantic, and contemporary organ literature through research, analysis, and discussion of performance practices in the organ music of selected representative composers. PRQ: MUSC 435 or MUSC 436, or consent of school.

540. PIANO: SECONDARY (1).
541. ORGAN: SECONDARY (1).
542. HARPSICHORD: SECONDARY (1).
Emphasis on performance with proficiency requirements. Individual and/or group instruction. Open to nonmusic majors by special consent of school. May be repeated to a maximum of 12 semester hours. PRQ: Students who wish to take secondary private study must obtain consent of the instructor.

564. PROFESSIONAL KEYBOARD SKILLS (2). Development of keyboard proficiency in sight-reading, score-reading, and ensemble playing in Baroque through contemporary repertoire with emphasis on application to professional teaching and accompanying. May be repeated to a maximum of 8 semester hours. PRQ: Consent of school.

565. ACCOMPANYING (1). Practical study of accompanying by pianists as applied to standard solo instrumental and vocal literature. Involves rehearsals and in-class performance with soloists. May be repeated to a maximum of 12 semester hours. PRQ: Consent of school.

640. PIANO: PRIMARY (2 or 4).
641. ORGAN: PRIMARY (2 or 4).
642. HARPSICHORD: PRIMARY (2 or 4).
Individual study in the student's major medium of performance. Two semester hours credit per semester for students in the music education course of study; 4 semester hours credit per semester (2 in summer) for students in the performance and pedagogy course of study. May be repeated to a maximum of 24 semester hours for the Performer's Certificate and each degree undertaken. PRQ: Students who wish to take primary private study must pass an audition in the appropriate performance area.

Voice

544. VOICE: SECONDARY (1). Emphasis on performance, with proficiency requirements. Individual and/or group instruction. Open to nonmusic majors by consent of school. May be repeated to a maximum of 12 semester hours. PRQ: Students who wish to take secondary private study must obtain consent of the instructor.

590. VOCAL ENSEMBLE (1).
A. Chamber Choir
B. Opera Workshop
D. Jazzvox
Study of vocal repertoire as developed through ensemble participation. May be repeated to a maximum of 12 semester hours. Participation for credit in more than one ensemble during same term permitted. PRQ: Consent of school.

594. UNIVERSITY CHORUS (1). Open to all students proficient in singing and interested in choral activities. May be repeated to a maximum of 12 semester hours. PRQ: Consent of school.

595. CONCERT CHOIR (1). Study and performance of musical masterworks from the 16th through the 20th century. May be repeated to a maximum of 12 semester hours. PRQ: Consent of school.

644. VOICE: PRIMARY (2 or 4). Individual study in the student's major medium of performance. Two semester hours credit per semester for students in the music education course of study; 4 semester hours credit per semester (2 in summer) for students in the performance and pedagogy course of study. May be repeated to a maximum of 24 semester hours for the Performer's Certificate and each degree undertaken. PRQ: Students who wish to take primary private study must pass an audition in the appropriate performance area.

Instrumental

543. HARP: SECONDARY (1). Stresses performance, with proficiency requirements. Individual and/or group instruction. Open to nonmusic majors by special consent of school. May be repeated to a maximum of 12 semester hours. PRQ: Students who wish to take secondary private study must obtain consent of the instructor.

545. VIOLIN: SECONDARY (1).
546. VIOLA: SECONDARY (1).
547. VIOLONCELLO: SECONDARY (1).
548. CONTRABASS: SECONDARY (1).
549. GUITAR: SECONDARY (1).
550. FLUTE: SECONDARY (1).
551. OBOE: SECONDARY (1).
552. CLARINET: SECONDARY (1).
553. SAXOPHONE: SECONDARY (1).
554. BASSOON: SECONDARY (1).
555. TRUMPET: SECONDARY (1).
556. FRENCH HORN: SECONDARY (1).
557. TROMBONE: SECONDARY (1).
558. TUBA AND EUPHONIUM: SECONDARY (1).

559. PERCUSSION: SECONDARY (1). Emphasis on performance, with proficiency requirements. Individual and/ or group instruction. Open to nonmusic majors by special consent of school. May be repeated to a maximum of 12 semester hours. PRQ: Students who wish to take secondary private study must obtain consent of the instructor.

568. STUDIES OF FOLK AND TRADITIONAL INSTRUMENTS (1).
C. Study of African Instruments
D. Study of Caribbean Instruments
J. Study of Renaissance and Baroque Instruments
K. Study of Indian Instruments
M. Study of Afro-Caribbean Percussion Instruments
Development of skills necessary to play selected instruments from various cultures and historical periods. Individual and/or group study. Participation for credit in more than one category during same term permitted. May be repeated to a maximum of 12 semester hours. PRQ: Consent of school.

591. INSTRUMENTAL ENSEMBLE (1).
A. String Ensemble
B. Woodwind Ensemble
C. Brass Ensemble
D. Percussion Ensemble
G. Guitar Ensemble
J. Keyboard Ensemble
K. Mixed Ensemble
N. Early Music Ensemble
Q. World Music Ensemble
U. Jazz Combo
V. Latin Jazz Ensemble
Ensemble performance. Participation for credit in more than one ensemble during same term permitted. May be repeated to a maximum of 12 semester hours. PRQ: Consent of school.

592. UNIVERSITY BANDS (1).
A. Wind Symphony
B. Wind Ensemble
C. All-University Band
Open to all students who play wind and percussion instruments. Participation in both A and B during same term permitted. May be repeated to a maximum of 12 semester hours. PRQ: Consent of school.

596. JAZZ ENSEMBLE (1). Performance and study of various styles of jazz and popular music. May be repeated to a maximum of 12 semester hours. PRQ: Acceptance by audition.

597. ORCHESTRA (1).
A. NIU Philharmonic
B. Campus String Orchestra
Open to all qualified students. May be repeated to a maximum of 12 semester hours. PRQ: Consent of school.

598. WORLD MUSIC ENSEMBLE (1).
A. Gamelan
C. African Ensemble
D. Steel Band I
J. Steel Band II
K. All-University Steel Band
M. Tabla
Ensemble performance. Participation for credit in more than one ensemble during same term permitted. Open to nonmusic majors by special consent of school. May be repeated to a maximum of 12 semester hours. PRQ: Consent of school.

643. HARP: PRIMARY (2 or 4). Individual study in the student's major medium of performance. Two semester hours credit per term for students in the music education course of study; 4 semester hours credit per term (two in summer) for students in the performance and pedagogy course of study. May be repeated to a maximum of 24 semester hours for the Performer's Certificate and each degree undertaken. PRQ: Students who wish to take primary private study must pass an audition in the appropriate performance area.

645. VIOLIN: PRIMARY (2 or 4).
646. VIOLA: PRIMARY (2 or 4).
647. VIOLONCELLO: PRIMARY (2 or 4).
648. CONTRABASS: PRIMARY (2 or 4).
649. GUITAR: PRIMARY (2 or 4).
650. FLUTE: PRIMARY (2 or 4).
651. OBOE: PRIMARY (2 or 4).
652. CLARINET: PRIMARY (2 or 4).
653. SAXOPHONE: PRIMARY (2 or 4).
654. BASSOON: PRIMARY (2 or 4).
655. TRUMPET: PRIMARY (2 or 4).
656. FRENCH HORN: PRIMARY (2 or 4).
657. TROMBONE: PRIMARY (2 or 4).
658. TUBA AND EUPHONIUM: PRIMARY (2 or 4).
659. PERCUSSION: PRIMARY (2 or 4).
Individual study in the student's major medium of performance. Two semester hours per semester for students in the music education course of study; 4 semester hours per semester (2 in summer) for students in the performance and pedagogy course of study. May be repeated to a maximum of 24 semester hours for the Performer's Certificate and each degree undertaken. PRQ: Students who wish to take primary private study must pass an audition in the appropriate performance area.

Music Education

477. JAZZ PEDAGOGY (3). Exploration of various approaches to teaching jazz including improvisation, style, articulation, and phrasing as well as the development of curriculum designs. PRQ: Consent of school.

480. WIND INSTRUMENT LITERATURE (3). Wind instrument literature from ca. 1600 to the present, with emphasis on the 20th century American concert band. Includes literature covering all major stylistic periods suitable for public school and college instrumental ensembles. Analytical techniques applied to selected works. PRQ: MUSC 371 and MUSC 372, or consent of school.

481. MUSIC IN THE THERAPEUTIC PROCESS (3). Therapeutic applications of music. Study of music as an agent of change and how if affects the physical, intellectual, social, and emotional domains. PRQ: Consent of school.

482. THE MUSIC EDUCATION APPROACHES OF DALCROZE, ORFF, AND KODALY (3). Exploration of the approaches of Emile Jaques- Dalcroze, Carl Orff, and Zoltan Kodaly relating to vocal/choral, instrumental, and general music education. Evaluation of pedagogical materials and application to elementary, middle/junior high, and high school levels. PRQ: Grade of C or better in MUSC 202, grade of C or better in MUSC 275, and grade of C or better in MUSC 204 or MUSC 267, or consent of school.

483. COMPUTER TECHNOLOGY IN THE P-12 MUSIC PROGRAM (3). Integrating hardware devices and software for composition, sequencing, aural skills and theory; the Internet for supplementary instruction; basic web page construction; designing technology-infused general music curricula; and creating spreadsheets for music program administration and assessment. PRQ: MUSC 371 or consent of school.

566. PRACTICUM IN STUDIO INSTRUCTION (1). Supervised studio teaching in keyboard, voice, or band and orchestral instruments. May be repeated to a maximum of 12 semester hours. PRQ: Consent of school.

570. MUSIC INSTRUCTIONAL TECHNIQUES AND MATERIALS: WOODWINDS (2). Techniques of class and individual instruction in orchestral woodwind instruments, with emphasis on intermediate and advanced levels. Review and evaluation of solo, ensemble, and other instructional literature for all levels.

571. MUSIC INSTRUCTIONAL TECHNIQUES AND MATERIALS: BRASSES (2). Techniques of class and individual instruction in orchestral brass instruments, with emphasis on intermediate and advanced levels. Review and evaluation of solo, ensemble, and other instructional literature for all levels.

572. MUSIC INSTRUCTIONAL TECHNIQUES AND MATERIALS: PERCUSSION (2). Techniques of individual and class instruction in the percussion instruments. Review and evaluation of solo and ensemble material at all levels.

573. MUSIC INSTRUCTIONAL TECHNIQUES AND MATERIALS: ELECTRONIC MUSIC (3). Techniques of class instruction in electronic instruments with emphasis on advanced tape recorder usages in elementary and secondary schools.

574. MUSIC INSTRUCTIONAL TECHNIQUES AND MATERIALS: STRINGS (2). Techniques of class and individual instruction in orchestral stringed instruments, with emphasis on intermediate and advanced levels. Review and evaluation of solo, ensemble, and other instructional literature for all levels.

575. KEYBOARD METHODS AND MATERIALS (3).
A. Piano
B. Harpsichord
C. Organ
Methods and materials used in keyboard teaching either in the public schools or privately. Class keyboard methods, organization, and materials. Observation of and participation in university keyboard classes.

577. SEMINAR IN SUZUKI PEDAGOGY (1 to 3). Study of the philosophy, psychology, repertoire, and pedagogy of the Suzuki Method including guided observation and supervised teaching. May be repeated to a maximum of 12 semester hours. PRQ: Consent of school.

578. CURRENT TRENDS IN ELEMENTARY MUSIC EDUCATION (3). Detailed study of the conceptual and behavioral approaches to the elementary general music program. Evaluation of current methods and materials.

580. WORKSHOP IN MUSIC (1). Concentrated study of particular topics of interest in music. Enrollment in more than one workshop per term is permitted. May be repeated to a maximum of 12 semester hours, but no more than 3 semester hours may be applied toward the M.M. degree.

581. PEDAGOGY OF SINGING (3). Techniques and procedures of teaching singing. Emphasis on how the singing voice works and practical methods for achieving proper function. PRQ: Permission of the School of Music.

582. DIVERSE POPULATIONS IN MUSIC EDUCATION (3). Curricula, strategies, programming, administration, and philosophies which encourage and actively promote diversity in music education.

583. SUPERVISION AND ADMINISTRATION OF THE MUSIC PROGRAM (3). Functions and techniques of supervision and administration of the music program. Emphasis on problems in curriculum equipment and materials, budget, schedules, and programs. Techniques for inservice training in music for classroom teachers.

584. TECHNIQUES OF RESEARCH IN MUSIC (3). Nature of research and scientific method; application to problems in music and music education; problem of definition; development of a research design; probability and sampling procedure; specialized techniques for the location, collection, quantification, and treatment of data. Required for the M.M. degree with an area of study in music education.

585. FOUNDATIONS OF MUSIC EDUCATION (3). Historical and philosophical bases of music education. Application of learning theories to problems of music teaching. Required for the M.M. degree with an area of study in music education.

589. SEMINAR IN MUSIC EDUCATION (3). Investigation of specific issues in the various areas of music education. Topics announced. May be repeated to a maximum of 6 semester hours.

675. PSYCHOLOGY OF MUSIC (3). Functions of the music mind and factors involved in the development of musical skills and maturity.

689. SELECTED STUDIES IN MUSIC EDUCATION (1 to 4). Independent or small-group study of selected topics. Participation in more than one independent study per term permitted by consent of school director. May be repeated to a maximum of 20 semester hours. See specific degree requirements for limitations. PRQ: Consent of school.

School of Theatre and Dance (THEA, TH-D)

Director: Alexander Gelman

Graduate Faculty

Judith Q. Chitwood, associate professor, M.A., University of Cincinnati
Paula Frasz, professor, M.F.A., University of Illinois
Kent G. Gallagher, professor, Ph.D., Indiana University
Kathryn Gately-Poole, professor, M.F.A., Rutgers University
Alexander Gelman, professor, M.F.A., Boston University
Benny Gomes, assistant professor, M.F.A., University of Illinois
Lori Hartenhoff, associate professor, M.F.A., University of Wisconsin
Christopher Markle, associate professor, M.F.A., Yale University
Terrence McClellan, professor, M.F.A., University of Massachusetts
Randall Newsom, professor, M.A., Eastern Kentucky University
Tracy Nunnally, assistant professor, M.F.A., Florida State University
Melanie Parks-Baumgartner, associate professor, M.F.A., University of Illinois
Richard Poole, assistant professor, M.F.A., Rutgers University
Patricia Ridge, professor, Ph.D., University of Colorado
Deborah Robertson, associate professor, M.F.A., Smith College
Sahin Sahingolu, assistant professor, M.F.A., Northern Illinois University
Robert Schneider, assistant professor, D.F.A., Yale University
Phillip Timberlake, assistant professor, M.F.A., Virginia Commonwealth University
Karen Williamson, assistant professor, M.F.A., George Mason University

The School of Theatre and Dance offers a graduate program leading to an M.F.A. degree with specializations in acting, design and technology, and directing. The school is a member of the University/Resident Theatre Association, and its programs are accredited by the National Association of Schools of Theatre.

Master of Fine Arts in Theatre Arts

The M.F.A. program is designed to provide intensive artistic training in theatre arts for careers in theatre and theatre-related areas. Students will graduate with a specialization in acting, directing, or design and technology (the latter with areas of study in costume design, lighting design, scene design, and theatre technology).

Admission

Admission to the M.F.A. program requires a baccalaureate degree, preferably with a major in theatre, or master's degree in theatre arts with adequate experience in the specialization the applicant wishes to pursue as an M.F.A. candidate as well as basic knowledge and skills in both the performance and the production aspects of theatre. Students holding the baccalaureate degree in other fields may be eligible for admission to the program if they can demonstrate their ability to proceed at an advanced level.

Applicants for the specialization in design and technology must submit a portfolio of their work. Applicants for the acting specialization are required to audition and interview as part of the admission process. For candidates living 500 miles or more from campus, a videotaped audition and telephone interview are acceptable. Applicants for the directing specialization must submit a director's analysis of a play they have directed. Applicants for the acting and the design and technology specializations are not required to take the General Test of the GRE.

All applicants must submit a statement of their reasons for seeking admission to the program.

Applicants who appear qualified on the basis of the above qualifications will be invited to a personal interview with admission representatives from the School of Theatre and Dance. Favorable recommendation by the representatives is required for admission.

Candidacy

Upon admission, students embark on a probationary year, during which they must successfully complete course work and a major artistic project. In order to achieve candidacy, they must receive positive faculty evaluation for the work completed during this period.

Limitation of Time

All requirements for the degree Master of Fine Arts must be completed within the seven consecutive years immediately preceding the date of the student's graduation from that degree program. This time limit applies to enrollment in all graduate course work in the student's program including work for which transfer credit is allowed.

If an NIU course taken to complete the requirements for an M.F.A. degree does not fall within the seven-year period indicated in the preceding paragraph, the School of Theatre and Dance may require the student to retake the course for credit or may allow the student to demonstrate current knowledge of the subject matter. In the latter case, currency must be demonstrated to the satisfaction of the department offering the course through successful completion of an appropriate examination or other assessment if available from the department. Otherwise, the outdated course work must be deleted from, and other course work must be substituted in, the program of courses. Transfer courses falling outside the limitation of time cannot be used in a graduate program.

Courses for Which Graduate Credit is Allowed

At NIU only courses which are numbered 400-499, 500-599, and 600-699 carry credit toward the master's degree. At least 50 percent of the minimum number of semester hours required for the M.F.A. degree must be earned in courses numbered 500 and above.

Some courses numbered in the 400s carry only undergraduate credit. See "Graduate Credit for 400-level Courses."

Student-at-Large and Transfer Credit

With the approval of the School of Theatre and Dance and the office of the dean of the Graduate School, a combined total of up to 21 graduate semester hours either accepted in transfer from other accredited institutions or earned at NIU as a student-atlarge may be applied toward the requirements for the M.F.A. degree in theatre arts.

Requirements

Students in the M.F.A. program must earn a minimum of 72 semester hours beyond a baccalaureate degree, exclusive of work taken to remove deficiencies, with a GPA of at least 3.00 in all graduate courses required in the student's program of courses (excluding deficiency courses taken for graduate credit) as well as in all graduate course work taken at NIU. Study may be interrupted for an approved internship, although not before the first three semesters of study in the acting specialization. The program requires the following.

Three major artistic projects in an area of study or specialization, including a final project.

Completion of the following core program of study (14-17)
- THEA 519 - Performance and Production (5)
- THEA 576 - Script Laboratory (6)
- THEA 699 - Final Project (3-6)

An internship or an equivalent experience prior to graduation. Students in the M.F.A. acting specialization must participate in SummerNite, if available, to satisfy this requirement.

A final project (requiring enrollment in THEA 699), supported by a project documentation that is reviewed and approved by a committee of the faculty. The project may be done in conjunction with an internship.

Satisfactory completion of a final examination in the nature of an oral defense of the final project.

Completion of a minimum of 58 semester hours in consultation with the school in one of the following specializations.

Specialization in Acting

THEA 416 - Acting Studio: On-Camera (3)
THEA 466 - The Business of Theatre (3)
THEA 491 - Topics in Theatrical Performance (3)
THEA 501 - Research Techniques in Theatre Arts (3)
THEA 507A - Period Style for Actors: Text Analysis (3)
THEA 507B - Period Style for Actors: Physicality (3)
THEA 508 - Acting Techniques (3)
THEA 509A - Advanced Voice and Diction: Freeing the Voice (3)
THEA 509B - Advanced Voice and Diction: Building the Voice (3)
THEA 509C - Advanced Voice and Diction: Voice Characterization (3)
THEA 509E- Advanced Voice and Diction:Stage Speech (3)
THEA 510A - Advanced Acting: Actor's Inner Life (3)
THEA 510B - Advanced Acting: Clarity and Character (3)
THEA 511A - Advanced Movement: Relaxation and Response (3)
THEA 511B - Advanced Movement: Expression and the Body (3)
THEA 511C - Advanced Movement: Specificity (3)
THEA 576 - Script Laboratory (3)
THEA 595 - Internship in Theatre Arts (3)
THEA 608 - Verse Drama (3)
Elective by advisement (1)

Students in the acting specialization are required each semester to audition for and participate in departmental productions. Students failing to maintain a 3.00 GPA in their acting, voice, and movement courses will not be permitted to perform in any production sponsored by the school. Private individual interviews, followed by written synopses of such reviews, will be held at least once a year to monitor the progress of the student. The performance faculty review committee reserves the right to place on casting probation or discontinue the candidacy of any M.F.A. acting candidate who shows unsatisfactory progress as determined by the committee.

Specialization in Directing

THEA 404 - Stage Combat (2)
THEA 508 - Acting Techniques (3)
THEA 510A - Advanced Acting: The Actor's Inner Life (3)
THEA 510B - Advanced Acting: Clarity and Character (3)
THEA 512 - Directing Techniques (4)
THEA 513 - Advanced Stage Management, or elective (2)
THEA 576 - Script Laboratory (3)
THEA 580 - Theatrical Criticism (3)
THEA 612 - Directing Studio (10)
THEA 613 - Directing Laboratory (3)
THEA 616 - Advanced Acting Laboratory (3)
Electives by advisement (19)

Specialization in Design and Technology

Course work from one of the areas of study selected by advisement (58)

Costume Design

THEA 452 - Drawing for the Theatre (6)
THEA 466 - The Business of Theatre (1)
THEA 478 - Period Style for the Theatre I (3)
THEA 479 - Period Style for the Theatre II (3)
THEA 649 - Design Studio (30)
Course work from the following (15)
- THEA 435 - Advanced Costume Technology (3)
- THEA 451 - Electronic Visualization (3)
- THEA 453 - Rendering Techniques (3)

Lighting Design

THEA 452 - Drawing for the Theatre (6)
THEA 466 - The Business of Theatre (1)
THEA 478 - Period Style for the Theatre I (3)
THEA 479 - Period Style for the Theatre II (3)
THEA 649 - Design Studio (30)
Course work from the following (15)
- THEA 450 - Advanced Drafting (3)
- THEA 451 - Electronic Visualization (3)
- THEA 453 - Rendering Techniques (3)
- THEA 456 - Rigging for the Performing Arts (3)

Scene Design

THEA 452 - Drawing for the Theatre (6)
THEA 466 - The Business of Theatre (1)
THEA 478 - Period Style for the Theatre I (3)
THEA 479 - Period Style for the Theatre II (3)
THEA 649 - Design Studio (30)
Course work from the following (15)
- THEA 450 - Advanced Drafting (3)
- THEA 451 - Electronic Visualization (3)
- THEA 453 - Rendering Techniques (3)
- THEA 455 - Scene Painting (3)
- THEA 456 - Rigging for the Performing Arts (3)
- THEA 458 - Structural Design for the Stage (3)

Theatre Technology

THEA 450 - Advanced Drafting (6)
THEA 456 - Rigging for the Performing Arts (3)
THEA 457 - Automation and Stage Machinery (3)
THEA 458 - Structural Design for the Stage (3)
THEA 466 - The Business of Theatre (1)
THEA 648 - Technology Studio (30)
Electives by advisement (12)

Final Project

A student's work in the Master of Fine Arts program in the School of Theatre and Dance culminates in a final project, the final examination on which serves in lieu of a final comprehensive examination. The project and a project paper must be reviewed and approved by a committee of the faculty consisting of at least three members. The majority of the committee members must be regular faculty members at Northern Illinois University; a majority must be members of the graduate faculty in the School of Theatre and Dance; and the chair must be a graduate faculty member in the School of Theatre and Dance.

In special situations, and only with the approval of the faculty director(s) and committee(s), students may collaborate on some aspects of the work contributing to their final projects. However, each project documentation submitted to the Graduate School for approval must be a unique product with the degree candidate as the sole author and with due acknowledgment of the contributions of collaborators; and the author must demonstrate to his or her committee satisfactory command of all aspects of the work presented.

A student intending to prepare a final project should identify a prospective project director, who must be willing to serve as director, meet Graduate School qualifications, and be approved by the school. The director and committee will judge the acceptability of the work. A faculty member may decline to serve as director of any particular final project, in which case the school will assist the student in seeking a director. If a student, with department approval, changes director, the student may need to undertake additional work, or to change projects, in accordance with the expectations and expertise of the new director.

The project may be done in conjunction with an internship. To undertake the project, the student must register for THEA 699. Registration for this purpose may be in absentia. If circumstances prohibit continuing progress on the work, the student may request a leave of absence from the dean of the Graduate School. If a student interrupts registration in course number THEA 699 without obtaining a leave of absence, then upon recommendation of the School of Theatre and Dance, the student's admission to the degree program will be terminated. After a student's first enrollment in THEA 699, he or she should register as an auditor in THEA 699 each term until the project receives final approval from the school. Additional instructions about the project and the written documentation are available from the School of Theatre and Dance.

Application for Graduation

When nearing completion of requirements for a graduate degree, a student must submit an application for graduation to the Graduate School. See "Graduation" in the General Regulations section of this catalog.

Course List

Theatre (THEA)

404. STAGE COMBAT (2). Introduction to the fundamental skills of effective stage violence. Exploration of hand-to-hand, rapier, and dagger usage on stage. Teaches a fundamental understanding of violence on stage which provides a basis for advanced application to the technique.

416. ACTING STUDIO: ON-CAMERA (3). Artistic projects requiring acting for film and/or video.

435. ADVANCED COSTUME TECHNOLOGY (3).
A. Pattern Drafting
B. Millinery and Accessories
C. Dyeing and Painting
Subject varies from semester to semester. May be repeated to a maximum of 9 semester hours. PRQ: THEA 335 or consent of school.

449. DESIGN AND TECHNOLOGY (1 to 3). Seminar in special problems and topics in design and technology. Open to students who are prepared for advanced and specialized study. Topics to be announced in advance. May be repeated to a maximum of 6 semester hours. PRQ: Consent of school.

450. ADVANCED DRAFTING (3). Advanced study of drafting techniques for the theatre emphasizing designing with Autocad with focus on the creation of virtual models and the derivation of typical design documentation from Autocad models. May be repeated to a maximum of 6 semester hours. PRQ: THEA 249 or consent of school.

451. ELECTRONIC VISUALIZATION (3). Advanced study of modeling, rendering, and animation technique for the theatre emphasizing design with Autocad and Autovision or 3-D Studio. May be repeated to a maximum of 6 semester hours. PRQ: THEA 450 or consent of school.

452. DRAWING FOR THE THEATRE (2). Development for drawing and painting skills and exploration of graphic media paying particular attention to the needs of theatrical designers. May be repeated to a maximum of 6 semester hours.

453. RENDERING TECHNIQUES (3). Practical exploration of graphic media and techniques for the theatrical designer. May be repeated to a maximum of 6 semester hours. PRQ: THEA 220 or consent of school.

455. SCENE PAINTING (3). Hands on investigation of concepts, tools, and techniques of scenic painting. May be repeated to a maximum of 6 semester hours. PRQ: Consent of school.

456. RIGGING FOR THE PERFORMING ARTS (3). Advanced study of overhead lifting equipment and techniques commonly used in theatres, arenas, and other performance venues. PRQ: THEA 249 and THEA 355, or consent of school.

457. AUTOMATION AND STAGE MACHINERY (3). Advanced study of mechanical devices used to create motion in theatrical productions. PRQ: THEA 249 and THEA 355, or consent of school.

458. STRUCTURAL DESIGN FOR THE STAGE (3). Advanced study of strengths and weaknesses of material and joining methods used to construct scenery. PRQ: THEA 249 and THEA 355, or consent of school.

465. MANAGING THE PERFORMING ARTS (3). Managing and working within performing arts organizations with special attention to areas of marketing, public relations, grants acquisition, audience development, box office procedures, budgeting, union relations, organizational structure, and board recruitment and participation. Study of the role of government in the funding of arts groups.

466. THE BUSINESS OF THEATRE (1 to 3). Study and practice of audition and interviewing techniques, contracts, taxes, unions, agencies, and other subjects for the professional.

475. CONTEMPORARY THEATRE (3). Study of theatrical art throughout the world since 1968, and the changing role of theatre in society. Considerations of contemporary movements in acting, directing, design, and playwriting. reading and analysis of significant and contemporary plays. PRQ: THEA 370, THEA 371, or consent of school.

476. THEATRE HISTORY (1 to 3). Seminar in special periods of theatre history. Open to students who are prepared for advanced and specialized study. Topics to be announced in advance. May be repeated to a maximum of 6 semester hours.

477. AFRICAN-AMERICAN THEATRE (3). Exploration of the history of African-American theatre artists in the United States. Surveys of the contribution to theatre history by African-Americans from the minstrel era to the present. Emphasis on the development and evolution of playwrights, actors, and audiences. PRQ: Consent of school.

478. PERIOD STYLE FOR THE THEATRE I (3). Intensive investigation of period style from pre-Egyptian through the Renaissance as it relates to theatrical production. Exploration of period clothing, manners, decor, and architecture with projects from dramatic literature.

479. PERIOD STYLE FOR THE THEATRE II (3). Intensive investigation of period style from the Baroque through contemporary as it relates to theatrical production. Exploration of period clothing, manners, decor, and architecture.

481. PLAYWRITING I (3). Conventions and techniques that playwrights use to communicate in the theatre. Analysis of selected plays. Lectures and discussion combined with exercises in the planning and writing of scenes and short plays. PRQ: THEA 300 or consent of school.

482. PLAYWRITING STUDIO (3). Advanced work on new scripts generated by student playwrights. Involves interaction and collaboration in a three dimensional setting with directors and performers. PRQ: THEA 481 or consent of school.

490. SUMMER REPERTORY PRACTICUM (3). Extensive and concentrated production experience in the preparation and performance of summer theatre repertory. Emphasis on the unique problems of repertory companies: performance, technology, and management. May be repeated to a maximum of 9 semester hours. PRQ: Consent of school.

491. TOPICS IN THEATRICAL PERFORMANCE (3). Intensive investigation of a single dramatic form or theatrical phenomenon with emphasis on performance. Topics announced. May be repeated to a maximum of 6 semester hours as topic varies. PRQ: Consent of school.

501. RESEARCH TECHNIQUES IN THEATRE ARTS (3). Review of bibliographical and research methods applicable to graduate study in theatre arts. Consideration of project and research paper writing; collaborative approach to performance; preparation of prospectuses, and reports.

507A. PERIOD STYLE FOR ACTORS: TEXT ANALYSIS (3). In-depth research and textual investigation of the dramatic works of the 17th, 18th, 19th, and early 20th centuries. PRQ: Admission to M.F.A. specialization in acting or consent of school.

507B. PERIOD STYLE FOR ACTORS: PHYSICALITY (3). Period style and movement exploration of the 17th, 18th, 19th, and early 20th centuries. PRQ: Admission to M.F.A. specialization in acting or consent of school.

508. ACTING TECHNIQUES (3). Study in contact and truthful response, conversational reality, concentration, spontaneity, getting in touch with one's own behavior and that of others.

509. ADVANCED VOICE AND DICTION (3).
A. Freeing the Voice
B. Building the Voice
C. Voice Characterization
D. Musical Theatre Performance
E. Stage Speech
In-depth voice study including voice production, voice characterization, verse, dialects, musical theatre performance, and specialized topics. PRQ: Admission to the M.F.A. specialization in acting or consent of school.

510. ADVANCED ACTING (3).
A. The Actor's Inner Life
B. Clarity and Character
Studies in advanced acting. Each semester will be a further development of performance technique as it relates to the rehearsal process. Scene work used as a means of gauging the actor's ability to apply studio work to text. PRQ: THEA 508 or consent of school.

511. ADVANCED MOVEMENT (3).
A. Relaxation and Response
B. Expression and the Body
C. Specificity
In-depth stage movement studies including character work, combat, and specialized topics. PRQ: Admission to the M.F.A. specialization in acting or consent of school.

512. DIRECTING TECHNIQUES (4). Exploration of directing as an art form. Study of directorial processes: analysis, research, conceptualization, designer interaction, rehearsal processes, and performance study.

513. ADVANCED STAGE MANAGEMENT (2). Advanced study of the stage manager in theatrical production. Examination of the prompt script, coordination of production personnel, and the management responsibilities in the prerehearsal, rehearsal, and performance periods.

519. PERFORMANCE AND PRODUCTION (1). In-depth research and performance or production preparation in a significant area of the performing arts. May be repeated to a maximum of 6 semester hours. PRQ: M.F.A. candidacy or consent of school.

536. ADVANCED COSTUME DESIGN I (3). Advanced exploration of the costume design process from analysis to the execution of designs.

541. ADVANCED LIGHTING I (3). Study of advanced lighting design and technology for the performing arts, including preparation of designs and practical experience.

546. ADVANCED SCENE DESIGN I (3). Exploration of advanced scene design processes from analysis to the execution of designs.

570. SEMINAR: THEATRE HISTORY (3).
A. Greek and Roman Theatre
B. Medieval, Elizabethan, and Jacobean Theatre
C. 17th and 18th Century Theatre
D. 19th and 20th Century Theatre (until 1968)
E. Contemporary Theatre
G. Special Topics
Subject and materials change from semester to semester. May be repeated to a maximum of 18 semester hours.

576. SCRIPT LABORATORY (3). Study of theatre and drama in special periods and genres. May be repeated to a maximum of 9 semester hours. PRQ: Consent of school.

577. SEMINAR IN THEATRE RESEARCH (3). Intensive investigation of a single significant dramatic form or theatrical phenomenon. Topics selected on basis of current research needs and announced. May be repeated to a maximum of 6 semester hours. PRQ: Consent of school.

580. THEATRICAL CRITICISM (3). Major contributors to the arts of dramatic and theatrical criticism from the Greeks to the present day as they have influenced dramatic and theatrical practices.

595. INTERNSHIP IN THEATRE ARTS (1 to 9). Off-campus experience opportunities with selected organizations in theatre. Limited to qualified students. May be repeated to a maximum of 9 semester hours. S/U grading may be used. PRQ: Consent of school.

597. DIRECTED INDIVIDUAL STUDY IN THEATRE ARTS (1 to 3). Independent study of problems in any area of theatre. May be repeated to a maximum of 6 semester hours. PRQ: Consent of school.

599. THESIS (1 to 6). Open only to students writing a thesis in an M.A. program. May be repeated to a maximum of 6 semester hours. PRQ: Consent of the student's graduate adviser.

608. VERSE DRAMA (3). Integrated voice and performance work on scenes and monologues from Greek to Elizabethan drama. PRQ: Admission to the M.F.A. specialization in acting or consent of school.

612. DIRECTING STUDIO (5). Development of skills in analysis, research, staging, and production; study of directing styles and the directors who developed them. Practical application of techniques and research. May be repeated to a maximum of 20 semester hours.

613. DIRECTING LABORATORY (1). Individualized development of techniques of directing. May be repeated to a maximum of 3 semester hours.

616. ADVANCED ACTING LABORATORY (1 to 3). Individualized development of techniques of acting. May be repeated to a maximum of 6 semester hours.

648. TECHNOLOGY STUDIO (5). Individualized development of technical proficiency and creativity of fields of theatre technology. May be repeated to a maximum of 30 semester hours. PRQ: M.F.A. candidacy.

649. DESIGN STUDIO (5). Individualized development in technical proficiency and aesthetics in costume, scene, and lighting design. May be repeated to a maximum of 30 semester hours. PRQ: M.F.A. candidacy.

699. FINAL PROJECT (1 to 6). Artistic projects undertaken by M.F.A. candidates. Includes analysis, completion of project, oral examination, final project documentation. PRQ: M.F.A. candidacy and consent of student's graduate adviser.

Dance Performance (TH-D)

405. BALLET IV (1 to 2). Emphasis on complex ballet techniques for performance. May be repeated to a maximum of 16 semester hours. Proficiency required for admission to this course.

406. MODERN DANCE IV (1 to 2). Emphasis on complex modern dance techniques for performance and on movement quality and interpretative performance elements. May be repeated to a maximum of 16 semester hours. Proficiency required for admission.

408. POINTE II (1). Advanced pointe techniques. May be repeated to a maximum of 8 semester hours. Proficiency required for admission. CRQ: TH-D 405 or consent of school

409. PAS DE DEUX (2). Partnering techniques and principles in classical ballet. May be repeated to a maximum of 8 semester hours. CRQ: TH-D 305 or TH-D 405, or consent of school.

420. THE BUSINESS OF DANCE (3). Practical application of studies to business, artistic, and academic development in the profession. PRQ: Consent of school.

464X. WORKSHOP IN MOVEMENT AND PERFORMING AWARENESS (3). *Crosslisted as MUSC 464.* Lectures, demonstrations, and related activities regarding the work of Moshe Feldenkrais as it applies to the training of performing artists. S/U grading. PRQ: Consent of school.

467. DANCE NOTATION I (3). Theoretical and practical introduction to notation. Analysis and recording of movement through the systems of Labanotation or Benesh Movement Notation. Equal emphasis placed on reading and writing dance scores. Recommended: Knowledge of intermediate-level ballet vocabulary.

468. DANCE NOTATION II (3). Continuation of TH-D 467, including floor work and group scoring. Emphasis on reading of dance scores and recording movement in Labanotation or Benesh Movement Notation. PRQ: TH-D 467 or consent of school.

474. DANCE PHILOSOPHY AND AESTHETICS (3). Philosophy of dance including aesthetic principles and critical evaluations of varying dance forms and styles.

477. SPECIAL STUDIES IN DANCE (1 to 2).
A. Spanish
B. Mid-Eastern
C. Advanced Theatrical Jazz
D. Character
E. Female Classical Variations
J. Male Classical Variations
M. Theatrical Tap
N. Repertory
Q. Other
Studies in dance forms. Open to students who qualify for specialized study. May be repeated to a maximum of 10 semester hours.

488. CHOREOGRAPHY II (2). Continued analysis of the elements of choreographic forms, styles, and trends with the development of dance studies of extended length; consideration of the theory and technique of advanced group work. May be repeated to a maximum of 4 semester hours. PRQ: TH-D 388 or consent of school.

496. TUTORIAL IN DANCE (1 to 3). Directed individual study in special areas of dance. May be repeated to a maximum of 12 semester hours.

Interdisciplinary Academic Centers and Courses

Center for Biochemical and Biophysical Studies

Director: John L. A. Mitchell

Faculty Associates

Gary M. Baker, associate professor of chemistry and biochemistry, Ph.D.
Neil W. Blackstone, professor of biological sciences, Ph.D.
Rathindra N. Bose, professor of chemistry and biochemistry, Ph.D., vice president for research
W. Elwood Briles, adjunct professor of biological sciences, Ph.D.
Sonya B. Conway, professor of biological sciences, Ph.D.
James V. Corwin, professor of psychology, Ph.D.
James E. Erman, Distinguished Research Professor of chemistry and biochemistry, Ph.D.
Elizabeth R. Gaillard, associate professor of chemistry and biochemistry, Ph.D.
Kenneth W. Gasser, associate professor of biological sciences, Ph.D.
W. Scott Grayburn, adjunct professor of political science, Ph.D.
Richard Hahin, associate professor of biological sciences, Ph.D.
Stuart A. Hill, associate professor of biological sciences, Ph.D.
Heike Hofstetter, adjunct assistant professor of chemistry and biochemistry, Ph.D.
Oliver Hofstetter, assistant professor of chemistry and biochemistry, Ph.D.
Gabriel P. Holbrook, associate professor of biological sciences, Ph.D.
Narayan S. Hosmane, Distinguished Research Professor of chemistry and biochemistry, Ph.D.
Christopher Hubbard, associate professor of biological sciences, Ph.D.
Mitrick A. Johns, associate professor of biological sciences, Ph.D.
Barbara Johnson-Wint, associate professor of biological sciences, Ph.D.
David P. Lotshaw, associate professor of biological sciences, Ph.D.
Long Mao, assistant professor of biological sciences, Ph.D.
Leslie Matuszewich, assistant professor of psychology, Ph.D.
Rangaswamy Meganathan, Presidential Research Professor of biological sciences, Ph.D.
Jon S. Miller, associate professor of biological sciences, Ph.D.
John L. A. Mitchell, Distinguished Research Professor of biological sciences and of chemistry and biochemistry, Ph.D.
Neil O. Polans, associate professor of biological sciences, Ph.D.
Victor Ryzhof, assistant professor of chemistry and biochemistry, Ph.D.
Kui Shen, assistant professor of chemistry and biochemistry, Ph.D.
Thomas L. Sims, associate professor of biological sciences, Ph.D.
Joel P. Stafstrom, associate professor of biological sciences, Ph.D.
Josephine Umoren, associate professor of family, consumer, and nutrition sciences, Ph.D.
Patricia S. Vary, Distinguished Research Professor of biological sciences, Ph.D.
Lidia B. Vitello, adjunct assistant professor of chemistry and biochemistry, Ph.D.
Douglas G. Wallace, assistant professor of psychology, Ph.D.
Linda S. Yasui, associate professor of biological sciences, Ph.D.
Jerrold H. Zar, adjunct professor of biological sciences, Ph.D.
Chong Zheng, associate professor of chemistry and biochemistry, Ph.D.
Shengde Zhou, assistant professor of biological sciences, Ph.D.

The Center for Biochemical and Biophysical Studies encourages and coordinates biochemical and biophysical research and studies within the university at the graduate level.

Concentration in Biochemistry and Biophysics

The center is not a degree-offering unit; consequently, all graduate degrees are obtained through the cooperating departments, whose requirements must be met. A student earning a graduate degree may, with the consent of the department adviser and approval of the center director, also take a graduate concentration of courses in biochemistry and biophysics. Completion of the concentration will be noted on the student's transcript.

At the M.S. level, the student must successfully complete five graduate courses (excluding thesis credit) dealing with biochemistry and biophysics, to be selected from the center's listing of courses. The student must also complete an approved research program dealing with a biochemical or biophysical topic and incorporate the results into a thesis, with the thesis committee to include one member of the graduate faculty of the center who is outside the student's department.

At the Ph.D. level, the student must complete eight graduate courses (excluding dissertation credit) dealing with biochemistry and biophysics, to be selected from the center's listing of courses. The student must also complete an approved research program dealing with a biochemical or biophysical topic and incorporate the results into a dissertation, with the dissertation committee to include two members of the graduate faculty of the center who are outside the student's department.

The specific courses dealing with biochemistry and biophysics which the student uses to satisfy the concentration requirements depend on the student's goals. Courses may be chosen from the list below with the approval of the student's departmental adviser and the director of the center, except that all students are required to earn credit for CHEM 470, General Biological Chemistry, or CHEM 472, Biological Chemistry I. Students may take crosslisted courses in the department of their choice.

All requirements for the concentration must be completed within a period of six consecutive years.

Biochemistry and Biophysics Courses

BIOS 411 - Plant Physiology (4)
BIOS 413 - Microbial Physiology (3)
BIOS 440 - Immunobiology (3)
BIOS 455 - Comparative Physiology (3)
BIOS 461 - Endocrinology (3)
BIOS 464 - Cell Signalling (3)
BIOS 465 - Cellular Physiology (3)
BIOS 467 - Molecular Biology of Eukaryotes (3)
BIOS 511 - Plant Metabolism (3)
BIOS 530 - Radiation Biology (3)
BIOS 535 - Molecular Genetics of Prokaryotes (3)
BIOS 536 - Experiments in Molecular Genetics of Prokaryotes (2)
BIOS 540 - Advanced Immunology (3)
BIOS 545 - Bioinformatics (3)
BIOS 559 - Neurophysiology (3)
BIOS 590 - Topics in Molecular and Cellular Control Mechanisms (3)
BIOS 591 - Recombinant DNA Techniques Laboratory (4)
BIOS 600K - Special Topics in Biology: Molecular Biology (1-9)
BIOS 600M - Special Topics in Biology: Research Methods (3)
CHEM 446- Theoretical Chemistry (3)
CHEM 470 - General Biological Chemistry (3)

CHEM 471 - Biological Chemistry Laboratory (3)
CHEM 472 - Biological Chemistry I (3)
CHEM 473 - Biological Chemistry II (3)
CHEM 500E - Selected Topics in Chemistry: Biological (1-3)
CHEM 541 - Chemical Thermodynamics (3)
CHEM 542 - Kinetics (3)
CHEM 570 - Enzymes (3)
CHEM 575 - Physical Chemistry of Macromolecules (3)
FCNS 511 - Maternal and Child Nutrition (3),
OR FCNS 512 - Geriatric Nutrition (3),
OR FCNS 513 - Nutrition and Physical Activity (3)
FCNS 545 - Macronutrients (3)
FCNS 546 - Micronutrients (3)
PSYC 503 - Biopsychology (3)
PSYC 529 - Neurophysiological Bases of Behavior (3)
PSYC 530 - Neurochemical Bases of Behavior (3)

Center for Burma Studies

Director: Catherine Raymond

Faculty Associates

Catherine Raymond, associate professor of art, Ph.D.
U Saw Tun, associate professor of foreign languages and literatures, M.A.

The Center for Burma Studies was established in 1987 as a repository for multivarious materials on Burma (Myanmar). The purpose of the Center for Burma Studies is to encourage and promote the scholarly study of Burma. The establishment of the center was made possible by the selection of NIU as the national repository for valuable Birmanica items and the appointment of a director to oversee the collections and to organize national and international gatherings.

Since its inauguration the bibliographic and art holdings have quadrupled with a bequest from the private collection of Jerry Paul Bennett. Among the over 12,000 items in various Burmese collections are an impressive map series, located in the Davis Hall Map Library and the Rare Book Room of Founders Memorial Library.

The Burma Gallery in the NIU Museum exhibits selections from the permanent collection on a continuous basis as well as hosting visiting exhibitions. The center publishes *The Journal of Burma Studies* and distributes other relevant material including the *Burma Studies Group Bulletin.* The biennial Burma Studies Colloquium brings international scholars and Burma watchers to NIU. The center also collaborates with the (national) Association for Asian Studies to hold conjunctive annual meetings.

The Southeast Asian Collection located in Founders Memorial Library contains published works, periodicals, microfilm, and microfiche concerning Burma. These volumes offer the researcher considerable intellectual challenge and opportunity from their broad base of subject matter, time span, and cultural perspective. The center works in coordination with the Center for Southeast Asian Studies in assisting those students who wish to include Burma Studies as part of a concentration in Southeast Asian studies which may then be listed on the student's transcript.

The center supports 25 courses at NIU which offer significant opportunity to understand more of the anthropology, art history, economics, history, linguistic origin, literature, music, political science, and cultural development of Burma. In addition, the center supports the acquisition of funds for graduate students including Fulbright, FLAS, Luce, and private foundation grants. A Burmese librarian and a Burmese linguist have recently been hired.

The work of the center and the significance of its bequests have brought international recognition to NIU.

Center for Governmental Studies

Director: Robert E. Gleeson

The Center for Governmental Studies is a public service, technical assistance, and public policy studies organization. Its mission is to provide services contributing to the economic well being of the State of Illinois and enhance the capacities of governments and not-for-profit organizations to develop policies and to manage and evaluate their own programs and services. The center is part of the regional development initiative of the university's Division of Administration and University Outreach.

The center provides technical assistance to a variety of local governments, state and federal agencies, regional councils, not-for-profit organizations, and professional associations. This involves conducting economic development studies, including fiscal impact analysis and labor market analysis; engaging in strategic planning; providing data and analytical studies, including the mapping of data; and conducting community surveys. The center also continues a long-standing emphasis on assessing performance management and evaluations of workforce development programs. In recent years, the center has developed a reputation for providing expertise in facilitating the formation of regional organizations and advocating for regional solutions to problems.

The center is not a degree-granting unit, but cooperates closely with a number of academic departments throughout the university. Through externally funded projects, the center provides graduate students from a wide variety of disciplines with unique opportunities to become involved with research and technical assistance programs.

Center for Latino and Latin American Studies

Director: Michael J. Gonzales

Faculty Associates

Gregory Beyer, assistant professor of music, D.M.A.
Daniel Cabrera, faculty development, Ph.D.
Karen A. Carrier, assistant professor of literacy education, Ph.D.
Louise Ciallella, assistant professor of foreign languages and literatures, Ph.D.
Mary Cozad, assistant professor of foreign languages and literatures, Ph.D.
Winifred Creamer, professor of anthropology, Ph.D.
Mayra C. Daniel, assistant professor of literacy education, Ed.D.
Ibis Gómez-Vega, associate professor of English, Ph.D.
Michael J. Gonzales, Presidential Research Professor of history, Ph.D.
Peter Gutiérrez, associate professor of psychology, Ph.D.
Anne Hanley, associate professor of history, Ph.D.
William Harrison, associate professor of foreign languages and literatures, Ph.D.
Francis B. Jaeger, assistant professor of foreign languages and literatures, Ph.D.
Jorge Jeria, professor of counseling, adult and higher education, Ph.D.
Jeff Kowalski, professor of art, Ph.D. Guadalupe Luna, professor of law, J.D.
Melissa Lenczewski, assistant professor of geology, Ph.D.
Rosita Lopez, associate professor of leadership, educational psychology and foundations, Ed.D.
Eloy Merino, assistant professor of foreign languages and literatures, Ph.D.
Eugene Perry, professor of geology, Ph.D.
Robert Ridinger, associate professor, University Libraries, M.L.S., M.A.
Gregory Schmidt, professor of political science, Ph.D.
Francisco Solares-Larrave, assistant professor of foreign languages and literatures, Ph.D.
Pablo Virumbrales, assistant professor of foreign languages and literatures, Ph.D.

Concentration in Latin American Studies

Students pursuing a graduate concentration in Latin American studies complete designated graduate-level courses in a variety of disciplines. This interdisciplinary approach exposes them to diverse texts, different ways of analyzing evidence, and comparative perspectives. Successful completion of the concentration will be noted on the student's transcript.

Since the Center for Latino and Latin American Studies is not a degree-offering unit, all graduate degrees are obtained through the student's major department, whose requirements must be met. The concentration is available to students in good standing enrolled in any graduate program in the university. Faculty who regularly teach courses which contribute to the concentration or participate in the core courses come from a variety of departments.

Students interested in pursuing this concentration should consult as early as possible in their graduate program both with their major department faculty adviser and with the director of the Center for Latino and Latin American Studies to determine the set of courses to be used for the concentration. Students must complete electives from courses in at least two different departments. All requirements for the concentration must be completed within a period of six consecutive years.

Requirements (12)

HIST 482 - Mexico Since 1810 (3),
OR HIST 486 - Poverty and Progress in Latin America (3)
Three of the following[1] (9)
ANTH 405 - Peoples of Mesoamerica (3)
ANTH 414 - Archaeology of Mesoamerica (3)
ANTH 417 - Archaeology of South America (3)
ANTH 526 - Latin American Peasants and Social Change (3)
ARTH 602 - Studies in Latin-American Art (3)
ARTH 604D - Studies in the Art of Africa, Oceania, and the Americas: Pre-Columbian (3)
FLSP 440 - Spanish American Poetry and Theater (3)
FLSP 441 - Spanish American Novel (3)
FLSP 445 - Latin American Women Writers (3)
FLSP 451 - Literature of the Andean Republics (3)
FLSP 452 - Literature of the Caribbean (3)
FLSP 453 - Literature of Uruguay, Argentina, and Chile (3)
FLSP 454 - Mexican Literature (3)
FLSP 455 - Spanish-American Short Story (3)
FLSP 457 - 19th Century Spanish American Literature (3)
FLSP 458 - Spanish American Modernismo and Vanguardias: 1880-1945 (3)
FLSP 459 - Spanish American Historical Novels (3)
FLSP 460 - Contemporary Spanish American Literature (3)
FLSP 461 - Spanish Civilization (3)
FLSP 462 - Spanish-American Civilization (3)
FLSP 487 - Hispanic Dialectology (3)
FLST 540D - Research Seminar in Literature: Spanish (3)
FLST 561 - Research Seminar in Civilization and Culture: Spanish (3)
FLPO 461 - Brazilian Civilization (3)
GEOG 601 - Seminar in Regional Geography (3)
HIST 482[2] - Mexico Since 1810 (3)
HIST 484 - History of Brazil (3)
HIST 485 - Modern Latin American Revolutions (3)
HIST 486[2] - Poverty and Progress in Latin America (3)
HIST 520 - Reading Seminar in Latin American History (3)
HIST 620 - Research Seminar in Latin American History (3)
POLS 469 - Topics in Latin American Politics (3)
POLS 573K - Foreign Area Politics: Latin America (3)

Center for Southeast Asian Studies

Director: Dwight King

Faculty Associates

Kenton Clymer, professor of history, Ph.D.
Richard M. Cooler, professor emeritus of art, Ph.D.
Rhodalyne Gallo-Crail, instructor of foreign languages and literatures, M.A.
Kuo-Huang Han, Distinguished Teaching Professor of music, emeritus, Ph.D.
John F. Hartmann, professor of foreign languages and literatures, Ph.D.
George M. Henry, associate professor of computer science, Ed.D.
Patricia B. Henry, associate professor of foreign languages and literatures, Ph.D.
Eric Jones, assistant professor of history, Ph.D.
Dwight Y. King, professor of political science, Ph.D.
Julia Lamb, outreach coordinator, Center for Southeast Asian Studies, M.A.
Judy Ledgerwood, associate professor of anthropology, Ph.D.
Andrea Molnar, associate professor of anthropology, Ph.D.
Arlene B. Neher, director emeritus of liberal arts and sciences external programming, Ph.D.
Clark D. Neher, Distinguished Teaching Professor of political science, emeritus, Ph.D.
James Ockey, associate professor of political science, Ph.D.
Chalermsee Olson, associate professor of university libraries, M.A.
Grant Olson, information technology manager, Ph.D.
Barbara Posadas, professor of history, Ph.D.
Caroline Quinlan, editor, Center for Southeast Asian Studies, M.A.
Catherine Raymond, associate professor of art, Ph.D.
Susan D. Russell, professor of anthropology, Ph.D.
M. Ladd Thomas, professor emeritus of political science, Ph.D.
Saw Tun, associate professor of foreign languages and literatures, M.A.
Kheang Un, instructor of political science, Ph.D.
Daniel H. Unger, associate professor of political science, Ph.D.
Jui-Ching Wang, research scholar, music, Ph.D.
Katharine Wiegele, instructor of anthropology, Ph.D.
Constance Wilson, professor emeritus of history, Ph.D.
Ann Wright-Parsons, director of anthropology museum, M.A.
Robert Zerwekh, associate professor of computer science, Ph.D.

Founded in 1963, the center is charged with coordinating academic courses dealing with Southeast Asia and with developing and administering other programs in the university which are concerned with this area. These programs include sponsoring conferences and lectures involving visiting scholars; exchange programs with Southeast Asian universities; assisting in the expansion of the Southeast Asia Library Collection; obtaining and administering funds for graduate students (including FLAS fellowships) and faculty research; operating a publications program on Southeast Asia; and advising students interested in a Southeast Asia concentration.

Concentration in Southeast Asian Studies

Since the center is not a degree-offering unit, all graduate degrees are obtained through the departments, whose requirements must be met. A student earning a graduate degree may, with the consent of the departmental adviser, also take a concentration of courses in Southeast Asian studies. Completion of the concentration will be noted on the student's transcript.

[1]Any graduate-level special topics course or directed study focused on Latin America may be counted toward the concentration in Latin American Studies with the approval of the director of the Center for Latino and Latin American Studies.
[2] If not used for credit above.

At the master's level, the concentration requirements are met by the successful completion of four graduate courses (excluding thesis credit) dealing with Southeast Asia, at least two of which must be offered by departments other than that in which the student is earning a degree; demonstrated competence (equivalent to one year's course work) in a Southeast Asian language;[3] and the satisfactory completion of a thesis, if required by the department, or a special paper in lieu thereof, on a Southeast Asian topic.

At the doctoral level, the concentration requirements are met by the successful completion of six graduate courses (excluding dissertation credit) dealing with Southeast Asia, at least three of which must be offered by departments other than that in which the student is earning a degree; demonstrated proficiency (equivalent to two years' course work) in a Southeast Asian language;[3] and the satisfactory completion of a doctoral dissertation on a Southeast Asian topic.

The specific Southeast Asian courses which the student is permitted to take as part of the concentration requirements are selected in consultation with the departmental adviser. The concentration is available to students in all colleges.

All requirements for the concentration in Southeast Asian studies must be completed within a period of six consecutive years.

Southeast Asian Courses

ANTH 407 - Peoples and Cultures of Insular Southeast Asia (3)
ANTH 408 - Peoples and Cultures of Mainland Southeast Asia (3)
ANTH 422 - Gender and Southeast Asia (3)
ANTH 493[4] - Anthropology Field Study (1-6)
ANTH 521 - Advanced Topics in Southeast Asian Ethnology (3)
ANTH 527 - Southeast Asian Peasant Economy (3)
ANTH 528 - Religion and Cosmology in Southeast Asia (3)
ANTH 590A-J[4] - Independent Study in Anthropology (1-3)
ANTH 690 A-J[4] - Seminar in Anthropology (3)
ARTH 487 - Southeast Asian Art (3)
ARTH 598C - Studies in Oriental Art: Indian and Southeast Asian Art (3)
ARTH 603[4] - Independent Study in the History of Art (3)
ENGL 507[4] - Topics in Literature (3)
FLIN 421 - Introduction to Indonesian Literature (3)
FLIS 481 - Independent Study in a Foreign Language (1-6)
FLST 481 - Special Topics in Literature I (3)
FLST 482 - Special Topics in Literature II (3)
FLST 483 - Special Topics in Linguistics (3)
GEOG 558[4] - Readings in Geography (1-3)
GEOG 571 A-J[4] - Independent Research (1-3)
HIST 446 - History of Thailand (3)
HIST 447 - History of Burma (3)
HIST 448 - History of Indonesia (3)
HIST 449 - History of Malaysia and Singapore (3)
HIST 469 - The Vietnam War (3)
HIST 470[4] - America and Asia (3)
HIST 475 - The United States and Southeast Asia and the Indian Subcontinent (3)
HIST 498J[4] - Special Topics in History: Asian (3)
HIST 560[4] - Reading Seminar in Asian History (3)
HIST 636J - Independent Study: Asian History (1-3)
HIST 656J[4] - Directed Research: Asian (3-6)
HIST 660 - Research Seminar in Asian History (3)
ILAS 490[4] - Advanced Topics in Interdisciplinary Studies (3)
ILAS 590 - Workshop in Teaching Southeast Asian Studies (1-3)
ILAS 591 - Seminar in Southeast Asian Studies (1-3)
MUSC 431 - Music of Southeast Asia (3)
MUSC 598A - World Music Ensemble: Gamelan (1)
POLS 495[4] - Seminar in Current Problems (3)
POLS 562[4] - Seminar in Political Culture (3)
POLS 567[4] - Seminar in Political Development (3)
POLS 568[4] - Seminar in the Political Economy of Developing Areas (3)
POLS 570 - Reading Seminar in Southeast Asian Politics (3)
POLS 573N - Foreign Area Politics: Thailand (3)
POLS 573R - Foreign Area Politics: Indonesia (3)
POLS 587 - Southeast Asia and International Politics (3)
POLS 602[4] - Research Seminar in Comparative and International Politics (3)
POLS 696[4] - Independent Study in Political Science (1-6)
PSPA 572[4] - Administrative Problems of Less Developed Countries (3)
SOCI 457[4] - Families in Global Perspective (3)
SOCI 559[4] - Social Structure and Development (3)

[3]To be decided on a case by case basis by the director of the center for Southeast Asian Studies and the student's primary adviser.
[4] Courses may meet the concentration requirements when they include substantial treatment of Southeast Asia.

Plant Molecular Biology Center

Director: Jozef J. Bujarski

Faculty Associates

Gary M. Baker, associate professor of chemistry and biochemistry, Ph.D.
W. Elwood Briles, adjunct professor of biological sciences, Ph.D.
Jozef J. Bujarski, Distinguished Research Professor of biological sciences, Ph.D.
Ana Calva, assistant professor of biological sciences, Ph.D.
Sonya Conway, professor of biological sciences, Ph.D.
James E. Erman, Distinguished Research Professor of chemistry and biochemistry, Ph.D.
Stuart Hill, associate professor of biological sciences, Ph.D.
Gabriel P. Holbrook, associate professor of biological sciences, Ph.D.
Michael E. S. Hudspeth, professor of biological sciences, Ph.D.
Mitrick A. Johns, associate professor of biological sciences, Ph.D.
Barbara Johnson-Wint, associate professor of biological sciences, Ph.D.
Richard B. King, associate professor of biological sciences, Ph.D.
Long Mao, assistant professor of biological sciences, Ph.D.
Rangaswamy Meganathan, Presidential Research Professor of biological sciences, Ph.D.
John L. A. Mitchell, Distinguished Research Professor of biological sciences and of chemistry and biochemistry, Ph.D.
J. Michael Parrish, Presidential Research Professor of biological sciences, Ph.D.
Neil O. Polans, associate professor of biological sciences, Ph.D.
Thomas L. Sims, associate professor of biological sciences, Ph.D.
Joel P. Stafstrom, associate professor of biological sciences, Ph.D.
Ronald Toth, professor of biological sciences, Ph.D.
Patricia S. Vary, Distinguished Research Professor of biological sciences, Ph.D.
Linda S. Yasui, associate professor of biological sciences, Ph.D.
Jerrold H. Zar, adjunct professor of biological sciences, Ph.D.

The Plant Molecular Biology Center promotes and coordinates graduate study and research in plant molecular biology. Interaction among faculty members enhances the development of interdisciplinary approaches to the solution of specific research objectives. Faculty in the center utilize state-of-the-art equipment in elucidating molecular mechanisms influencing gene expression in plants. Activities of the center link the university's biotechnology research to the needs of local and national businesses and industries. The transfer of technology from the laboratory into industrial and commercial applications constitutes the conclusion of the center's research process. An autonomous unit, the center is affiliated with the Department of Biological Sciences and the Department of Chemistry and Biochemistry; graduate degrees are obtained through the affiliated instructional departments.

Interdisciplinary Courses (IDSP, UNIV)

IDSP 401. STUDY ABROAD PROGRAMS (1 to 9). Course work undertaken as part of an approved university study abroad program. May be repeated to a maximum of 9 semester hours.

IDSP 441. ENVIRONMENTAL MANAGEMENT SYSTEMS (3). How to plan and implement environmental management systems in a variety of settings to prevent environmental pollution and other environmental problems. Interdisciplinary perspectives used to discuss environmental management systems for companies, communities, and governmental agencies, with emphasis on student group projects, case studies, and Internet applications. Instruction by faculty from the Colleges of Business, Engineering and Engineering Technology, and Liberal Arts and Sciences, along with guest speakers.

IDSP 442. PROSEMINAR/INTERNSHIP IN ENVIRONMENTAL MANAGEMENT SYSTEMS (3). Application of concepts of environmental management systems to real-world settings through an internship or other applied learning experience. Internship partners may be a company, community, or governmental agency; or students may elect to pursue a project with a faculty adviser. Includes group meetings to discuss students' ongoing projects and to relate these to core readings. Written case study of internship or project required. PRQ: IDSP 441 or consent of department.

IDSP 445. INDEPENDENT STUDY IN BLACK STUDIES (1 to 3). Independent research under faculty supervision on topic approved by director of the Center for Black Studies and the faculty member who will direct the research. May be repeated up to 6 semester hours.

IDSP 465. ISSUES IN GERONTOLOGY (3). An interdisciplinary examination of aging and the older adult population. Biological, psychological, social, and educational aspects of aging; theoretical and programmatic perspectives. PRQ: Consent of gerontology program director.

IDSP 493. AFRICAN-CENTERED RESEARCH METHODS (3). Focus on developing tools for research on African populations. PRQ: Consent of director.

UNIV 590. INTERNSHIP (1 to 9). Supervised work experience appropriate to the student's major program, evaluated by a faculty member in the applicable department. May be repeated to a maximum of 9 semester hours. S/U grading. PRQ: Admission to Graduate School; consent of major department and Graduate School.

Other Academic Units

International Programs

Executive Director: Deborah Pierce

The Division of International Programs supervises and coordinates the international activities of the university in order to encourage greater internationalization for programs, curricula, faculty, staff, and students. Division staff bring the perspectives of the world to NIU and the expertise of NIU to the world through international mobility for faculty, students, and ideas.

The division also supervises graduate student applications for Fulbright-Hays Doctoral Dissertation Research Abroad Program grants (administered by the U.S. Department of Education), the Fulbright Graduate Study and Research Program grants (administered by the Institute of International Education), and the National Security Education Program grants (administered by the Academy for Educational Development). The office conducts the screening processes for these programs on behalf of the university and also provides information to faculty on research abroad as well as overseas teaching opportunities.

International Student and Faculty Office

Executive Director: Deborah Pierce

Staff members in the International Student and Faculty Office (ISFO) provide a full range of services for current and incoming nonimmigrant students, scholars, faculty, and staff. Admissions staff review academic credentials and financial documents for applicants to undergraduate programs; they also create initial student records in the Student and Exchange Visitor Information System (SEVIS) of the U.S. federal government and issue the appropriate immigration documents for student visa applications. Before spring and fall semesters, ISFO advisers conduct a comprehensive orientation program. Throughout the year ISFO advisers offer workshops for faculty, staff, and students to clarify opportunities and responsibilities in international exchange; they also provide ongoing support in cultural and academic adjustment. The scholar adviser assists nonimmigrant NIU employees with petitions for appropriate work authorization and other benefits. ISFO staff strive to help international visitors gain the maximum benefit from the many opportunities that NIU offers.

Study Abroad Office

Director: Anne Seitzinger

Throughout the year the Study Abroad Office, in association with various university departments and colleges, sponsors specialized study abroad programs overseas for academic credit. Opportunities are available in a wide range of subject areas and in many countries. Advisers regularly assist NIU faculty in developing new programs; such faculty-led programs are conducted primarily in English. Programs offered by outside consortia, as well as student exchanges with foreign universities, supplement the study and research opportunities available on the DeKalb campus. Graduate students considering exchanges or study abroad must have written permission from the Graduate School to participate.

International Training Office

Director: Lina Davide-Ong

The International Training Office (ITO) develops and implements training programs for international audiences, using NIU resources, facilities, and services. As a training resource unit, ITO undertakes as its mission the development of meaningful programs that benefit professionals, especially those from developing countries. Its programs and activities provide varied opportunities for NIU faculty and graduate students to share their knowledge and expertise with training participants from diverse cultural backgrounds. Over the years, faculty specialists in a wide variety of disciplines have served as resource persons in ITO's programs. The office also collaborates with faculty members and academic units interested in developing appropriate training programs for international professionals. ITO provides all the necessary assistance in the design, planning, and implementation of such programs.

University Libraries

Interim Dean: Mary H. Munroe
Associate Dean: Mary H. Munroe
Associate Dean: H. Stephen Wright
Assistant Dean: T. J. Lusher

Faculty

Byron Anderson, professor, M.L.S. & M.A., University of Wisconsin, Milwaukee
William Baker, Presidential Research Professor, M.L.S., Loughborough University, M.Phil. & Ph.D., University of London
Jana Brubaker, assistant professor, M.L.S., Indiana University, M.A., Northern Illinois University
Michael J. Duffy IV, assistant professor, M.L.I.S., Dominican University, M.M., Northwestern University
Mary Frances Grosch, associate professor, M.S.L.S. & M.B.A., University of Illinois
Edward Grosek, associate professor, M.L.S., State University of New York at Albany, M.S., College of St. Rose
Karen Hovde, associate professor, M.A., Northern Illinois University, M.A., Western Washington University
Jitka Hurych, professor, M.A., Northern Illinois University, M.A., Purkyne (formerly Masaryk) University, Czechoslovakia
Ladislava Khailova, assistant professor, M.A., Charles University, Czech Republic, M.L.I.S. and Ph.D., University of South Carolina
Charles Larry, associate professor, M.A. & M.F.A., Northern Illinois University
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Rebecca A. Martin, associate professor, M.L.I.S., University of Wisconsin, Milwaukee, M.A., Kent State University
Sarah McHone-Chase, assistant professor, M.S.L.I.S., University of Illinois, M.A., Illinois State University
James Millhorn, associate professor, M.A.L.S., University of Iowa, M.A., University of Oklahoma
Mary H. Munroe, professor, M.A., University of South Carolina, M.Ln., Emory University
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Paul Webb, assistant professor, M.S., University of Illinois, M.A., Southern Illinois University-Carbondale
H. Stephen Wright, professor, M.L.S. & M.M., Indiana University

Regional History Center and University Archives

Glen A. Gildemeister, director, Ph.D., Northern Illinois University
Cindy S. Ditzler, archivist, M.A., Western Illinois University

The Northern Illinois University Libraries system consists of Founders Memorial Library, branch libraries which include Faraday Library, the Map Library, the Music Library, NIU Hoffman Estates Library, NIU Naperville Resource Center, and NIU Rockford Library, and the Regional History Center/University Archives. The University Libraries contain over 2 million volumes as well as periodicals, government publications, microforms, maps, recordings, audiovisual materials, and electronic databases.

NIU Libraries are participants in the Illinet Online (I/O) System, a network involving 65 academic institutions throughout Illinois. Using computer workstations in the libraries, via dial-up, or the World Wide Web, users may immediately determine which libraries own desired research materials. Materials not owned by NIU can be obtained quickly from other I/O member libraries.

Founders Memorial Library, the main library, has five levels with 290,000 square feet of space and seating capacity for 1600 students. The first floor houses key library services including the circulation desk, the reference desk, services to students with disabilities, library instruction, the information desk, document delivery services, the reserves collection, periodicals collection, and the newspaper reading room. Microforms and government publications are located on the second floor; rare books and special collections and the Southeast Asia collection are on the fourth floor. The upper three floors house circulating books and nonprint materials.

Faraday Library serves faculty and students in the disciplines of chemistry and physics. Similarly, the Music Library serves the music curriculum, and the Map Library contains maps and atlases for research in geography. NIU Hoffman Estates Library, NIU Naperville Resource Center, and NIU Rockford Library service the needs of library users at those sites. Regular, interim, and holiday hours are posted near the entrance to each library.

NIU libraries provide a variety of guides to collections and services. These materials are available at the information desk and at service sites throughout Founders Memorial Library. Instruction in the use of the library is given to classes by librarians as part of the University Libraries library instruction program. Library instruction covers both basic library orientation and, for upper-level classes, in-depth instruction related to materials in particular subject areas.

College of Law

Dean: LeRoy Pernell
Associate Dean: Malcolm L. Morris
Associate Dean for Student Services: Leonard B. Mandell

The College of Law offers a three-year, full-time day program and limited enrollment, part-time study leading to the J.D. degree. The College of Law is fully accredited by the American Bar Association and is a member of the Association of American Law Schools. Student enrollment is approximately 300.

The College of Law is housed in Swen Parson Hall, an impressive Gothic structure. The facilities as well as the student/faculty ratio promote a community atmosphere in which law faculty and students work and study in close proximity. In addition to academics, law students are involved with a wide variety of scholarly activities such as *Law Review*, several moot court teams, and a foreign study program in France.

Application for admission is made through the College of Law, not through the Graduate School. Information regarding degree programs, academic requirements, application procedures, and tuition and fees is available in the *College of Law Bulletin*, which may be obtained from the College of Law Office of Admission and Financial Aid, Room 151, at (800) 892-3050, or at law.niu.edu.

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Notices

The university reserves the right to make changes in admission requirements, fees, degree requirements, and other specifications set forth in this catalog. Such changes take precedence over catalog statements. While reasonable effort is made to publicize such changes, the student should remain in close touch with departmental advisers and appropriate offices, because responsibility for complying with all applicable requirements ultimately rests with the student.

Although the university attempts to accommodate the course requests of students, course offerings may be limited by financial, space, and staffing considerations or may otherwise be unavailable. Nothing in this catalog may be construed to promise or guarantee registration in any course or course of study (whether required or elective) nor may anything be construed to promise or guarantee the completion of an academic program within a specified length of time.

Student Responsibility

See “General Regulations.”

Human Rights Statement

Northern Illinois University is an equal opportunity/affirmative action institution and does not discriminate on the basis of race, color, religion, sex, age, marital status, national origin, disability, status as a disabled veteran or Vietnam-era veteran, or any other factor unrelated to professional qualifications, in employment or in admission or access to, treatment in, or operation of its educational programs and activities. Such discrimination is prohibited by Titles VI and VII of the Civil Rights Act, Title IX of the Education Amendments, Sections 503 and 504 of the Rehabilitation Act of 1973, the Age Discrimination Acts of 1974 and 1975, the Vietnam-Era Veterans’ Readjustment Assistance Act of 1974, and other federal and state statutes and regulations. Inquiries concerning application of Title IX, Section 504, and other statutes and regulations may be referred to NIU’s director of Affirmative Action and Diversity Resources, telephone (815) 753-1118, or to the director of the Office of Civil Rights, U.S. Department of Education, Washington, D.C., 20024. The Constitution and Bylaws of Northern Illinois University afford equal treatment regardless of political views or affiliation, sexual orientation, or other factor unrelated to scholarly or professional performance (Constitution Article 9, Section 9.2; Bylaws Article 5, Section 5.211; Bylaws Article 7, Section 7.25 and Section 7.252; Bylaws Article 10; and Bylaws Article 18).

Language of Instruction at NIU

Northern Illinois University recognizes the richness that students of diverse cultures bring to the university community, and likewise hopes to instill in its students an appreciation of such diversity. The university also recognizes the importance of assuring all of its students access to its educational benefits, and of fair and equitable treatment in the delivery of its academic programs, as well as its obligation to employers and other institutions that may assume competence in communication in English on the part of NIU graduates. English is the language of instruction at Northern Illinois University and the only common language of the university’s faculty and students. Therefore, academic activities relating to graduate degree requirements or course credit, including presentations, examinations, and theses and dissertations, are to be in English. Appropriate exceptions include classes, examinations, theses, and other academic activities within the Department of Foreign Languages and Literatures, which may be wholly or partially in another language as applicable; other examinations designed specifically to evaluate students’ proficiency in languages other than English; any courses for which competency in a foreign language has been established as a prerequisite; foreign-language citations and quotations; and multicultural activities designed to expose students to the experience of other languages and cultures, when relevant to the nature of particular courses.

Immigration Reform and Control Act Regulations Affecting Employment by the University

The 1986 Immigration Reform and Control Act mandates that any person employed by Northern Illinois University after November 6, 1986, must be either a U.S. citizen or possess current employment authorization from the U.S. Immigration and Naturalization Service. All such employees, including graduate assistants, must be prepared to present original documentation to the employing department/cost center within three days of the start date of their employment contract or risk cancellation of the contract.

Conflict of Interest Policy for All University Employees

All employees of the university must conform with the ethics policies as set forth in the university’s “Conflict of Interest Document” available in department offices and at the Graduate School. This document requires that all employees of the university, including students employed on a part-time basis or as graduate assistants, report on specified forms all real, potential, and apparent conflicts of interest.

Storage in University Buildings

Students electing to utilize university buildings and/or facilities for the storage of personal property owned by them, thereby accept the responsibility for such storage and waive any and all responsibility and liability on the part of the university and its employees for loss of or damage to such personal property by any cause whatsoever including, but not limited to fire, water, windstorm, or other casualty, theft, or improper or inadequate humidity control.

Conduct and Discipline Regulations

It is expected that all enrolled students intend to engage in serious educational pursuits. When students accept admission to Northern Illinois University, the university assumes that they thereby agree to conduct themselves in accordance with its standards.

The university expects all of its students, both on and off the campus, to conduct themselves in accordance with the usual standards of society and law-abiding citizenship. Every organization affiliated with the university or using its name is expected to conduct all its affairs in a manner creditable to the university.

While enrolled, students are subject to university authority. The university has the prerogative, in the interest of all of its students, to suspend or require the withdrawal of a student or group of students for acting in such a manner as to make it apparent that the student or group of students are not desirable members of the university. See also "Disruption of Instruction." Copies of the most current Student Judicial Code may be obtained at the university's Student Judicial Office.

General Regulations

Students at Northern Illinois University are expected to abide by the university regulations set forth below as well as by applicable federal, state, and local laws. While the university will normally apply disciplinary sanctions only for violations of its regulations, a student is subject to public laws at all times, including the Illinois Compiled Statutes which contain provisions specifically directed at maintaining the orderly operation of state colleges and universities. It is the responsibility of the student to be particularly aware of the provisions of the Criminal Code in the Illinois Compiled Statutes and to be aware of the penalties therein provided for Criminal Damage to State Supported Property, Criminal Trespass to State Supported Land, Unauthorized Possession or Storage of Weapons, and Interference with a Public Institution of Higher Education.[1] Conviction for offenses enumerated in the Criminal Code additionally makes almost certain the loss of federal- and state-supported scholarships, loans, or other grants.

Failure to abide by the following regulations may result, after a hearing by one of the University Judicial Boards or a representative of the Student Judicial Office, in disciplinary sanctions including, but not limited to warning, disciplinary probation, suspension, and dismissal from the university.

Sanctions may result from

academic dishonesty. Plagiarism, cheating, knowingly supplying false or misleading information to university officials or on official university records, forgery, and alteration or misuse of university documents, records, or identification cards all are prohibited.

obstruction or disruption of university activities. A student or students may not knowingly or willfully interfere with the normal educational activities of the university including teaching, research, administration, disciplinary procedures, or other university activities, including its public service functions. Disruption of university activities includes but is not limited to obstruction of access to the facilities of the university including corridors and doorways; interference with classroom activities or other scheduled events; interference with the performance of the duties of any institutional employee. Picketing may be permitted, but only under the following conditions: Students who picket on university premises must do so in peaceful and orderly fashion. Picketing should not involve invasion of the rights of others, interference with the operations of the university, or jeopardy to public order and safety. Specifically, the following conditions must be met.

Automobile, bicycle, and pedestrian traffic must not be obstructed.

Entrances to buildings and driveways must not be blocked or traffic interfered with.

Picketing inside university buildings is prohibited.

There will be no disturbing of classes by noise or by other means.

There will be no harassing of passers-by or other interference with their activities.

There will be no damage to property, including lawns and shrubs, nor littering of premises with signs, leaflets, or other materials.

failure to abide by regulations governing the use of university premises and facilities. No student shall remain alone or with others in a university building beyond its normal closing hours unless duly authorized by a university official nor shall an individual remain in a university building after being notified to depart there from by an authorized university official. Unauthorized entry to or use of university facilities is also prohibited.

theft or damage. A student or students may take no action or actions which damages or which as a probable consequence could damage property of the university or private property.

physical abuse of persons. A student or students may take no action or actions which disrupts or which as a probable consequence could disrupt the public peace or which endangers the safety, health, physical or mental well being, or life of any person.

dangerous and narcotic drugs. A student may not use, possess, sell, or distribute any of the narcotic, dangerous, or hallucinogenic drugs in any form except under the direction of a licensed physician or as expressly permitted by law.

firearms. Students may not have or keep any firearm on their persons, in their quarters, or in their motor vehicles at any time while on university property except with the permission of the chief security officer of the university.

alcoholic beverages. Delivery and sale of alcoholic beverages on university property is prohibited. Possession and use of alcoholic beverages on university property is restricted by the laws of the state of Illinois as to age and by the regulations of the university as to physical location.

instructions from university officials. A student must follow the oral or written instructions regarding university regulations or state law given by any university official whom the Board of Trustees or the President has vested with the authority to give such instructions.

university regulations. Students are responsible for knowing and abiding by university regulations and policies, including those not specifically enumerated in these general regulations, concerning such matters as the meeting of financial obligations to the university, university motor vehicle and parking regulations, registration of student organizations, as well as specific rules governing the use of particular facilities such as the residence halls, the libraries, and the Holmes Student Center.

Disruption of Instruction

Graduate education is a privilege accorded to those students deemed able to profit from the associated intellectual experiences. When a student's behavior within a classroom, laboratory, or other formal instructional setting is such that the rights of other students to an effective learning environment are being violated, that student may lose the privilege of attending the class or receiving credit for the course in that term.

[1]In addition, the Criminal Code in the Illinois Compiled Statutes conatins provisions relating to disorderly conduct, theft, inflicting bodily harm, arson, property damage, gambling, the use of drugs, mob action, and sex offenses.

In any case of the disruption of instruction by a graduate student or student-at-large, the instructor may require that student to leave the class for the balance of that class session. Whether or not the student is immediately removed from the class, the instructor may file a statement of the incident with the department chair, providing the student with a copy, and may ask that the chair suspend that student from further participation in the course. The chair of the department may, upon recommendation of the instructor and after investigating the incident, suspend that student from class attendance and recommend to the dean of the Graduate School that the student be permanently barred from the class for the remainder of that academic term. The student must be notified in writing of such a recommendation and may submit a written appeal of the department's recommendation to the dean within one week of the notification. Upon such an appeal, the dean or dean's designee shall conduct a hearing, providing for a presentation of the facts relative to the disturbance. The decision of the dean's office shall be final. If the recommendation to bar the student from class is upheld, the student will be officially withdrawn from the course following regular withdrawal procedures, with the date upon which the student was initially suspended as the effective date of the withdrawal.

Extreme and/or repeated disruptive behavior constitutes grounds for dismissal from the university. The Student Judicial Office handles such dismissals; the policies and procedures of that office are outlined in the Student Judicial Code.

Student Information and Records

Documents submitted in support of an application for admission to the Graduate School or for student-at-large status become the property of Northern Illinois University and will not be returned to the applicant or transmitted to another institution. Such documents will be retained by the Graduate School for a minimum period of one year; retention beyond that minimum cannot be assured.

Information and data concerning individual students are collected, maintained, and used by the university only as needed in relation to its basic educational purposes and requirements. Presently, relevant policy and procedures are designed and operated to be in compliance with federal legislation, specifically, the Family Educational Rights and Privacy Act of 1974 as amended by Senate Joint Resolution 40, signed into law by the President of the United States on December 31, 1974. The official university procedures and a directory of educational materials maintained by Northern Illinois University are available for review in the Office of Registration and Records. All questions about interpretations or clarifications involving university policy and procedures regarding students' records are to be directed to the university legal counsel.

There are four basic types of student record: academic, financial, medical, and placement. The official academic record is established and kept current by the Office of Registration and Records. It is a cumulative history of the student's enrollment and educational participation and performance. Maintained in connection with the academic record is certain biographical and personal identification information as needed for enrollment purposes. In addition to certain elements of this record, the Graduate School maintains the student's graduate admissions record and a record of progress toward meeting requirements (Graduate School as well as departmental) of the student's graduate program(s). The Graduate School also maintains records relating to the academic progress of students-at-large. Some or all of these student data are provided by the Office of Registration and Records and the Graduate School as needed to the university's academic offices, colleges, schools, and departments for academic administration and advisement, and to other university administrative units as necessary for the functioning of various student and support services.

Student financial records are the responsibility of the Office of the Bursar, with respect to the billing, payment, and accounting of tuition and fees; the Student Financial Aid Office for operation of the university's student financial assistance program; and the Graduate School for graduate fellowships and assistantships. The Bursar keeps a complete record of the student's financial transactions relative to payment of the university charges accrued.

For those students who require medical assistance and care from the University Health Service, at the time of their first contact with the service a medical history record is created and maintained by the Health Service staff. Only information pertinent to the health of the individual is included therein. Health Service medical records will be destroyed ten years after the last date medical services were provided.

The Office of Career Planning and Placement, with the student's voluntary participation, creates and distributes to potential employers a copy of a file which consists of a self-completed resume and various personal references.

Certain records within the university community are exempt from the above-cited federal legislation: records of instructional, supervisory, and administrative personnel which are the possession only of the maker and not accessible nor revealed to any other person except a substitute; files within the university's Department of Public Safety (University Police); and medical records used in connection with the provision of treatment for a student. Access to these is strictly limited to the university staff immediately involved with their creation and maintenance except for certain specific qualifications.

Further, the university is not required to make available to the student the financial records of his or her parents or confidential letters and statements of recommendation which were placed in the student's files prior to January 1, 1975, if such are used only for the purpose specifically intended.

Access to or release of each of the above types of records or their respective parts, or of any personally identifiable information, with the previous exceptions noted, is restricted to the following: the student or former student; parents of a legally defined dependent student (reference Section 152 of the Internal Revenue Code of 1954); university officials who have a legitimate university related educational or administrative interest and need to review an education record in order to fulfill their professional responsibility; certain specified state and federal representatives primarily as concerns the evaluation and auditing of government funded programs in which the university participates; officials of other colleges, universities, or schools in which the student intends to enroll, provided the student is informed of this type of request in advance of the information being released; individuals, agencies, and organizations in connection with the student's application for or receipt of financial aid; state and local officials as directed by State Statute adopted prior to November 19, 1974; with certain restrictions, organizations conducting studies for, or on behalf of, educational agencies or institutions for the purpose of developing, validating, or administering predictive tests, administering student aid programs, and improving instruction; accrediting organizations; and appropriate persons in connection with an emergency, if knowledge of such information is necessary to protect the health or safety of a student or other person. A university official for the purposes of this section is a person employed by the university in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the university has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. In all other instances, access or release may be granted

only with the student's written authorization. In cases where such records are to be furnished in compliance with a judicial order or pursuant to a lawfully issued subpoena, prior to their release the student shall be notified of such order or subpoena by personal service or certified mail to his or her last known address.

The student has the right to personally review his or her records in the presence of a university representative at an appropriate convenient campus location. This right pertains separately to each status to which the student has been in attendance at the university (i.e., undergraduate, student-at-large, law, graduate). The student should submit a written request to the appropriate university office identifying the record(s) he or she wishes to inspect. The university office will make arrangements for access and notify the student of the time and place where the records may be inspected within 45 days following receipt of such request. Where necessary, interpretation of the record shall be provided by qualified university personnel. Original records cannot be removed from university premises. A copy may be provided where failure to provide such copy would effectively prevent a student from exercising the right to inspect and review the educational records. While a charge may be made to cover costs of reproduction, in most instances this is not done. However, normal operational fees exist with respect to record reproduction within the Office of Career Planning and Placement, dependent upon the number of copies requested, and the Office of Registration and Records.

A student has the right to challenge the content of a record on the grounds that it is inaccurate, misleading, or otherwise in violation of privacy or other rights and to have inserted in the record his or her written explanation of its contents. (Academic grade review procedures are covered elsewhere.) To initiate such a challenge, the student shall, within 60 days after he or she has inspected and reviewed the record in question for the first time, file with the university office responsible for maintaining such records a written request for a hearing, in a form specified by the university. Within 30 days following receipt of such request the head of such office, or a designated representative, shall review the record in question with the student and either order the correction or amendment of such alleged inaccurate, misleading, or otherwise inappropriate portions of the record as specified in the request or notify the student of the right to a hearing at which the student and other persons directly involved in the establishment of the record shall have an opportunity to present evidence to support or refute the contention that the portions of the record specified in the request are inaccurate, misleading, or otherwise inappropriate. The student shall be given written notice of the time and place of such hearing no fewer than 10 working days in advance. The hearing will be conducted by a university representative who does not have a direct interest in the outcome. The student shall have the right to attend the hearing, to be represented and advised by other persons, and to call witnesses in his or her behalf. The student shall be notified in writing of the decision within 10 working days following the hearing or within 10 working days of a decision without a hearing. Such decision is final.

The student may waive the right of access to confidential statements submitted with respect to application for admission to the Graduate School or to another educational institution, an application for employment, or receipt of an honor or honorary recognition. However, the student is not required to do so. Further, the student who does waive right of access will be provided, upon request, with the names of all persons making confidential recommendations.

Directory information pertaining to students, as defined below, may be released by the university at any time provided that it publishes this definition at least once each academic year in the campus student newspaper and the individual student is given a reasonable period of time to inform the university that such information is not to be released without his or her prior consent. Such information is never knowingly provided any requester for a commercial purpose.

Directory information includes the student's name, address, telephone listing, e-mail address and photographic or electronic picture or image, date and place of birth, major field of study, classification, gender, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance and full- or part-time status, degrees and awards received, and the most recent previous educational agency or institution attended by the student.

Students who believe that their privacy rights under the Family Educational Rights and Privacy Act of 1974 have been violated, have the right to file a complaint with the Family Policy Compliance Office, U.S. Department of Education, 600 Independence Avenue, S.W., Washington, D.C. 20202-4605.

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48 Bursar's Office
65 Campus Life Building
48 Financial Aid Office
62 Graduate School
36 Holmes Student Center
Duke Ellington Ballroom
Hotel
Huskies Den
Information Desk
Restaurants
Sandburg Auditorium
University Bookstore
35 Housing and Dining
3 Human Resource Services
61 International Student and Faculty Office
20 NIU Alumni Association
3 NIU Center for Diversity Resources
1 NIU Center for the Study of Family Violence and Sexual Assault
61 Registration and Records

Administrative Buildings
62 Adams Hall
50 Altgeld Hall
21 Evans Field House
36 Holmes Student Center
49 Lowden Hall
20 Barsema Alumni and Visitors Center
2 Convocation Center
19 Oderkirk House
42 Campus Parking Services
60 Public Safety
48 Swen Parson Hall
60 Telephone and Security Building
63 Health Services
61 Williston Hall

Academic Buildings
69 Anderson Hall
66 Asian American Center
71 Barsema Hall
40 Center for Black Studies
68 Center for Latino and Latin American Studies/ Latino Resource Center
21 Evans Field House
31 Cole Hall
47 Davis Hall
25 DuSable Hall
70 Engineering Building
46 Faraday Hall
45 Faraday Hall West
37 Founders Memorial Library
24 Gabel Hall
56 Gilbert Hall
22 Graham Hall
39 Illinois ASBO Building (NIU Public Administration)
54 Jack Arends Hall
52 Kishwaukee Hall
58 McMurry Hall
18 Milan Township School (reconstructed school)
44 Montgomery Hall
53 Music Building
17 Northern TV Center
43 Psychology – Computer Science Building
26 Reavis Hall
64 Speech-Language-Hearing Clinic
30 Stevens Annex
29 Stevens Building
55 Still Gym
51 Still Hall
48 Swen Parson Hall
41 Women's Resource Center
28 Watson Hall
61 Williston Hall
57 Wirtz Hall
27 Zulauf Hall

Residence Halls
12 Douglas Hall (A, B, C & D)
10 Grant Towers North (C & D)
11 Grant Towers South (A & B)
15 Lincoln Hall (A, B, C & D)
33 Neptune Hall Central
35 Neptune Hall East
34 Neptune Hall North
32 Neptune Hall West
9 Stevenson Towers North (C & D)
8 Stevenson Towers South (A & B)
14 University Family Apartments

Recreation Facilities
21 Evans Field House
36 Holmes Student Center
7 Huskie Stadium
2 Convocation Center
16 Student Recreation Center

Museums and Theatres
29 Anthropology Museum
53 Boutell Memorial Concert Hall
54 Jack Olson Gallery
50 NIU Art Museum
29 O'Connell Theatre
29 Players Theatre

Service Facilities
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3 Document Services
5 Dorland Building
59 East Heating Plant
6 Grounds Building
63 Health Services
3 Human Resource Services
3 NIU Center for Diversity Resources
1 NIU Center for the Study of Family Violence and Sexual Assault
38 NIU Parking Deck
42 Campus Parking Services
4 Physical Plant
60 Public Safety (NIU Police)
13 West Heating Plant

Not Shown on Map
Art Annex
2211 Sycamore Road, DeKalb

Business and Industry Services
1120 East Diehl Road
Naperville, Illinois 60563

Center for Child Welfare and Education
University City, Unit H
817 West Lincoln Highway, DeKalb

Illinois Council on Economic Education (ICEE)
155 North Third Street, Suite 504, DeKalb

Lorado Taft Field Campus
Oregon, Illinois 61061

NIU Art Museum Gallery in Chicago
215 West Superior Street
Chicago, Illinois 60610

NIU Broadcast Center
801 North First Street, DeKalb

NIU Hoffman Estates
5555 Trillium Boulevard
Hoffman Estates, Illinois 60196

NIU Naperville
1120 East Diehl Road
Naperville, Illinois 60563

NIU Rockford
8500 East State Street
Rockford, Illinois 61108

NIU School of Nursing
1240 Normal Road, DeKalb

William R. Monat Building
Social Science Research Institute
Third and Locust Streets, DeKalb

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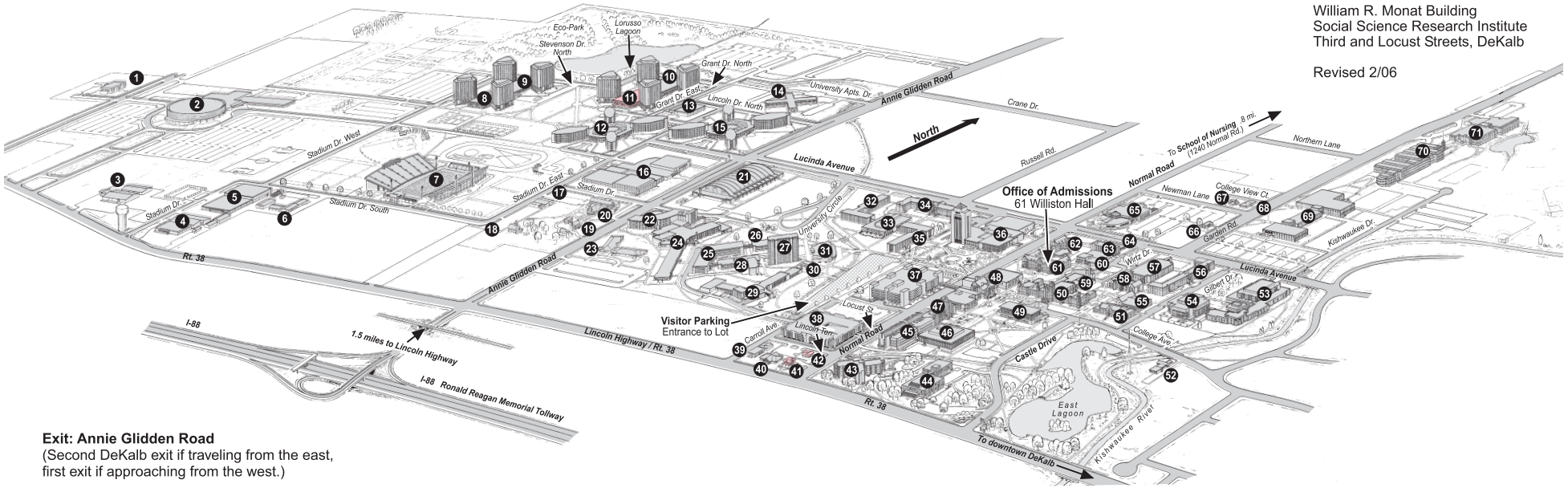
NORTHERN ILLINOIS UNIVERSITY



Exit: Annie Glidden Road
(Second DeKalb exit if traveling from the east, first exit if approaching from the west.)

Directions to NIU. NIU's main campus in DeKalb, Illinois, is located 1.5 miles north of the Ronald Reagan Memorial Tollway (I-88). The city is also accessible via state highways 38 and 23. First-time visitors exiting from the I-88 are advised to use the Annie Glidden exit as this is the most clearly marked approach to the campus.

Visitor Parking. Visitor Parking is available in a pay lot southwest of the Holmes Student Center at the intersection of Carroll Avenue and Locust Street.

Northern Illinois University,
Department of Geography
www.niu.edu/geog