

## GRADUATE DEGREE PROGRAMS CHAPTER 2

Degree programs offered by the Graduate School are described in this chapter. The descriptions include information about any approved specialization offered within the program. The programs appear alphabetically under the College or School and academic unit responsible for them. Several non-degree programs and Professional Development Sequences are also described.

### COLLEGE OF ARTS AND SCIENCES, P.

Art Studio, M.F.A.

Art Therapy Counseling, M.A.

Biological Sciences, M.A., M.S.

Chemistry, M.S.

English, M.A.

Environmental Sciences, M.S.

Foreign Language-only in a combined M.S. in Ed. program with Secondary Education

Geographical Studies, M.A., M.S.

History, M.A.

Mass Communications, M.S.

Mathematics, M.S.

Music, M.M.

Physics, M.S.

Political Science-only in a combined M.S. in Ed. program with Secondary Education

Public Administration, M.P.A.

Social Work, M.S.W.

Sociology, M.A.

Speech Communication, M.A.

SCHOOL OF BUSINESS, P.

Accountancy, M.S.A.

Business Administration, M.B.A.

Economics and Finance, M.A., M.S.

Marketing Research, M. M. R.

SCHOOL OF EDUCATION, P. 113

Educational Administration, M.S. in Ed. and S.D.

Elementary Education, M.S. in Ed.

Instructional Technology, M.S. in Ed.

Kinesiology, M.S. in Ed.

Psychology, M.A., M.S. and S.D.

Gerontology, Graduate Sequence

Secondary Education, M.S. in Ed.

Special Education, M.S. in Ed.

Speech Pathology, M.S.

SCHOOL OF ENGINEERING, P.

Civil Engineering, M.S.

Computing and Information Systems, M.S.

Electrical Engineering, M.S.

Mechanical Engineering, M.S.

SCHOOL OF NURSING, P.

Nursing, M.S.

## COLLEGE OF ARTS AND SCIENCES

Dean: Sharon K. Hahs

The College of Arts and Sciences offers graduate studies leading to the following degrees: Master of Arts in art therapy counseling, biological sciences, English, geographical studies, history, sociology, and speech communication; Master of Science in biological sciences, chemistry, geographical studies, mass communications, mathematics, and physics; Master of Fine Arts; Master of Music; Master of Public Administration; Master of Social Work. In addition, the college offers an interdisciplinary program leading to the Master of Science degree in environmental sciences and Professional Development Sequences in Geographic Information Systems.

Cooperative programs in conjunction with the School of Education lead to the Master of Science in Education degree in secondary education with teaching fields in art, biology, chemistry, English, foreign languages, geography, history, mathematics, physics, political science, reading, science, and speech communication.

The College is the editorial home of four periodicals: Sou'Wester, a literary magazine of fiction and poetry established in 1960, published three times a year; Papers on Language and Literature, an internationally recognized scholarly journal of criticism, published quarterly; Drumvoices Revue, a multicultural journal of literary and visual arts, published twice yearly with occasional special issues and anthologies; and Victorian Periodicals Review, an internationally recognized scholarly journal of criticism, bibliography, and history, published quarterly.

## DEPARTMENT OF ART AND DESIGN

The Department of Art and Design offers graduate programs that lead to the Master of Fine Arts (MFA) degree in art with a specialization in art studio and the Master of Arts (MA) degree in art therapy counseling. In conjunction with the Department of Curriculum and Instruction, the department also provides studies leading to the degree Master of Science in Education, major in secondary education, with a teaching field in art. In addition to the general policies, regulations, and requirements of the Graduate School, the following specific requirements pertain to these degrees.

### ART STUDIO

#### MASTER OF FINE ARTS

The Master of Fine Arts degree is a terminal studio degree designed to further the individual development of degree candidates and to provide them with professional competency in the creative arts of ceramics, digital arts, drawing, metalsmithing, painting, printmaking, sculpture, and textile arts.

### ADMISSION

In addition to meeting the general admission requirements of the Graduate School, an applicant seeking admission to the graduate program leading to the MFA degree shall meet the following requirements:

A portfolio of representative work by the applicant must be submitted to the Department of Art and Design to be reviewed by the faculty in the applicant's intended studio area. Where quality of slides makes evaluation inconclusive, applicants may be asked to submit the actual work. All applicants must present a letter of intention to pursue graduate study.

Persons with deficiencies may enroll as unclassified graduate students for a limited time. Upon completion of the deficiencies, the student submits a portfolio of recent work to the graduate art faculty before admission to the program is granted.

Students pursuing the MFA degree work toward a graduate emphasis or concentration in one of the principal studio areas. Those wishing to transfer from one studio area to another or desiring two studio emphases must submit an acceptable portfolio in each area; however, it is not possible to apply for two studio emphases when making the initial application.

Degree seeking candidates should send the following materials directly to: MFA Admission Committee, Department of Art and Design, Campus Box 1774, Southern Illinois University Edwardsville, Edwardsville, IL 62026-1774, Telephone (618) 650-3071:

- a. Three (3) letters of recommendation, preferably from art instructors (at the undergraduate degree granting institution) or from artists familiar with the applicant's current artwork.
- b. A letter of intent of approximately 500 words, indicating professional aspirations and more immediate objectives pertaining to the program of study the applicant will pursue while in graduate school at SIUE.
- c. A slide portfolio consisting of twenty (20) slides in the area in which application is made, plus six (6) drawing slides. If applying to drawing, only twenty (20) slides are required. The slides should be labeled and submitted in a carousel tray (with the slides placed in the tray so they will project with the correct side up and facing in the proper direction). Accompanying the carousel slide portfolio should be a typewritten list of slides (in the same order that the slides appear in the carousel) indicating name, media, dimensions, and date work was created. Portfolios sent in anything other than a carousel tray, portfolios not labeled properly, or portfolios not having the corresponding typed list will be returned. Please provide sufficient postage for the return of the carousel portfolio.

It is the candidate's responsibility to make sure the application, transcript(s), letters, and portfolio arrive at SIUE on time. It is recommended that the candidate mail the three letters of reference and the letter of intent together with the carousel slide portfolio in one mailing. In this way the applicant will know that all materials and documentation have been mailed. Some writers of letters of reference prefer to mail their letters directly. It is the applicant's responsibility to check to make sure that the letters have arrived. The same is true for transcript(s).

The deadline for receipt of all material to begin study in spring semester is October 15<sup>th</sup> of the preceding fall semester. The deadline for admission for the fall semester is February 15<sup>th</sup> of the preceding spring semester. Contact the Department of Art and Design for exact dates. Additional applications will be considered after these dates on a space available basis.

A committee made up of the graduate studio faculty that offer who MFA degree will review letters, transcript(s), and slides. When a decision is reached, the applicant will be notified initially by the Graduate Admissions Office, and a follow-up letter will be mailed by the Department of Art and Design. Letters will be mailed approximately one month following the deadline. If an application is not approved, the carousel portfolio will be promptly returned. If approved, the portfolio will be retained by the department until the student arrives on campus or until its return is requested.

So that the MFA program can achieve a broader perspective, students who receive their undergraduate art degrees at institutions other than SIUE will be given higher priority in acceptance for admission.

## PROGRAM OF STUDY

The full-time student should expect to spend a minimum of three academic years in residency to complete the degree. The program is based on the individual's area of interest and undergraduate training. It is jointly planned by the student, a committee of the graduate faculty, and a professor who serves as advisor to the student in the principal studio area.

- Total 60 credits (at least 30 at the 500-level)
- 21-30 credits in major studio area
- Electives: 9-18 (outside major studio area)
- 9 credits in Art History
- ART 405 Seminar (1 hour)
- ART 441 Drawing (3 hours)
- ART 599a Thesis (3 hours)
- ART 599b Thesis (3 hours)
- ART 599c Exhibition/Thesis (2 hours)

Mid-Course Review

Prior to the beginning of a student's fourth term or upon completion of 30 hours of graduate credit (whichever comes first), the student will undergo a rigorous mid-course academic review, conducted by at least three members of the graduate faculty, at least one of whom must be a specialist from the student's major studio area.

The mid-course review consists of an oral interview in which the candidate shall present evidence of his/her knowledge of art history and other material deemed pertinent by the committee for successful completion of the degree.

Additional evidence will also be submitted in the form of written essays composed in response to questions from members of the candidate's graduate committee who will evaluate the candidate's answers for clarity of expression as well as for correctness of factual detail.

In addition, the review requires the student to submit examples of his/her most recent artistic work for evaluation. The student's principal studio area advisor shall notify the student of the results of the written portion of this examination.

## Thesis

During their final year, all candidates for the M.F.A. degree in Art Studio must complete 8 semester hours of thesis. The thesis topic must be approved by the student's committee at least one term prior to enrolling in ART 599, in which the candidate writes the initial draft of the thesis.

The written thesis is then completed in ART 599b in consultation with the candidate's committee. In ART 599c, the candidate designs and mounts the final exhibition.

The thesis consists of the final studio project(s) accompanied by written and photographic records and explanations in proper thesis form. As part of this requirement, ordinarily during the candidate's final term, a thesis exhibition of the candidate's work must be presented. The exhibition and all related material pertaining thereto shall be prepared, designed, and installed by the candidate as approved by the candidate's committee. One artwork, chosen by the candidate in consultation with the thesis committee, is retained by the Department of Art and Design for its permanent art collection.

## FINAL EXAMINATION

The final examination for the MFA degree includes both written and oral forms, including a thesis defense. Upon acceptance of the thesis, the student's graduate committee and other members of the graduate faculty are invited to join for the final oral examination. This examination is typically scheduled during or after the thesis exhibition. The candidate is expected to defend the thesis and exhibition and to show knowledge of the general area of investigation and related areas of art and art history.

## ART THERAPY COUNSELING

### MASTER OF ARTS

The program leading to the Master of Arts degree in art therapy counseling combines classroom instruction, practicum experience, and research. The program provides for studies in both the psychoanalytic approaches and the creative/expressive approaches to art therapy. Upon completion of their degrees, graduates are prepared to accept positions as art therapists in a wide variety of clinical settings.

### ADMISSION

In addition to the general admission requirements of the Graduate School, an applicant must hold a baccalaureate degree in art studio, art education, psychology, or a related field. Prospective students must show evidence of having completed 18 hours of art studio, 3 hours of art therapy or art education, and 12 hours of psychology, including developmental and abnormal psychology, before admission to the program. Applicants with deficiencies will be required to take prerequisite course work before classified status is approved. A statement of intent (500 words or less), three letters of recommendation, and a slide portfolio (12-15 slides) of recent general work are required for admission. Applicants must submit scores on the Miller Analogies Test (MAT) and schedule an interview with the director of the graduate program in art therapy counseling.

Applicants who already hold a master's degree in a related field and who have met the necessary prerequisites may take art therapy counseling coursework in unclassified graduate status to fulfill educational requirements for registration as an art therapist. Approval must be obtained from the director of the art therapy counseling graduate program to pursue advanced course work.

### PROGRAM OF STUDY

The 48 semester hour art therapy counseling program comprises the following core courses: ART 550, 552, 553, 554, 559-6, 566, 575, 595.

Electives: PSYC 431, SOCW 517, SOCW 557, ART 549, 551, 555, 556, 557, 558, 573, 574.

Other electives selected by advisement from art therapy counseling, studio art, psychology, social work, or related fields.

Students are required to complete a final project, which can be a traditional research paper or a creative effort accompanied by a written paper in appropriate academic form. The topic and format must be acceptable to the advisory committee, which is composed of the director of the art therapy counseling program and two other graduate faculty members. Students will complete 700 hours of Practicum.

Prior to beginning ART 559 (Practicum in Art Therapy), students must undergo a mid-course review to determine readiness to work with a client population in a counseling setting. The review is comprised of a written and an oral examination designed and conducted by the student's faculty advisor. The art therapy counseling faculty will evaluate a student's ability to continue in the program based on the student's psychological readiness to begin practicum, academic work, ability to participate in and process experiential components, and the written and oral aspects of the mid-course review.

This program of study is designed to meet the requirements for students to become licensed as clinical professional counselors in the state of Illinois and to become registered art therapists with the American Art Therapy Association. The program was approved by the American Art Therapy Association in 1992.

## ART THERAPY SPECIALIZATION

### (CERTIFICATE OF COMPLETION)

This sequence of courses is designed for students who already have a master's degree or are currently enrolled in a related master's program but who want the additional educational credentials to be eligible for registration as an art therapist (ATR). The art therapy specialization entails 21 hours of core course work (ART 550, 552, 553, 554, 559-6, and one elective). Students wishing to obtain this training must complete the same prerequisites and follow the same admissions procedures as master's candidates.

## FINAL EXAMINATION

After the final project is submitted and evaluated by the advisory committee, the candidate must successfully complete an oral examination conducted by the thesis committee.

## MASTER OF SCIENCE IN EDUCATION

### SECONDARY EDUCATION/ART

The Department of Art and Design, in cooperation with the Department of Curriculum and Instruction, offers an art education teaching field as part of the Master of Science in Education (MS in Ed.) degree in secondary education. A jointly advised program ordinarily including at least 15 hours in art will be designed, taking into account each student's background and interests. Throughout the program, the student must consult with the art graduate advisor before registering for any courses in art. Upon completion of the program, the student must have accumulated at least 42 semester hours in art (graduate and undergraduate work combined). Thus, students admitted to the program with less than 27 hours of acceptable undergraduate work will be required to complete more than 15 graduate hours in art in order to satisfy degree requirements. Students must

achieve a 3.0 (A=4.0) grade point average in the art teaching field, as well as an overall average of 3.0. For further information, see "Secondary Education" elsewhere in this chapter.

## BIOLOGICAL SCIENCES

### MASTER OF ARTS

### MASTER OF SCIENCE

The Department of Biological Sciences offers programs leading to the graduate degrees of Master of Arts and Master of Science and, in conjunction with the Department of Curriculum and Instruction in the School of Education, provides courses that support the Master of Science in Education degree in secondary education with a teaching field in biology.

Graduate students in biology may concentrate in one of several areas, such as evolution, ecology and environment, or cellular and molecular biology. Course work in genetic engineering is also available. Students interested in taxonomic studies can benefit from faculty affiliations with the Missouri Botanical Gardens in nearby St. Louis and the Field Museum of Natural History in Chicago.

Numerous career and advanced training opportunities are available to persons holding a master's degree in biology. These include doctoral training in biology and in the health sciences; secondary and junior college teaching; environmental assessment; and employment in educational, industrial, and governmental laboratories and agencies.

## ADMISSION

Applicants who satisfy the general admission requirements of the Graduate School will be considered for admission to the master's program in biological sciences. Applicants should submit scores (verbal, quantitative, analytical) from the Graduate Record Examination (GRE) to the Department of Biological Sciences. Under exceptional circumstances, applicants with an unusually strong academic record or with high scores on other standardized tests may be admitted to the program before the results of the GRE scores are received. In these cases, the GRE must be taken and the scores submitted during the first term of the student's master's level work.

Graduate students are expected to maintain at least a B average (3.0) in course work; therefore, applicants with less than a B average as undergraduate students and/or GRE combined verbal/quantitative scores lower than 1050 should present evidence that they can do graduate level course work in an acceptable manner. Upon admission to the program, the Biological Sciences Graduate Committee will inform the student of any undergraduate deficiencies and how they can be removed.

Applicants should also submit a short statement of goals and interests to the Department of Biological Sciences. The statement should include special qualifications and a description of relevant professional experiences. Reprints of publications, letters of recommendation, and other documents should be submitted to the department to assist the Graduate Committee in evaluating the applicant's qualifications. Applicants are encouraged to contact the Graduate Committee Chair for assistance in identifying faculty members who might serve as graduate mentors.

## PROGRAM OF STUDY

**Master of Arts:** The Master of Arts degree requires a minimum of 32 semester hours, of which at least 21 semester hours must be in Biology. The Master of Arts also requires a reading knowledge of a foreign language. The foreign language requirement must be met at least three months prior to graduation by passing an examination offered by the Department of Foreign Languages and Literature.

**Required courses:** Enrollment in BIOL 595 or 596 at least twice is required and must be taken under at least two different faculty members.

**Electives:** Students may take up to 25 hours of electives.

**Thesis:** Students must complete a thesis based on the student's original research and must enroll in at least three semester hours of BIOL 599.

**Master of Science:** Both thesis and non-thesis plans of study are available for fulfillment of the requirements of the Master of Science degree. Both plans require a minimum of 32 semester hours, of which at least 21 semester hours must be Biology. There is no foreign language requirement for the Master of Science degree.

### Thesis Plan

**Required courses:** Enrollment in BIOL 595 or 596 at least twice is required and must be taken under at least two different faculty members.

**Electives:** Students may take up to 25 hours of electives.

**Thesis:** Students must complete a thesis based on the student's original research and must enroll in at least three semester hours of BIOL 599.

### Non-Thesis Plan

**Required courses:** Enrollment in BIOL 595 or 596 at least twice is required and must be taken under at least two different faculty members.

**Electives:** Students may take from 20 to 24 hours of electives.

**Research Paper:** At least 4, but no more than 8 semester hours must be taken in BIOL 591 and 593, culminating in an final research paper.

## FINAL EXAMINATION

For the final examination in biological sciences for either the Master of Arts or the Master of Science degree, students meet with their advisory committee for an oral defense of the thesis or research paper.

## MASTER OF SCIENCE IN EDUCATION

### SECONDARY EDUCATION/BIOLOGY

The Department of Biological Sciences, in cooperation with the Department of Curriculum and Instruction, offers a biology teaching field as part of the Master of Science in Education (MS in Ed.) degree in secondary education. A jointly advised program ordinarily including 15 hours in biology will be designed, taking into account each student's background and interests. Throughout the program, students must be advised by the chairperson of the biology department before registering for any biology courses to be applied toward this degree. Upon completion of the program, students must have accumulated at least 42 semester hours in biology (graduate and undergraduate work combined). Thus, students admitted to the program with less than 27 hours of acceptable undergraduate work will be required to complete more than 15 graduate hours in biology in order to satisfy degree requirements. Students must achieve a 3.0 (A=4.0) grade point average in the biology teaching field, as well as an overall average of 3.0. For further information, see "Secondary Education" in another section of this chapter.

### COMBINED PROGRAM LEADING TO BACHELOR OF SCIENCE/MASTER OF SCIENCE DEGREES IN BIOLOGICAL SCIENCES (3+2 PROGRAM)

The Department of Biological Sciences offers a five-year program leading to the Bachelor of Science (B.S.) and the Master of Science (MS) degrees. Undergraduates with senior level status (at least 90 semester hours) and a grade point average of at least 3.0 (A=4.0) overall may be admitted to the combined program. They may then take 32 semester hours of graduate level courses (400- and 500-level) during their combined senior and graduate years. An application for degree-seeking status as a graduate student must be approved by the Graduate School and the Graduate Committee in Biological Sciences following the procedures described under "Admission." A program outline must also be submitted for approval by Graduate Records and the director of the graduate program in biology prior to enrollment in any courses to be included as a part of the master's program. Official admission to the program and to status as a classified graduate student is made only after the award of the baccalaureate degree. In no case will a graduate degree be conferred before all requirements for both degrees have been completed.

## CHEMISTRY

### MASTER OF SCIENCE

The Department of Chemistry offers a graduate program leading to the Master of Science degree in chemistry and, in conjunction with the Department of Curriculum and Instruction in the School of Education, provides courses supporting the Master of Science in Education degree in secondary education with a teaching field in chemistry.

The Master of Science program is highly research oriented. Thesis research topics are available to students in the Department of Chemistry in the areas of analytical chemistry, biochemistry, environmental chemistry, inorganic chemistry, organic chemistry, and physical chemistry. Prospective students can obtain information about specific research topics in these broad areas by directing an inquiry to the Graduate Program Advisor, Department of Chemistry.

## ADMISSION

In addition to the admission requirements of the Graduate School, applicants for the graduate program in chemistry must have completed at least 36 semester hours in chemistry with an overall grade point average of 3.2 (A=4.0). For international applicants, a minimum score of 590 on the TOEFL is required. Applicants who do not meet these requirements may be admitted conditionally on the basis of such factors as outstanding performance in the last two years of undergraduate study. All applicants must provide evidence to show that they can participate effectively in the department's program. Such evidence might be completion of the baccalaureate degree in chemistry or related science, previous related study or creative work, two strong letters of recommendation, research papers, and honors and awards. Applicants are encouraged to submit as much supporting information as possible directly to the Department of Chemistry.

## PROGRAM OF STUDY

All students must complete 30 semester hours of graduate course work with a grade point average of 3.2 or higher. At least 24 hours must be in 500-level chemistry courses. Both thesis and non-thesis plans of study are available.

Both thesis and non-thesis plans require:

Core course requirements (12 hours) selected from: CHEM 511, 531, 541, 551, 561.

Graduate seminar (2 hours). Attendance at CHEM 575 is required for each semester during the academic year.

Electives (6 semester hours). Course work may include non-chemistry courses that will contribute to the student's career objectives.

Additional requirements for thesis plan :

Successful completion of at least 10 hours of CHEM 597 and 599 is required. Satisfactory completion requires the submission of an acceptable thesis, oral presentation, and defense of thesis results.

Additional requirements for non-thesis plan:

Acceptance into the non-thesis plan by the graduate committee and ten additional hours of course work at the 500-level are required. Up to four hours of credit from CHEM 596 and 597 can be applied toward the non-thesis plan. Students who pursue the non-thesis plan of study will make an oral presentation and defense of a final paper based on a current literature topic and/or their research achievements.

## FINAL EXAMINATION

Students following the thesis plan will make an oral presentation and defense of the thesis results. Students who pursue the non-thesis plan of study will make an oral presentation and defense of a final paper based on a current literature topic and/or their research achievements.

## MASTER OF SCIENCE IN EDUCATION

### SECONDARY EDUCATION/CHEMISTRY

The Department of Chemistry, in cooperation with the Department of Curriculum and Instruction, offers a chemistry teaching field as part of the Master of Science in Education (M.S. in Ed.) degree in secondary education. A jointly advised program ordinarily including 15 hours in chemistry will be designed, taking into account each student's background and interests. Throughout the program, students must consult with the graduate program advisor before registering for any chemistry courses. Upon completion of the program, students must have accumulated at least 42 semester hours in chemistry (graduate and undergraduate course work combined). Thus, students admitted to the program with less than 27 hours of acceptable undergraduate work will be required to complete more than 15 graduate hours in chemistry in order to satisfy degree requirements. A student must achieve a 3.2 (A=4.0) grade point average in chemistry course work, as well as an average of 3.2 in all course work. For further information, see "Secondary Education" in another section of this chapter.

### COMBINED PROGRAM LEADING TO BACHELOR OF SCIENCE/MASTER OF SCIENCE DEGREES IN CHEMISTRY (3+2 PROGRAM)

The Department of Chemistry offers a five-year program leading to the Bachelor of Science (BS) and Master of Science (MS) degrees. Students with senior level status (at

least 90 semester hours) and a grade point average of 3.0 (A=4.0) overall may be admitted to the B.S./M.S. program that allows them to earn 24 hours of graduate level credit (400- and 500-level) during their combined senior and graduate years. An application for degree-seeking status as a graduate student must be approved by the Graduate School and the Graduate Committee in Chemistry. A program outline must also be submitted for approval by the Graduate Dean and the director of the graduate program in chemistry prior to enrollment in any courses to be included as a part of the master's program. Official admission to the program and to classified graduate status is made only after the award of the baccalaureate degree. In no case will a graduate degree be conferred before all requirements for both degrees have been completed.

## ENGLISH

### MASTER OF ARTS

The Department of English Language and Literature offers studies leading to the Master of Arts degree in English with specializations in American and English literature, the teaching of writing, and teaching English as a second language, each requiring from 30 to 36 hours of course work beyond the Bachelor of Arts degree for completion. The department, in conjunction with the Department of Curriculum and Instruction, also provides studies leading to the degree, Master of Science in Education, major in secondary education, with a teaching field in English.

Graduate studies in English can prepare the student for advanced graduate work, secondary school teaching, community college teaching, or careers in such fields as law, business, social service, and teaching English as a second language. Courses in women's studies, creative writing, technical writing, and editing are also available.

### ADMISSION

In addition to the general requirements of the Graduate School, the following admission requirements must be met. Each applicant must present a one-page biographical statement and, ordinarily, three letters of recommendation.

To demonstrate prerequisite undergraduate preparation, the applicant must give evidence of having completed studies appropriate to the chosen specialization: for the American and English literature and teaching of writing specializations, historical surveys of American and English literature as well as at least one introductory course in linguistics; for the teaching English as a second language specialization, study of a foreign language, linguistics, or another appropriate field. **There is also a language requirement of at least two years of course work at the college level in a modern or classical foreign language with at least a C average. This requirement may be satisfied during the course of the student's graduate studies.**

The department requires that an applicant for admission to the Master of Arts program in English be fully competent in English language skills, both oral and written. No one

whose English is in need of remediation can anticipate success in the English graduate program.

## AMERICAN AND ENGLISH LITERATURE

### PROGRAM OF STUDY

The specialization in American and English literature requires 30 to 36 semester hours for completion of the Master of Arts degree. Program elements include the following:

Required courses (18 hours):

ENG 500 (Research and Scholarship in English Studies), taken in the first available term.  
One course in linguistics.

One course at either the 400- or 500-level selected from four of the following six periods: Medieval; Renaissance (1500-1660); 18th Century (1660-1800); 19th Century British; Colonial and 19th Century American; and 20<sup>th</sup> Century American and British.

Electives (12 to 18 hours): The student may elect a secondary area of emphasis in the field of linguistics by taking either of the following sequences:

A: ENG 400, 403, and 509

B: ENG 400, 402, 578

Elective hours may also include credit for ENG 598 or 599.

In consultation with the graduate program director, the student selects one of three plans to complete the program requirements, as follows:

Thesis plan (30 hours): Enroll in ENG 599 and submit an acceptable thesis in any area of the field, including women's studies.

Written examination plan (30 hours): Enroll in ENG 598 and prepare for a written examination based on an established reading list.

Oral examination plan (36 hours): Complete an additional 6 hours of course work at the 500-level within the discipline and prepare for an oral examination on a reading list developed in committee.

### FINAL EXAMINATION

The mode of final examination is dependent on the activity selected by the student. In the thesis plan, the student must pass a one-hour oral examination on the thesis and related topics. A student who elects the written

examination plan will take a written examination based on the reading list in American and English literature. The oral examination plan consists of an oral session on a field selected by the student from within one of the six periods designated previously or two contiguous periods, a genre, major authors, or women's studies. The field must be approved by the examining committee chosen by the student in consultation with the director of the graduate program in English.

### Teaching of Writing

The teaching of writing specialization is designed for the student interested in emphasizing the teaching of writing at the university, community college, or high school level. The program of study does not include requirements necessary for state certification for high school teachers. A student graduating with this specialization will be prepared to teach writing and writing pedagogy as well as do research in composition. Since the specialization includes a broad literature component, the student will also be prepared to teach literature.

### PROGRAM OF STUDY

The specialization in the teaching of writing requires 30 hours for completion, distributed as follows:

Required courses (9 hours): ENG 500, 585, 596.

Electives (21 hours): Courses in English and American literature-12 hours.

Courses in writing and linguistics-3 hours selected from ENG 490, 491, 492, 493, or 592, and 3 hours selected from 400- or 500- level linguistics courses.

Course, workshop, or seminar-3 hours selected from ENG 570, 578, or 581.

### FINAL EXAMINATION

The reading list that is reviewed in ENG 596 serves as the basis for the final written examination for this specialization. Determination of the contents of the reading list and evaluation of the examination are the responsibilities of the student's M.A. examining committee. This committee consists of three graduate faculty members chosen by the student in consultation with the director of the graduate program in English.

### Teaching English as a Second Language

The specialization in teaching English as a second language (TESL) prepares the student for professional opportunities related to teaching English to non-native speakers or for advanced graduate programs in similar or related fields. A student completing this specialization will be able to teach English as a second or foreign language, to

develop curricula and teaching materials for second language learners, to evaluate the English language capabilities of such learners, and to participate in the advising of students for whom English is not a first language.

## PROGRAM OF STUDY

The specialization in teaching English as a second language requires 30 hours of course work. To complete this specialization, a student, in consultation with the TESL advisor and the director of the graduate program in English, may elect a thesis or examination option. The examination option is recommended for students with no previous or current TESL experience.

Required courses (24 hours): ENG 400, 408, 409, 468, 503, 563, 565, 567.

Electives (3 hours) selected from (for the examination option only): ENG 402, 403, 406, 418, 504, 597.

Final Course or Thesis: ENG 595 or ENG 599-6.

## FINAL EXAMINATION

The mode of final examination is dependent on the culminating activity selected by the student. A student who elects the thesis option must successfully complete a one-hour oral examination based on the thesis. A student who elects the written examination option must successfully complete a written examination covering topics and issues pertinent to the program of study. The content of the written examination is determined by TESL faculty. Evaluation of the written examination is the responsibility of the student's examining committee chosen by the student in consultation with the TESL advisor and the director of the graduate program in English.

## MASTER OF SCIENCE IN EDUCATION

### SECONDARY EDUCATION/ENGLISH

The Department of English Language and Literature, in cooperation with the Department of Curriculum and Instruction, offers an English teaching field as part of the Master of Science in Education (MS in Ed.) degree in secondary education. A jointly advised program ordinarily including 15 hours in English will be designed, taking into account each prospective student's background and interests. Throughout the program, the student must consult with the program advisor in the Department of English Language and Literature before registering for any English courses. Upon completion of the program, students must have accumulated at least 42 semester hours in English (graduate and undergraduate work combined). Thus, students admitted to the program with less than 27 hours of acceptable undergraduate work will be required to complete more than 15 graduate hours in English in order to satisfy degree requirements. Students must achieve a 3.0 (A=4.0) grade point average in course work in the English teaching

field, as well as an overall average of 3.0. For further information, see "Secondary Education" in another section of this chapter.

## ENVIRONMENTAL SCIENCES

### MASTER OF SCIENCE

The College of Arts and Sciences administers this interdisciplinary program leading to the Master of Science degree in environmental sciences. The mission of the Environmental Sciences Program is to cultivate the students' perspectives of environmental issues and provide students with refined knowledge of environmental issues at the local, regional, and global scale. The Program will increase the student's technical competence in addressing and analyzing these issues, their origins, ramifications, and resolutions. The Environmental Sciences Program at SIUE is interdisciplinary and is designed to enhance and promote professional education and career opportunities in a wide area of interests. There are five areas of emphasis: 1) Environmental Biology; 2) Environmental Chemistry; 3) Environmental Education; 4) Environmental Policy and Public Administration; and 5) Environmental Technology and Assessment.

Faculty from several departments in the College of Arts and Sciences provide mentoring, direction, and instruction. Practicing professionals also lend their expertise to this program. A close relationship is maintained with industries and environmental agencies so that both students and faculty members can incorporate real-world issues in their studies and research. Each student is required to complete a research thesis or non-thesis paper. With advisement and agreement of your thesis committee, students may select their own research topic. Students are encouraged to work with faculty on their ongoing research projects. Faculty research interests span the entire discipline and can offer a wide variety of research opportunities. Because of career enhancements, students are encouraged to select the thesis option.

Thesis research has been successfully completed in the following areas: air quality, bioremediation and other innovative remediation technologies, carcinogenic effects of ionizing radiation, energy, erosion reduction, feedlot runoff, fermentation, metal accumulation in fish, mutagenicity, occupation health, pesticides, photovoltaics, population dynamics, radon in the home, regulation, teaching, underground storage tanks, use of sewage sludge, waste incineration, watersheds, water quality, wildlife productivity, and many others.

The program offers challenging environmental research opportunities, which may be related to the campus, home, municipality, business and industry, state or federal government, consulting firms, and various advocacy groups. Students completing this graduate program in Environmental Sciences have career opportunities with governmental agencies, private industries, consulting firms, and educational institutions. Areas of responsibility may include environmental field or laboratory research and

analyses, environmental policy and law, environmental remediation, solid and hazardous waste management, groundwater pollution, water management, air quality management, environmental and ecological assessments, resource depletion, and environmental engineering.

For up to date information on the Environmental Sciences Program, consult the program's web site at [www.siu.edu/ENVS](http://www.siu.edu/ENVS).

## ADMISSION

In addition to the general requirements of the Graduate School, admission to this program requires a positive recommendation from the Environmental Sciences Admissions Committee. The program requires all prospective students to submit a letter stating their academic and professional goals. The GRE is required for those students whose undergraduate GPA is below 3.0 (4.0 scale). Additionally, for those students whose GPA is below 2.75 (4.0 scale), two letters of recommendation are required. Applicants with less than a 2.5 grade point average will ordinarily not be admitted. Students entering any of the areas of emphasis must have a baccalaureate degree in an appropriate academic major. Computer literacy is strongly encouraged.

Competitive graduate assistantships through the Environmental Sciences Program and Competitive Graduate Awards through Graduate Studies and Research are available. The Office of Student Financial Aid administers most of the University's financial aid programs.

## PROGRAM OF STUDY

The Master of Science degree in Environmental Sciences requires a minimum of 33 hours of graduate work for those students electing to complete a thesis and 38 hours of graduate work for those students electing to complete a non-thesis paper.

Emphasis Options:

### 1) Environmental Biology

Required core courses (8-9 hours): ENVS 505, 506, 510, and a 3- or 4- hour 400- or 500-level statistics course.

Thesis (1-6 hours): ENVS 599 or Final Research Paper (1-3 hours): ENVS 597.

Required emphasis courses (9 hours): ENVS 540, 550, and either ENVS 480 or 520.

Electives: 9 hours minimum.

### 2) Environmental Chemistry

Required core courses (8-9 hours): ENVS 505, 506, 510, and a 3- or 4- hour 400- or 500-level statistics course.

Thesis (1-6 hours): ENVS 599 or Final Research Paper (1-3 hours): ENVS 597.

Required emphasis courses (9 hours): ENVS 531, 540, and either ENVS 480 or 520.

Electives: 9 hours minimum.

3) Environmental Education

Required core courses (8-9 hours): ENVS 505, 506, 510, and a 3- or 4- hour 400- or 500-level statistics course.

Thesis (1-6 hours): ENVS 599 or Final Research Paper (1-3 hours): ENVS 597.

Required emphasis courses (9 hours): ENVS 550, 580, and either ENVS 480 or 520.

Electives: 9 hours minimum.

4) Environmental Policy and Public Administration

Required core courses (8-9 hours): ENVS 505, 506, 510, and a 3- or 4- hour 400- or 500-level statistics course.

Thesis (1-6 hours): ENVS 599 or Final Research Paper (1-3 hours): ENVS 597.

Required emphasis courses (9 hours): ENVS 511, 516, and PAPA 506.

Electives: 9 hours minimum.

5) Environmental Technology and Assessment.

Required core courses (8-9 hours): ENVS 505, 506, 510, and a 3- or 4- hour 400- or 500-level statistics course.

Thesis (1-6 hours): ENVS 599 or Final Research Paper (1-3 hours): ENVS 597.

Required emphasis courses (9 hours): ENVS 540, 570, and either ENVS 480 or 520.

Electives: 9 hours minimum.

Within the first semester of study, the student must select a graduate faculty member as thesis (or non-thesis) chairperson for graduate degree committee. The chairperson will advise the student on coursework and research. Within the first year of study, the graduate degree committee must be complete, consisting of the chairperson and two or more additional graduate faculty members. The graduate degree committee should consist of faculty with expertise or interests that are appropriate to the student's academic background, goals, and career interests. The graduate degree committee and the student will develop a research project outline and will determine before the work begins whether the project is to result in a thesis or a non-thesis paper. The research project is then approved for initiation and supervised by the committee chairperson.

## FINAL EXAMINATION

Following the completion of the program of study, including the thesis or non-thesis paper, the student will present the thesis or non-thesis paper, open to the public, to the graduate committee for critique and must pass a final oral examination administered by the graduate committee.

## MASTER OF SCIENCE IN EDUCATION

### SECONDARY EDUCATION/FOREIGN LANGUAGES

The Department of Foreign Languages and Literature, in cooperation with the Department of Curriculum and Instruction, offers foreign language teaching fields in French, German, and Spanish as part of the Master of Science in Education (MS in Ed.) degree in secondary education. In addition to meeting the general requirements for admission to the Graduate School and the requirements of the School of Education for admission for study in this program, applicants who wish to pursue a foreign language teaching field within the graduate program in secondary education must receive the approval of the Department of Foreign Languages and Literature.

A jointly advised program ordinarily including 15 hours in French, German, or Spanish will be designed, taking into account each prospective student's background and interests. Throughout the program, it is important to consult with the program advisor in the Department of Foreign Languages and Literature before enrolling in any foreign language courses. Upon completion of the program, students must have accumulated at least 42 semester hours in either French, German, or Spanish (graduate and undergraduate course work combined). Thus, students admitted to the program with less than 27 hours of acceptable undergraduate work will be required to complete more than 15 graduate hours in the selected foreign language in order to satisfy degree requirements. Students must achieve a 3.0 (A=4.0) grade point average in course work in the selected foreign language, as well as an overall average of 3.0. For further information, see "Secondary Education" in another section of this chapter.

### GEOGRAPHICAL STUDIES

#### MASTER OF ARTS

#### MASTER OF SCIENCE

The Department of Geography offers a program of study leading to Master of Arts and the Master of Science degrees in geographical studies. The department also offers a Master of Science in Education (MS in Ed.) degree in Secondary Education in cooperation with the Department of Curriculum and Instruction. The graduate program in geography is designed for the professional geographer seeking a terminal degree and a career in industry requiring spatial skills or for geography teachers in public schools and community colleges. The intensive course structure of the program is meant to stimulate scientific inquiry for those persons who intend to pursue a doctoral program at other institutions.

The objective of the graduate curriculum in geography at SIUE is to produce graduates with: (a) a functional understanding of the field of geography and an in-depth knowledge in one or more areas of departmental competence; (b) the pertinent geographic skills and

knowledge which are applied in resolving contemporary spatial problems; (c) proficiency in geographic research methods and skills in critical thinking and writing.

The graduate program is organized around five areas that reflect the interests and competencies of the graduate faculty. These are Cartography-GIS/Remote Sensing, Biogeography, Historical-Cultural Geography, K-12 Geographic Education, Landforms-Hydrology/Environmental Geography, and Urban Economic Planning/Economic Development. With the assistance of the graduate advisor, students are encouraged to structure their programs around one of these areas and to work closely with graduate faculty having similar interests.

## ADMISSION

Admission is open to geography and non-geography majors with baccalaureate degrees satisfying the general requirements of the Graduate School. Non-geography majors and in some cases geography majors may be required to take prerequisites before beginning the graduate program. Courses taken to remedy any deficiencies will not count as part of the regular program. In addition, the graduate program in geography requires applicants to have at least an over-all grade point average of 2.8 (A=4.0). Applicants who do not meet the required grade point average will be considered if acceptable scores are demonstrated on the Graduate Record Examination.

To facilitate the process of student advising and guidance, all applicants must submit a one-page written statement of their graduate education and study plan along with their graduate admissions forms.

## PROGRAM OF STUDY

A minimum of 30 hours is required for either the Master of Arts or Master of Science, of which 21 semester hours must be geography graduate-level courses. Furthermore, at least 15 hours of the required 30 hours must be at the 500 level. Required courses (12 hours): GEOG 520, 521, 522; plus one seminar in Geography. Electives (12 to 15 hours): These are additional courses related to student needs and interests and faculty expertise. Candidates for the Master of Arts degree must complete a thesis by enrolling in GEOG 599 for 3 credit hours and present a research paper demonstrating research competency. By the end of the first year (or completion of 15 semester hours), students must decide on which option they are pursuing, inform the graduate advisor accordingly, form a faculty committee, and register for either GEOG 595 or 599. This research requirement is the centerpiece of the graduate program.

## FINAL EXAMINATION

The final oral examination will be conducted by the candidate's committee. This examination will cover the content of the thesis or the research paper as well as the fundamental concepts of the discipline as stated in the program's objectives.

## PROFESSIONAL DEVELOPMENT SEQUENCE'S IN GEOGRAPHIC INFORMATION SYSTEMS (GIS)

The Professional Development Sequences (PDS) in Geographic Information Systems (GIS) were developed by the Department of Geography with the support of the Schools of Business and Engineering. Three separate sequences have been developed to accommodate the growing demand for practitioners in this new and specialized field of information and graphics technology that is useful to geography, business, and the social, natural, physical, and applied sciences.

The PDS in GIS provides graduate students and professionals from diverse backgrounds and fields such as economic development, real estate, environmental inventoring and assessment, urban and regional planning, public administration, health services, and infrastructure planning with the requisite education and training needed to apply GIS methodology and technology. This methodology is particularly valuable for applications requiring area definition coupled with demographic, environmental, and market research and analysis.

### ADMISSION

Graduate students who are officially admitted to and in good standing with the Graduate School may enroll in a GIS PDS provided they have the approval of the Geography graduate advisor and PDS coordinator. As long as the student is enrolled in the PDS, the student will have unclassified graduate status. Students desiring to acquire the specialized GIS in a degree program (geography, business administration, or civil engineering), must follow the procedures necessary for admission to that degree program. A student completing the first PDS may apply the core courses (nine semester hours) toward the elective hour requirement for a graduate degree in geography, provided the stipulations for transfer credit are met.

### PROGRAM OF STUDY

The first PDS (Principles and Concepts of Geographic Information Systems) includes: GEOG 418 (Geographic Information Systems), GEOG 422 (Remote Sensing), GEOG 424, (Vector Based GIS), and GEOG 520 (Research Methods). The second PDS (Applied Geographic Information Systems) is comprised of: GEOG 420 (Quantitative Techniques) and GEOG 425 (Raster Based GIS).

The third PDS (Advanced Geographic Information Systems) requires GEOG 427 (Internship) and CS 438 (Artificial Intelligence). Depending on the level of GIS education and training desired, a student may take only the first PDS, the first and second PDS, or all three. Completion of each sequence is a prerequisite for enrollment in the next.

### MASTER OF SCIENCE IN EDUCATION

## SECONDARY EDUCATION/GEOGRAPHY

The Department of Geography, in cooperation with the Department of Curriculum and Instruction, offers a geography teaching field as part of the Master of Science in Education (MS in Ed.) degree in Secondary Education. A jointly advised program ordinarily including 15 hours in geography will be designed, taking into account each student's background and interests. Throughout the program, students must consult with the program advisor in the Department of Geography before registering for any geography courses. Upon completion of the program, students must have accumulated at least 42 semester hours in geography (graduate and undergraduate course work combined). Thus, students admitted to the program with less than 27 hours of acceptable undergraduate work will be required to complete more than 15 graduate hours in geography in order to satisfy degree requirements. Students must achieve a 3.0 (A=4.0) grade point average in the geography teaching field, as well as an overall average of 3.0. For further information, see "Secondary Education" in another section of this chapter.

## HISTORY

### MASTER OF ARTS

The Department of Historical Studies offers a program of study leading to the Master of Arts degree in history. A teaching field in history can also be taken as part of the Master of Science in Education degree in secondary education, offered by the Department of Curriculum and Instruction in the School of Education.

Graduate work in history contributes to students' personal enrichment, life-long learning skills and recognition of their responsibilities as members of a society composed of many communities of memory. The graduate degree in history also serves as important preparation for the pursuit of a variety of career opportunities. In some cases, it is part of the preparation for entry into or continuation of a career in teaching in the secondary schools, community colleges, and universities. For other students, graduate training in history is helpful in cognate fields such as journalism, museum operations, and library science. Some students have used the graduate program as part of their preparation for work in the business community, the legal profession, or government.

### ADMISSION

Application for admission to the program should be made through Graduate Admissions, but inquiries about the program are welcomed by the department's chairperson or graduate program director. Admission to the graduate program in history requires preparation in the discipline equivalent to at least an undergraduate minor. Applicants with a 3.0 (A=4.0) or better undergraduate average overall and in history are accepted in good standing. Applicants with an undergraduate average of 2.5 to 3.0 and a strong record during their junior and senior years will be asked to submit aptitude test scores from the Graduate Record Examination (GRE). The advanced history examination is recommended but not required. Students may enter during any term but should apply for

admission as early as possible prior to the date of the term in which they plan to begin their program of study.

## PROGRAM OF STUDY

Both thesis and non-thesis plans of study are available. Students pursuing either the thesis or the non-thesis plan must complete a minimum of 30 semester hours. Students may, with the approval of the graduate program director, apply up to 9 semester hours from related disciplines toward their credit hour requirements. Students may also apply to participate in an internship program that allows them to obtain practical experience in non-teaching career fields related to history. All students must demonstrate a reading knowledge of a foreign language (modern or classical) either by special examination or by completion of two years of college level study in a single language with an average of C or better. Candidates for the Master of Arts degree in history may pursue one of the two following plans of study:

### Thesis Plan

Students complete 30 hours of graduate credit, 6 of which represent a well-conceived thesis on a topic chosen in consultation with an advisory committee. Enrollment in HIST 599 is required.

### Non-thesis Plan

This plan emphasizes breadth of historical understanding rather than research techniques. Students concentrating in one primary and two complementary secondary areas of emphasis complete 30 hours of graduate credit.

Suggested areas of emphasis can include:

U.S. to 1877	Ancient	Cultural History
U.S. since 1877	Medieval	African Diaspora
U.S. Economic History	Early Modern Europe	Women's History
African-American History	Modern Europe	Intellectual History/History of Ideas
	Middle Eastern History	Asian History

The broad fields may be modified in consultation with the student's advisory committee. Before embarking on any area(s) of emphasis, a student should consult the appropriate faculty member(s).

## FINAL EXAMINATION

Students who follow a thesis plan of study will be required to pass an oral examination on the thesis and related historical material. Upon completion of the course work, students pursuing the non-thesis plan of study must pass a three-hour written examination covering one principal and two secondary fields. The chairperson of the student's advisory committee will provide guidance to the student regarding the nature of the examination. Such guidance will include a list of readings compiled by the advisory committee, which, in conjunction with the student's course work, will serve as the basis for the examination.

## MASTER OF SCIENCE IN EDUCATION

### SECONDARY EDUCATION/HISTORY

The Department of Historical Studies, in cooperation with the Department of Curriculum and Instruction, offers a history teaching field as part of the Master of Science in Education (MS in Ed.) degree in secondary education. A jointly advised program ordinarily including 15 hours in history will be designed, taking into account each student's background and interests. Throughout the program, the student must consult with the history graduate advisor before registering for any courses in history. Upon completion of the program, students must have accumulated at least 42 semester hours in history (graduate and undergraduate work combined). Thus, students admitted to the program with less than 27 hours of acceptable undergraduate work will be required to complete more than 15 graduate hours in history in order to satisfy degree requirements. A student must achieve a 3.0 (A=4.0) grade point average in the history teaching field as well as an overall average of 3.0. For further information, see "Secondary Education" in another section of this chapter.

### COOPERATIVE DOCTORAL PROGRAM

Faculty in the Department of Historical Studies participate with department faculty at Southern Illinois University Carbondale in offering a cooperative program leading to the Doctor of Philosophy degree in History. Prospective students may initiate application procedures at either campus and may enroll in courses at either or both campuses concurrently. The doctoral degree is conferred by Southern Illinois University Carbondale. For application procedures, refer to the section on admission to cooperative doctoral programs in Chapter I of this catalog. For more detailed information, contact the department directly at either Carbondale or Edwardsville.

## MASS COMMUNICATIONS

### MASTER OF SCIENCE

The Department of Mass Communications is dedicated to preparing students for a variety of professional careers in the communications industry or education. Advanced communications instruction is critical for advancement in the fields of print, broadcast

and electronic communications and promotions. This is particularly true as communication businesses are forming alliances in multimedia conglomerates that require advanced knowledge of mass media systems and operations.

Advanced instruction is also important in related fields such as corporate communications, law, public relations, public administration, health care administration and government service. In addition, many students use the graduate degree to secure teaching positions in secondary schools and community colleges, while others advance to doctoral degrees and university service.

### **Areas of Emphasis:**

The Master of Science program in mass communications provides advanced study both theoretical and pragmatic in nature. The program's four areas of emphasis permit students to develop knowledge and skills that are directly applicable to their professional and intellectual goals. These areas of emphasis represent areas of theory, research and practice that are on the cutting edge of the discipline.

**Multimedia - Media Literacy** is an area of emphasis that focuses on theoretical and applied aspects of current trends in media systems including new media technologies. Students are encouraged to develop theses and /or projects that are application oriented.

**Media Studies** is an area of emphasis designed for students interested in pursuing doctoral degrees and need a strong understanding of theory and research methods, or for those who are already media professionals but want to develop a critical, but pragmatic, orientation of the role of media in society.

**Media Law & Ethics** is an area of emphasis that focuses on the legal and political climate impacting the mass media. Special attention is placed on the roles played by government, industry and citizens in the policy-making process and the resulting influence on First Amendment doctrine and media consumption.

**Public Communication** is an area of emphasis that examines research, theory and design of communication campaigns. Drawing on the theories of persuasion, diffusion of innovation, health communication, sense-making, social marketing, and social learning, students develop theses and/ or projects that are application oriented.

### **ADMISSION**

Applicants who satisfy the general admission requirements of the Graduate School will be considered for admission to the master's program in mass communications. A separate application form is required and can be obtained from the Department of Mass Communications. Admission to the program is thus dependent upon approval by both the Graduate School and the Department of Mass Communications.

Applicants to the program should have completed the requirements for an undergraduate degree in mass communications or media studies. Applicants with an undergraduate minor in mass communications or media studies or those with preparation or professional experience in a closely allied field will be considered. However, in all cases applicants should have a cumulative undergraduate grade point average of 3.0 (A=4.0). If admitted to the program, any deficiencies in the applicant's training in the field, as determined by the graduate faculty in mass communications, must be made up by taking appropriate undergraduate mass communications courses without credit toward the graduate degree.

As part of the separate application required by the Department of Mass Communications, applicants should be prepared to submit Graduate Record Examination scores (verbal, quantitative, and analytical portions), a statement of purpose outlining both their interest in graduate study in the field and professional objectives, and three letters of recommendation from references familiar with the applicant's academic or professional work.

### PROGRAM OF STUDY

Thirty semester hours of graduate credit are required for the degree. The following program must be completed:

Required courses (9 hours): MC 500, 501, 503.

Electives (15 hours): selected in consultation with the student's graduate advisor. No more than six hours may be taken outside the Department of Mass Communications.

Thesis or Project (6 hours): MC 599 (Thesis) or MC 598 (Final Project).

### FINAL EXAMINATION

After the thesis or project is submitted and evaluated by the student's advisory committee, the student must successfully complete an oral examination conducted by the committee. The oral examination will focus primarily on the defense of the thesis or project but may also cover the student's program of study.

### MATHEMATICS

#### MASTER OF SCIENCE

The Department of Mathematics and Statistics offers graduate work leading to the Master of Science degree in mathematics. The curriculum offers opportunities for advanced studies in mathematics, operations research, statistics, or computational mathematics. Students can prepare for positions in business, government and industry, for secondary school or community college teaching, or for advanced work leading to the Ph.D. degree in various areas in or related to the mathematical sciences.

The MS program in Mathematics offers options in the following areas: (1) Mathematics, (2) Statistics and Operations Research, and (3) Computational Mathematics. Students must select one of these options for their program of study. Entering students are assigned advisors by the director of the graduate program. The advisor helps design a program of study suited to the individual's background and needs.

The computational mathematics option may be of interest to students with undergraduate majors in mathematics, computer science, engineering, or physics, who need to use computers to solve industrial and scientific problems. Graduates choosing this option receive training in the formulation of mathematical solutions to industrial or scientific problems and the development and implementation of algorithms for the solution of such problems.

The Department of Mathematics and Statistics, in conjunction with the Department of Curriculum and Instruction in the School of Education, also provides course work supporting the Master of Science in Education degree in secondary education with a teaching field in mathematics. Teachers interested in advanced course work in mathematics, but not necessarily in a degree program, should contact either the Department of Mathematics and Statistics or the Department of Curriculum and Instruction.

## ADMISSION

To be considered for admission to a graduate program in the Department of Mathematics and Statistics, applicants should have an undergraduate background that includes MATH 150, 152, 223, 250, 321, and 350, or their equivalents. Applicants must also have a working knowledge of FORTRAN, Pascal, C, or C++, and a grade point average of at least 2.7 (A=4.0) in mathematics and statistics courses. A brief statement of educational and career goals and interests, together with any supporting documents and a description of any special qualifications or relevant professional experience, should be submitted directly to the graduate program director in the Department of Mathematics and Statistics. In some cases, applicants who meet the requirements for admission to the Graduate School, but do not have the required background in mathematics as indicated above, may register as unclassified graduate students until deficiencies have been satisfied to permit admission to degree-seeking status.

## PROGRAM OF STUDY

The program of study requires a minimum of 30 semester hours of graduate credit, at least 15 of which must be at the 500-level. Students must maintain an overall grade point average of 3.0 for all courses taken in the program. Distribution of hours, by area of emphasis, is as follows:

### Mathematics

Required courses (15 hours): MATH 421, 450a, 450b, 451, and either MATH 520 or 550.

Electives (9 to 12 hours): Electives may be selected from 500-level mathematics, statistics, or operations research courses.

Thesis or research paper (3 to 6 hours): MATH, STAT, or OR 599 (Thesis) or MATH, STAT, or OR 595 (Special Project).

#### Statistics and Operations Research

Required courses (18 hours): STAT 480a, 480b, OR 440, and either OR 441 or OR 442. One of the following two-semester sets of courses is required: STAT 581, 582; STAT 584, 588; STAT 579, 589; OR 587a, 587b; OR 585, 586.

Electives (6 to 9 hours): Electives may be selected from 500-level mathematics, statistics, or operations research courses.

Thesis or Research Paper (3 to 6 hours): MATH, STAT, or OR 599 (Thesis), or MATH, STAT, or OR 595 (Special Project). Students in the Statistics and Operations Research Option may substitute additional course work for the thesis or research paper to complete the 30-hour requirement for the degree.

#### Computational Mathematics

Required Courses (15 hours): MATH 421, 465, 466, 565, and one course selected from the following: MATH 552; STAT 575; CS 544, 556.

Electives (12 to 15 hours): Electives may be selected from MATH, STAT, OR, or CS courses, although no more than a total of 10 hours in CS or other area outside of MATH, STAT, and OR may be counted toward the 30 hours required for the program.

Thesis or research paper (3 to 6 hours): MATH 599 (Thesis), or MATH 595 or CS 595 (Special Project).

The 400-level required courses are waived for students who have completed these courses as undergraduates, although graduate credit cannot be given for courses taken as an undergraduate.

#### FINAL EXAMINATION

For students who complete a thesis or research paper, the final examination consists of an oral presentation based on the content of the thesis or research paper. The examination is administered by the student's advisory committee, which includes the student's research advisor and two other members of the graduate faculty. For those students in the Statistics and Operations Research option who select additional course work in lieu of a thesis or research paper, the final exam covers the content from STAT 480 and five 500-level MATH, STAT, or OR courses chosen jointly by the student and advisor.

## PROFESSIONAL DEVELOPMENT SEQUENCES IN MATHEMATICS

The Department of Mathematics and Statistics offers seven Professional Development Sequences. These PDSs are described below in the section “Program of Study.” Each of these PDSs is designed to give students a thorough grounding in one particular subject in mathematics, statistics, or operations research.

### ADMISSION

Graduate students who are officially admitted to, and in good standing with, the Graduate School may enroll in a PDS in the Department of Mathematics and Statistics provided they have the approval of the Graduate Program Director. Students enrolled in a PDS need not be graduate students in the Department of Mathematics and Statistics and they may have the status of “unclassified graduate student.” Students are expected to have completed all courses that are prerequisites to the required courses in the PDS.

### PROGRAM OF STUDY

The programs of study of the PDSs are as follows:

1. Quality and Reliability
  - STAT 484 Reliability Engineering
  - STAT 488 Design and Control of Quality Systems
  - STAT 584 Reliability Theory
  - STAT 588 Advanced Quality Control
2. Design and Analysis of Experiments
  - STAT 480a,b Mathematical Statistics
  - STAT 481 Design and Analysis of Experiments
  - STAT 581 Advanced Experimental Design
3. Applied Statistics
  - STAT 478 Time Series Analysis
  - STAT 481 Design and Analysis of Experiments
  - STAT 482 Regression Analysis
  - STAT 483 Sample Surveys
4. Mathematical Programming
  - OR 440 Deterministic Models
  - OR 587a,b Mathematical Programming
5. Simulation
  - OR 442 Simulation
  - OR 585 Simulation Theory
  - OR 586 Simulation Modeling and Languages
6. Numerical Analysis
  - MATH 465 Numerical Analysis

- |    |                        |  |
|----|------------------------|--|
|    | MATH 466               | Numerical Linear Algebra with Applications |
|    | MATH 565               | Advanced Numerical Analysis                |
| 7. | Differential Equations |  |
|    | MATH 464               | Differential Equations II                  |
|    | MATH 465               | Numerical Analysis                         |
|    | MATH 552               | Theory of Ordinary Differential Equations  |
|    | MATH 567               | Topics in Applied Mathematical Analysis    |

## MASTER OF SCIENCE IN EDUCATION

### SECONDARY EDUCATION/MATHEMATICS

The Department of Mathematics and Statistics, in cooperation with the Department of Curriculum and Instruction, offers a mathematics teaching field as part of the Master of Science in Education (MS in Ed.) degree in secondary education. A jointly advised program ordinarily including 15 hours in mathematics will be designed, taking into account each student's background and interests. Throughout the program, students must consult with the graduate program advisor in the Department of Mathematics and Statistics before registering for any mathematics courses. Upon completion of the program, students must have accumulated at least 42 semester hours in mathematics (graduate and undergraduate course work combined). Thus, students admitted to the program with less than 27 hours of acceptable undergraduate work will be required to complete more than 15 graduate hours in the mathematics teaching field in order to satisfy degree requirements. Students must achieve a 3.0 (A=4.0) grade point average in mathematics course work, as well as an average of 3.0 in all course work. For further information, see "Secondary Education" in another section of this chapter.

## MUSIC

### MASTER OF MUSIC

The Department of Music offers graduate studies leading to the Master of Music (MM) degree with specializations in music education and in performance. The graduate curricula are designed to provide advanced preparation for professional work as a teacher and/or performer. All students must satisfactorily complete placement examinations in music theory and music history/literature, as well as a performance audition (if appropriate to the student's specialization). These examinations must be completed before students are permitted to enroll in courses to be counted towards the degree (except MUS 440, 441, 501, 540, 541, 565, 566, 567) without prior written consent from the graduate adviser.

## ADMISSION

An applicant for admission to the graduate program is expected to have a baccalaureate degree or its equivalent in music and at least a 2.8 (A=4.0) overall grade point average in undergraduate work. An applicant in music education must have state certification in music; an applicant in performance must pass an audition.

The audition for admission to the specialization in music performance can be accomplished in one of the following ways: (1) a personal audition before a graduate auditioning committee; (2) a tape recording of a full recital that may serve as a basis for provisional acceptance to be followed by a personal audition; or (3) the Senior Recital at Southern Illinois University Edwardsville that may serve as the audition, provided the student makes application through the graduate program director in music at least three weeks prior to the recital. A student who fails to matriculate in the master's degree program within one year following the Senior Recital will be required to re-audition.

Entering graduate students concentrating in voice or accompanying should have completed one year each of two of the following: Italian, French, and German. Deficiencies can be removed by enrolling in undergraduate foreign language classes and diction class. Students pursuing an instrumental concentration are not required to pass foreign language proficiency examinations.

## PROGRAM OF STUDY

The Master of Music degree program requires a minimum of 32 semester hours for completion.

### Music Education Specialization

Required courses in music (4 hours): MUS 501, 502.

Required courses in music education (12 hours): MUS 520, 525, 530, 535, and 560. Instrumentalists must also complete MUS 415; vocalists must complete MUS 519a.

Electives in Music Education & Pedagogy (6 hours): Students may substitute up to four semester hours of graduate courses in education if, prior to electing these courses, they submit a written request to the Director of Music Education and obtain approval.

General Music Electives (6 hours): At least one elective in music theory, music history, and ensemble/applied instruction. Students completing the recital with supporting paper must complete a minimum of four semester hours of private applied instruction (MUS 540 or 541) in addition to MUS 591.

Thesis or Graduate Recital with Supporting Paper (4 hours): MUS 599 or MUS 591. These scholarly projects come at the end of graduate study and demonstrate the graduate student's ability to produce an original research document of merit. Most degree candidates complete a thesis, but students desiring to perform a recital and write a

supporting paper instead of the thesis may do so with approval from the Director of Music Education, the applied instructor, and the audition committee.

Like the thesis, the supporting paper must be relevant to music education. This paper may focus on issues such as (1) pedagogical implications of the instrument's construction and capabilities, principally as these relate to the recital repertoire; (2) the history and structure of the recital repertoire; particularly as these relate to performance and instruction; and (3) other factors pertaining to teaching, learning, and performing on the instrument.

### Performance Specialization

Required courses in music (4 hours): MUS 501, 502.

In addition to the required courses in music, the program of study includes 8 hours in the principal area of performance and 2 to 6 hours in music literature. Students pursuing a piano performance concentration must take at least 4 hours of MUS 565 (Advanced Piano Ensemble-Accompanying and Chamber Music).

Electives: Up to 4 hours in the principal applied area and, with approval of the graduate advisor, may include courses outside the field of music to a total of 6 hours. Additional elective hours as needed to complete the minimum program requirement of 32 hours.

Graduate Recital (1 to 4 hours): MUS 590.

Accompanying majors will perform three recitals of ensemble music, including both vocal and instrumental repertoire.

### FINAL EXAMINATION

A comprehensive final examination is required of all students. The examination is based on the student's program of study, including theory, literature, and area of emphasis. The examination, which may be both written and oral, will be conducted and evaluated by the advisory committee. Students who fail the examination may repeat it upon recommendation of the committee.

### PHYSICS

#### MASTER OF SCIENCE

The Department of Physics offers a program of study leading to the Master of Science degree in physics. This is a terminal degree program, designed to produce an up-to-date professional physicist, and is especially appropriate for someone seeking a career in industry. The MS program emphasizes computational and experimental approaches to advanced topics in physics, so that graduates will have developed valuable practical skills as well as fundamental knowledge.

Students planning to embark on a teaching career may, instead of following the MS degree in physics program, enter the Master of Science in Education, major in secondary education program with a teaching field in physics. However, students who plan to teach in a community college are advised to enter the MS major in physics degree program since community colleges generally require a Master of Science degree in the subject field.

Students who plan to earn either degree are governed by the regulations stated in this catalog with respect to scholastic attainment, hours of credit, residency requirements, and time limitation for the completion of the program. The physics degree program is also suited for part-time students who are employed in SIUE's service region since many of the required physics lecture courses are offered in the evenings. The research component of the program requires special arrangements with the physics faculty. Research work done elsewhere will be recognized for credit, provided it meets the approval of the Physics Graduate Committee

Experimental research laboratories and computer facilities are described in the sections in Chapter 1 entitled "Special Instructional, Research and Practicum Facilities" and "Academic Computing Resources." Subscriptions to an adequate number of physics periodicals are maintained in SIUE's Lovejoy Library. The department provides experimental research opportunities in the areas of thin film physics, structural and magnetic ordering of thin films, optical coatings, electrical transport properties of disordered systems, optical and laser spectroscopy, laser materials, ultrafast lasers and magneto-optic Kerr effect studies. Areas of research in solid state theory include the optical properties of crystals and ions in crystals, the theory of laser diodes, quantum optics, and computational simulation of laser behavior. The close interaction between the department's solid state theoretical and experimental interests gives students an opportunity to develop a broad range of skills in the field of applied optics. Active theoretical research is also conducted in elementary particle physics, concentrating on gauge field theories, quantum chromodynamics and weak interactions.

In addition to Competitive Graduate Awards granted through the Graduate School, graduate assistantships with stipends of up to \$6,750 plus tuition for the academic year are available from the Department of Physics. Teaching assistants are assigned teaching duties requiring a total of 20 hours per week during the academic year. This typically involves about six to eight contact hours per week. All assistants are required to carry at least 6 hours of graduate course work. Applications for assistantships should be submitted to the Physics Department's Graduate Studies Committee before February 15. Successful candidates will be notified by April 1. Additional financial support is available during the summer months to qualified students, subject to the availability of funds.

In addition to the general Graduate School requirements, the Department of Physics specifies requirements for the Master of Science degree which are outlined below.

## ADMISSION

Applicants with baccalaureate degrees who satisfy the general requirements for admission to graduate studies may qualify for this program. They must have a 3.0 grade point average (A=4.0) in an undergraduate major in physics or a closely related discipline (such as optics, electrical engineering, materials science, computer science) or approval of the physics graduate faculty.

#### ADVISORY COMMITTEE

Each student's program is initially supervised by the advisory subcommittee of the Physics Graduate Studies Committee, composed of physics graduate faculty members.

Before the end of the first year, the student should consult with various physics faculty members about projects for consideration as a thesis or project topic. When the student and particular faculty member have agreed on a project, the faculty member will choose for the student a thesis or project advisory committee consisting of three to five graduate faculty members. The initiating faculty member will serve as chairperson. These actions will then be reviewed for approval by the Physics Graduate Studies Committee. The advisory committee thus selected is thereafter responsible for advisement of the candidate until the completion of the degree requirements.

#### PROGRAM OF STUDY

##### Foundation Courses

Foundation courses are designed for students entering the program with baccalaureate degrees in engineering, mathematics, or computer sciences. These courses provide students with the necessary background for the computational courses in electrodynamics and quantum mechanics and the experimental methods courses. Hours completed in the foundation courses cannot be applied toward the MS degree. The foundation courses are:

PHYS 405a(3) Electromagnetic Field Theory  
PHYS 415a(3) Wave Mechanics and Atomic Physics

##### Required courses

In order to receive the degree, a candidate must satisfy the general requirements of the Graduate School and must earn at least 30 semester hours of graduate credit in the courses listed below.

##### Experimental Methods Requirements

PHYS 501(3) Advanced Electronic Instrumentation  
PHYS 502(3) Vacuum Techniques and Materials Characterization Methods  
PHYS 503(3) Experimental Methods in Optical Spectroscopy

##### Computational Methods Requirements

PHYS 511(3) Computational Methods in Classical Physics  
PHYS 512(3) Computational Electrodynamics  
PHYS 513(3) Computational Quantum Mechanics

#### Additional Requirements

PHYS 450(3) Solid State Physics  
Electives (3) Selected from PHYS 400/500 courses  
PHYS 598(6) Advanced Research Project in Physics  
or  
PHYS 599(6) Thesis

The student must maintain a grade point average of 3.0 (A=4.0) for all graduate work in physics as well as for all work to be applied toward the degree.

#### Qualifying Examination for M.S. Degree Candidacy

In order to qualify for the degree and to begin research work, the candidate must pass a written examination on undergraduate introductory physics under the supervision of the Physics Graduate Studies Committee. The examination is given in three parts. Part I covers topics from classical mechanics; Part II covers electromagnetic theory; and Part III covers modern physics. The examination is given in the fall semester of the first year of study. The departmental office will provide sample questions from previous qualifying exams to incoming students. Students who fail the exam in the fall may be given a second opportunity in the spring semester. Part-time students may apply to the Graduate Studies Committee requesting a delay in taking this examination.

#### Thesis or Project

Each candidate must either submit to Graduate Records a thesis based on work in an approved physics research program or submit to the Physics Department a detailed report on an approved advanced project. The thesis or project topic is to be approved by the Graduate Studies Committee and pursued under the supervision of the student's advisory committee.

#### Thesis

After a thesis acceptable to the thesis advisory committee is submitted, the candidate must pass an oral examination, covering the thesis work, in order to be certified for the degree.

#### Advanced Project

As an alternative to submitting a thesis based on an approved research program, the physics MS Student may submit to the Physics Department a detailed report on an approved advanced project. Examples of appropriate types of projects are: laboratory equipment design and construction, computational physics, library research on an

advanced topic in physics, practical experimental project, work in physics undertaken in cooperative programs with other departments or institution, and objective evaluation of methodologies of physics instruction.

The project report is to be prepared in conformity with a style manual officially adopted by the Graduate Studies Committee. There will be a final examination to include presentation of project results in seminar format.

## MASTER OF SCIENCE IN EDUCATION

### SECONDARY EDUCATION/PHYSICS

The Department of Physics, in cooperation with the Department of Curriculum and Instruction, offers a physics teaching field as part of the Master of Science in Education degree, major in secondary education. A jointly advised program of 10 to 20 hours in physics is designed taking into account each student's background and interests. A student must achieve a 3.0 grade point average in the physics course work as well as an overall average of 3.0 (A= 4.0). For further information, see "Secondary Education" in another section of this chapter.

## POLITICAL SCIENCE

## MASTER OF SCIENCE IN EDUCATION

### SECONDARY EDUCATION/POLITICAL SCIENCE

The Department of Political Science, in cooperation with the Department of Curriculum and Instruction, offers a political science teaching field as part of the Master of Science in Education (MS in Ed.) degree in secondary education. A jointly advised program ordinarily including 15 hours in political science will be designed, taking into account each student's background and interests. Throughout the program the student must consult with the political science graduate advisor before registering for any courses in political science. Upon completion of the program, the student must have accumulated at least 42 semester hours in political science (graduate and undergraduate work combined). Thus, students admitted to the program with less than 27 hours of acceptable undergraduate work will be required to complete more than 15 graduate hours in political science in order to satisfy degree requirements. Students must achieve a 3.0 (A=4.0) grade point average in the political science teaching field, as well as an overall average of 3.0. For further information, see "Secondary Education" in another section of this chapter.

## PUBLIC ADMINISTRATION

## MASTER OF PUBLIC ADMINISTRATION

The Department of Public Administration offers a graduate program leading to the Master of Public Administration degree, a professional degree designed to prepare persons for management careers in the public and nonprofit sectors. The program serves two types of students: (1) pre-service students who have recently completed a bachelor's degree and wish to use the master's degree to gain entry into a professional career track, and (2) in-service students who have worked for several years in the public sector or nonprofit sector but wish to return to the University to enhance or upgrade their skills and knowledge.

Graduates of the program hold a wide range of positions such as city managers, finance directors, policy analysts, legislative staff, elected officials, health care administrators, military staff and line commanders, police chiefs, fire chiefs, recreation directors, museum directors, and social service staff and managers.

## ADMISSION

Unconditional admission to the program requires an overall undergraduate grade point average of at least 2.7 (A=4.0) or a grade point average for the last two years of 3.0. An undergraduate background in the social sciences or business administration is useful but not required.

Applicants with an overall undergraduate grade point average between 2.5 and 2.7 may be required to take a test administered by the Department of Public Administration to evaluate their writing and analytical skills. Based on the results of this test, the program director may require students to submit scores from standardized examinations such as Graduate Record Exam (GRE), Graduate Management Admission Test (GMAT), or Miller Analogies Test (MAT); and/or resumés summarizing their work experience over the last ten years. Applicants who are denied admission may request a review of their credentials by the department's Student Appeals Committee.

## PROGRAM OF STUDY

The Master of Public Administration degree requires the completion of at least 39 semester hours distributed as follows:

Required courses (21 hours): PAPA 420, 500, 501, 510, 530, 540, 550.

Computer skills (2 hours): Students without microcomputer skills should take PAPA 410 and 411 as early as possible in their course of study. Each of these courses counts for one hour of credit toward their area of emphasis. PAPA 410 and 411 are prerequisites for the core course 510. Students already familiar with microcomputers may take another course in their area of emphasis instead of these computer courses.

Area of emphasis courses (18 hours): Chosen from an approved list of courses in public management or nonprofit administration. The computer skills courses, listed above, also

may be applied to the area of emphasis. Students may also design their own area of emphasis with the consent of their advisor.

## FINAL EXAMINATION

Students submit two papers written during their course work as evidence of their writing skill. Students must also receive a passing grade on a comprehensive written examination.

## SOCIAL WORK

### MASTER OF SOCIAL WORK

The program in social work offers a curriculum leading to the Master of Social Work degree. The curriculum is divided into first-year generalist courses and second-year courses in one of two concentrations: (a) services to children and families, and (b) services in health, mental health, and disabilities settings. The program of study is consistent with the accreditation requirements and curriculum expectations of the Council on Social Work Education, the profession's accrediting agency.

The primary emphasis of the Master of Social Work program is the educational preparation of community-based professional social workers to work with and on behalf of underserved and at-risk populations in southwestern Illinois. The program's primary intended consumers are persons already working in social services without the master's degree and persons with undergraduate preparation in social work. The program seeks to admit a well-qualified and diverse group of students whose stated professional interests are congruent with the program's mission of service to oppressed and underserved populations in the region.

## ADMISSION

To be considered for regular admission to the graduate program in social work, applicants must have earned a baccalaureate degree or the equivalent from an accredited college or university with an overall grade point average of at least 3.0 (A=4.0). Students with less than a 3.0 undergraduate GPA may apply and will be considered on a case-by-case basis.

The baccalaureate degree should reflect a liberal arts perspective in which at least 20 semester hours (or the equivalent) have been earned in social, behavioral, and biological sciences, including human biology. Undergraduates who are nearing completion of a baccalaureate degree may submit an application for admission as a degree-seeking student when they have earned at least 88 semester hours of credit toward the undergraduate degree with a grade point average of at least 3.0 (A=4.0).

A combination of commitment to the program's mission and sensitivity to diversity is evaluated during the admissions process through the applicant's personal statement and

letters of reference. These are regarded as primary factors in admissions decisions, along with records of undergraduate work.

In addition to the application to Graduate Admissions for degree-seeking status, the following materials must be submitted to the Social Work Admissions Committee before an application is considered complete:

1. A personal statement of approximately 750 to 1000 words that discusses the applicant's reasons for pursuing a career in social work and career plans, any special people and experiences that influenced the applicant's decision to pursue a career in social work, evidence of commitment to social and economic justice, and personal strengths and weaknesses. The statement should include narrative information on previous work experience.
2. Three letters of recommendation that discuss the applicant's potential for graduate level academic work, leadership and interpersonal skills, commitment to the mission and values of social work, and, if relevant, professional experience and capabilities. If previous experience includes work in a social services environment, either paid, volunteer, or practicum, at least one letter must speak to that experience. Applicants who have recently received their baccalaureate degree should request at least one letter of recommendation from an undergraduate faculty member. Applicants applying as transfer students from CSWE-accredited master's programs, should request at least one letter of recommendation from a graduate faculty member.
3. Submission of scores on the general portion of the Graduate Record Examination (GRE) or scores from the Miller Analogies Test (MAT).

#### ADMISSION IN ADVANCED STANDING

Applicants may be considered for admission in advanced standing provided the following criteria are met:

1. The applicant holds a baccalaureate degree in social work (BSW) from an institution accredited by the Council of Social Work Education, and the degree was awarded in the 7-year period preceding application for graduate study at SIUE.
2. The applicant's grade point average is 3.0 (A=4.0) or higher in undergraduate study. Applicants with less than a 3.0 undergraduate GPA who completed all course work in the BSW foundation area with a grade of B or better in each course will be considered on a case by case basis.

#### SOCIAL WORK ADMISSIONS COMMITTEE

The Admissions Committee will examine the complete packet of application materials that includes the application for graduate study, personal statement, letters of

recommendation, transcripts, and the GRE or MAT scores. Admission to graduate study in Social Work will be based on a full evaluation of all available materials. The applicant will be notified by MSW Admissions Director as to the decision of the Admissions Committee and will be officially notified of admission by the Graduate Admissions Office.

## PROGRAM OF STUDY

The program of study for the Master of Social Work degree requires a minimum of 30 semester hours for students admitted in advanced standing and 57 semester hours if enrollment in foundation courses is required. Foundation courses are designed for students whose undergraduate work was in a discipline other than social work or social work graduates whose grades in some undergraduate content areas were lower than B. Foundation courses account for 27 hours of graduate study beyond the minimum 30 hours required for degree completion by students admitted in advanced standing. By Graduate School policy, students are expected to complete their degree programs within six years of the first term of enrollment.

### Foundation Courses-27 hours

SOCW 501-Generalist Practice: Individuals and Families-3 hours

SOCW 502-Generalist Practice: Neighborhoods, Organizations, and Communities-3 hours

SOCW 504-Policy and Service Delivery in Social Welfare-3 hours

SOCW 507-Human Behavior in the Social Environment-3 hours

SOCW 514-Descriptive Statistics for Social Work Practice-3 hours

SOCW 515-Research and Evaluation for Social Work Practice-3 hours

SOCW 517-Diversity-3 hours

SOCW 526-Field Instruction I-3 hours

SOCW 527-Field Instruction II-3 hours

### Advanced Courses (Common Courses)-15 hours

SOCW 511-Area Development-3 hours

SOCW 524-Human Behavior: Families, Health, Mental Health, and Disabilities-3 hours

SOCW 528-Advanced Field Instruction III-3 hours

SOCW 529-Advanced Field Instruction IV-3 hours

SOCW 545-Administration-3 hours

SOCW 565-Integrative Seminar and Project

-and-

Children and Families Concentration-12 hours

SOCW 520-Advanced Practice with Children and Families-3 hours

SOCW 530-Advanced Social Policy with Children and Families-3 hours

SOCW 556-Child Welfare Services-3 hours

And One Elective

-or-

Health, Mental Health, and Disabilities Concentration-12 hours

SOCW 580-Advanced Social Policy in Health, Mental Health and Disabilities-3 hours

Two Courses Selected From:

SOCW 583-Advanced Practice in Health-3 hours

SOCW 584-Advanced Practice in Mental Health-3 hours

SOCW 585-Advanced Practice in Disabilities-3 hours

And One Elective

Recommended Elective Courses:

SOCW 535-Program Evaluation

SOCW 537-Psychopathology

SOCW 555-Women, Work, and Family

SOCW 557-Substance Abuse

SOCW 562-Legal Issues in Social Work

SOCW 570-Policy/Practice with Oppressed Populations

SOCW 590-Social Work Practice with African American Families

SOCW 591-AIDS: Issues for Social Work

SOCW 596-Readings in Social Work

The following electives must be approved by the MSW Director:

GRN 487-Psychology of Aging

GRN 588-Programs, Services, and Resources in Aging

SOC 542-Seminar in Gender and Gender Inequality

SOC 574-Seminar in Deviance

SOC 588-Seminar in Criminology

PAPA 577-Needs Assessment and Strategic Marketing

PAPA 578-Strategic Planning and Organizational Development

PAPA 579-Administration and Management of Grantsmanship Process

## FINAL EXAMINATION

Enrollment in SOCW 565 is a requirement to satisfy the concluding element of the degree program. A grade of B or better must be earned in this course for the student to have satisfactorily completed all requirements for the Master of Social Work degree.

In SOCW 565, the student will select a specific social work/social welfare problem, client population, or field of practice, such as school social work, substance abuse, or criminal justice, with an emphasis on integrating and synthesizing library and empirical research with major curriculum areas. Focus is placed on social work values and ethics, social and economic justice, and diverse populations. The program highlights such central issues as urban and rural service delivery, gender roles, social change, children and families, and health and mental health practice.

## SOCIOLOGY

## MASTER OF ARTS

The Department of Sociology offers studies leading to the Master of Arts degree in sociology. Graduate work in sociology involves the advanced study of human social life, its processes, problems, and possible future forms. Areas of study include interpersonal and family relations; social problems such as illness; deviance and crime; race and ethnic relations; employment relations and complex organizations; inequality; social change; theory; research; and data analysis.

Career objectives are furthered with an advanced degree in sociology. The study of sociology at the master's level strengthens students' analytical, research, and writing skills. These skills are useful in positions involving problem analysis, research and data management, effective communication, and leadership. Graduates of the master's program in sociology have used their degree as a stepping stone to a Ph.D. or law degree, as a credential for a teaching position at a community college, as preparation for doing research for private business or public service agencies, or for decision-making positions in diverse occupational settings. The program also accommodates persons who already hold positions in the public or private sector and for whom the graduate degree improves career benefits and opportunities.

## ADMISSION

For prospective students who meet the Graduate School admission requirements, admission to the graduate program in sociology is usually routine for those who also meet the following requirements and standards: 30 or more semester hours in the social sciences (anthropology, political science, economics, psychology, history), including 21 hours in sociology with grades of B or better, and an overall undergraduate grade point average of 2.7 (A=4.0) or above.

Other applicants may petition for admission by furnishing additional information, e.g., Graduate Record Examination (GRE) scores, letters of recommendation, already completed graduate course work, or relevant work experience.

## PROGRAM OF STUDY

Requirements for the Master of Arts degree in sociology include 33 semester hours of graduate credit, distributed as follows:

Required courses (12 hours): SOC 501, 515, 518, 592. SOC 501 and 515 are taken in the first year to ensure a basic knowledge of sociological theory and methods. SOC 592 is taken after completion of 18 hours, including 515, or with consent of the graduate program director. Students must receive a grade of B or higher in all required courses. Also, during the first 12 semester hours of graduate study, only courses with a grade of B or higher can be counted toward the degree.

Electives (15 hours): At least 9 of which are sociology seminar courses at the 500-level. Up to 6 semester hours of electives may be taken in related fields outside sociology when approved by the graduate program director.

Thesis or Internship: By the completion of 18 semester hours and in consultation with the graduate program director, the student must select either: 6 hours of SOC 599 (Thesis) or 3 hours of SOC 593a (Graduate Internship-Experience) and 3 hours of SOC 593b (Graduate Internship-Report). The internship comprises two parts: (1) a supervised work experience in either a research or public service setting (SOC 593a), and (2) a substantial, original written report concerning a sociological issue related to the internship (SOC 593b). The written report required in SOC 593b may take a form other than an academic report. It may be a planning document, a policy statement, or it may follow some other format particular to the work setting of the internship. Normally, the thesis or internship options will not be taken until the student has completed at least 24 semester hours of course work. Additional information can be obtained from the department office, Peck Hall 1230.

## FINAL EXAMINATION

The completed thesis must be defended in a final oral examination administered by the student's thesis committee. Students pursuing the internship option must successfully complete an oral examination administered by the advisory committee. This examination will cover both the internship experience and the written internship report.

## SPEECH COMMUNICATION

### MASTER OF ARTS

The Department of Speech Communication offers a program leading to the degree, Master of Arts, major in speech with a specialization in speech communication. The department, in conjunction with the Department of Curriculum and Instruction, also provides studies leading to the degree, Master of Science in Education, major in Secondary education, with a teaching field in speech.

The goals of the Speech Communication graduate program are to deepen students' understanding of communication theory and to prepare them to analyze, generate, and apply communication research. Students are encouraged to clarify and focus their professional goals and are then assisted in selecting courses in theoretical and applied communication areas that will complement those goals.

Graduates in this specialization often enter careers in applied communication and education (especially at the community college and secondary levels). Some graduates have chosen to pursue PhD degrees in communication. In addition, opportunities for speech communication graduates in business, industry, and other non-teaching professions are expanding. Mastery of communication theory, research methods, and application strategies is particularly relevant for those seeking careers in fields such as

management, training and development, sales, advertising, public relations, community relations, intra-and interorganizational communication, consulting, government service, fund raising, and human resources.

For persons seeking graduate assistantships, application forms (including directions for submitting three letters of recommendation) are available through the department office. Completed assistantship applications and supporting materials usually must be submitted early in the spring semester preceding the academic year for which the appointment is desired. Please contact the Department of Speech Communication for specific information about assistantship application forms, deadlines, and selection criteria.

## ADMISSION

Applicants will be admitted only during the fall and summer terms. In addition to Graduate School admission requirements, the following apply:

1. Applicants must have an undergraduate grade point average of at least 2.75.
2. Applicants must submit a typed statement (of at least 500 words) about the academic and professional goals they plan to attain through their work in the graduate program.
3. Applicants who do not have an undergraduate major in speech communication will be required, if admitted to the program, to demonstrate a knowledge of basic communication theory and research methods before enrolling in any 500-level classes.

This demonstration of proficiency may be accomplished by completing, with a grade of "B" or better, either SPC 329-3 (Communication Research) and SPC 330-4 (Theories of Communication) or proficiency examinations based upon the content of those two undergraduate courses. Please contact the Department of Speech Communication for information about the proficiency examination procedures.

## PROGRAM OF STUDY

Students must complete at least 35 semester hours for this degree. A foreign language is not required. With approval of the student's advisory committee, up to 12 hours of 400-level and 500-level graduate course work from outside the speech communication curriculum may be applied toward the minimum of 35 hours.

All students admitted to the program are required to enroll in the program core, which consists of two courses (8 hours total): SPC 500-4 (Seminar in Communication Theory) and SPC 501-4 (Communication Research Methods and Tools). The core courses must be completed with a minimum grade of "B" the first time that they are offered after the student is admitted. Students who fail to meet this stipulation will be restricted from enrolling in any other 500-level courses until the program core requirement is met.

Responsibility for the development of the remainder of the student's program of study rests with the student and student's advisory committee. The Department of Speech Communication offers a variety of courses designed to complement special professional interests in such areas as organizational communication, interpersonal and group communication, public relations, and communication education.

Students may choose either a thesis or a non-thesis plan of study. These plans are comparable, since all 500-level courses in the department will require students to conduct individual or group research projects. Those research projects will directly involve the students (regardless of the study plan that they have chosen) with the tools and methods used by researchers within the given content area of each course.

#### Thesis Plan

Students who select the thesis plan must declare their intentions by the time they have completed 18 semester hours of graduate work. They will complete a minimum total of 29 hours of course work. They will confirm their ability to conduct research in speech communication by submitting a thesis for six semester hours of credit in SPC 599.

#### Non-thesis Plan

Students who select the non-thesis plan will complete a minimum total of 35 hours of course work. They will confirm their ability to conduct research in speech communication through the research projects and papers that they complete during their course work.

#### FINAL EXAMINATION

The comprehensive examination is administered during each student's final term of course work. For students following the thesis plan, the examination is oral and focuses primarily on a defense of the thesis but may also cover the planned program.

For a student electing the non-thesis plan, the examination, which comprises both written and oral elements, includes both the required core courses and the individually planned program. The written examination is composed of two sections. One section focuses on speech communication theory and research methodology from which the student must answer successfully one item on theory and one on research. The other section of the written examination focuses on the individual program of study. The student must respond successfully to two items from this section in which a choice is offered among items prepared by the individual's advisory committee. The oral component then provides a supplemental assessment of the student's performance on the written portion of the examination.

#### MASTER OF SCIENCE IN EDUCATION

#### SECONDARY EDUCATION/SPEECH COMMUNICATION

The Department of Speech Communication, in cooperation with the Department of Curriculum and Instruction, offers a speech communication teaching field as part of the Master of Science in Education (MS in Ed.) degree in secondary education. A jointly advised program ordinarily including 15 hours in speech communication will be designed, taking into account each student's background and interests. Throughout the program the student must consult with the speech communication graduate advisor before registering for any courses in speech communication. Upon completion of the program, the student must have accumulated at least 42 semester hours in speech communication (graduate and undergraduate work combined). Thus, students admitted to the program with less than 27 hours of acceptable undergraduate work will be required to complete more than 15 graduate hours in speech communication in order to satisfy degree requirements. The student must achieve a 3.0 (A=4.0) grade point average in speech communication as well as an overall average of 3.0. For further information, see "Secondary Education" in another section of this chapter.

## SCHOOL OF BUSINESS

Dean: M. Robert Carver

The School of Business offers the Master of Business Administration degree (MBA) and an MBA with a specialization in management information systems, Master of Science in Accountancy **with a specialization in taxation**, Master of Arts and Master of Science degrees in Economics and Finance, and Master of Marketing Research degree. The School of Business cooperates with the Department of Computer Science in offering a graduate program leading to the Master of Science in Computing and Information Systems degree.

## FOREIGN EXCHANGE PROGRAMS

The School of Business has developed student and faculty exchange programs with business schools and universities in France, Great Britain, Mexico, and the Netherlands. These programs permit students to register for course work at SIUE while completing the requirements for credit at one of these foreign institutions. Students interested in studying abroad can obtain more information and an application from Dr. Stanford Levin, Director, International Exchange Programs, Economics Department, Box 1102, School of Business, Southern Illinois University Edwardsville, Edwardsville, Illinois, 62026 (618-650-2542).

## ACCREDITATION

All degree programs offered through the School of Business are accredited by AACSB The International Association for Management Education. In developing each candidate's program, the program directors follow AACSB standards with respect to the foundation areas of business. Graduate preparatory courses to meet these requirements

are available for those who do not have an educational background in business. In no case will a student be required to complete more than 24 additional graduate hours to fulfill this requirement.

## ACCOUNTANCY

### MASTER OF SCIENCE IN ACCOUNTANCY

The Master of Science in Accountancy (MSA) degree program provides an advanced professional plan of study designed to prepare individuals for careers as professional accountants in public accounting, industry, or the not-for-profit and governmental sectors. The degree program provides graduates with the skills and knowledge needed (1) to enter the accounting field and (2) to form a foundation for advancement to the highest levels of the profession. Completion of this program will provide, in most cases, the educational qualifications required to sit for the Uniform Certified Public Accountant Examination. Upon completion of the MSA program, candidates should have acquired the technical knowledge that will serve as a basis for preparation for the relevant professional examination required for certification as a Certified Public Accountant, Certified Management Accountant, or Certified Internal Auditor.

The MSA program builds upon the student's general education and foundation knowledge of business and accounting to provide a deeper understanding and greater knowledge of business and accounting, including specific areas of study. In addition, the program emphasizes the development of problem-solving, reasoning, and analytical abilities, as well as communication and other interpersonal skills.

The MSA program is designed to be completed on either a full-time or part-time basis. Full-time students normally can complete the program courses and elective requirements in 1 or 2 years. Depending on the number of courses taken each semester, part-time students may be able to complete the program and elective requirements in 2 to 4 years.

## ADMISSION

Applicants for admission to the MSA program must meet the requirements for admission to the Graduate School and must complete the GMAT with a minimum score of 425 and a score of at least 20 each on the verbal and quantitative portions of the examination. Based on the formula where the admission score equals 200 times the undergraduate grade point average ( $A=4.0$ ) plus the GMAT score, admission requires a total score of 1000, or 1050 using the grade point average of the last two years of undergraduate course work. In addition, students must submit GMAT Analytical Writing scores. International students also must earn a minimum TOEFL score of 550 and submit a score on the Test of Spoken English (TSE).

No graduate accounting courses may be taken for credit toward the MSA degree without first completing the following admission prerequisite courses, or their equivalent, with a

grade point average of 2.7 or better: ACCT 200 or 501, ACCT 301, 302, 311, 312, 315, 321, and MS 502. These courses do not carry credit toward the MSA degree. Prerequisite courses taken prior to admission to the MSA program ordinarily must have been taken within 6 years of the date the applicant is admitted. An MSA student undertaking prerequisite courses may be terminated from the program if (1) the student's grade point average calculated over all prerequisite courses taken at SIUE falls below 2.7 for more than 1 semester, (2) the student receives a grade of less than C in any prerequisite course, or (3) the student fails to make satisfactory progress.

Successful completion of the MSA program requires that the candidate have excellent written and oral communication skills and an aptitude for analyzing complex problems. In addition, computers will be used extensively in the program. Weaknesses in communication skills, computers, or statistics should be corrected through remedial courses or self-study prior to seeking admission to the program.

### PROGRAM OF STUDY

The MSA degree requires completion of a minimum of 30 semester hours of course work and a maximum of 48 hours beyond the prerequisite courses. No more than 12 hours of 400-level course work may apply toward elective requirements of the MSA degree. Specific courses, or their equivalents, used to satisfy a student's undergraduate degree requirements may not be used by that student in satisfying the program or elective requirements of the MSA degree. No more than 9 elective hours taken outside the School of Business will count toward the MSA degree. At the discretion of the program director, a maximum of 6 semester hours of elective requirements may be satisfied by transfer of credit from other institutions. For transfer credit, a grade of B or better must have been earned in the course. Ordinarily, business courses may be transferred only from institutions accredited by AACSB The International Association for Management Education. Courses transferred may not have been used to satisfy requirements for any other degree.

Each student's program of study must be approved by his or her graduate advisor. The program of study consists of three parts following completion of all admission prerequisites:

(1) Foundation Courses (up to 18 semester hours): For students not having completed appropriate courses in the business disciplines within a reasonable time prior to admission, course work will be determined after evaluation of prior courses completed in the area and grades received in those courses, the time since completion of the prior course work, and other evidence of currency of their business knowledge. Determinations of deficiencies made by the program director are final. An undergraduate business degree from SIUE, or the equivalent, completed within 6 years prior to admission to the MSA program normally will satisfy the foundation course requirements. The foundation courses constituting the core areas of business are: ECON 518, FIN 513, MGMT 514, CMIS 515, MKTG 516, and PROD 519.

(2) Program Courses (9 hours): ACCT 510, 580 (taken in the last semester of study), and one of the following courses: ACCT 531, 541, 561.

(3) Elective Courses (21 hours; the same course may not be used to meet both the program course and elective course requirements):

(a) Accounting Electives (6 to 12 hours; at least 3 hours in courses numbered above 530): ACCT 401, 431, 531, 541, 551, 552, 561, 565, 567, 581, 597, 598.

(b) Other Electives (9 to 15 hours; no more than 9 hours outside the School of Business): ECON 415, 417, 437, 445, 461, 462, 514, 515, 535, 543, 545, 561; FIN 450, 541, 542, 543; MGMT 551, 553, 561; CMIS 450, 464, 468, 472, 515, 520; MBA 531, 532, 533, 534; additional courses with the approval of the program director (may include courses outside the School of Business).

To remain in good standing in the MSA program, students must maintain a 3.0 (B) grade point average in all courses taken in the MSA program (excluding prerequisite courses) and in all program and approved elective courses. Students who are not in good standing for more than one semester may be terminated from the program.

To graduate with the MSA degree, students must complete all program requirements and have a 3.0 grade point average in all courses taken in the MSA program (excluding prerequisite courses) and in all program courses and approved elective courses. Only program and elective courses taken within a 6-year period preceding the completion of all requirements for the MSA degree will count toward the degree. Foundation courses taken to provide the common body of knowledge in business must be taken within an 8-year period preceding the completion of all requirements for the degree.

## ACCOUNTANCY SPECIALIZATION IN TAXATION

MSA Students may opt for a specialization in taxation. To complete the tax specialization, MSA students should take ACCT 552 Taxes and Business Decisions in place of ACCT 531, 541 or 561 as a program course. Accounting electives should include ACCT 550 Tax Research, ACCT 557 Corporate Taxation, and two additional tax courses from the following list: ACCT 551 Advanced Tax Topics, ACCT 553 Taxation of Flow-Through Entities, ACCT 554 Multinational Taxation, ACCT 556 Personal Tax Planning.

## RESEARCH PROJECT AND FINAL EXAMINATION

A significant research project resulting in a written report and a final examination based on the approved program of study are required of each student to be awarded the MSA degree. Both requirements will be completed as part of the requirements for ACCT 580. A satisfactory grade must be received on both the research report and final examination for completion of the degree requirements.

Ordinarily, the final examination will be administered as part of ACCT 580. The examination will include questions related to the students' program of study, their work in ACCT 580, and their research projects. Some parts of the final examination may be common to all students, while other parts will relate to the individual programs of study of the specific students. Examination committees will consist of the instructor of ACCT 580 and two other members of the Graduate Faculty of the School of Business appointed by the program director. For a student to pass the final examination, at least two of the three members of the examination committee must concur that the student should receive a passing grade.

Students who do not pass the MSA final examination on the first attempt will have one additional opportunity to complete the final examination. A student who fails the final examination on the second attempt will be required to complete additional course work specified by the program director before attempting the final examination a third time. Students who do not pass the final examination after three attempts will be terminated from the program.

The MSA research project must be completed satisfactorily as a requirement for passing ACCT 580. However, work on the project is not restricted to ACCT 580. Students are expected to begin developing a research topic and proposal as early as possible in the program and should make substantial progress on the project during completion of the two program courses that are prerequisites to ACCT 580.

Each student's program will be tailored to that individual so all students can follow their interests through integrated sequences of courses. The entire program is designed to place emphasis on critical thinking, research, and problem-solving. Therefore, the research requirement is not meant to be viewed as the isolated requirement of a single course but the culmination of the student's program of study.

## BUSINESS ADMINISTRATION

### MASTER OF BUSINESS ADMINISTRATION

The Master of Business Administration (MBA) degree is designed to develop business managers who have the ability to lead others in a global economy. The curriculum emphasizes the social, economic, political, regulatory, and cultural forces that shape the external environment in which an organization operates, as well as the management of human and other resources within the organization. The program aims at preparing individuals for managerial careers leading to advancement through middle and upper level positions in business and not-for-profit organizations. The foundation courses are designed to provide students from diverse professional and educational backgrounds a basic understanding of the various business disciplines. In the program courses, students build on their understanding of the individual disciplines and focus on the interrelationships among the disciplines by solving cases and business problems

in the context of the entire firm and its environment. The program is based on the premise that managers need a broad knowledge base as well as functional expertise. Students should select elective courses that prepare them more thoroughly for specific careers.

Courses are offered in both the evening and weekend formats. The evening format is used for courses scheduled on the Edwardsville campus. Courses at Belleville Area College are scheduled only in the weekend format. Evening courses are 10 weeks in length with meetings once each week. Weekend courses are six weeks in length with classes on the third and sixth weekends.

## ADMISSION

Applicants to the Master of Business Administration program should complete the following steps: apply for admission to the Graduate School (including providing appropriate support material, e.g., official transcripts) and take the Graduate Management Admission Test (GMAT) prior to beginning course work.

Admission to the MBA program is based on a variety of factors including undergraduate grade point average, overall score on the Graduate Management Admission Test (GMAT) and its parts (Verbal, Quantitative, and Analytical Writing), previous work in other graduate programs, and business experience. The average student admitted to the program recently has a cumulative undergraduate grade point average (UGPA) of 2.8 (out of 4.0), GMAT of 510 with 30 quantitative, 28 verbal, and 3.5-4.0 analytical writing scores.

The admission process involves two stages: an administrative review and review by the Admissions and Retention Committee. Students are admitted after either stage of the process. The initial administrative review considers only admission score and GMAT scores as outlined below. Students who meet the following criteria are admitted after the administrative review stage and are not further reviewed by the faculty committee. To gain administrative admission, students must have:

1. an admission score of at least 950, where admission score equals 200 times the four-year cumulative undergraduate grade point average ( $A=4.0$ ) plus the GMAT score; and
2. a GMAT score of at least 400 with raw scores of at least 20 on both the verbal and quantitative portions of the test and an analytical writing score of at least 4.0.

Students who are not admitted at the administrative review stage are reviewed further by a faculty committee, which considers additional factors in a student's background such as previous universities attended, specific courses taken, GPA, undergraduate major, business experience, evaluation of the actual writing sample provided with the GMAT, and other factors the committee deems appropriate. Students who were not admitted at the administrative review stage can be admitted after the faculty review based on their potential for success in the program. All final admission decisions are made by the program director.

For students who are not admitted at the administrative review or after a faculty review, an appeal process is available so that they might be admitted as an exception. These appeals are handled by the Admission Appeals Committee. Admission recommendations from this Committee shall be considered exceptions. Students seeking an exception are required to provide the committee with a statement why such an exception should be granted. The committee makes recommendations to the program director whose decision is final.

An applicant with an undergraduate grade point average of 2.8 or higher may be permitted to enroll in classes for one term prior to taking the GMAT. In most cases, no more than 6 credit hours of course work can be taken prior to receipt of the scores by the School of Business Student Services Office. Applicants who hold a PhD, MD, or the equivalent in a recognized field from an accredited university need not submit a GMAT score. International students must also earn a minimum score of 550 on the paper-based TOEFL or 213 on the computer-based TOEFL.

Students are expected to enter the program with competencies in computer software and statistics. Students without this background in statistics will be required to complete MS 251, Statistical Analysis for Business Decisions, or its equivalent. Students without this background in computer software are encouraged, but not required, to complete MIS 108 or its equivalent. Completion of either or both of these courses will not earn academic credit in the MBA program.

## PROGRAM OF STUDY

### MBA Foundation Courses

Foundation courses are designed for students who do not have an academic background in one of the business disciplines. The number of hours to be taken in foundation courses is determined after an analysis of the candidate's previous academic background. The foundation requirements may be met by receiving a waiver based upon a transcript evaluation of previous undergraduate and graduate course work, passing a proficiency examination (if available), or by completing each of the foundation courses in the student's curriculum with a grade of C or above. A department, at its discretion, may grant a request for a proficiency examination for a foundation course if the student has a demonstrable basis for success and if the student has not enrolled previously in the course. The foundation courses are:

ACCT 501, Financial Accounting

ACCT 502, Managerial Accounting

ECON 518, Theory of the Firm

FIN 513, Corporate Finance

MGMT 514, Management of Organizations

CMIS 515, Decision Support Systems

MKTG 516, Marketing Management

PROD 519, Operations Management

#### MBA Program Courses

The MBA degree requires a minimum of 30 hours of graduate level course work consisting of four required courses (12 hours) plus six elective courses (18 hours). Students complete four required courses in the second year: MBA 531, External Environment of Business; MBA 532, International Business Environment; MBA 533, Leadership, Influence and Managerial Effectiveness; and MBA 534, Strategic Management. The external environment course focuses on the ethical, social, legal, economic, political, and regulatory forces that control and shape a firm's environment and, in turn, affect managerial responsibility and organizational performance. This course is integrated with the strategic management course through the use of common cases. The international business course provides students with an awareness of the environment in which international companies operate. The course covers technical issues related to doing business abroad, such as competitive advantage and the balance of trade, as well as such qualitative factors as the culture and the political environment of selected countries. The leadership course focuses on the theoretical foundation of leadership principles and the practical methods that can be used to implement these principles in the workplace. Students learn how to deal effectively with others, how to identify the skills of employees, and how to use these skills to achieve the best performance by the group. In the strategic management course, students learn to analyze a firm's strategy and direction in the context of the entire organization. Students sharpen their decision-making skills by forming teams to compete in a complex, computerized business simulation.

Elective courses provide the opportunity for concentration in one or more of the business disciplines. Each student must take a total of 18 hours (6 courses) of electives. Of the six courses, students must select one course each in finance, marketing, and computer management and information systems. The remaining three elective courses can be taken in one or more of the following areas: accounting, economics, finance, international business, management, computer management and information systems, marketing, operations research, and production. Electives may also be chosen from the courses offered by departments in other schools with the approval of the program director. Such courses, however, must be related to the student's career objectives and must be approved by the director of the MBA program. Only six hours of 400-level course work may be used to satisfy MBA degree requirements.

#### FINAL EXAMINATION AND THESIS

In addition to completing the required course work, students must also satisfy a comprehensive examination requirement. To satisfy this requirement, the student must earn a grade of B or above in MBA 534. Students who earn a grade below B will be given a second opportunity to complete the course in a satisfactory manner. Performance of individuals who fail to earn a B or above in the second attempt will be reviewed by two additional members of the School of Business Curriculum Committee who may recommend that the student be dropped from the program or, in rare instances, be permitted a third attempt to earn a grade of B or above under another instructor.

A student may elect to write a thesis for not less than 3 nor more than 6 hours of credit. Thesis hours are counted as elective hours. The thesis must be defended before the candidate's advisory committee.

## BUSINESS ADMINISTRATION

### SPECIALIZATION IN MANAGEMENT INFORMATION SYSTEMS

The School of Business also offers an MBA degree with a specialization in management information systems (MIS). The MBA/MIS specialization is an advanced professional degree that combines management skills with the study of information systems analysis and design. The program is designed to develop the student's ability to formulate and implement management information systems that will promote the achievement of the goals and objectives of the organization. Emphasis is placed upon the theory of information systems analysis and the modeling of the decision-making process in designing effective information systems.

Through the choice of elective courses in the MIS emphasis area, students can combine the study of management information systems with application to a specific discipline. Courses within the program are modified frequently to keep pace with changes in employer expectations and developments in information systems. Upon completion of the degree, persons are qualified for positions such as advanced systems analysts, supervisors of computer and data processing centers, and managers of information centers.

Program content attempts to balance theory with applications through case studies and projects that emphasize the effectiveness of organizational information systems in achieving the objectives for which the systems are designed. Factors such as the organizational structure and information requirements are studied within the context of ethical, economic, and technical factors that affect the design of systems.

After completing all of the foundation and program courses for the MBA program, students will complete any four of the following elective courses:

CIS 570, Software Systems Design

CIS 572, Rapid Application Development and Prototyping

CIS 564, Database Design

CIS 540, Management of Information Systems Development

CMIS 520, Managing Technology

## ECONOMICS AND FINANCE

### MASTER OF ARTS

### MASTER OF SCIENCE

The Departments of Economics and Finance offer two programs of study, one leading to the Master of Arts (MA) degree in Economics and Finance and the other leading to the Master of Science (MS) degree in Economics and Finance. Both degree programs offer a common required core curriculum followed by emphasis in either Applied Economics or Finance. The MA degree program is intended for the student who wishes to continue with academic work leading to an advanced degree, such as a PhD, DBA, law or other professional degree, or to pursue a career in teaching at the community college level. This program provides a firm understanding of theory, research methodology, concepts and principles in economics and finance; such preparation is essential to successful doctoral studies. The MA curriculum also provides a solid foundation for students interested in attending law school, especially in tax, antitrust, corporate (mergers and acquisitions) or securities law specialties.

The MS degree program is designed for those students who plan to pursue a professional career in business or government upon graduation. The emphasis of this program is on the development of expertise in the application of concepts and methodology. The program's flexibility enables the student to acquire the specialized skills required of professionals in business, industry, government, or other public service. Graduates of this program will be prepared for career opportunities offered in financial analysis and services, business economics, or in many areas of government service. Financial analysts work in commercial and investment banks, brokerage houses, mutual funds, life and health insurance companies, real estate investment trusts, pension funds, and corporate finance departments of non-financial firms. Business economists prepare forecasts, perform cost analysis and market studies, develop and evaluate pricing strategies, and assist in corporate planning. Students will also find that this degree prepares them well for many positions with government agencies, particularly those offices addressing budget, revenues, debt management, forecasting, or economic development.

### ADMISSION

Applicants for unconditional admission to the MA or MS program are required to meet the minimum admission requirements of the Graduate School and to have an undergraduate degree with a major or minor in economics or finance from an accredited institution. Their academic records should reflect proficiency in intermediate economic

theory and statistics within the last seven years prior to admission. Applicants with deficiencies may be admitted subject to passing written examinations on economic theory and statistics or successful completion of courses in intermediate microeconomic theory (ECON 301), intermediate macroeconomic theory (ECON 302), and statistics (MS 251 or 502) or their equivalents. Credit earned to remove such deficiencies generally may not be applied to the graduate degree program. Knowledge of the fundamentals of calculus is highly recommended.

In addition to the information above, applications for financial assistance must include scores from either the Graduate Record Examination or the Graduate Management Aptitude Test. Although decisions regarding financial assistance will be made primarily on the basis of undergraduate performance and scores from these tests, applicants are also encouraged to submit letters of recommendation. All inquiries about admissions should be directed to the Graduate Program Director.

### PROGRAM OF STUDY

Within the graduate student's first term of enrollment, an advisory committee of at least three graduate faculty will be formed to oversee and direct the student's program in accordance with Graduate School policies. This committee will be responsible for monitoring the student's progress in the program. For students selecting an Applied Economics emphasis, the committee will include a graduate adviser from the economics faculty. For students selecting a Finance emphasis, the committee will include a graduate adviser from the finance faculty.

Candidates for the MA and MS degrees must satisfactorily complete a minimum of 30 hours of graduate course work for an emphasis in Applied Economics or a minimum of 36 hours for an emphasis in Finance. Required courses for either degree include ECON/FIN 400 and 415 and ECON 501 and 502. ECON 500a and 500b, 506 and 518 do not count for credit toward either the MA or MS in Economics and Finance.

In addition to the requirements above, candidates for both MA and MS degrees must complete an emphasis in either Applied Economics or Finance. An emphasis in Applied Economics requires six hours of electives in economics (at least three at the 500 level) and six hours of electives in finance (at least three at the 500 level). Candidates for the MS degree must complete six additional hours of electives in economics or finance. Candidates for the MA degree must complete a thesis in economics for six semester hours. All elective courses must be approved by the economics graduate adviser.

An emphasis in Finance requires pre-degree completion of FIN 430 and 431 or the equivalent. Required quantitative courses include ECON/FIN 515 and 517. Required finance courses include FIN 525, 528, and 532. The student must also complete at least three additional hours of economics at the 500 level. Candidates for the MS degree must add FIN 596 and an additional three hours of economics. Candidates for the MA degree must complete a thesis in finance for six semester hours. All elective courses must be approved by the finance graduate adviser.

## FINAL EXAMINATION

Each candidate for the MA degree must prepare and successfully defend a thesis for 6 hours of credit. Upon or before completion of 21 hours, a student selects a thesis chairperson and a thesis committee of at least two additional members of the graduate faculty in consultation with the Graduate Program Director. This committee and its chairperson will then assume responsibility for overseeing the student's satisfactory completion of the remaining degree requirements. All candidates for the MA degree are required to pass a final oral examination with questions concentrating on, but not limited to, the thesis topic and related material. Candidates will ordinarily have a maximum of two attempts to pass the final examination. All candidates for the MS degree with an emphasis in Applied Economics are required to pass a written comprehensive examination that includes questions on economic theory, quantitative methods, and finance. Candidates will ordinarily have a maximum of two attempts to pass the comprehensive examination. All candidates for the MS degree with an emphasis in Finance must complete FIN 596 with a grade of B or higher and demonstrate proficiency in economics and finance. Candidates will ordinarily have a maximum of two attempts to complete FIN 596.

## MARKETING RESEARCH

### MASTER OF MARKETING RESEARCH

The Master of Marketing Research (MMR) degree is designed to prepare individuals with diverse backgrounds for careers in marketing research and to meet the need of American businesses, government, or nonprofit organizations for competent marketing research professionals. The program's goal is to develop professional marketing researchers who: (1) understand business operations, marketing processes, and the complexity and nature of marketing problems; (2) can apply research to help solve management problems, define marketing opportunities, and aid in decision making; (3) can plan, execute, and manage a research project; (4) know marketing research techniques and specialties; (5) can write a cogent, well-organized research report; and (6) can communicate research proposals, results, conclusions, and recommendations clearly and effectively. The MMR graduate will be well prepared to practice marketing research and to advance professionally as a marketing research professional.

Successful completion of the MMR degree requires that the person have above average written and oral communication skills and an aptitude for analyzing complex problems using quantitative models and statistics. Applicants who have deficiencies in these areas are advised to take refresher courses in English, oral communication, finite mathematics, or statistics prior to seeking admission to the program.

The curriculum combines course work involving a balance of theoretical studies and applications through projects with emphasis on the role of research and the effectiveness of marketing decisions within organizations. MMR courses stress the development of

strong analytical skills through the solution of class-assigned problems and exercises with courses that use projects, cases, and simulations to illustrate the application of these skills. Courses are scheduled in the evenings and on weekends so that students who are employed full time can also complete the degree requirements.

## CORPORATE SPONSORED GRADUATE ASSISTANTSHIP/INTERNSHIP PROGRAM

In addition to graduate fellowships and department-based graduate assistantships, the MMR program provides all admitted students with the possibility of corporate-sponsored assistantships/internships. A number of corporations and marketing research agencies provide funding and opportunity to gain valuable research experience for qualified MMR students. Further information can be obtained from the MMR graduate program director.

## ADMISSION

Applicants to the MMR program should complete the following steps: apply for admission to the Graduate School; complete a personal history form that can be obtained in the School of Business Student Services Office; submit to the director of the MMR program an essay articulating effectively the applicant's career goals as these relate to interest in pursuing the program; and take the Graduate Management Admission Test (GMAT) prior to beginning course work. Applicants must also submit three letters of recommendation from individuals who can attest to the applicant's qualifications and likelihood of successful completion of degree requirements.

Admission to the MMR program is highly selective and competitive. The program director and a faculty committee decide who will be admitted based on a balanced appraisal of each component of the applicant's credentials. As a general rule, strong undergraduate performance (high grade point average), above average GMAT (including the analytical writing component) scores, and an intense interest in pursuing a career in marketing research are essential prerequisites for admission to the MMR program. Applicants who hold a PhD or equivalent in a recognized field from an accredited university need not submit a GMAT score. Applicants who do not meet these criteria are referred to the MMR Admissions and Retention Committee, which makes an admission recommendation to the program director. The decision of the program director is final.

## PROGRAM OF STUDY

Students pursuing the MMR degree must complete a minimum of 36 semester hours beyond the foundation course requirements. Foundation courses are designed to remove deficiencies in the student's background with respect to the foundation areas in business. A maximum of 18 hours of course work must be taken to meet the common body of knowledge requirements for graduate study in marketing research. The foundation courses are ACCT 501, FIN 513, MGMT 514, CMIS 515, MKTG 516, ECON 518. Foundation courses may be waived by transcript evaluation or proficiency examination. (See the section in this chapter on the MBA program of study for details on obtaining

waivers.)

Students are expected to enter the program with competencies in general mathematics (linear algebra, decision theory, integral and differential calculus), computer software, and statistics. Students without such a background are required to complete necessary courses. Completion of these courses will not earn credit in the M.M.R. program.

The MMR curriculum consists of program (required) courses, electives, and a research project.

Program courses (18 hours): MKTG 530, 540, 541, 544, 546, 548.

Elective courses (15 hours): Students must take a minimum of six hours from each of the following two areas.

(1) Research Methodology: PAPA 412, 420; ECON 415, 417, 515; MKTG 478; MS 550; PSYC 520, 521; STAT 481, 487, 583, 589, and

(2) Managerial Enhancement: ENG 491; MKTG 466, 476, 542, 543, 545, 560, 595, 597. A maximum of nine semester hours may be taken in 400-level courses with approval of the program director.

Marketing research project: MKTG 589 (3 to 6 hours) must be completed satisfactorily by all students. This course, in which the student designs and completes a marketing research project, is an integrated experience and will ordinarily be the last course taken. The research proposal must be approved by the program director and the student's advisory committee and be undertaken in cooperation with a business firm or other organization.

## FINAL EXAMINATION

Upon completion of the marketing research project, the written report must be in a form suitable for presentation to the management of the participating organization and must be defended orally before the student's advisory committee.

## MASTER OF SCIENCE IN COMPUTING AND INFORMATION SYSTEMS

A Master of Science in Computing and Information Systems (MS in CIS) degree is offered jointly by the graduate faculties of the Department of Computer Science in the School of Engineering and the Department of Computer Management and Information Systems in the School of Business. The CIS program focuses on the areas of information systems, software engineering, user and application interfaces, computer system architectures, and networks. The program prepares students to work as practitioners in positions such as software developer, system integrator, technology manager, systems programmer, project leader, and application software specialist.

The program is housed in the School of Engineering. For further information, review the program description listed under the School of Engineering.

## SCHOOL OF EDUCATION

Dean: Gary L. Hull

The School of Education offers programs of study leading to graduate degrees in education and in psychology as follows: specialist degree in educational administration; Master of Science in Education with majors in educational administration, elementary education, instructional technology, kinesiology, secondary education, and special education; Master of Science with a major in speech pathology; specialist degree in school psychology; Master of Arts in psychology with specializations in clinical-adult, general psychology, and industrial-organizational psychology; and Master of Science in psychology with a specialization in community-school psychology. Most programs of study for the Master of Science in Education degree include a general professional core of studies consisting of EDUC 501 (Research Methods in Education), EDUC 515 (Advanced Educational Psychology), and EDFD 506 (Analysis of Educational Issues). The School of Education also offers an interdisciplinary Graduate Sequence in gerontology.

In addition to graduate degree programs, described later in this section, the Department of Educational Leadership offers graduate courses in several supporting areas of study, including educational psychology, educational research, foundations of education (including multicultural education), and guidance.

## ACCREDITATION

All graduate degree programs in education are fully accredited by the National Council for the Accreditation of Teacher Education. The Illinois State Board of Education has approved the following programs leading to state certification: general administrative, superintendent, school business official, school psychology, and special certificate in instructional media with optional supervisory endorsement. The Master of Science, major in Speech Pathology, is accredited by the Educational Standards Board of the American Speech-Language-Hearing Association.

## ADMISSION TO GRADUATE STUDY IN THE SCHOOL OF EDUCATION

Persons seeking admission to a graduate program in the School of Education must complete two separate applications: one to the Graduate School as a classified graduate student seeking a degree in a specific program in education, psychology, or speech pathology and one to the specific program in the School of Education. Both Graduate School application forms and program application forms are available from the Office of the Associate Dean in the School of Education.

After a faculty admissions committee in the specific program acts upon the application, the applicant is notified by the Graduate School of the result. Ordinarily, the procedure requires about one academic term to complete.

Applicants should carefully examine the information that accompanies each program application since requirements vary among programs. Persons seeking additional information about a particular program should contact the department offering the program. Information on the location of each department can be obtained from the Office of the Dean of the School of Education.

## EDUCATIONAL ADMINISTRATION

### SPECIALIST DEGREE

The Department of Educational Leadership offers a program of study leading to the specialist degree in educational administration. Programs of study can be designed for persons seeking superintendencies and for persons desiring career positions as principals, supervisors, or school business officials.

### ADMISSION

General requirements for admission to the specialist degree program include: a Master of Science in Education degree or its equivalent; a grade point average of 3.25 (A=4.0) or higher in graduate study, and a score of 38 or higher on the Miller Analogies Test (MAT). A separate program application form that solicits additional admissions data must also be completed.

### PROGRAM OF STUDY

Thirty-three semester hours of acceptable graduate credit are required for the specialist degree in educational administration. Three areas of emphasis are available: general administrative, superintendent, and chief school business official. General requirements are as follows:

#### General Administrative Area of Emphasis

Required courses (24 hours)

Instructional Leadership: EDAD 525, 545 and either 535, 582 or 598.

Management of Public Schools: EDAD 510, 520, 530.

Schools and Public Policy: EDAD 500, 505.

Internship practicum/Principalship (3 hours): EDAD 590.

Field study (3 hours): EDAD 595.

Cognates/directed electives (3 hours).

Superintendent Area of Emphasis

Required Courses (21 hours)

Governance of Public Schools: EDAD 555, 560.

Management of Public Schools: EDAD 565, 570, 585.

Educational Planning: EDAD 575, 580.

Internship practicum/Superintendency (3 hours): EDAD 591.

Field study (3 hours): EDAD 595.

Cognates/directed electives (6 hours).

Chief School Business Official Area of Emphasis

Required courses (24 hours)

School Business Management: EDAD 520, 565, 567, 585.

School Organization and Administration: EDAD 500.

School Finance and Fiscal Planning: EDAD 510, 587, 589.

Internship practicum/Principalship (3 hours): EDAD 590.

Field study (3 hours): EDAD 595.

Cognates/directed electives (3 hours).

#### FINAL PROJECT AND EXAMINATION

Each student is required to submit a final project developed under the direction of a designated faculty member and to present an oral defense of the project before the advisory committee.

#### EDUCATIONAL ADMINISTRATION

#### MASTER OF SCIENCE IN EDUCATION

The Department of Educational Leadership offers studies leading to the Master of Science in Education (MS in Ed.) degree in educational administration. Two areas of emphasis are available: general administrative and chief school business official.

The degree program provides students with a broad theoretical background that facilitates career movement in a variety of administrative positions. Students may choose course work, internships, and field experiences related to specific leadership posts such as principalships at all levels, business managers, and central office personnel.

Completion of the Master of Science in Education degree in educational administration ordinarily satisfies Illinois and Missouri certification requirements for the following endorsements: general administrative (required for elementary, middle school, and high school principals, assistant principals, assistant superintendents, or other positions carrying multi-department or building-wide responsibility); and chief school business official. Courses are generally acceptable for certification in other states. Individuals who may have unusual certification problems should consult with the chairperson of the department for additional information. Illinois certification for various administrative endorsements may also be met through the specialist degree in educational administration.

## ADMISSION

General requirements for admission to graduate study at the master's level in educational administration are the same as those of the Graduate School. Applicants are also required to take the Miller Analogies Test (MAT) and provide the score to the program admission committee. A separate program area application form must also be completed.

## PROGRAM OF STUDY

Thirty-six semester hours of graduate credit are required for the Master of Science in Education degree with a major in educational administration. General requirements for each of the two areas of emphasis are as follows:

### General Administrative Area of Emphasis

General professional core (9 hours): EDUC 501, 515; EDFD 506a or 506b.

Required courses (27 hours)

Instructional Leadership: EDAD 525, 545, 550, and either 535, 582, or 598.

Management of Public Schools: EDAD 510, 520, 530.

Schools and Public Policy: EDAD 500, 505.

### Chief School Business Official Area of Emphasis

General professional core (9 hours): EDUC 501, 515; EDFD 506a or 506b.

Required courses (24 hours)

School Business Management: EDAD 520, 565, 567, 585.

School Organization and Administration: EDAD 500.

School Finance and Fiscal Planning: EDAD 510, 587, 589.

Internship practicum/Principalship (3 hours): EDAD 590.

## FINAL EXAMINATION

All candidates for the master's degree in educational administration must pass a written comprehensive examination. Students should notify their graduate advisers of their intent to sit for the examination during their final semester of course work. The examination consists of questions covering the required specialization in educational administration. Responses to questions are evaluated for content (knowledge and information gained from course work and clinical experiences related to the most recent educational research and practice); form (appearance of responses, organization, style, and mechanics); and rationale (supporting basis from the literature in educational administration). Students will be given two opportunities to pass this examination.

## ELEMENTARY EDUCATION

### MASTER OF SCIENCE IN EDUCATION

The Department of Curriculum and Instruction offers a program leading to the Master of Science in Education (MS in Ed.) degree with a major in elementary education. Within this program, students are offered a choice from among three areas of study: general elementary education, reading, and early childhood education.

The general elementary education area is intended to provide advanced preparation and to improve the instructional effectiveness of elementary classroom teachers. Completion of the reading program prepares the graduate to serve as a remedial reading teacher or as a reading consultant at the district or school level. The early childhood education area is for persons who are pursuing teaching and other careers in the primary grades as well as in early care and pre-kindergarten settings. Completion of this option qualifies a student for the Illinois Early Childhood Education Certificate, which is valid for teaching children from birth through third grade. For the student who possesses a bachelor's degree in early childhood education or a certificate in early childhood education, the program of study is comprised of elective courses rather than required courses.

## ADMISSION

General requirements for unconditional admission to the graduate program in elementary education include a bachelor's degree and a grade point average of 3.0 or above (A=4.0) during the last two years of undergraduate work. An applicant with a grade point average between 2.5 and 2.9 may also be considered for admission. All applicants must take the Miller Analogies Test (MAT) and obtain a minimum score of 32.

An applicant who does not meet the department's requirements for admission can appeal to the Department Graduate Admissions and Review Committee and present additional evidence of competence to undertake graduate degree work. Additional evidence may include an interview with the student and/or probationary course work of 9 semester hours of graduate work in which a B average is maintained. The Graduate Admissions and Review Committee's decision is based on all available relevant information.

### PROGRAM OF STUDY

Ordinarily, candidates for the Master of Science in Education degree with a major in elementary education will complete a 36-semester hour program of study planned in consultation with an adviser. Each approved program of study has three components:

General professional core (9 hours): EDUC 501, 515; EDFD 506a or b.

Elementary education core (6 hours)

Early Childhood Emphasis: CI 412, 530; or

Reading and General Elementary Emphasis: CI 510, 561.

Area of emphasis (21 hours): Courses selected from elementary education, reading, or early childhood education.

Students may elect to prepare a thesis. Those who do so should refer to the thesis section in Chapter 1 of this publication and consult with their advisers.

The possession of a valid elementary or early childhood teaching certificate is a requirement for graduation.

### FINAL EXAMINATION

All candidates must pass a final examination. Candidates who select the thesis option will be required to pass a final oral examination, the content of which focuses on the thesis. Candidates who do not select the thesis option will either present a seminar in which the student prepares in writing and discusses orally a topic that has been studied on an independent basis or will sit for a written examination based on the content of courses taken.

## INSTRUCTIONAL TECHNOLOGY

### MASTER OF SCIENCE IN EDUCATION

The Department of Educational Leadership offers a program of study leading to the Master of Science in Education degree with a major in instructional technology. The program prepares individuals for a variety of instructional development and technology-related positions in education, business and industry. Options within the instructional technology program include Teaching, Learning, and Technology and Instructional Design.

The Teaching, Learning, and Technology option enables teachers and other school personnel to plan, implement, and evaluate technology-based instructional systems. Students pursuing this option will become knowledgeable users of technology as well as designers of curriculum and instruction that effectively utilize technology to improve student learning. Emphasis is also placed on the production of effective materials and strategies for learning, evaluation of hardware and software for use in schools, and coordination of efforts to improve student learning through technology integration.

Persons who wish to enter instructional development positions in business and industry are encouraged to pursue the instructional design option. Emphasis is placed on instructional systems design and on the use of technology in instruction. The instructional design option is based on the integration of systems theory and psychological theories and on the use of interactive media for learning and instruction. Students learn through laboratory experiences and practical applications of these theories.

### ADMISSION

The general requirements for admission and retention are the same as for the Graduate School. In addition to these requirements, applicants must submit scores received on the Miller Analogies Test (MAT). Applicants may arrange for an appeal interview with the Admissions Committee if admission is denied.

### PROGRAM OF STUDY

Students must complete 36 semester hours for a master's degree in instructional technology. Courses of study for the two areas of emphasis are as follows.

General professional core (9 hours): EDUC 501, 515; EDFD 506a or 506b.

Option I: Teaching, Learning, and Technology (27 hours)

Required courses: IT 481, IT 500, IT 510.

Final Project (IT 598-3 hours) and 15 hours of electives, 9 of which must be in instructional technology; or

Thesis (IT 599-6 hours) and 12 hours of electives, 9 of which must be in instructional technology.

Option II: Instructional Design (27 hours)

Required courses: IT 500, 510.

Final Project (598-3) and 18 hours of electives, 12 of which must be in instructional technology; or

Thesis (599-6) and 15 hours of electives, 9 of which must be in instructional Technology.

## FINAL EXAMINATION

All degree candidates must pass a final comprehensive examination. Candidates who elect to prepare a thesis will also present an oral defense of the thesis.

## KINESIOLOGY

### MASTER OF SCIENCE IN EDUCATION

The Department of Kinesiology and Health Education offers a program of study leading to the Master of Science in Education degree with a major in kinesiology. Within the degree program four emphases are available. The Exercise Physiology option is designed to prepare students for careers in scientifically based exercise programs of research, health maintenance, cardiovascular risk identification, and rehabilitation; the Pedagogy option is designed for students interested in the analytic study of teaching and/or curriculum development in physical education. It serves primarily those teaching in area public schools who wish to pursue advanced study to enhance their teaching qualifications. The Sport and Exercise Behavior option is designed for individuals interested in the relationship between psychosocial variables and physical activity. This area will appeal to individuals wishing to pursue careers in coaching, teaching, fitness/wellness, and rehabilitation. The Sport Management option is designed to prepare students with management skills for careers as athletic directors or physical education department heads in public schools or community colleges or as administrators in the burgeoning sport industry, including professional and amateur sport organizations and corporate settings.

## ADMISSION

Selection for admission is determined by the graduate faculty in kinesiology in the Department of Kinesiology and Health Education. In addition to Graduate School admission standards, program admission criteria include grade point average achieved in

previous professional preparation, experience, communication skills, and recommendations from professional associates indicating the applicant's competency and interest in the discipline and the related professions.

Admission may be granted to applicants who have a bachelor's degree and meet the aforementioned criteria, although any prerequisites necessary to study in a particular emphasis are at the discretion of the program adviser.

## PROGRAM OF STUDY

A non-thesis plan of study is available for the Pedagogy option and the Sport Management option. Both a thesis and non-thesis plan of study are available for the Exercise Physiology and Sport and Exercise Behavior options.

Pedagogy Option: (33 hours)

General professional core (9 hours): EDUC 501, 515, EDFD 506

Required Courses (21 hours): KIN 499, 510, 515, 520, 530, 535, 552 or 500

Electives: 3 hours

Exercise Physiology Option: (Thesis, 30 hours; non-thesis, 33 hours)

Required courses (21 hours): KIN 499, 505, 510, 515, 540, 552 or 500, 560

Thesis (9 hours): KIN 599 (6 hours), PSYC 520 (3 hours)

Non-Thesis: Electives (12 hours)

Sport and Exercise Behavior Option: (Thesis, 30 hours; non-thesis, 33 hours)

Required courses (18 hours): KIN 499, 500, 505, 510, 515, 552

Thesis (12 hours): KIN 599 (6 hours), PSYC 520 (3 hours), Electives 3 hours

Non-Thesis: Electives (15 hours)

Sport Management Option: (33 hours)

Required Courses (30 hours): KIN 499, 510, 515, 535, 552 or 500, 555, plus EDAD 500 and 9 hours of specified courses in Finance, Marketing, and Management of Sport

Electives: 3 hours

## FINAL EXAMINATION

Non-thesis candidates must demonstrate competence in the content comprising the major (kinesiology and area of emphasis) by successful performance on a final examination, which consists of a written and oral presentation. Candidates who elect to prepare a thesis must present an oral defense of the thesis.

## PSYCHOLOGY

### SPECIALIST DEGREE

The Psychology Department offers the specialist degree in school psychology. This program provides advanced academic and professional training for students pursuing a career in school psychology. The program leads to certification as a school psychologist in the State of Illinois and follows the guidelines recommended by the National Association of School Psychologists.

### ADMISSION

Admission to this program requires a master's degree in psychology or a related field. The current admission standards of the master's degree programs also apply to the Specialist Degree. Prospective students must submit applications to the SIUE Graduate School and the Psychology Department and must submit scores on the Graduate Record Examination. For complete information, see "Admission" under the master's degree portion later in this section.

### PROGRAM OF STUDY

The Specialist Degree in school psychology requires a minimum of 32 hours beyond the Master of Science degree.

Required Courses (15 hours): PSYC 565, 594 plus three education courses (selected in conjunction with advisor).

Required practicum (4 hours): PSYC 524.

Internship (10 hours): PSYC 596.

Thesis (3 hours): PSYC 599.

### FINAL EXAMINATION

Candidates for the Specialist Degree must submit a thesis proposal for approval by a thesis advisory committee, carry out the proposed thesis, submit a written report, and complete an oral examination.

## PSYCHOLOGY

## MASTER OF ARTS

## MASTER OF SCIENCE

The Department of Psychology offers graduate programs leading to the Master of Arts degree in psychology (Clinical-Adult, General Psychology, and Industrial-Organizational specializations) and the Master of Science degree in psychology (Community-School specialization).

The Clinical-Adult specialization provides students intending to work with adult clients with clinical skills appropriate to the master's level training. This training leads to possible employment in community mental health agencies, corrections, hospitals, and other organizations providing clinical psychological services.

The General Psychology specialization is primarily intended to prepare students for advanced graduate work at the doctoral level. Students learn valuable analytical skills through active participation in independent or faculty sponsored research. They also develop a broad base of knowledge through course work and teaching practica.

The specialization is also intended to prepare students for professional employment. Students learn critical thinking and data analysis skills that are attractive to both public and private research firms. The teaching sequence prepares students to become instructors at academic institutions that require a Masters degree. Students can also earn a Certificate in Gerontology.

The Industrial-Organizational specialization provides knowledge and skills to analyze and solve problems of motivation, leadership, communication, job satisfaction, productivity, training, and others faced by business and organizations. Training in this specialization leads to possible employment in administration, supervision, organizational development, and personnel positions.

The Community-School specialization trains students to work in organizations serving children, adolescents, and families. Graduates work as clinical child psychologists in community mental health agencies, corrections, hospitals, and residential treatment centers. This specialization provides the foundation for entry into the specialist degree program for students intending to be certified as school psychologists.

Students in any specialization can earn a certificate in Gerontology and participate in the teaching sequence, which prepares students to teach in community and four-year colleges.

## ADMISSION

Individuals satisfying the requirements for admission to the Graduate School may apply for admission to psychology graduate programs. A separate application form is required

and can be obtained from the Department of Psychology or it can be accessed from our website at : [www.siu.edu/PSYCHOLOGY](http://www.siu.edu/PSYCHOLOGY). Admission is thus dependent upon approval by both the Graduate School and the Psychology Department. In addition to other requirements, applicants must submit scores on the Graduate Record Examination (GRE) verbal, quantitative, analytical, and psychology areas to the Psychology Department.

All application materials must be submitted by March 1 in order for the applicant to be considered for admission for the following fall semester. Applicants are not admitted for enrollment in the spring or summer terms. Applicants should have an undergraduate grade point average of at least 3.0 (A=4.0) for the last two years of undergraduate work and a combined verbal-quantitative GRE score of at least 1000. Exceptions may be made for special circumstances.

While an undergraduate major or minor in psychology is desirable, qualified applicants from other academic backgrounds may enter the psychology graduate program provided they have had at least one course each in general psychology, experimental psychology, and statistics. The clinical-adult, industrial-organizational, and community-school specializations each have additional required courses that must be completed prior to beginning the graduate program. Information on these courses can be obtained from the Department of Psychology.

#### PROGRAM OF STUDY

The Master of Arts degree program requires 42 semester hours of graduate credit to complete the specializations in Clinical-Adult, General psychology, and Industrial-Organizational psychology. The Master of Science degree with a specialization in Community-School psychology requires 40 semester hours for completion.

##### Clinical-Adult Specialization

Required courses (24 hours): PSYC 514, 520, 521, 531, 537b, 538, 541b, 543b.

Required practicum (6 hours): PSYC 523.

Electives: (9 hours).

Thesis (3 hours): PSYC 599.

##### General Psychology Specialization

Required courses (21 hours): PSYC 510, 511, 514, 517, 520, 521, and 557 or 586.

Required research (6 hours): PSYC 526, 591

Required teaching (6 hours): PSYC 519, 527

Electives (6 hours)

Thesis (3 hours): PSYC 599.

#### Industrial-Organizational Specialization

Required courses (27 hours): PSYC 520, 521, 571, 572, 573, 574, 575, 576, 580 plus one course selected from a 400 or higher-level management course approved by your adviser (3 hours).

Required practicum (4 hours): PSYC 525.

Electives: 5 hours.

Thesis (3 hours): PSYC 599.

#### Community-School Specialization

Required courses (30 hours): PSYC 514, 520, 521, 537a, 539, 541a, 543a, 553, 556, 557.

Required practicum (7 hours): PSYC 524.

Thesis (3 hours): PSYC 599, or

Final Project (3 hours): PSYC 598.

#### FINAL EXAMINATION

Candidates for the Master of Arts must submit a thesis proposal for approval by a thesis advisory committee, carry out the proposed thesis, submit a written report, and complete an oral examination. Candidates for the Master of Science degree who do not intend to pursue the Specialist Degree must also successfully complete a thesis. MS candidates intending to pursue the Specialist Degree may choose to complete an acceptable research paper rather than a thesis.

#### GERONTOLOGY

##### GRADUATE SEQUENCE (CERTIFICATION OF COMPLETION)

The interdisciplinary graduate sequence in gerontology was developed by the All-University Committee on Gerontology to help meet the personnel needs in the field of aging. Qualified students and community professionals can obtain a Graduate Certificate of Completion in Gerontology by successfully completing the interdisciplinary gerontology sequence.

The gerontology program is a member of the Association for Gerontology in Higher Education, the Mid-America Congress on Aging, the Illinois Alliance for Aging, and the Illinois Geriatric Education Network. Faculty and staff also hold numerous individual memberships in local, state, and national organizations concerned with research, training, and service programs in the field of aging.

The gerontology sequence provides students and community professionals from diverse disciplinary backgrounds and professional programs with a working knowledge of the basic processes of aging; the needs, characteristics, and problems of the aging; and a practicum experience utilizing programs, agencies, and institutions serving the aging. Individuals who complete the gerontology interdisciplinary graduate sequence are qualified for positions in a variety of agencies and organizations serving older persons. These agencies and organizations include area agencies on aging, business and industry, senior citizen centers, long-term care facilities, educational institutions, hospitals, mental health centers, social service organizations, nutrition sites for the elderly, hospice programs, retirement centers, local and state government, recreation programs, and churches and synagogues.

## ADMISSION

Degree-seeking graduate students who are officially admitted and in good standing with the Graduate School may enroll in courses in the gerontology sequence provided they have the approval of their degree program academic advisor and the gerontology program director. Community professionals with a minimum of a baccalaureate degree who are not planning to pursue a graduate degree may take the interdisciplinary graduate sequence in gerontology upon admission to the Graduate School and with approval of the gerontology program director. Unclassified graduate students must have the approval of the gerontology program director prior to registration in any of the gerontology courses. All students seeking the Graduate Certificate of Completion in Gerontology must complete the application for admission to the gerontology program and submit three letters of recommendation.

## PROGRAM OF STUDY

The four courses comprising the sequence in gerontology are PSYC 487 (Psychology of Aging), GRN 587 (Interdisciplinary Seminar in Gerontology), GRN 588 (Programs, Services, and Resources in Aging), and GRN 598 (Practicum in Gerontology). The sequence may be taken either in conjunction with a graduate degree program or independently. Students also may access gerontological education and training by participating in the workshops, conferences, public lectures, and seminars sponsored by the gerontology program.

## SECONDARY EDUCATION

## MASTER OF SCIENCE IN EDUCATION

The Department of Curriculum and Instruction offers a course of study leading to the Master of Science in Education (MS in Ed.) degree with a major in secondary education and a concentration in any one of 13 teaching fields. The program is designed for professional educators who hold teaching positions in middle schools, junior and senior high schools, community colleges, or adult education agencies. The approved teaching fields are: art, biology, chemistry, English, foreign languages, geography, history, mathematics, physics, political science, reading, science, and speech communication.

The curriculum addresses two sets of program objectives: those related to professional education and those related to the teaching field. The following objectives are appropriate to professional education: (1) to develop the ability to read with understanding published research in the teaching field; (2) to increase knowledge of philosophical, political, or social aspects of education; (3) to increase knowledge of how adolescents learn and develop; and (4) to develop the ability to critique one's own instruction. Teaching field objectives are: (1) to increase knowledge associated with a specific teaching field (e.g., art); (2) to increase knowledge associated with a related specific teaching field (e.g., an algebra teacher might wish to take advanced work in geometry); and (3) to enhance the ability to teach certain skills (e.g., science laboratory skills). Thus, the program generally aims at providing opportunities for self-renewal in pedagogy.

## ADMISSION

In addition to the Graduate School requirements, the requirements for admission include a grade point average of at least 3.0 (A=4.0) during the last two years of undergraduate study, a grade point average of 3.0 or better in the teaching major, and a minimum raw score of 32 on the Miller Analogies Test (MAT). Applicants who do not meet these program requirements may be considered for admission; however, some conditions may be applied to that admission. Applicants may not enroll in any courses applicable to the graduate degree until they have consulted with the director of the graduate program in secondary education and with the graduate advisor in the teaching field.

## PROGRAM OF STUDY

The program of study is more than a series of individual courses. While courses must necessarily have a beginning and an end, students should view the program in its entirety. A minimum of 36 semester hours is required for degree completion. These are ordinarily distributed as follows:

General professional core (9 hours): EDUC 501, 515; EDFD 506a or 506b.

Secondary education (12 hours): CI 510. Additional hours are determined in consultation with the student's advisor.

Teaching field (15 hours): These hours are determined in consultation with the teaching-field advisor. The student must complete at least 42 semester hours in the teaching field

(graduate and undergraduate course work combined) in order to be eligible for the degree. Thus, some students' programs of study will include more than 36 hours in order to satisfy this requirement.

While there is no general thesis requirement for this degree, a candidate may elect to prepare a thesis. Candidates who elect to prepare a thesis should refer to the thesis section in Chapter 1 of this publication and consult with appropriate advisors regarding adjustments in the final examination process.

## FINAL EXAMINATION

Candidates must pass both written and oral final examinations based on the content of courses taken in the program. For candidates who prepare a thesis, the final oral examination will include a defense of the thesis.

## MASTER OF SCIENCE IN EDUCATION

### SECONDARY EDUCATION/READING

The Department of Curriculum and Instruction provides course work and advisement supporting the teaching field in reading within the Master of Science in Education degree, major in secondary education. The reading curriculum leads to a reading endorsement at the elementary or secondary level. Applicants to this program must meet admission requirements of the Graduate School and the School of Education. Students admitted to the reading teaching field follow the program of study described earlier in this section.

## MASTER OF SCIENCE IN EDUCATION

### SECONDARY EDUCATION/SCIENCE

Science is offered as a teaching field as part of the Master of Science in Education degree, major in Secondary Education. Applicants for admission to the science teaching field must receive approval from the science advisor and from the Department of Curriculum and Instruction. A jointly advised program ordinarily consisting of 15 hours in science courses (these may include courses with a Biology, Chemistry, Physics, or Science designator) will be designed, taking into account each student's background and interests. Elective courses must be taken in at least 2 of the 3 subject areas of Biology, Chemistry, and Physics. Throughout the program the student must consult with the science advisor before enrolling in any science courses. Upon completion of the program the student must have accumulated at least 42 semester hours (graduate and undergraduate course work combined) in appropriate courses in the science disciplines. Students admitted to the program with less than 27 hours of acceptable undergraduate work in science will be required to complete more than 15 hours, and overall program requirements in these cases will exceed 36 semester hours. Students must achieve a grade point average of 3.0 (A=4.0) in the science teaching field, as well as an overall grade point average of 3.0.

## SPECIAL EDUCATION

### MASTER OF SCIENCE IN EDUCATION

The Department of Special Education offers a program of studies leading to the Master of Science in Education (MS in Ed.) degree in special education. This graduate program is designed to provide training for persons engaged in the supervision of special education programs and to facilitate the advanced training of certified special education teachers. The program provides advanced studies in the areas of behavioral disorders, learning disabilities, mental retardation (educable, trainable, and severe/profound), social maladjustment, and giftedness. Individuals are prepared in the areas of early childhood, elementary, secondary, vocational/career education, and supervision/administration and may function in roles such as special class teacher, resource room teacher, consulting teacher, supervisor, administrator, or work study coordinator.

### ADMISSION

In addition to the requirements of the Graduate School, the Department of Special Education requires applicants to present a score of 40 or higher on the Miller Analogies Test (MAT). Those who fail to achieve the minimum score on the test may be considered for admission on the basis of grade point average and professional experience.

Applicants complete a separate application for admission to the graduate program in special education. The form is available in the Office of the Associate Dean in the School of Education. Applicants are required to meet with their assigned advisors within one month of notification of admission to develop and file their official programs of study.

### PROGRAM OF STUDY

The minimum number of semester hours required to complete the degree program for the Master of Science in Education in special education is 36. In some instances, additional hours may be required; these are determined in a conference between the student and the assigned graduate advisor. Requirements for completing the degree are as follows:

General professional core (9 hours): EDUC 501, 515; EDFD 506a or 506b.

Special education core (12 hours): SPE 500, 514, 575, 595

Final Project: Preliminary planning of a final project is initiated in SPE 500. SPE 595 includes completion of the final project and oral presentation.

Electives in special education (15 hours): Electives must be taken at the 500-level. Some electives may be taken outside of Special Education with prior approval of the Graduate Advisor.

For those individuals seeking special education teaching certification as well as a master's degree, the Department of Special Education offers all course work, preclinical experiences, and student teaching experiences needed for certification in the State of Illinois in special education in several disability areas: Behavioral Disorders/Emotional Disturbances, Educable Mentally Handicapped, Trainable Mentally Handicapped, and Learning Disabilities. Special education course work leading to certification is taken at the 400-level and is not applicable to the requirements of the master's degree.

#### FINAL EXAMINATION

The final examination, which covers the content of special education courses, is taken during the last semester of the student's degree program. The examination, which is in written form, is given twice annually. Students must attain a grade of at least B to pass the examination. Students may take the examination twice.

#### SPEECH PATHOLOGY

#### MASTER OF SCIENCE

The Department of Special Education and Communication Disorders offers a program leading to the Master of Science degree in speech-language pathology. The graduate program in speech-language pathology is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association (ASHA).

Students who complete the program are prepared to accept professional opportunities in health care facilities, community clinics, private practice, and public schools. The program combines classroom instruction and research and provides opportunities for graduate externships in a variety of settings. Students completing the prescribed program are eligible for eventual certification by the State of Illinois and/or ASHA.

#### ADMISSION

To be admitted to the graduate program students must submit copies of undergraduate and graduate transcripts and scores from the Graduate Record Examination (GRE). A score of at least 1200 on the GRE is required. The student must submit to the department three letters of recommendation, with at least one being from outside their current program, and a 300-word statement of career goals to demonstrate competence in written communication.

Students must meet the general admission requirements of the Graduate School that includes a 3.0 grade point average (A=4.0) however, most students accepted to the graduate program in speech-language pathology in the past years have had an overall grade point average of 3.5 or above. The majority of students have completed a bachelor's degree in speech-language pathology with specific undergraduate course work.

Some provision is made for students with degrees in related fields following the completion of undergraduate course work in speech-language pathology and audiology.

## PROGRAM OF STUDY

Thirty-three semester hours of acceptable graduate credit are required to complete the Master of Science degree in speech-language pathology. This includes nine core courses, two electives and a culminating comprehensive examination or eight core courses, one elective, and a culminating thesis.

Students in the program must maintain a grade point average of 3.0 in all graduate courses. No credit is allowed toward a graduate degree in courses in which a grade below C is earned. The program has two plans through which the program requirements are fulfilled.

### Thesis Plan

Required courses (24 hours): SPPA 503, 520, 541, 542, 544, 545, 547, 548.

Electives (3 hours) within the specialization or in related areas.

Thesis (6 hours): SPPA 599.

### Non-thesis Plan

Required courses (27 hours): SPPA 503, 520, 541, 542, 544, 545, 546, 547, 548.

Electives: (minimum of 6 hours) within the specialization or in related areas.

## FINAL EXAMINATION

All students must pass either a written or an oral comprehensive examination administered by the graduate faculty in speech-language pathology. The examination will cover the broad areas of speech and hearing sciences, speech-language pathology, and audiology. All students may choose the thesis option in lieu of a written examination.

## SCHOOL OF ENGINEERING

Dean: Harlan H. Bengtson

The School of Engineering offers Master of Science degree programs in civil engineering, computing and information systems, electrical engineering, and mechanical engineering. These programs are designed to meet the needs of people who are employed full time in the region served by the University and who wish to pursue a master's degree by taking courses in the evening. Part-time students who take advantage of summer term

offerings can complete a degree program in two to four years. Full-time students can complete a degree program in approximately one and one-half years.

## CIVIL ENGINEERING

### MASTER OF SCIENCE

For the Master of Science degree in civil engineering, courses are offered primarily in the areas of structural and environmental engineering. Most core courses are offered annually; other courses are generally offered once every two years.

### ADMISSION

In addition to meeting the Graduate School requirements for admission, applicants must have an undergraduate grade point average of at least 2.75 (A=4.0) in engineering, mathematics, and physical science courses.

Applicants should have a baccalaureate degree in civil engineering from an ABET-accredited program. Applicants whose undergraduate studies were completed at institutions in countries other than the United States are urged to take the Graduate Record Examination (verbal, quantitative, and analytical portions) to support their applications. Applicants from selected areas of mathematics and physical science and others whose undergraduate engineering degrees are not in civil engineering may be accepted for graduate study in selected areas of civil engineering. For example, a chemistry or biology major may be accepted for concentrated study in environmental engineering or a mechanical engineering major may be accepted for concentrated study in structural engineering. Entry into graduate studies in civil engineering without the appropriate baccalaureate preparation may result in a student being required to complete successfully a significant number of undergraduate engineering courses prior to or concurrent with graduate work. Persons without the equivalent of an undergraduate degree in civil engineering are advised that a master's degree in civil engineering will not automatically enable them to apply for licensing as a professional engineer, and they should seriously consider the alternative of enrolling in the civil engineering baccalaureate degree program.

In exceptional cases, the graduate admissions committee may consider applicants who meet all Graduate School admission standards but who do not meet certain specified program admission requirements. The committee may consider other evidence that indicates high promise of the applicant's success in the program. Such supportive evidence may include high scores on the Graduate Record Examination, professional experience, licensure as a professional engineer, and satisfactory graduate level work at another institution.

After admission and before enrolling in any courses, students are required to meet with the graduate program director. An advisory committee suited to each student's background and interests will be appointed. The advisory committee assists the students

in planning a coherent program of study leading to the degree. The planning process should be completed by the end of the first semester.

## PROGRAM OF STUDY

Thesis and non-thesis programs of study are available. Students electing either option must complete a minimum of 30 semester hours. At least 20 semester hours must be in courses taught in Civil Engineering and at least 15 semester hours must be at the 500 level.

### Thesis option

Students will be guided in thesis work by a thesis advisor with the assistance and concurrence of the advisory committee. The number of hours to be awarded for thesis credit (CE 599) is to be specified by the advisory committee prior to approval of the thesis proposal. Thesis credit counts as part of the minimum of 30 credits required for the degree. Writing a thesis involves an intensive research effort and generally requires about six months to complete. The thesis is formally accepted in Graduate Records.

### Non-thesis option

Students prepare a research paper, the topic of which is mutually agreed upon by the student and the advisory committee. No semester-hour credit is awarded for completion of the research paper.

## FINAL EXAMINATION

When all other program requirements are satisfied, the student schedules an oral final examination with the advisory committee. The final examination is based on the course work and the thesis or research paper, depending on the option the student has chosen.

## COMBINED PROGRAM LEADING TO BACHELOR OF SCIENCE /

## MASTER OF SCIENCE DEGREES IN CIVIL ENGINEERING

The Department of Civil Engineering offers a five-year program leading to the Bachelor of Science (BS) and the Master of Science (MS) degrees. Students with senior level status in Civil Engineering (at least 90 semester hours) and an overall grade point average of 3.0 (A=4.0) in engineering, mathematics, and physical science courses may be admitted to the BS/MS program that allows them to earn 30 hours of graduate level credit (400- and 500-level) during their combined fourth and fifth years. An application for degree-seeking status as a graduate student must be approved by Graduate Admissions and the Graduate Admissions Committee in Civil Engineering. A program outline must also be submitted for approval by Graduate Records and the director of the graduate program in civil engineering prior to enrollment in any courses to be included as a part of

the master's program. Official admission to the graduate program with status as a classified graduate student is made only after the award of baccalaureate degree. In no case will a graduate degree be conferred before all requirements for both degrees have been completed.

## COMPUTER SCIENCE

### MASTER OF SCIENCE IN

### COMPUTING AND INFORMATION SYSTEMS

The Department of Computer Science in the School of Engineering and the Department of Computer Management and Information Systems in the School of Business cooperatively offer a Master of Science degree in Computing and Information Systems (CIS). The CIS Graduate Committee, with two members from each department, oversees this program, which is housed in the School of Engineering.

The CIS program is an applied computing program that focuses on the areas of information systems, software engineering, computer system architectures, data communications, and related management issues. The program prepares students to be practitioners in positions such as software developer, consultant, system integrator, technology manager, systems programmer, project leader, and application software specialist.

## ADMISSIONS

The requirements for admission to the graduate major in Computing and Information Systems are:

- 1) A bachelor's degree from an accredited college or university. The undergraduate major should be in business, science, engineering, mathematics, or computing. Individuals with other backgrounds who are interested in the program are invited to discuss their career objectives with the program director. The undergraduate major requirement can be waived by the CIS Graduate Committee for individuals whose background and goals are consistent with the program objectives.
- 2) An undergraduate grade point average of 2.5 or above.
- 3) Submission of Graduate Management Admission Test (GMAT) or Graduate Record Exam (GRE) scores with preference given to applicants scoring above the 50<sup>th</sup> percentile in each area of the examination.
- 4) Submission of a statement detailing the applicant's background and career plans. Forward your statement detailing your background and career plans to the CIS

Graduate Program Director, Campus Box 1106, Southern Illinois University  
Edwardsville, Edwardsville, IL 62026.

Admission decisions will be made by the CIS Graduate Committee.

### Prerequisite Courses

Students entering the program will need the specific background detailed below. The program of study requires students to select from one of two curriculum "tracks" that focus on either managerial applications or technical applications in computing. Each track has specific track prerequisites that must be completed with at least a B. This background may be completed after enrolling in the program. Please note that none of the prerequisite courses actually count toward the MS in CIS. The computing background must have been acquired within the past six years.

Proficiency in:	Common Prerequisites
C Language	CS 140 and CS150/402
Data Structures	CS 240/403
Computer Organization	CS 312
Calculus	MATH 150

Proficiency in:	Managerial Applications Track Prerequisites
Information Systems Theory	CMIS 342/515
Visual Basic Language	CMIS 142
COBOL Programming	CMIS 260
Financial Accounting	ACCT 200/501

Proficiency in:	Technical Applications Track Prerequisites
Interaction Programming	CS 275
Operating Systems	CS 314
Statistics	STAT 244 or 380

### PROGRAM OF STUDY

The program requires 33 semester hours and consists of 4 core courses, 6 elective courses, and a culminating software design project. The program of study is divided into two tracks: managerial applications and technical applications. Students will select one of these two tracks.

Students in the program must maintain a grade point average of at least 3.0 in all graduate courses. No credit is allowed toward a graduate degree in courses in which a grade below **C** is earned.

Computing and Information Systems Core (15 hours)

## Managerial Applications Track

CIS 570-3 Software Systems Design  
CIS 564-3 Database Design  
CIS 515-3 Algorithms  
CMIS 464-3 Applied Operating Systems  
CMIS 468-3 Design of Distributed Systems

## Technical Applications Track

CIS 570-3 Software Systems Design  
CIS 564-3 Database Design  
CIS 515-3 Algorithms  
CS 514-3 Operating Systems  
CIS 520-Networks and Distributed Systems

## Elective Courses (15 hours)

Students will select from the courses indicated below according to their selected track of study. Students must submit a written request to the CIS program director for approval to deviate from the approved elective list.

### Managerial Applications Track

At least 9 hours

CMIS 520-3 Managing Technology  
CIS 540-3 Management of Information Systems Development  
CIS 567-3 Network Planning and Management  
CIS 572-3 Rapid Application Development and Prototyping  
CIS 588-3 Seminar in Computing and Information Systems (Managerial Topic, 6 hrs)  
CIS 590-1-3 Independent Study

no more than 6 hours

CS 407-3 Ada Programming  
CS 416-3 High-Performance Computer Systems  
CS 438-3 Artificial Intelligence  
CS 444-3 Parallel Computing  
CS 454-3 Theory of Computation  
CS 456-3 Algorithms and Complexity  
CS 482-3 Computer Graphics  
CIS 518-3 Computer Systems Architecture  
CIS 520-3 Networks and Distributed Systems  
CIS 525-3 Principles of Simulation  
CIS 537-3 Expert Systems  
CIS 547-3 Network Programming

CIS 588-3 Seminar in Computing and Information Systems (Technical Topic, 6 hrs)  
CIS 590-1-3 Independent Study

Technical Applications Track  
No more than 6 hours

CIS 540-3 Management of Information Systems Development  
CIS 567-3 Network Planning and Management  
CIS 572-3 Rapid Application Development and Prototyping  
CIS 588-3 Seminar in Computing and Information Systems (Managerial Topic, 6 hrs)  
CIS 590-1-3 Independent Study

At least 9 hours

CS 407-3 Ada Programming  
CS 416-3 High-Performance Computer Systems  
CS 423-3 Compiler Construction  
CS 438-3 Artificial Intelligence  
CS 444-3 Parallel Computing  
CS 454-3 Theory of Computation  
CS 456-3 Algorithms and Complexity  
CS 482-3 Computer Graphics  
CS 516-3 Computer Architecture  
CS 544-3 Parallel Algorithms  
CS 556-3 Advanced Algorithms & Complexity  
CIS 525-3 Principles of Simulation  
CIS 537-3 Expert Systems  
CIS 547-3 Network Programming  
CIS 582-1-3 Topics in Computer Graphics  
CIS 588-3 Seminar in Computing and Information Systems (Technical Topic, 6 hrs)  
CIS 590-1-3 Independent Study

Culminating Project (3 hours)

The culminating project is a software design project that is independently accomplished by the student. The project will involve the analysis, design, and possible implementation of a system using technologies and methodologies that are covered in the program. A faculty advisory committee consisting of a chairperson and two additional committee members will oversee the project. The student will receive 3 hours of credit in CIS 595, Special Project. The project will normally be completed during your final semester in the program, but selection of the advisory committee and planning for the project should be completed before the final semester.

## FINAL EXAMINATION

The documentation for the design project must meet the standards defined by the CIS Graduate Committee. At the conclusion of the project, the student must present the

project and defend it orally before the advisory committee and other interested members of the University community. The advisory committee will determine when the project is acceptable and assign a final grade.

## ELECTRICAL ENGINEERING

### MASTER OF SCIENCE

For the Master of Science degree in electrical engineering, courses are offered primarily in the areas of communication systems, computer systems, control systems, and signal/image processing. Course work in electromagnetic fields and power systems is also available. Most courses are offered at least once in the evening every year, and 400-level courses are also scheduled during the day.

### ADMISSION

In addition to meeting the requirements for admission to the Graduate School, applicants must have an undergraduate grade point average of at least 2.75 (A=4.0) in engineering, mathematics, and physical science courses.

Applicants should have a baccalaureate degree in electrical engineering from an ABET-accredited program. Applicants whose undergraduate studies were completed at institutions in countries other than the United States must have a baccalaureate degree in electrical engineering which is comparable to the United States bachelor's degree and are urged to take the Graduate Record Examination (verbal, quantitative, and analytical portions) to support their application. Applicants with degrees other than a baccalaureate degree in electrical engineering as described earlier will be required to complete the undergraduate major in electrical engineering before being admitted to the master's program.

In exceptional cases, the graduate admissions committee may consider applicants who meet all Graduate School admission standards but who do not meet certain specified program admission requirements. The committee may consider other evidence that indicates high promise of the applicant's success in the program. Such supportive evidence may include acceptable scores on the Graduate Record Examination (verbal, 70th percentile; quantitative, 90th percentile; and analytical, 75th percentile), professional experience, or satisfactory graduate level work at another institution.

After admission and before enrolling in any courses, students are required to meet with the graduate program director who appoints, in consultation with the student, an advisory committee suited to each student's background and interests. The chair of the advisory committee serves as the student's academic advisor. Students are required to file an approved plan of study with their academic advisor by the end of the first term of enrollment in the program.

### PROGRAM OF STUDY

Thesis and non-thesis programs of study are available. Students electing either option must complete a minimum of 33 semester hours, 27 of which must be graduate-level hours in electrical engineering. The program consists of three core courses:

Electrical Engineering Core Hours (9)

ECE 552 Advanced Stochastic Processes

ECE 570 Communication Theory

ECE 580 Digital Technology and Electronic Communication

Or, the student's graduate advisory committee may allow substitution of ECE 572 or 574 for ECE 570 and either ECE 581, 582, or 584 for ECE 580, if the student can demonstrate appropriate proficiency in that core course.

Non-thesis option

The program consists of three core courses, eight elective courses, and a final research project. The final research project is selected in consultation with the chairperson of the advisory committee. The project usually involves the analysis, design, and possible implementation of a system based on methodologies established during the electrical engineering course work. No credit is awarded for completion of the research paper.

Thesis option

The program consists of three core courses, six elective courses, and a thesis for 6 hours of credit. Student will be guided in thesis work by a thesis advisor with the assistance and concurrence of the advisory committee. Writing a thesis involves an intensive research effort and generally requires about six months to complete.

FINAL EXAMINATION

When all other program requirements are satisfied, an oral final examination, conducted by the advisory committee, is scheduled. The final examination is based on the course work and the thesis or research paper, depending on the choice of option by the student.

COMBINED PROGRAM LEADING TO BACHELOR OF SCIENCE /

MASTER OF SCIENCE DEGREES IN ELECTRICAL ENGINEERING

The Department of Electrical Engineering offers a five-year program leading to the Bachelor of Science (BS) and Master of Science (MS) degrees. Students with senior level status (at least 90 semester hours) and a grade point average of 3.0 (A=4.0) overall may be admitted to the BS/MS program that allows them to earn 33 hours of graduate level

credit (400- and 500-level) during their combined fourth and fifth years. An application for degree-seeking status as a graduate student must be approved by the Graduate School and the Graduate Committee in Electrical Engineering. A program outline must also be submitted for approval by the Graduate Dean and director of the graduate program in electrical engineering prior to enrollment in any courses to be included as part of the master's program. Official admission to the graduate program and to status as a classified graduate student is made only after the award of the baccalaureate degree. In no case will a graduate degree be conferred before all requirements for both degrees have been completed.

## MECHANICAL ENGINEERING

### MASTER OF SCIENCE

For the Master of Science Degree in mechanical engineering, courses are offered in the area of fluid mechanics and thermal sciences and the area of mechanics and system dynamics. The core courses are offered annually; other courses are generally offered once every two years.

### ADMISSION

In addition to meeting the Graduate School requirements for admission, applicants must have an undergraduate grade-point average of at least 2.75 (A = 4.0) in engineering, mathematics and physical science courses. Applicants should have a baccalaureate degree in mechanical engineering from an ABET-accredited program. Applicants who completed a non ABET accredited program or whose undergraduate studies were in a country other than the United States must have a baccalaureate degree in mechanical engineering which is comparable to the United States' bachelor's degree and are encouraged to take the Graduate Record Examination (verbal, quantitative, and analytical portions) to support their application. Applicants from selected areas of mathematical and physical science and others whose undergraduate engineering degrees are not in mechanical engineering will be considered for admission on an individual basis. Entry into graduate studies without the complete baccalaureate preparation in mechanical engineering may result in the student being required to remove the deficiencies prior to initiating graduate study or concurrently with their graduate programs.

In exceptional cases, the graduate admissions committee may consider applicants who meet all of the Graduate School admission standards but who do not meet certain specified program admission requirements. The committee may consider other evidence that indicates high promise of the applicant's success in the program. Such supportive evidence may include high scores on the Graduate Record Examination, professional registration, extensive professional experience, professional publications, or satisfactory graduate level work.

### PROGRAM OF STUDY

Both thesis program of study (30 credit hours) and a non-thesis option (33 credit hours) are offered. At least one half of these credit hours must be at the 500 level. At least twenty-one hours must be in mechanical engineering courses (up to six hours may be thesis credit) and six hours must be in mathematics or the physical sciences. The discipline of mechanical engineering has a close interface with civil engineering in the areas of stress analysis and elasticity and with electrical engineering in the areas of system dynamics and control theory. Whenever possible, courses in these areas will be crosslisted so as to enrich the variety of course offerings for students in all programs. The specific program of study is selected by the student and approved by his or her advisor. This allows considerable flexibility to meet the objectives of the experienced engineers who are expected to make up the majority of the students. The program allows elective courses (one for thesis students and two for non-thesis students) that may be selected from any of the courses listed in the current Graduate Catalog if they meet the prerequisites. All students are required to complete the two core courses, ME 530, Advanced Dynamics, and ME 575, Advanced Fluid Mechanics I.

Students will be guided in thesis work by a thesis advisor with the assistance and concurrence of the advisory committee. The thesis topic will be selected from an area in mechanical engineering and approved by their advisor. When possible, part-time students will be encouraged to select topics complementing their professional responsibilities. Writing a thesis involves an intensive research effort and students are encouraged to initiate their thesis work early in the program, even before registering for any thesis credit.

In the non-thesis option, students prepare a research paper, the topic of which is mutually agreed upon by the student and the advisory committee. No credit is awarded for completion of this research paper.

#### FINAL EXAMINATION

When all other program requirements are satisfied, a final examination on the course work and related material on the thesis or research paper will be given. This examination is conducted by the advisory committee. In the thesis option, the final examination is an oral examination directed primarily at the material in the thesis. In the non-thesis option, the final examination may include written elements as well as an oral examination including questions on the research paper.

#### COMBINED PROGRAM LEADING TO BACHELOR OF SCIENCE/MASTER OF SCIENCE DEGREES IN MECHANICAL ENGINEERING

Mechanical Engineering offers a five-year program leading to the Bachelor of Science (BS) and Master of Science (MS) Degrees. Students with senior level status (at least 90 semester hours) and a grade point average of 3.0 (A = 4.0) overall may be admitted to the BS/MS program that allows them to earn 30-33 hours of graduate level credit (400- and 500-level) during their combined fourth and fifth years. An application for degree-seeking status as a graduate student must be approved by Graduate Admissions and the

Director of the mechanical engineering graduate program. A program outline must also be submitted for approval by Graduate Records and the Director of the mechanical engineering graduate program prior to enrollment in any courses to be included as part of the Master's program. Official admission to the graduate program and to status as a classified graduate student is made only after the award of the baccalaureate degree. In no case will a graduate degree be conferred before all requirements for both degrees have been completed.

## COOPERATIVE DOCTORAL PROGRAM

Faculty in the School of Engineering participate with the College of Engineering faculty at Southern Illinois University Carbondale in offering a cooperative program leading to the Doctor of Philosophy degree in Engineering Science. The student may concentrate study in one of three areas including mechanics, electrical systems, and fossil energy. Prospective students may initiate application procedures at either campus and may enroll in courses at either or both campuses concurrently. The doctoral degree is conferred by Southern Illinois University Carbondale. For application procedures, refer to the section on admission to cooperative doctoral programs in Chapter 1 of this catalog. For more detailed information, contact the department directly at either Carbondale or Edwardsville.

## SCHOOL OF NURSING

Dean: Felissa Lashley

The Graduate Program in Nursing, accredited by the National League for Nursing Accrediting Commission (NLNAC) and Commission on Collegiate Nursing Education (CCNE), prepares nurses for advanced practice in five areas: Community-Health Nursing, Medical-Surgical Nursing, Psychiatric-Mental Health Nursing, Nurse Anesthesia, and Nurse Practitioner (adult, family). The Nurse Anesthesia specialization is also accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs. Other programs are accredited by the relevant accrediting bodies.

We believe that nursing is a scientific and humanistic profession. Graduate nursing education emphasizes development of leadership skills and the expertise necessary to assume complex, specialized roles while providing direct and indirect nursing care to individuals, groups and families. We focus on knowledge of community resources and the aspects of primary, secondary and tertiary modalities in health care. Clinical experience in community agencies and hospitals is an integral part of the program. Knowledge and experience related to the advanced practice in nursing are incorporated into the program. Clinical practica are required and are individualized according to the student's professional experience, interest and academic needs. Faculty act as facilitators while creating a supportive learning community.

Each student's program is designed to meet the general requirements of the Graduate School and the requirements of the School of Nursing. Full-time and part-time progressions are possible in all specializations except for Nurse Anesthesia. The student can choose to complete a thesis or a project to demonstrate basic research competence.

Graduates of some of the specializations in the master's program in nursing are eligible for certification examinations and for appointment to advanced nursing positions.

## ADMISSION

The general requirements for admission to graduate study at Southern Illinois University Edwardsville must be met. In addition to the Graduate School requirements, the following are required by the School of Nursing.

1. The completed School of Nursing application form must be submitted by all applicants.
2. Evidence of having graduated from a National League for Nursing Accrediting Commission (NLNAC) or a Commission on Collegiate Nursing Education (CCNE) - accredited baccalaureate program in nursing. Graduates from non-NLNAC accredited programs and other countries will be considered under certain circumstances. Please contact the School of Nursing for more information.
3. Applicants from abroad are subject to all Graduate School admission requirements. In addition, the School of Nursing requirements include:
  - a. Licensure in the United States. In most states, applicants must submit their credentials to the state nurse registration department in which they wish to write the examination and sit for the examination in that state. (The American Embassy in the country of origin can provide state nurse registration department addresses but does not administer the examination.)
  - b. Graduation from a baccalaureate nursing program equivalent to the undergraduate degree program at Southern Illinois University Edwardsville. Evaluation of the equivalency status of the baccalaureate program will require a thorough review of the program's curriculum, course descriptions, and transcripts, translated into English and provided in the indigenous language, as well, if the language of the required documentation is not English.
4. Applicants must provide evidence of current licensure to practice as a professional nurse and evidence of current liability insurance coverage. All applicants must obtain a current unencumbered Illinois license.
5. Evidence of knowledge and skills of health assessment at the baccalaureate level on the transcript. Health assessment is a prerequisite to nursing specialization courses in all options of the graduate program. Students can meet this requirement by:

a. Completion of an undergraduate course comparable to NURS 335 at SIUE with a grade of "C" or better.

OR

b. Completion of a BSN curriculum in which such content is integrated through the curriculum and demonstrated in catalog course descriptions.

OR

c. Validation of knowledge and skills through enrollment in Nurs 335 and successful completion of an in-class proficiency exam.

6. Evidence of an undergraduate statistics course with a grade of "C" or better, which is a prerequisite to a graduate statistics course.

7. Three letters of reference are required. The letters should address professional capabilities. At least one letter should be from a member of the faculty of the most recent nursing program attended by the applicant, and at least one should be from the person who completed the applicant's last job performance evaluation. The full addresses of persons writing the references are required on the School of Nursing application form.

8. After admission, students are required to provide verification of: 1) immunity against rubeola, rubella, and mumps, 2) negative Mantoux or validation of treatment for a positive Mantoux test, and 3) Hepatitis B immunization. If an individual has a negative history of rubella or mumps, or was immunized before 1968, MMR is required. Immunization requirements are reviewed annually and may change.

9. Evidence of current certification for adult, child and infant CPR.

10. An interview with the Graduate Academic Advisor or a graduate faculty member is required to complete the application for admission.

In addition to the above requirements, applicants to the nurse anesthesia specialization and the Nurse Practitioner role preparation must meet additional criteria:

#### NURSE ANESTHESIA SPECIALIZATION:

1. Completion of an undergraduate course in organic or biochemistry.

2. Completion of an undergraduate course in physics.

3. Current certification in Advanced Cardiac Life Support.

4. At least one year full-time experience as a Registered Nurse in a critical care area.

5. A personal interview with faculty in the Nurse Anesthesia specialization. Applicants will be notified about the interview date.

6. Licensure as a Registered Nurse in Illinois and Missouri.

7. For Completion Option students in addition to 1,2,3,5, & 6 above:

- a. Completion of a Nurse Anesthesia program accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs.
- b. Successful completion of the National Certifying Examination.
- c. Graduation from a NLNAC accredited baccalaureate nursing program equivalent to the undergraduate degree program at Southern Illinois University Edwardsville.
- d. Current active practice in the specialization of anesthesia nursing.
- e. Illinois and Missouri recognition as a CRNA.

#### NURSE PRACTITIONER SPECIALIZATION:

The applicant's professional experience must include at least two years as a registered professional nurse.

#### PROGRAM OF STUDY

The program for the Master of Science degree in nursing consists of 34 semester hours for each specialization except nurse anesthesia, which requires a minimum of 69 semester hours of course work, and nurse practitioner, which requires 50 semester hours of course work for the Adult track and 53 semester hours for the Family track. Dual (Family and Adult) track nurse practitioner requires 56 semester hours.

The graduate nursing curriculum consists of core, specialization, and role components and the successful completion of a thesis or terminal project. The core component of the Master of Science degree program in nursing develops the knowledge and skills needed by all nursing professionals to practice at an advanced level. It requires course work in the conceptual basis of nursing, research, and professional development. The conceptual basis courses focus on developing a theoretical foundation and on critical examination of theories and models used in advanced nursing practice. The research courses provide the skills needed to analyze research findings, conduct research, and complete a thesis or project. The professional development courses include a practicum to develop leadership skills within the advanced practice role.

In each specialization, students enroll in courses that support one of the specialized practice areas. The specialization component includes practica designed to prepare an advanced practice nurse with knowledge and skills in community health nursing,

medical-surgical nursing, anesthesia nursing, psychiatric-mental health nursing, or as adult or family nurse practitioner.

**Community-Health Nursing (34 semester hours)**

Core courses (18 hours): NURS 500, 505, 510, 580; one cognate course that supports NURS 510 in the role of an advanced practice nurse; one graduate level course in statistics.

Specialization courses (10 hours): NURS 550, 551, 552.

Thesis or project (6 hours): NURS 599 or 595 and one elective course.

**Nurse Practitioner (Adult - 50 semester hours; Family – 53 semester hours; Dual - 56 semester hours).**

Core courses (12 hours): NURS 500, 505, 580; one graduate level course in statistics.

Specialization courses (32-35 hours): NURS 520, 540, 550, 560, 563a, 571, 572, and 573 or 574, 575, 576, 577.

Thesis or project (6 hours): NURS 599 or 595 and one elective course.

Course work in this specialization prepares the student to take the certification examination.

**Medical-Surgical Nursing (34 semester hours)**

Core courses (18 hours): NURS 500, 505, 510, 580; one cognate course that supports NURS 510 in the role of an advanced practice nurse; one graduate level course in statistics.

Specialization courses (10 hours): NURS 540, 541, 542.

Thesis or project (6 hours): NURS 599 or 595 and one elective course.

**Nurse Anesthesia (69 semester hours for basic preparation students and 56 semester hours for completion option.)**

Core courses (15 hours): NURS 500, 505, 511, 580, and one graduate level course in statistics.

Specialization courses (48 hours): NURS 520, 540, 560, 561a, 561b, 561c, 562a, 562b, 563a, 563b, 564.

Completion Option (35 hours): NURS 520, 540, 560, 561a, 561b, 561c, 562d, 563a, 563b.

Thesis or project (6 hours): NURS 599 or 595 and one elective course.

Course work in this specialization prepares the student to take the certification examination.

### **Psychiatric-Mental Health Nursing (34 semester hours)**

Core courses (18 hours): NURS 500, 505, 510, 580; one cognate course that supports NURS 510 in the role of an advanced practice nurse; one graduate level course in statistics.

Specialization courses (10 hours): NURS 530, 531, 532.

Thesis or project (6 hours): NURS 599 or 595 and one elective course.

For any of the specializations, a student may choose to complete a thesis or a project and thereby demonstrate basic research competence. The thesis or project is completed with the guidance of a thesis or project advisory committee composed of three graduate faculty members chosen by the student. Each student's research plan is designed to meet the requirements of the Graduate School and those of the School of Nursing. Planning and implementation take into account the candidate's professional experience, interests, and academic needs.

### **FINAL EXAMINATION**

Each candidate for the Master of Science degree in nursing is required to pass a final oral comprehensive examination. The examination, administered by the student's advisory committee, includes content from the following areas: the thesis or project and professional role in advanced nursing practice in a specialty. Outcome characteristics of graduate nursing students are assessed.