SOUTHERN ILLINOIS UNIVERSITY
EDWARDSVILLE

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College of Arts and Sciences

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Dean and Professor

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College of Arts and Sciences

The College of Arts and Sciences is committed to the traditional academic pursuits of instruction, scholarship, and public service as a means of realizing, in close cooperation with other units, the mission and goals of Southern Illinois University Edwardsville. Consistent with the mission of the University, the college assigns first priority to excellence in undergraduate education. To this end, the college fosters the development of the following characteristics and capabilities of its graduates:

Communication: Organize and express ideas clearly and appropriately; master standard use of written and oral communication; appreciate alternative forms of expression, including art, dance, music and literature; distinguish between the medium and the message; listen, observe, interpret, and understand others.

Critical Thinking: Employ independent, objective, and rigorous reasoning; identify and integrate the elements of a task or problem; seek, organize, assimilate, synthesize, and use information; maintain a healthy skepticism; recognize the value of creativity, the limits of reason and the legitimacy of intuition.

Problem Framing and Solving: Appreciate the complexity of problems; go beyond conventional assumptions; understand parts of systems as well as the whole; recognize patterns and generalize; search and test solutions using analytical and intuitive skills; evaluate and monitor outcomes; work effectively and creatively in diverse groups.

Knowledge: Master basic facts, concepts, and literature of the arts and sciences; acquire knowledge of diverse ethical traditions and contemporary issues; develop competence in the use of technology, instrumentation, and research methods; develop expertise in a major; understand the evolution and trends of that major; acquire knowledge of career opportunities.

Integration and Application of Knowledge: Recognize and value the interconnectedness of knowledge; learn creatively from practice and experience; apply knowledge in innovative ways; appreciate, use, and promote multidisciplinary and culturally diverse perspectives; foster connections wherein knowledge serves as a bridge to new levels of understanding and insight.

Self Development: Assess personal strengths, weaknesses, and potential; develop individual goals and persevere to achieve them; build self confidence and motivation; identify and respect diverse backgrounds and viewpoints; deal effectively with change; recognize and tolerate ambiguity; develop a well-considered personal ethic that includes responsibility for actions; assume responsibility for decisions and their results.

Citizenship: Participate in the local, national, and global community; be sensitive to the welfare of others; appreciate democratic values; acquire a sense of personal and collective responsibility for the social and natural environment.

Life-Long Learning: Maintain a sense of curiosity; appreciate and master the process of learning; recognize that learning is a means of fulfillment and success in one's personal and professional life.

The College of Arts and Sciences includes the departments of Anthropology, Art and Design, Biological Sciences, Chemistry, English Language and Literature, Foreign Languages and Literature, Geography, Historical Studies, Mass Communications, Mathematics and Statistics, Music, Philosophy, Physics, Political Science, Public Administration and Policy Analysis, Science, Social Work, Sociology and Criminal Justice Studies, Speech Communication, and Theater and Dance.

The college also offers degrees in economics and liberal studies. Each department provides one or more programs of specialization, which are described in detail in the following pages. Undergraduate programs are designed to provide a strong basic foundation in the chosen field and to serve as a preparation for many different careers and professional activities, as well as for graduate study. Departments within the college offer a variety of master's degree programs. The college is responsible for a significant majority of the general education program; undergraduate courses in the college provide a general liberal arts education appropriate to all University students. The faculty of the college are active in basic and applied research and in professional service to the University and to the community.

Anthropology

Associate Professors: Holt, J.Z. (Chair); Lutz, N.

Assistant Professors: Rehg, J.; Willmott, C.

Anthropologists study humans and their biological and cultural development through time and space. Anthropology develops a respect for the various ways of life followed by others and knowledge of the reasons for these practices.

Special faculty interests include Native American peoples; peoples of Asia, Latin America, the Caribbean and Africa; Illinois prehistory; language; gender; history of anthropology; primate behavior and ecology; neotropical environments and conservation; zooarchaeology; museum studies; visual culture; ethnohistory; economic anthropology; urban culture; religion; clothing and textiles; political culture; and art and artifacts. Distinctive features of the program include opportunities for supervised archaeological and ethnographic fieldwork, for training in museum work in conjunction with the Anthropology Teaching Museum, for field trips and involvement in urban community projects, and for participation by qualified majors in the Alpha Chapter of Illinois of Lambda Alpha, the National Collegiate Honors Society for Anthropology. In addition, the faculty participates in interdisciplinary programs such as Women's Studies, Religious Studies, Museum Studies and Black Studies.

Students in good standing wishing to apply for a major or minor may enter the program by filing a formal application for a major or minor through the office of Academic Counseling and Advising, and then consulting with one of the department undergraduate advisers. Pre-registration advisement is mandatory for all declared majors and minors. All majors and minors must have a C or better in all Anthropology courses

All Anthropology majors are required to complete at least one course in each of the four major fields of the discipline: biological (physical) anthropology (Anth 360a-b: Biological Anthropology Methods and Theory), cultural anthropology (Anth 300: Ethnographic Methods and Theory), archaeology (Anth 325: Archaeological Methods and Theory), and linguistic anthropology (Anth 301: Language and Culture).

Career Opportunities

Anthropology majors may pursue graduate degrees at both the master's and doctoral level; such degrees lead to careers in university teaching, research, or museum work. Undergraduate anthropology majors find employment in secondary education, industry, cultural resource management, environmental studies, museums, human services, contract archaeology, and government services. Because of the breadth of the subject matter in anthropology, students frequently combine anthropology with other disciplines such as history, sociology, geology, earth science, biology, psychology, medicine, law, and the arts. Such combinations enable students to understand complex community problems and many issues of contemporary life and to expand their opportunities for interesting and rewarding careers.

Degree Requirements
Bachelor of Arts
Anthropology

The bachelor of arts degree, designed primarily to prepare students for advanced studies in anthropology, includes a foreign language requirement.

General Education Requirements 44
Some general education requirements may be satisfied while completing this major concentration.) (Students must choose skills option B including 8 hours of foreign language.
Requirements for Major in Anthropology 33
Anthropology 111, 300, 301, 325, 360a-b, 490, 491.....18
One course from both of the following areas:.....6
Area 1 (archaeology and biological anthropology)
331, 332, 333, 334, 335, 365, 366, 367.
Area 2 (cultural and linguistic anthropology) 302, 304
305, 306, 307, 310, 311, 312, 313, 350,
401, 402, 404, 408, 409, 410, 411, 426, 452.
Anthropology electives chosen in consultation
with adviser.....9
Minor* 18
Electives 29
Total 124

* Students seeking a bachelor of arts or bachelor of science degree in anthropology are required to select a minor in consultation with their adviser.

Degree Requirements
Bachelor of Science
Anthropology

The bachelor of science degree is designed for students desiring to pursue anthropology in preparation for government service, industry, contract archaeology, museology, or foreign service, where advanced graduate degrees may not be required. The bachelor of science degree requirements include 9 hours in field methods courses: anthropology 373 (3-6), 375 (3-6), 473 (3),

and/or 475 (3), or the presentation of acceptable evidence of previous field work experience. It should be noted that field methods courses are offered only during the Summer Session.

Minor Requirements

A minor in anthropology consists of 18 hours. Twelve of these hours must be in junior (300-level) or senior (400-level) courses. Students are required to take the introductory anthropology course (111). The remaining hours consist of anthropology electives selected in consultation with an undergraduate anthropology adviser.

Exit Requirements

Graduates are expected to be knowledgeable about the biological and cultural development of humans and the diversity of humankind. As seniors, students must successfully complete anthropology 490 and 491.

Art and Design

Professors: Cooper, I.A.; Decoteau, P.H.; Dresang, P.A.;Duhigg, T. (Chair); Klorer, P.K.; Myers, P.K.; Strand, L.

Associate Professors: Barrow, J.A.;Brown, S.; DenHouter, J.; Ehrlich, M.J.

Assistant Professors: Anderson, T.; Dimick, B.; Nwacha, B.J.; Ruggiero, A.J.; Taylor, D.; Wilt,M.

Career Opportunities

Students majoring in art find career opportunities in a wide variety of professional fields, including teaching in public and private schools; recreational, cultural, and craft programs in city, state and federal government agencies; design, advertising, and commercial art agencies; museums, galleries and other cultural institutions. The undergraduate programs in art also prepare students for graduate study in their fields of specialization; graduates have been able to compete very successfully for career and graduate education opportunities.

Program Description

The Department of Art and Design offers three undergraduate degrees: a bachelor of arts degree in art with options in art history or studio art; a bachelor of fine arts degree in art and design; and a bachelor of science degree in art education.

Undergraduate offerings in art include introductory and specialized courses in drawing, painting, printmaking, sculpture, ceramics, textiles, glassworking, graphic design, photography/digital arts, jewelry and metals, museology, art historical studies, and professional preparation for the future art teacher at the elementary or secondary level.

To augment the academic program, the Department of Art and Design has a comprehensive program in the visual arts that includes a Visiting Artist Program and an Exhibition Program. These programs provide an opportunity both for art majors and non-majors to become acquainted with well-known artists and art works brought to the University.

Students who have graduated from accredited high schools may be admitted to the bachelor of arts, bachelor of science, or bachelor of fine arts programs. A grade point average of 2.5 (on a 4.0 point scale) is required for acceptance into and graduation from the programs. Admission to the bachelor of fine arts program is by portfolio examination with applications accepted each fall and spring semesters. In addition, bachelor of fine arts candidates must have a 3.0 grade point average in studio courses for admission to and graduation from the program. A grade of C or above is required in art classes used as prerequisites for other art classes.

Degree Requirements
Bachelor of Arts
Art: Specialization in Studio Art

General Education Requirements	42-44
Some general education requirements may be satisfied while completing this major concentration. Students in this degree program must elect option B in the skills area	
Requirements for Major in Art	66
ART 112a,b,c,d, ART 202e, ART 225a,b*	21
15 hours from ART 202a, b, c, d, f, g, h, or i	15
Art History	6
12 hours from 300/400 studio area (major area)	12
9 hours from three different 300/400 studio area classes (not major area)	9
Art 405	3
Open Electives	14
Completion of Senior Assignment**	
Total	124

* Six hours may also count toward general education distribution course requirements.

** Students should consult their departmental adviser for details regarding the senior assignment.

Degree Requirements
Bachelor of Arts
Art: Specialization in Art History

General Education Requirements 42-44
(Students must elect option B in the skills area.)
Requirements for Major in Art 45
ART 225a,b* 6
39 hours from the following: ART 424a,b, ART 447a,b, ART 448a,b, ART 449a,b, ART 468a,b, ART 469a,b, ART 470, ART 473a,b, ART475, ART476, ART 480, ART 481a,b, ART 483 39
Electives and/or Minor 35
Students are urged to elect philosophy 360 and anthropology 305, courses in non-visual arts and history, additional language study, and art studio.
Completion of Senior Assignment**
Total 124

* Six hours may also count toward general education distribution course requirement.
** Students should consult their departmental adviser for details regarding the senior assignment.

Degree Requirements
Bachelor of Fine Arts
Art and Design

Admission to the bachelor of fine arts degree program is by portfolio only, typically during the junior or senior year. Candidates for the bachelor of fine arts degree must maintain a cumulative grade point average of 2.50 (on a 4-point scale) all work and a 3.00 grade point average (on a 4-point scale) in studio courses to remain in the program.

General Education Requirements 42–44
(Some general education requirements may be satisfied while completing this major concentration.)
Requirements for Major in Art 83–88
Art 112a, b, c, d, Art 202e
Art 405, Art 441, Art 225a,b* 27
15 hours from ART 202a, b, c, d, f, g, or h.....15
15 hours from 300/400 major studio area 15
9 hours from 300/400 studio areas (all courses different and not in major studio areas) 9
3 Art History electives 9
2 Art–related electives 6
Art 499: Thesis 2–6
Completion of Senior Assignment**
Total 125–138

* Three hours also may count toward general education international culture requirement.
** Students should consult their departmental adviser for details regarding the senior assignment.

Degree Requirements
Bachelor of Arts, Bachelor of Science, and Bachelor of Fine Arts
Teacher Certification

Students may seek secondary or broad field teaching certification with a degree in art in consultation with art education and School of Education advisers. Art education and professional education courses needed for certification may be taken as electives. Students pursuing the bachelor of fine arts with certification will exceed the 124-hour degree requirements.

Degree Requirements
Bachelor of Science
Art Education

General Education Requirements 42-44
(Students seeking teacher certification must take specific general education requirements. See the secondary education section of this catalog.)
Requirements for Major in Art 69–72
ART 112a,b,c,d 12
ART 202a,b,c,d,e, f, g, h 15
ART Studio 300/400 level 15
ART Education ART 289,300b,364, 365 (K–12 certification) 9–12
ART History ART 225a,b 6
ART History Elective 6
Art Electives 6
Professional Education 23
CI 200 2
EPFR 320 3
EPFR 315 3
EDUC 305 3
SPE 400 3
CI 451B 6
CI 352 6
Completion of Senior Assignment*

Total 134–139

* Students should consult the department adviser regarding the senior assignment.

Minor Requirements

Students desiring a minor in art should take the following courses: Basic Studio, ART 112 (12); Foundation Studio, ART 202 (9); and History of World Art, ART 225a,b (6). Students seeking a minor in art history should take the following courses: History of World Art, ART 225 a,b (6) plus 12 additional hours from 400-level art history courses listed under the Degree Requirements for Bachelor of Arts, Art, Specialization in Art History.

Fees

Fees are assessed for all studio courses. Fees are billed at the beginning of the semester and should be paid at the Office of the Bursar. Students who drop classes after the second week of the semester are not eligible for a refund of studio fees.

Biological Sciences

Professors: Axtell, R.; Brugam, R.; Kitz, D.; Krajniak, K.; McCommas, S.; Smith, M.(Distinguished Research Professor); Wanda, P.

Associate Professors: AbuSharbain, E.; Brunkow, P.; Duvernell, D.; Esselman, E.; Lin, Z-Q; Retzlaff, W. (Chair); Schulz, K.

Assistant Professors: Barry, K.; Essner, R.; Fowler, T.; Kohn, L.; Liebl, F.; McCracken, V.; Minchin, P.; Sawyer, S.; Theodorakis, C.

Biology includes the whole domain of living things: patterns of cellular structure; the underlying biochemical pathways; anatomy and function of whole organisms; the mathematical predictability and molecular basis of inheritance; the flow of energy and matter through living systems; the regulation and interaction of basic life processes; the universality of adaptation; and the interdependence of the biosphere. Like all sciences, biology is both cumulative and open-ended in its discoveries. It teaches the wonders of life, the excitement of discovery, and the challenge of the unknown. Students who are curious about living things, how they function, and how they relate to the environment may want to study biology.

The Department of Biological Sciences operates four tissue culture facilities, warm and cold rooms, computer laboratories, a greenhouse, and a photographic laboratory. Preparative ultracentrifuges, scintillation counters, fraction collectors, automated DNA sequencers, spectrophotometers and gel electrophoresis equipment are available to facilitate research in enzymes, proteins and genetic engineering. A comprehensive collection of instruments is available to conduct research in plant physiological ecology: oxygen electrode system with fluorescence probe, infrared gas analyzer for measurement of CO_2 uptake, pressure chamber and thermocouple psychrometer for measuring water potential, and data loggers with a variety of sensors to measure environmental variables. The department maintains substantial collections of insects, fish, amphibians, reptiles, birds, mammals, and plants. The 2,660-acre campus, with its wooded areas, lakes, and ponds, provides easily accessible habitats for ecological and other field work.

Career Opportunities

Many careers are available for people with basic or advanced training in biology. There are opportunities in botany, dentistry, ecology, education, environmental biology, fisheries biology, genetic engineering, horticulture, immunology, medicine, medical technology, microbiology, molecular biology, parasitology, physiology, wildlife management, forestry, and zoology. Technical and supervisory positions are available in federal, state, industrial and university laboratories. Environment and health-related occupations, almost always, require sound basic training in biology. Most students entering schools of medicine, dentistry, optometry, osteopathy, veterinary science, chiropractic and podiatry are biology majors. Basic training in biology is essential for careers in allied health sciences, including nutrition, pharmacy, occupational therapy, and physical therapy.

Graduation Requirements

The following requirements must be met in order to obtain a degree in biological sciences:

1 Earn a minimum of 124 hours of acceptable credit with a cumulative grade point average of 2.0 or higher;

2 Complete the minimum number of credit hours required for a particular degree;

3 Complete at least 12 hours of SIUE credit in major courses numbered above 319 with a cumulative grade point average of 2.0 or above;

4 Earn a GPA of 2.0 or above in all Biology courses numbered above 319;

5 Complete at least 6 hours of credit in biology courses numbered above 319 earned at SIUE within 2 years preceding graduation.

Duplicate credit hours earned, (through proficiency, transfer, CLEP, or from a course after credit has been received for similar or more advanced course work in the same subject at SIUE or elsewhere), are not applicable toward graduation requirements.

Advisement

Students interested in majoring in one of the options in biology are advised to apply for a major as early as possible and to consult with a biology adviser without delay. Students must complete all required academic development and high school deficiency courses before

declaring a biology major. Students are informed in writing of advisement procedures and assigned a faculty adviser at the time of declaration. Students are required by the University to consult an adviser prior to registration each term. Enrollment in biology major courses above 121 requires approval of a biology adviser. Biology—particularly specializations in medical sciences, secondary education, and medical technology — requires strict course sequencing if requirements are to be completed in four years. An appointment for advisement may be made by calling the Department of Biological Sciences at (618) 650-3927. The adviser will be pleased to help students prepare a program of study in biological sciences in any one of the six specializations.

Academic Requirements

A Academic Standards

All students pursuing a major in the biological sciences must adhere to the following academic standards in addition to those listed above.

1 A grade of C or better is required in each of the major core courses (120, 121, 220, 319) before proceeding to the next core course and as prerequisite to courses numbered above 319.

2 No more than 4 hours of D may be counted in the 36 hours required for a major in the biological sciences.

3 The GPA in the major is based on all courses attempted in the major.

4 Any student who receives four grades of D, F, or WF in biology courses numbered 319 or lower is no longer permitted to enroll in biology classes for credit toward a biology major.

B Residency and other requirements

Majors in biological sciences must complete at least 18 of the required hours in biology at SIUE. At least two 400-level courses must be included in the 18 hours. Students may take as many as 8 hours of 491 and 493 together as electives, but these will not fulfill the 400-level course requirements. For graduation, all specializations require 28 hours in biology beyond the introductory level. Credit for a biology major will be awarded for courses cross-listed with the biology curriculum. One year of a foreign language is required for the bachelor of arts degree in all specializations.

Students seeking a minor in biological sciences must complete at least 9 of the 19 hours of biology at SIUE and obtain a GPA of 2.0 or better in all biology courses attempted at SIUE. All biology options require Chemistry 121.

Specializations in Biological Sciences

The Department of Biological Sciences offers six specializations or options for a bachelor of arts or science degree in biological sciences. These are:

1 Integrative Biology

2 Ecology, Evolution, and Environment

3 Medical Sciences

4 Genetic Engineering

5 Secondary Education

6 Medical Technology

Brief descriptions of these specializations and the academic requirements for each follow. Programs are flexible enough to allow students to change specializations should their goals or interests change.

Admission

High school students who plan to major in one of the degree programs in biological sciences should complete at least three years of college preparatory mathematics (two years of algebra and one year of geometry), and one year each of chemistry and biology before entering the University. A fourth year of college preparatory mathematics (to include trigonometry) is strongly recommended.

Admission to a degree program in biological sciences requires an application for a major and acceptance by the department. Once admitted, students are formally affiliated with the department and assigned a faculty adviser. Advisement is mandatory. Majors are permitted to register each term only after their Course Request Forms have been approved by a departmental adviser. Students are encouraged to select their major field of study early in their academic careers to ensure orderly progress toward meeting degree requirements. To be admitted, students already enrolled in the University must have a minimum grade point average of 2.0 in completed science and mathematics courses, as well as a cumulative grade point average of 2.0 or higher in all courses taken at SIUE. Transfer students should have a 2.0 grade point average in science and mathematics courses taken at

other colleges and universities.

Academic Status

1 Students should show satisfactory academic progress to be retained in a degree program. Students may be dropped from the biology major for any of the following reasons:

   a) grade point average of 1.0 or below in any term

   b) cumulative grade point average of lower than 2.0 in the major at any time

   c) any combination of withdrawal, incomplete, and failing grades in 50% or more of the courses for which the student is registered during two successive terms

   d) any combination of three withdrawal, incomplete, or failing grades in any single required course in Biology.

2 For re-admission, students must meet the same admission requirements as students entering the program for the first time.

Bachelor of Science/ Master of Science Curriculum

Undergraduates with exceptional academic credentials may be able to earn the bachelor's degree and the master's degree in biology in five years of study. Admission to this program is based on departmental recommendation to and approval by the Graduate School. Students who are interested in this program option should seek advice from their faculty advisers early in their junior year.

Degree Requirements Biological Sciences

The curriculum in this program is designed to provide a firm basis in biological sciences for students with a variety of goals. It is an attractive major for students planning to enter graduate school or for students pursuing careers in biological research or in applied work in areas such as agriculture, conservation, and wildlife management. Students in this program may elect to concentrate in such specific disciplines as botany, microbiology, physiology, cellular and molecular biology, genetics, and zoology by completing their electives through courses in these areas. Some disciplines require chemistry courses beyond the minimum requirements. Courses available in each discipline are listed at the end of this section.

Degree Requirements Bachelor of Arts or Bachelor of Science Integrative Biology

General Education Requirements 42-44
The general education curriculum requires 42-44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 12 hours of the GE area natural sciences and mathematics requirements and the 3 hours skills requirement in statistics/computer programming. For the bachelor of arts degree, skills option B (8 hours of foreign language) is required.

Biology Requirements 36
120, 121, 220, 319 16
One course from the area of Ecology, Evolution, ... 3-4
and Behavior: (327, 365, 422, 461, 466, 468, 469, 470, 471, 480, 488)
One course from the area of Biological Diversity: (350, 380, 471, 474, 485, 486, 488) 3-4
One course from the area of Morphology, ... 3-4
Physiology, and Development: (337, 340, 389, 461, 467, 472, 473)
One course from the area of Cellular and Molecular .. 3-4
Biology: (332, 335, 415, 418, 421, 430, 432, 452, 455)
Senior Assignment: One senior assignment course 2
(492a and c, 492b and d, or 497)
Biological Sciences Electives 2-6
Two lecture courses must be taken at the 400 level, and two courses above 319 must have a laboratory requirement. No course may be used for credit in more than one area.

Chemistry Requirements 16-18
121a,b; 125a,b; 241a.b; 245 18
or 121a,b; 125a,b; 241a, BIOL 332 16

Mathematics/Physics Requirements 11-13
MATH 150 and PHYS 111 8
or PHYS 206a,b (or 211a,b and 212a,b) 10
STAT 244 4

Electives 13-19

Total 124

Discipline Electives

Plant Sciences: electives available include Ecology, 365; Plants and Environment, 461; Biogeography, 462; Applied Ecology, 464; Aquatic Ecosystems, 465; Terrestrial Ecosystems, 466; Pollution Ecology, 468; Field Biology, 470; Plant Systematics and Taxonomy, 471; Topics in Plant Physiology, 472; Plant Anatomy, 473

Microbiology: electives available include Immunology, 335; Microbiology, 350; Diagnostic Microbiology, 351; Microbial Pathogenesis, 451; Virology, 455

Physiology: electives available include Physiology, 340; Advanced Physiology, 441; Neurophysiology, 444a; Animal Physiological Ecology, 467; Topics in Plant Physiology, 472

Cellular and Molecular Biology and Genetics: electives available include Basic Biochemistry, 332; Immunology, 335; Microbiology, 350; Molecular

Biology Laboratory, 414; Techniques in Cell and Tissue Culture, 415; Recombinant DNA, 418; Human Genetics, 421; Population Genetics, 422; Biochemistry and Molecular Biology, 430; Cellular and Molecular Bases of Medicine, 431; Biomembranes, 433; Molecular Genetics, 452; Virology, 455

Zoology: electives available include Embryology, 325; Animal Histology, 337; Invertebrate Biology, 380; Biogeography, 462; Animal Physiological Ecology, 467; Field Biology, 470; Animal Behavior, 480; Entomology, 483; Ichthyology, 485; Herpetology, 486; Mammology, 488

Ecology, Evolution, and Environment Specialization

Recent rapid advances in technology combined with a growing awareness of the impact of human activity on the environment have resulted in the development of broad opportunities in environmental biology.

Ecology is the study of interactions between living organisms and their environment. Evolution provides the theoretical basis that binds all of biology together. These areas combine to help us understand human impacts on natural systems. These areas have both academic and practical importance because they stimulate intellectual curiosity about the natural world and provide a scientific basis for the solution of modern environmental problems.

The ecology, evolution, and environment specialization within the biological sciences bachelor's degree program prepares students for positions that require the application of ecological principles to the solution of environmental problems. The specialization also prepares students for advanced study in all areas of biology, including wildlife ecology and forestry.

Students selecting this specialization will take a planned sequence of courses that includes basic biological sciences, ecology, evolution, and environmental science. This study may include laboratory and field research. A variety of elective courses is available to allow students to pursue special interests such as plant or animal ecology, environmental management, and evolutionary biology at either the organismal or cellular level. Students should consult their adviser to devise a course schedule to fit their specific talents and interests.

Degree Requirements
Bachelor of Arts or Bachelor of Science
Biological Sciences
Specialization in Ecology, Evolution and Environment

General Education Requirements 42-44
The general education curriculum requires 42-44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 12 hours of the GE area natural sciences and mathematics requirements and the 3 hour skills requirement in statistics/computer programming. For the bachelor of arts degree, skills option B (8 hours of foreign language) is required.

Biology Requirements 36
- 120, 121, 220, 319 16
- 327 and BIOL 365 7
- *492a and b 2
- Electives (Two 400-level courses, one a field course, are required.) 11

Chemistry Requirements 18
- 121a,b; 125a,b; 241a,b; 245 18

Mathematics/Physics Requirements 14-16
- MATH 150 and PHYS 111 8-10
- or PHYS 206a,b (or 211a,b and 212a,b,)
- STAT 244 4
- CS 108 or CMIS 108 3

Electives 10-16
Total 124

* 492 is a Senior Assignment course.

Medical Sciences Specialization

The medical sciences specialization, a pre-health professions curriculum, will prepare students for entry into medical, dental, pharmacy, veterinary, optometry, osteopathy, chiropractic, and podiatry schools, as well as into many other allied health programs.

Students considering a health-related profession should demonstrate above-average ability in the natural sciences. Students also should exhibit traits commonly associated with health practitioners, e.g., persistence, curiosity, good judgment, initiative, emotional maturity, attention to details, and good interpersonal skills. Pre-dental students should also have or develop good manual skills and the ability to make acute judgments on space and shapes.

The biological sciences program described below is designed to provide students with a rigorous course of study that will satisfy the entrance requirements of professional schools, as well as to award students a bachelor of science degree either at the end of the four-year program, or in the case of early admission, at the end of the first year of professional school (see below).

Students requesting acceptance for the medical science specialization will be advised by a biology/medical science adviser with regard to their academic curriculum. Because professional schools adhere rigidly to their

entrance requirements and because there is strict course sequencing for completion of these requirements, students in this specialization should seek advisement early to ensure satisfactory progress.

The chief health professions adviser maintains a centralized evaluation service to aid students seeking entry into professional schools during the application process. The adviser is available in the Department of Biological Sciences to help and advise such students regarding application procedures.

Degree Requirements
Bachelor of Arts or Bachelor of Science
Biological Sciences Specialization in Medical Science

General Education Requirements 42-44
The general education curriculum requires 42-44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 12 hours of the GE area natural sciences and mathematics requirements. For the bachelor of arts degree, skills option B (8 hours of foreign language) is required.
Biology Requirements 36
120, 121, 220, 319 16
340 4
BIOL 430a,b or CHEM 451a,b 6
BIOL 497 or equivalent 2
Electives (Electives must include one 400-level elective course.) 8
Chemistry Requirements 18
121a,b; 125a,b; 241a,b; 245 18
Mathematics/Physics Requirements 19
MATH 150 5
PHYS 206a,b (or 211a,b; and 212a,b) 10
STAT 244 4
Electives 7-9
Total 124

Students admitted to professional school at the end of the junior year may substitute transfer credit earned during the first year of professional school for any 36 hours of biology or general electives. In such cases, students earn degrees at the end of the first year of professional school after they apply for graduation and the University receives their transcripts for the first year.

Medical Technology Specialization

This degree specialization is designed for students who wish to become medical technologists certified by the American Society of Clinical Pathologists. Medical technologists should have a firm understanding of the theory behind the diagnostic tests they perform in the clinical laboratory. Their responsibilities encompass all clinical laboratory disciplines, such as clinical chemistry, urinalysis, hematology, serology, immunology, blood and organ banking, microbiology, parasitology, and nuclear medicine. As self-motivated, inquisitive scientists, medical technologists contribute to the development of new methods and laboratory instrumentation that aid the physician in preventing and curing disease. Most medical technologists are employed in hospitals, but private laboratories, physicians' offices, government agencies, industrial and pharmaceutical laboratories, and university research programs offer growing opportunities for employment advancements.

The American Medical Association's Council on Medical Education, the American Society of Clinical Pathologists, and the American Society of Medical Technology collaborate in determining minimum standards for educational programs for medical technologists. The first three years of the program take place on the SIUE campus. During this time, students fulfill general education requirements and master fundamental knowledge and skills in biology, chemistry, physics, and mathematics. The fourth year of clinical/professional study takes place in a clinical laboratory setting at one of the University's affiliated hospital schools of medical technology. Acceptance to this last year of study is on a competitive basis and is not guaranteed to individual students in the program. Students enroll at SIUE for 36 hours of credit during the clinical year. The credits are earned through courses in blood banking, chemistry, coagulation, hematology, microbiology, mycology, parasitology, serology, urinalysis and other subjects as specified in the agreement with each hospital affiliate. Students are awarded the bachelor of science in biology/medical technology degree by SIUE upon successful completion of four years in the program. At this time students are eligible to apply for examination by the Board of Registry of the American Society of Clinical Pathologists, and if successful, are certified as medical technologists.

Students in this program should seek advisement early in their academic careers from the biology/medical technology adviser because there is strict course sequencing for the completion of requirements. Careful scheduling is essential to completion in three years of the on-campus academic portion of the program.

Degree Requirements
Bachelor of Arts or Bachelor of Science
Biological Sciences Specialization in Medical Technology

General Education Requirements 42-44
The general education curriculum requires 42-44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 12 hours of the GE area natural sciences and mathematics requirements and the three hour skills requirement in statistics/computer programming. For the bachelor of

arts degree, skills option B (8 hours of foreign language) is required.

Biology Requirements 30
- 120, 121, 220, 319 16
- 332, 335, 340, 350 14

Chemistry Requirements 18
- 121a,b; 125a,b; 241a,b; 245

Mathematics/Physics Requirements 9
- MATH 120 3
- PHYS 111 3
- STAT 107 3

Hospital Rotation 36
Total 135-137

Senior Assignment for Medical Technology Students

As biology majors, students in the medical technology curriculum take three years of prescribed course work at SIUE, then complete a fourth year of clinical/professional study in the clinical laboratory at one of SIUE's affiliated hospitals. These students are not in residence on the SIUE campus during their senior year. Intern students move to the vicinity of the hospitals in St. Louis or Springfield. The department views the senior assignment for medical technology students in two ways: (1) successful completion of the hospital calendar year education program, and (2) achieving eligibility to apply for examination by the Board of Registry of the American Society of Clinical Pathologists, the certifying professional body in the United States. An outcome assessment also is provided by the scores received on the registry examination, which compares SIUE students' performance with other students in the United States who take the examination at the same time.

Genetic Engineering Specialization

Genetic engineering is a rapidly expanding field in biology. Genetic engineering is a defined method for producing genetic changes in a variety of organisms in the laboratory. A large number of industrial companies and many research laboratories use genetic engineering in their work. Job opportunities are numerous and growing in number. Students with training in genetic engineering may be employed in diverse laboratory settings including plant breeding, insecticide development and the production of pharmaceuticals.

Degree Requirements
Bachelor of Arts or Bachelor of Science
Biological Sciences Specialization in Genetic Engineering

General Education Requirements 42-44
- The general education curriculum requires 42-44 hours of general education credits. The supporting mathematics and science courses required for this major satisfy 12 hours of the GE area natural science and mathematics requirements and the three hour (3) skills requirement in statistics/computer programming. For the bachelor of arts degree, skills option B (8 hours of foreign languages) is required.

Biology Requirements 36
- 120, 121, 220, 319 16
- 418a,b; 452, 492c,d* 11
- BIOL 430a,b or CHEM 451a,b 6
- BIOL Electives 3

Chemistry Requirements 18
- 121a,b; 125a,b; 241a,b; 245

Mathematics/Physics Requirements 19
- MATH 150 5
- STAT 244 4
- PHYS 206a,b (or 211a,b and 212 a,b) 10

Electives 10-12
Total 124

* 492 is a Senior Assignment course.

Degree Requirements
Bachelor of Science
Biological Sciences Secondary Education Teacher Certification

General Education Requirements 43
- The general education program requires 43 hours of general education credit, of which 13 credits satisfy the general education area natural science and mathematics requirement. These include a course in statistics. An overall grade point average of 2.5 is required for admission to the School of Education Teacher Certification Program. See the secondary education section of this catalog.

Biology Requirements 34
- 120,121,220,319 16
- 327, 340, 494 10
- 365, Ecology 4
- Elective: 400-level course with a laboratory 4

Chemistry Requirements 18
- CHEM 121a,b; 125a,b; 241a,b, 245

Mathematics/Statistics Requirements 7
- MATH 120 or 125 3
- STAT 244 (meets general education statistics requirement) 4

Physics Requirements 13
- PHYS 206a,b (or 211a,b and 212a,b) 10
- PHYS 356, Astronomy 3

Science Requirement 3
- SCI 451, Integrated Science

Geography Requirement 3
- GEOG 210, Physical Geography

Professional Education Requirements 28
(See Secondary Education)
Total 136

Minor Requirements in Biological Sciences

Students wishing to complete a minor in biological sciences must take a minimum of 19 hours of biology courses, at least 9 of which must be completed at SIUE, with a grade point average of 2.0 or higher in all biology courses attempted at SIUE. Due to the sequencing of courses, students are advised that it will normally take at least two years to complete the minor.

Courses must include the following:

1 BIOL 120, 121, 220, 319 (A grade of C or better is required in each of these courses before proceeding to the next course and as a prerequisite to courses numbered above 319).

2 The remaining hours may be completed with any course in biological sciences except 111, 491, 493 or 494.

All the courses in this group have a chemistry prerequisite. Please consult the biology adviser for details.

Combined Bachelor of Science and Master of Science Program (3+2 Program)

Juniors with a grade point average of 3.0 or better, with approval of the graduate committee in biology and the dean of the Graduate School, may pursue graduate work while completing the baccalaureate degree. Both degrees could be completed within five years under this arrangement. Please consult with the biology adviser for more details about this program.

Combined Bachelor of Science and Doctor of Dental Medicine Program (3+4)

A combined arts and sciences dental curriculum that leads to the degrees of bachelor of science and doctor of dental medicine (B.S./D.M.D.) is available for students interested in attending Southern Illinois University Edwardsville for their undergraduate degree. The pre-professional part of the curriculum is completed in just three years on the Edwardsville campus, and the four-year professional portion at the SIU School of Dental Medicine in Alton, Illinois.

Students interested in the dental program or the combined baccalaureate in biology/doctorate in dentistry (B.S./D.M.D) program should write to the Office of Admissions and Records, Southern Illinois University School of Dental Medicine, 2800 College Avenue, Alton, IL 62002, or phone (618) 474-7170.

Chemistry

Distinguished Research Professor: Patrick, T.B.

Professors: Eilers, J.E.; Khazaeli, S.; O'Brien, L.C.; Patrick, T.B; Vandegrift, V. (Chancellor)

Associate Professors: Dixon, R.P. (Chair); Johnson, K.A.; McClure, J.R.; Shabangi, M.;Shaw, M.J.; Voss, E.J.

Assistant Professors: DeMeo, C.; Lu, Y.; Shabestary, N.; Wei, C.; Wiediger, S.D.

Students who want to major in chemistry should visit or call the Department of Chemistry (Science Laboratory Building, room 2339, telephone [618] 650-2042, http://www.siue.edu/CHEMISTRY) as soon as possible. They will be referred to a faculty adviser who will help them plan an academic program. Early advisement will enable students to complete their programs with minimum conflicts and within the shortest possible time.

The Department of Chemistry offers several degree programs and active research opportunities in all the major disciplines of chemistry and biochemistry to satisfy diverse career goals of students. The department has well-equipped laboratories; students in each degree program can expect to gain experience in Fourier-transform nuclear magnetic resonance spectrometry, Fourier-transform infrared spectroscopy, high pressure liquid chromatography, atomic absorption spectrometry, mass spectrometry, and ultraviolet/visible spectroscopy. Through advanced course work, students can gain experience in laser spectroscopy, vacuum line manipulations, high pressure syntheses and high temperature syntheses. Through the department's research programs, students may gain experience in the most current techniques in each discipline of chemistry and biochemistry.

Career Opportunities

The undergraduate chemistry and biochemistry curricula prepare students for a variety of careers. Many chemistry majors begin careers in industry or choose to continue their studies with graduate work in chemistry or biochemistry. Others enter schools of medicine, dentistry, veterinary medicine, or pharmacy.

Opportunities to make significant contributions to society are available to chemistry graduates who have additional training in fields such as computer science, environmental science, economics, education, law, library science, marketing, mathematics, and technical writing.

Degrees and Curricula

The Department of Chemistry offers bachelor of science and bachelor of arts degrees. Four curricula leading to the bachelor of science degree include the following: (a) a curriculum that meets the guidelines of the American

Chemical Society for the training of professional chemists; (all graduates will be certified by the American Chemical Society as having completed an approved curriculum); (b) a basic curriculum that offers greater flexibility in the selection of required chemistry courses and electives; (c) a curriculum that leads to certification for teaching high school chemistry, and (d) a curriculum that meets the guidelines of the American Chemical Society for the training of professional biochemists.

The bachelor of arts curricula have fewer chemistry requirements than the bachelor of science curricula. Three curricula provide opportunities to accommodate a variety of student goals: (a) a flexible curriculum that gives a general introduction to chemistry and which is supplemented by electives in chemistry or a minor in another field; (b) a more structured curriculum that provides preparation for the medical science professions; (c) a curriculum that provides preparation for the biochemistry professions.

Admission

High school students who plan to major in one of the degree programs in chemistry should complete at least three years of college preparatory mathematics (two years of algebra and one of geometry) before entering the University. A fourth year of college preparatory mathematics (to include trigonometry) and one year each of biology, chemistry, and physics are strongly recommended.

Admission to a degree program in chemistry requires an application for a major and acceptance by the department. Once admitted, students are formally affiliated with the Chemistry Department and assigned a faculty adviser. Advisement is mandatory; majors are permitted to register each term only after their Course Request Forms have been approved by their departmental adviser. Because the study of science is progressive, students are encouraged to select their major field of study early in their academic careers to ensure orderly progress toward meeting degree requirements. To be admitted, students already enrolled in the University must have a minimum grade point average of 2.4 in science and mathematics courses completed, and a cumulative grade point average of 2.5 or higher in all courses taken at SIUE and successfully completed CHEM 121a with a C or better. Transfer students should have a 2.6 grade point average in science and mathematics courses, and a 2.5 average in courses taken at other colleges and universities. Students who do not meet the GPA requirements may be provisionally accepted and will receive advisement.

Academic Standards

1 Students should show satisfactory academic progress to be retained in a degree program. Students may be dropped from the program for any of the following circumstances:
   - a Grade point average of 1.0 or below in any term;
   - b Cumulative grade point average of less than 2.0 in the major at any time;
   - c Withdrawal, incomplete, and a combination of failing grades in 50% or more of the courses for which the student is registered during two successive terms;
   - d Any combination of three withdrawal, incomplete, or failing grades in any single required course in the major discipline.

2 For readmission, students must meet the same admission requirements as students entering the program for the first time.

3 Grades of C or above in CHEM 121a and CHEM 121b are required of all students before proceeding into any chemistry courses numbered above 199. Transfer students, upper division students and others who have not earned a grade of C or above in CHEM 121 will be required to do so as a condition of acceptance as a major in chemistry.

Graduation Requirements

The following requirements must be met in order to obtain a degree in chemistry:

a Earn a minimum of 124 hours (130 for Chemistry — Secondary Education with Certification) of acceptable credit with a cumulative grade point average of 2.0 or higher.

b Complete at least 12 hours of SIUE credit in major courses numbered above 299 with a cumulative grade point average of 2.0 or above.

c Earn a GPA of 2.0 or above in all major courses numbered above 299.

d Complete at least 6 hours of SIUE credit in major courses numbered above 299 within 2 years preceding graduation.

e No more than eight semester hours of D grades in any combination of science or mathematics

courses may be counted toward a major in chemistry.

Credit hours earned through proficiency, transfer, CLEP or from a course, after credit has been received for similar or more advanced course work in the same subject at SIUE or elsewhere, may not be applied toward graduation requirements.

Bachelor of Science/Master of Science Curriculum

Undergraduates with exceptional academic credentials may be able to earn both the bachelor's degree and the master's degree in chemistry in 5 years (3 + 2) of study. Admission to this program is based on departmental recommendation to and approval by the Graduate School. Students who are interested in this program option should seek advice from their faculty advisers early in their junior year.

Degree Requirements
Bachelor of Science Chemistry
American Chemical Society (ACS) Certified

General Education Requirements 42-44
General education requires 42 to 44 hours of credit. Introductory and distribution general education courses in the area of natural sciences and mathematics are satisfied by required courses in the curriculum. A computer science or statistics course fulfills one of the skills course requirements. option B with a foreign language is strongly recommended.

Interdisciplinary and other Special Requirements 3-9
An interdisciplinary course (3 hours) and 6 hours from intergroup relations, international culture, or international issues are University requirements. Some of these can also be used to satisfy general education requirements.

Chemistry Requirements 48
- CHEM 121a,b 8
- CHEM 125a,b 2
- CHEM 241 a,b 6
- CHEM 245 2
- CHEM 331 3
- CHEM 335 1
- CHEM 361 a,b 6
- CHEM 365 a,b 3
- CHEM 411 3
- CHEM 415 2
- CHEM 431 3
- CHEM 435 1
- CHEM 451a 3
- CHEM 499 0
- An additional 3 semester hours from the following chemistry courses: 419, 439, 441, 444, 449, 451b, 459, 469, 471, 479 3
- An additional 2 semester hours from the following chemistry courses: 345, 396, 455, 496 2

Mathematics Requirements 10
- MATH 150 5
- MATH 152 5

Computer Science or Statistics Requirements 3
- CS 140 or STAT 107 or 244 or 380 or 480 3

Physics Requirements 10
- PHYS 211 a, b 8
- PHYS 212 a, b 2

Electives 12-14
Total 124

Degree Requirements
Bachelor of Science
Chemistry

General Education Requirements 42-44
The general education curriculum requires 42 to 44 hours of credit. Introductory and distribution general education courses in the area of natural sciences and mathematics are satisfied by required courses in the curriculum and a computer science or statistics course fulfills one of the skills course requirements. option B with a foreign language is strongly recommended.

Interdisciplinary and other Special Requirements 3-9

Chemistry Requirements 43
- 121a,b (8), 125a,b (2), 241a,b (6), 245 (2), 331 (3), 335 (1), 361a,b (6), 365a,b (3), 411 (3), 499 (0) 34
- An additional 6 semester hours from the following chemistry courses: 419, 431, 439, 441, 444, 449, 451a, 451b, 459, 469, 471, 479 6
- An additional 3 semester hours from the following chemistry courses: 345, 396, 415, 435, 455, 496 3

Mathematics Requirements 10
- MATH 150 5
- MATH 152 5

Computer Science or Statistics Requirements 3
- CS 140 or STAT 107, 244, 380 or 480 3

Physics Requirements 10
- PHYS 211 a, b 8
- PHYS 212 a, b 2

Electives 17-19
Total 124

Degree Requirements: Bachelor of Science
Biochemistry American Chemical Society (ACS)
Approved Specialization

General Education Requirements 42-44
Introductory and distribution general education courses in the area of natural sciences and mathematics are satisfied by required courses in the curriculum and a computer science or statistics course fulfills one of the skills course requirements. option B with a foreign language is strongly recommended.

Interdisciplinary and other Special Requirements 3-9
An interdisciplinary course (3 hours) and 6 hours from Intergroup Relations, International Culture, or International Issues are University requirements. Some of these can also be used to satisfy the general education requirements.

Chemistry requirements 55
- CHEM 121a,b 8
- CHEM 125a,b 2
- CHEM 241 a,b 6
- CHEM 245 2
- CHEM 331 3
- CHEM 335 1
- CHEM 361 a,b 6
- CHEM 365 a,b 3
- CHEM 396 2
- CHEM 411 3
- CHEM 415 2
- CHEM 431 3
- CHEM 435 1
- CHEM 451a&b 6

CHEM 455 2
CHEM 459 3
CHEM 496 2
CHEM 499 0
Biology requirements.....16
BIOL 120 4
BIOL 121 4
BIOL 220 4
BIOL 319 4
Mathematics requirements.....10
MATH 150# 5
MATH 152 5
Computer Science or Statistics requirements.....3
CS 140 or STAT 107 or 244 or 380 or 480* 3
Physics requirements.....10
PHYS 211 a#, b$.....3
PHYS 212 a, b.....2
Total.....124

*used as skill course; # used as intro course; $ used a distance course. Students admitted to a health professions school at the end of their junior year may transfer appropriate health professions school credits to complete the requirements for a degree in chemistry from SIUE.

Degree Requirements
Bachelor of Science
Chemistry Secondary Education Teacher Certification

Admission to a teacher education program is a joint decision by the academic discipline in the College of Arts and Sciences and the School of Education. Therefore, it is essential that any student desiring teacher certification meet with an advisor in the Office of Clinical Experience, Certification and Advisement of the School of Education for admission to the teacher education program.

General Education Requirements 42-44
The general education curriculum requires 42 to 44 hours of credit. Students must select option A with a statistics course. Students seeking teacher certification also must meet specific general education and professional education requirements. See the secondary education section of this catalog for details. An overall grade oint average of 2.5 is required for admission to the School of Education teacher certification program. Scheduling for the third and fourth years involves coordination between the Chemistry and Secondary Education departments. Students should contact the Chemistry Department's undergraduate education coordinator for specific curriculum details.

Interdisciplinary Requirements 3
Chemistry Requirements 36
CHEM 121a,b 8
CHEM 125a,b 2
CHEM 241a,b 6
CHEM 245 2
CHEM 331 3
CHEM 335 1
CHEM 361a 3
CHEM 365a 2
CHEM 451a 3
CHEM 494 3
CHEM 499 0
Additional 3 semester hours from chemistry courses numbered 300 or above 3
Science Requirements 3
SCI 451 3
Professional Education Requirements 28
(See Secondary Education)
Statistics Requirements 3
STAT 107 or 244 or 380 or 480 3
Mathematics Requirements 10
MATH 150 5
MATH 152 5
Physics Requirements 10
PHYS 211a,b 8
PHYS 212a,b 2
(or PHYS 206a,b-10)
Biology Requirements 4
BIOL 120 4
Total 130

Degree Requirements
Bachelor of Arts
Chemistry

General Education Requirements 42-44
The general education curriculum requires 42 to 44 hours of credit. Introductory and distribution general education courses in the area of natural sciences and mathematics are satisfied by required courses in the curriculum. A computer science or statistics course fulfills one of the skills course requirements. An interdisciplinary course (3 hours) and 6 hours from intergroup relations, international culture, or international issues are University requirements. Some of these may also be used to satisfy the general education requirements.

Foreign Language Requirements 8
Chemistry Requirements 39
121a,b (8), 125a,b (2), 241a,b (6), 245 (2), 331 (3), 335 (1), 361a (3), 365a (2), 499 (0) 27
An additional 9 semester hours from the following chemistry courses: 361b, 411, 419, 431, 439, 441, 444, 449, 451a, 451b, 469, 471, 479 9
An additional 3 semester hours from the following chemistry courses: 345, 365b, 396, 415, 435, 455, 496 3
Mathematics Requirements 10
MATH 150 5
MATH 152 5
Computer Science or Statistics Requirements 3
CS140 or STAT 107 or 244 or 380 or 480 3
Physics Requirements 10
PHYS 211 a, b 8
PHYS 212 a, b 2
(or PHYS 206a,b) (10)
Approved Supporting Courses or Minor* 12-21
Electives 0-9
Total 124

* Students may take a minor or a group of courses from one or more departments that will support their major educational and career objectives. If they choose the second alternative, the curriculum must include at least four supporting courses that total at least 12 hours of credit; the physics and mathematics courses required for the bachelor of arts degree do not count as supporting courses.

Degree Requirements
Bachelor of Arts
Biochemistry Specialization

General Education Requirements 42-44
Introductory and Distribution Courses in the area of Natural Sciences and Mathematics are satisfied by required courses in the curriculum and a Computer Science or Statistics courses fulfills one of the Skills courses.

Interdisciplinary and other Special Requirements 3-9
An Interdisciplinary Course (3 hours) and 6 hours from Intergroup Relations, International Culture, or International Issues are University requirements. Some of these can also be used to satisfy the General Education requirements.

Foreign Language Requirements 8
Chemistry Requirements 45
- CHEM 121a,b 8
- CHEM 125a,b 2
- CHEM 241a,b 6
- CHEM 245 2
- CHEM 331 3
- CHEM 335 1
- CHEM 361a 3
- CHEM 365a 2
- CHEM 451a&b 6
- CHEM 455 3
- CHEM 459 3
- CHEM 499 0
- An additional 3 semester hours from the following:
- Chemistry courses: 3
- 361b, 411, 419, 431, 439, 441,
- 444, 449, 469, 471, 479
- An additional 3 semester hours from the following:
- Chemistry courses: 3
- 345, 365b, 396, 415, 435, 455, 496
- Biology requirements: 16
- BIOL 120 4
- BIOL 121 4
- BIOL 220 4
- BIOL 319 4
- Mathematics requirements: 10
- MATH 150 5
- MATH 152 5
- Computer Science or Statistics requirements: 3
- CS 140 or STAT 107 or 244 or 380 or 480 3
- Physics requirements: 10
- PHYS 211a, b 8
- PHYS 121a 2
- (or PHYS 206a, b) ..... (10)
- Electives: 9-11
- Additional chemistry and biology* courses

Total 124

*Additional semester hours from the following biology courses: BIOL 325, 331, 335, 340

**Students admitted to a health professions school at the end of their junior year may transfer appropriate health professions school credits to complete the requirements for a degree in chemistry from SIUE.

Degree Requirements
Bachelor of Art
Chemistry Specialization in Medical Science**

General Education Requirements 42-44
The general education curriculum requires 42 to 44 hours of credit. Introductory and distribution general education courses in the area of natural sciences and mathematics are satisfied by required courses in the curriculum. A computer science or statistics course fulfills one of the skills course requirements.

Interdisciplinary and other Special Requirements 3-9
An Interdisciplinary course (3 hours) and 6 hours from intergroup relations, international culture, or international issues are University requirements. Some of these can also be used to satisfy the general education requirements.

Foreign Language Requirements 8
Chemistry Requirements 39
- CHEM 121a,b 8
- CHEM 125a,b 2
- CHEM 241a,b 6
- CHEM 245 2
- CHEM 331 3
- CHEM 335 1
- CHEM 361a 3
- CHEM 365a 2
- CHEM 451a&b 6
- CHEM 499 0
- An additional 3 semester hours from the following: Chemistry courses: 361b, 411, 419, 431, 439, 441, 444, 449, 469, 471, 479 3
- An additional 3 semester hours from the following Chemistry courses: 345, 365b, 396, 415, 435, 455, 496 3

Biology Requirements 10
- Biology 120 4
- Additional 6 semester hours from the following Biology courses: BIOL 121, 220, 319, 325, 331, 335, 340 6

** Students admitted to a health profession program at the end of their junior year may transfer appropriate health profession credits to complete the requirements for a degree in chemistry from SIUE.

Mathematics Requirements 10
- MATH 150 5
- MATH 152 5

Computer Science or Statistics Requirements 3
- CS 140 or STAT 107 or 244 or 380 or 480 3

Physics Requirements 10
- PHYS 211a,b 8
- PHYS 121a,b 2
- (or PHYS 206a,b-10)

Electives 9-11
- (Additional chemistry and biology recommended)

Total 124

Degree Requirements: Chemistry Minor*

A minor in chemistry requires 24 hours with a grade point average of 2.0 or higher as follows:

CHEM 121a,b 8
CHEM 125a,b 2
CHEM 241a,b 6
CHEM 245 2
Additional 6 semester hours from chemistry courses numbered 300 or above 6
Total 24

Note: at least 6 of the 24 hours must be SIUE credit.

* Students may take a minor or a group of courses from one or more departments that will support their major educational and career objectives. If they choose the second alternative, the curriculum must include at least four supporting courses that total at least 12 hours of credit; the physics and mathematics courses required for the bachelor of arts degree do not count as supporting courses.

Combined Bachelor of Arts Chemistry and Doctor of Dental Medicine Program (3+4)

A combined arts and sciences dental curriculum that leads to a Bachelors Degree in chemistry and doctor of dental medicine (B.A. or B.S./D.M.D.) is available for students interested in attending Southern Illinois University Edwardsville for their undergraduate degree. The pre-professional part of the curriculum is completed in three years on the Edwardsville campus, and the four-year professional portion is completed at the SIU School of Dental Medicine in Alton, Illinois. Students interested in the dental program or the combined baccalaureate in chemistry/doctorate in dentistry program should contact to the Office of Admissions and Records, Southern Illinois University School of Dental Medicine, 2800 College Avenue, Alton, IL 62002, or phone (618) 474-7170.

Economics

Professors: Hafer, R.W. (Chair); Kutan, A.M.; Meisel, J.B.

Associate Professors: Bharati, R.C.; Navin, J.C.

Assistant Professors: Demirer, R.; Evrensel, A.; Gupta, M.; Hackard, J.C.; Jia, J.; Spivey, C.

Instructors: Beck, H.L.; Pettit, M.A.; Phillips, R.R.; Richards, W.D.; Sullivan, T.S.; Wolff, L.A.

Economics is the study of how economic systems determine what goods and services will be produced, the prices and quantities of those goods and services, and who will receive them. All societies, from the most primitive to the most complex, must have economic systems that determine how scarce resources (land, raw materials, labor, machinery, and physical structures) will be used to satisfy the demands of the people living in those societies. Knowledge of economics is essential to understanding problems ranging from the consumer's decision to purchase one brand of car over another to businesses' decisions as to which goods and services to produce and how to price them. Economics also helps us to understand the causes of inflation and unemployment, as well as the effects of government budgets or international trade deficits. Lawyers, bankers, managers of large and small businesses, government planners and journalists find economics a useful tool in understanding and solving problems.

Students choosing economics as their major pursue a core program designed to provide a thorough grounding in economic theory followed by more specialized study in such areas as money and banking, labor and industrial relations, international economics, public finance, industrial organization, and antitrust policy. Students develop their programs with the counsel of a faculty adviser.

The Department of Economics and Finance offers two degrees through the College of Arts and Sciences: a bachelor of arts degree with a major in economics, and a bachelor of science degree with a major in economics. Candidates for either degree must complete 34 semester hours in economics and a minor in business, mathematics, any other social science, or another field approved by the student's faculty adviser. Those students planning to enter Ph.D. programs in economics are strongly encouraged to take their minor in mathematics. Students who plan to seek employment upon completion of their bachelor's degree or who plan to pursue graduate work in some other field are advised to elect a minor in a field related to their chosen career.

Students wanting more information may consult the Department of Economics and Finance, Alumni Hall, room 3129. Students also may meet with a faculty adviser in the Department of Economics and Finance.

Career Opportunities

Economists are employed in all areas of private industry; in federal, state, and local government agencies; in international organizations such as the United Nations and the World Bank; in labor unions; and in colleges and universities. Duties performed by professional economists include market research, forecasting, corporate planning, policy evaluation, economic impact studies, and consulting.

During the past several years, graduates of the SIUE program in economics (including the graduate program) have obtained employment in a variety of institutions. These include commercial banks, brokerage firms, government agencies, public utilities, state legislatures, manufacturing and retailing firms, consulting firms, as well

as community colleges and small liberal arts colleges. A number of students have continued their study of economics by entering highly competitive Ph.D. programs. Law school is another popular option.

Degree Requirements
Bachelor of Arts or Bachelor of Science
Economics

General Education Requirements 42-44
Must include MATH 120 and CMIS 108 or CS 108. The bachelor of arts program must include eight hours of foreign language. No economics courses will count toward the introductory or distribution general education requirements. The intergroup relations and international requirements of the general education program may be satisfied with either distribution general education courses or with major courses and are presumed so below.
Total Economic Hours Required 34
ECON 111*,112*, 301*, 302*, 415* or 417* 15
ECON Electives 12
MS 250*, MS 251* 7
Minor* 18
The minor must be approved by the student's adviser.
Electives 28-30
Total 124

* Grade of C or better required in courses with asterisk (*).

** Students seeking a degree in economics must select a minor from business, mathematics or social science. Other minor concentrations must be approved by an adviser in the Department of Economics and Finance.

ECON 327 may be counted as both an Intergroup Relations(IGR) course and an economics elective.

ECON 361 or 461 may be counted as both an International (II) course and an economics elective.

Admission/Entrance Requirements

The admission/entrance requirements for a degree in economics are the same as for the University. High school deficiencies and academic development courses must be completed before applying for a major in economics. Any course with a grade of D accepted for transfer credit to SIUE will not count toward a major in economics.

Retention

Students in the bachelor of arts and bachelor of science degree programs are required to maintain a 2.0 grade point average in economics courses.

Exit Requirements

Students completing a degree in economics are required to maintain a 2.0 in economics courses and a cumulative 2.0 grade point average. Students must complete all economics courses in regularly scheduled classes. (No credit is granted for correspondence or extension courses.)

Students who have earned credit for a course required for a degree in economics by taking a proficiency examination, by transferring credit for a course, or by taking the course, may not earn credit for graduation by taking a similar or lower division course in economics at SIUE or at other higher education institutions.

To exit from the program, candidates must present to the faculty their research projects from ECON 415 or ECON 417.

Minor Requirements

Students satisfy the requirements for a minor in economics by taking ECON 111, 112, 301, 302 and two other economics electives at the 300 or 400 level for a total of 18 hours. Students must meet all economics course prerequisites and are required to maintain a 2.0 grade point average in Economics courses. Any course with a grade of D accepted for transfer credit to SIUE will not count toward the minor in economics.

English Language and Literature

Professors: Berger, C.; Farley, A.H.; Funk, A.; Meyering, S.L.; Ragen, B.A.; Redmond, E.B.; Ruff, N.K.; Schaefer, R.P. (Acting Associate Dean); Skoblow, J.; Smithson, I.; Voller, J.G.

Associate Professors: Aktuna, S.; Hardman, J.C.; LaFond, L. (Chair); McGee, S.J.; Pendergast, J.; Savoie, J.; Schmidt, G.; Sivanarayanan, A.; Tickoo, A.

Assistant Professors: Anderson, J.; Fanetti, S.; Johnson, M.; Rambsy II, H.; Seltzes, C.; Vogrin, V.A.

The study of literature and of the English language encourages appreciation of the significant ideas of the past and present, provides training in effective writing, and offers practical experience in logical and aesthetic analysis. These skills are of particular value in a world in which specific technical capabilities may be threatened by obsolescence. Students prepared in English language and literature are equipped to acquire essential technical skills and to assimilate knowledge crucial to technological and computer-based capabilities.

Career Opportunities

English majors are well prepared for graduate and professional studies in business, law, and library

science. In addition, they may find career opportunities in public relations, journalism, teaching, consulting and editing, particularly when an English major is combined with a minor or significant course work in art and design, journalism, mass communications, or speech communication. Advertising agencies, book publishers, and institutions such as universities, hospitals, major corporations, and federal agencies that have organizational publications employ creative and technical writers, researchers, and editors. Articles by free-lance writers are published in many local and national magazines and newspapers. Although job opportunities in these areas are highly competitive, students who can express themselves clearly and document their ideas through careful research will receive thoughtful consideration from potential employers.

Grade Policy

Only courses in which students receive a C or better will be accepted for credit toward the English major or minor.

Undergraduate Handbook

Students considering a major or minor in English may obtain the Undergraduate Handbook for English Majors and Minors, as well as the course description bulletin, from the Department of English Language and Literature, Peck Hall, room 3206.

Degree Requirements
Bachelor of Arts
English

General Education Requirements 42-44
(For a bachelor of arts degree in English, students must select option B in the general education skills area.)
Required Courses 9
ENG 200 Introduction to Literary Study 3
ENG 208 Survey of British Literature: Beginnings to 1789 3
ENG 497a Senior Seminar 3
Required Distributions 18
Two additional survey courses from 209, 211, 212 6
One Major Authors course from 307, 404, 471a,b, 473 3
One 400-level course in American Literature 3
One course in literary theory from 301, 495 3
One course in language systems from 369, 400, 403 3
Required Electives 9
Any English course numbered 200 or higher. Complete program can include no more than 15 hours at the 200 level and must include at least 15 hours at the 400 level.
Minor 18-21
Foreign Languages (all hours in the same language) 8
Additional Electives 15-20
Total 124

English 499 may not count toward the 400-level course requirements. Only courses in which students receive a C or better will be accepted for credit toward the English major. Students planning to attend graduate school in English or law school should take two years of a foreign language.

Degree Requirements
Bachelor of Science
English
Secondary Education Teacher Certification

General Education Requirements 42-44
Requirements for the Major in English 39
Introduction to Literary Study (200) 3
Surveys (208, 209, 211, 212) 12
Chaucer/Shakespeare/Milton (307, 404, 471a, 471b, 473) 3
Language Systems (369, 400) 6
Writing (290 392, 393, 490, 491, 492, 493) One must be 490. 6
Teacher Preparation (475, 485) 6
Senior Seminar (497a) 3
Minor or approved supporting courses 18-21
Professional Education Courses 28
Total 130-132

Of the 39 hours required in English courses, at least 18 must be 400-level courses, and no more than 18 may be at the 200 level. English 499 may not count toward the 400-level course requirements. At least 9 hours must be in English literature courses, and at least 6 hours must be in American literature courses. Only courses in which students receive a C or better will be accepted for credit toward the English major. English education majors must also maintain a cumulative B average in English courses.

English students who apply for language arts certification through the Department of English Language and Literature also must, within 30 days, apply for the speech communication education minor through the Department of Speech Communication. Minor advisement by the director of speech communication education, available at (618) 650-3090, is mandatory.

Three terms (including summer) before the semester in which they plan to begin student teaching, students must apply for approval from the English Education Committee of the Department of English Language and Literature. Application is made through the department's "Student Teaching Screening Process," described in detail in the English Department's Undergraduate Handbook for Majors and Minors.

The bachelor of science major in English fulfills Illinois and Missouri state certification requirements. Anyone interested in an endorsement to teach English as a second language should contact the ESL endorsement adviser.

Literature Minor Requirements

To complete a literature minor requires a minimum of 18 hours of English courses numbered 200 or above, with a grade of C or higher in each course is required. English 200 should be taken at the first possible opportunity; 6 of the 15 hours must be taken in English courses numbered 400 or higher. Appropriate courses in creative writing, expository writing, and linguistics may be included as supplements to the literature courses. All courses should be selected with the

approval of the English Department's undergraduate adviser. The literature minor may not be combined with an English major.

Creative Writing Minor Requirements

The minor in creative writing requires a minimum of 18 hours. (Students must complete the freshman composition sequence before taking courses in creative writing.) Students must choose either of the following programs from the primary sequence: fiction (English 290, 392, 492, 498) or poetry (290, 393, 493, 498). To fulfill the two elective courses within the minor, students are strongly recommended to choose from: English 490, 494, 441a and 441b. Students may also elect to take 498 a second time; any 392, 393, 492, or 493 course that is outside the student's primary sequence; and one 400-level literature course (besides 441a and 441b). A course from the Mass Communications Department, Writing for the Media (202), also may be counted toward the creative writing minor. A more complete description of the creative writing minor is found in the Undergraduate Handbook for Majors and Minors, which can be obtained from the Department of English, or from the Creative Writing Adviser. English majors who satisfy the Creative Writing Minor requirements may substitute any English elective for the three-hour writing requirement.

Linguistics Minor Requirements

The linguistics minor requires a minimum of 18 hours. Students may meet this requirement by selecting from among the following 300- and 400-level courses: English 369, 370, 400, 403, 405, 406, 408, 409, 416, 468, 470 and 472. At least one course should be selected from each of the following major areas of linguistic study: phonology (370, 408); historical change (403, 406); and syntax (369, 409). For classes at the 400 level, English 400 is strongly suggested as an introductory course. Students who wish to pursue the linguistics minor are encouraged to take English 207 as part of their general education course work. A minor in linguistics may be combined with a major in English. English majors who satisfy the linguistics minor requirements may substitute any English elective for the three-hour language systems requirement

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Foreign Languages and Literature

Professors: Carstens-Wickham, B. (Chair); Griffen, T.D. (retired); Springer, C. (Associate Dean, College of Arts and Sciences)

Associate Professors: Bueno, J.L.; Bueno, K.A.; Fonseca, E.; Mann, J.D.; Morrison, F.M.; Pallemans, G.S; Zaytzeff, V.

Assistant Professors: Solares, M.; Simms, D.

Career Opportunities

The global awareness and cultural understanding acquired through learning a second language will serve students well in the 21st century. College graduates with knowledge in one or more foreign languages will enjoy a competitive edge in the multicultural work force in most professions in the United States, in most branches of the federal government, and in teaching at all levels. They also will find rewarding careers in international business, including import and export trade, translator and consultant positions. Salaries are competitive, and travel opportunities often are an exciting job benefit.

Courses Offered by the Department

Courses offered by the Department of Foreign Languages and Literature are designed to provide students with insights into the culture and literature of foreign countries while they develop fluency in a second language. The study of a foreign language ranges from an introductory sequence through a focus (15), minor (21) or major (37) concentration and represents an integral part of a broad, internationally enlightened education. Foreign language proficiency also increases student' understanding and command of their native language. Students must successfully complete 101 and 102, or equivalent, in French, German, or Spanish.

The department offers both major and minor concentrations or a focus in Chinese, French, German, and Spanish, leading to a bachelor of arts degree. Language courses in Greek, Italian, Latin, and Russian also are offered, as well as courses in Celtic studies.

All incoming students with one year or more of high school foreign language study are required to take a placement test prior to enrolling in any course in that same language at SIUE. There is no charge for the test,

and students may earn up to 16 hours of proficiency credit in accordance with University and departmental policies. Please contact the department for more information.

It is strongly recommended that students who choose a language major also select an additional major or minor concentration in another discipline. Such a combination will enhance students' educational and employment opportunities.

Degree Requirements
Bachelor of Arts*
Foreign Languages and Literature

General Education Requirements 44
Requirements for a Major in Foreign Language 37

While all languages require the same number of hours (37), specific requirements for a major may vary among the languages.

French and German Majors
FL 111a,b **; 201**: 202**; 301;
351**; 352**; 400a,b 25
Electives in 300-400 level courses 12
Spanish Majors
201**; 202**; 301, 302, 400 19
Electives in 300-400 level courses 18
Electives 39-43
Total 124

Advanced electives will normally include at least two courses in culture and two in literature.

400 usually is taken during the last semester of major course work.

* Students seeking teacher certification should consult with their adviser.

** May satisfy general education requirements.

Course work for the teaching field and for professional education is coordinated by the College of Arts and Sciences and the School of Education. For more information about applying for a major, consult the secondary education adviser or the adviser in the teaching discipline.

Degree Requirements
Bachelor of Science
Foreign Languages and Literature
Secondary Education Teacher Certification

General Education Requirements 42-44
Some general education requirements may be satisfied while completing this major concentration. Also note that general education requirements for certification differ from University requirements. See the secondary education section of this catalog for details.
Requirements for a Major in Foreign Language 40-42
Electives, Second Teaching Field 9-20
Professional Education Courses 28
See Secondary Requirements
Total 125

While all languages require the same number of hours (40-42), specific requirements for a major vary among the languages. A "B" average in the major is required for certification.

French and German Majors
FL 111a,b **; 201**; 202**; 301; 351**; 352**; 400a,b 25
FL 486 3
Electives in 300-400 level courses 12-14
Spanish Majors
201**; 202**; 301; 302, 308, 400 23
*FL 486 3
Electives in 300-400 level courses 15-16

Advanced electives normally will include at least two course in culture and two in literature.

400 usually is taken after the completion of all major courses.

Note: A "B" (3.0) average in the major is required for secondary education teacher certification. In order to register for student teaching in foreign languages (CI 352g), students must successfully complete a student teaching interview. Students should send an application and dossier to Dr. Kathleen Bueno by 4:30 p.m. on Friday of the first week of classes of the semester prior to the semester in which the student plans to student teach. For more information about the interview, the application form and the dossier, please access Dr. K. Bueno's homepage at www.siue.edu/~kbueno.

Minor Requirements

A minor in French, German, or Spanish consists of the following courses (21 hours):

French and German Minors
FL 111a, b, **; 201**; 202**; 301. Plus 6 hours of electives at the 300-400 level; at least one elective must be in literature.

Spanish Minors
201**; 202**; 301 or 302. Plus 9 hours of electives at the 300-400 level; one of these electives must be 311 or 312.

Minor in Russian Area Studies

A minor in Russian area studies consists of the following 26 hours: Russian 201**; 202**; and the following courses:

Geography 331**; History 318(a)**; 318 (b)*; 426** ; Philosophy 344**
Political Science 351**

* Students seeking teacher certification should consult with their advisers.

** Satisfies general education requirements

Focus Requirements

A focus in Chinese consists of the following five required course and one elective (22 hours): 101**, 102**, 201, 202, FL111d**, plus 3 hours of electives at the 300-400 level.

** Satisfies requriements for general education.

A focus in French, German, or Spanish consists of the following three required courses and one elective (15): 201, 202, 301 plus 3 hours of electives at the 300-400 level.

Admission to a teacher education program is a joint decision by the academic discipline in the College of Arts and Sciences and the School of Education. Therefore, it is essential that any student desiring teacher certification meet with an adviser in the Office of Clinical Experience, Certification and Advisement of the School of Education for admission to the teacher education program.

Program Completion Requirements

For majors and minors in the Department of Foreign Languages and Literature, credit is allowed for only those courses in which grades of C or better are earned. A "B" (3.0) average in the major is required for secondary education teacher certification.

Geography

Professors: Pearson, R.S. (Chair); Shaw, W. (Associate Dean); Zhou, B.

Associate Professors: Hildebrandt, M.L.; Hu, S.; Odemerho, F.O.; Starr, M.J.

Assistant Professors: Acheson, G.; Grossman, M.J.; Hume, S.E.; Springer, C.E.

The Department of Geography offers the bachelor of science and the bachelor of arts degrees in geography. A degree in heography requires a minimum grade of C in courses completed for the major.

Geography, concerned with the Earth as the home of people, stresses the locational analysis of human activities and their relationships with the environment. While geography is one of the most time-honored disciplines reflecting curiosity about people and places, it is also an applied discipline that offers insights about present and future issues, involving environment, culture, society, economy, and politics.

The breadth of geographic inquiry accommodates students who have broad interests and goals. Students may emphasize physical aspects of the environment, cartography/geographic information systems, economic geography, human settlements, and cultural geography.

Geography majors are encouraged to consult with their advisers and should consider using elective hours to expand a particular area of interest. Physical geographers should consider a minor or an area of specialization in the physical sciences; the cartographer and computer-oriented student might consider a minor or an area of specialization in mathematics or computer science.

Career Opportunities

A geographer with a bachelor's degree has opportunities for employment in a wide variety of businesses and public organizations. Geography graduates have found employment as planners, environmental analysts, locational and industrial development analysts, cartographers, foreign service and intelligence officers, geographic information systems and image processing specialists, historic preservation specialists, and teachers at the elementary or secondary school level. The program also prepares students to continue their geographic studies at the graduate level, which may provide opportunities to teach in community colleges and universities.

Degree Requirements
Bachelor of Arts or Bachelor of Science
Geography

General Education Requirements 42-44

Some general education requirements may be satisfied while completing the major concentration. Also note that students seeking teacher certification must take specific general education requirements. See the secondary education section of this catalog for details. Candidates for the bachelor of arts degree must elect option B in the general education skills area.

Geography Core Requirements 36

GEOG 205 Human Geography
GEOG 210 Physical Geography
GEOG 201 World Regions
GEOG 320 Cartography
GEOG 321 Quantitative Techniques

After completing GEOG 205, the student must select two human geography courses from among the following: 300, 301, 400, 401, 402, 406, 450 (human topic)

After completing GEOG 210 the student must select two physical geography courses from among the following: 310, 312, 314, 315, 316, 410, 411, 412, 413, 450 (physical topic)

After completing GEOG 201, the student must select one regional geography course from among the following: 330, 331, 332, 333, 334, 450 (regional topic)

After completing GEOG 320, the student must select one geography techniques course from among the following,: 322, 418, 422, 423, 424, 425, 450 (techniques topic)

499 (3 hour) Senior Assignment. Prerequisite 321. Senior assignment is completed over a two-semester period. A grade of DE (deferred) is assigned at the end of the first semester.

Minor or Area of Specialization 18
Geography majors may complete an existing minor within another department or may select the area of specialization option. The area of specialization option is designed to give students an opportunity to further explore the breadth and depth of geography and related disciplines, and consists of a unique 18 hours of course work. The area of specialization may include courses from a variety of departments, including geography (courses must be in addition to all major requirements), and it must be designed in consultation with the area adviser and approved by the department chair. All courses taken as part of an area of specialization require a minimum grade of C.
Electives 26-28
Total 124

Minor in Geography Requirements (for non-Geography majors)

The minor in geography requires that students take 18 credits consisting of courses at the 200 level or above. The student is required to take one human course, one physical course, and one regional course for a total of 9 credits. The remaining 9 credits in geography may be taken as electives. A minimum grade of C is required in courses completed for the minor. The courses should be selected in consultation with the undergraduate adviser in geography.

Historical Studies

Professors: Frick, C.; Hansen, S.L. (Associate Provost & Dean of Graduate Studies); Taylor, J.A

Associate Professors: Cheeseboro, A.Q. (Chair); Jordan, T.; McClinton, R.; Ruckh, E.; Tamari, S.L.; Thomason, A.K.

Assistant Professors: Bradley, S.M.; Fowler, L.E.; Hinz, C.; Hoenicke Moore, M.M.; Moore, M.E.; Stacy, Jason

Instructor: Eubanks, L.A.; Harrison, Victoria

The study of history begins with questions about how things came to be as they are or were; these questions contribute to a greater understanding of ourselves and others.

Historians approach the study of the past in many ways. Some attempt to analyze the entire spectrum of historical evolution within a particular period or within a specific nation. Others, working within or across national histories, specialize in the history of particular social institutions, such as the family, business or churches, or the historical development of ideologies or of cultural concepts such as race or gender. Historians borrow tools freely from other disciplines. For some historians, the methodologies of the social sciences become critical tools for the study of the past, while others prefer a historical approach more akin to the methods of the humanities and literature. Most adopt some mixture of methodologies.

Some historians argue that studying the past brings them to a better understanding of the present. For them, the past provides useful insights into the current behavior of individuals and institutions. Others stress the uniqueness of every historical situation and are less prone to seek lessons in the past. Most historians contend that the discipline does give students of history a breadth of perspective that improves their ability to understand events and to function in today's world.

Students applying for a major in any history program must have completed the general education requirements for writing skills (English 101 and 102 or equivalent) and all high school course deficiencies. Students should arrange an interview with the undergraduate adviser in history as soon as possible after applying for a major.

Career Opportunities

The Department of Historical Studies has two options within its bachelor's degree program. One, the bachelor of arts degree, is often the first step in preparation for a career as a professional historian. It is also excellent preparation for the study of law or for many other kinds of professional training. The other, the bachelor of science degree, may be preferred by students contemplating careers in the business world, government service, journalism and editing. Students pursuing either a B.A. or a B.S. degree may seek work in the field of Public History, that is, as workers in museums, archives, national parks and monuments or other venues where the services of a person trained in historical analysis are required. To prepare students for this sort of work, the department offers HIST 490, an elective supervised internship with an historical agency for up to 6 hours of credit.

Finally, students planning to teach in the public schools may choose either a bachelor of arts or a bachelor of science degree with a major in history. Any one of these programs provides an opportunity for students to study subjects of great interest while developing skills that prepare them for a variety of career options. The bachelor of science degree program is identical to the

bachelor of arts degree program, except students are not required to study a foreign language. A foreign language is strongly recommended for students who plan to pursue graduate study.

Degree Requirements
Bachelor of Arts or Bachelor of Science
History

General Education Requirements 42-44
Some general education requirements may be satisfied while completing the major concentration. For the bachelor of arts degree in history, students must select option B in the general education skills area. This option requires study of at least two years of a foreign language. The department strongly encourages students to study another language.

Major Requirements 36
Four courses from HIST 111a, b, 112a, b, 113, 114, 130, 200, 201 (two must be from the European or world surveys and two from the United States surveys. Students preparing for certification to teach history or social studies must select HIST 112a, b.) 12

Six courses elected by the students at the upper-level (300-499); Topical courses (300) may be substituted for up to six credit hours of this requirement; topical courses (400) may be substituted for up to nine credit hours of this requirement; at least three credit hours must be history of an area outside of Europe and the United States. Students preparing for certification to teach history or social studies must select History / Pedagogy, HIST 323, as one of their six upper-level courses. 18

HIST 301 (Historical Methods) 3

HIST 401 (Historical Research – Senior Assignment) 3

Minor* 18-21

Electives* 8-23

Total 124

* Students seeking a bachelor of arts or bachelor of science degree are required to have a minor.

Transfer Courses

All history courses successfully completed at community colleges will transfer as meeting only lower division requirements (100- or 200-level courses). History at SIUE requires two American history survey courses and two courses from either European or world history surveys. Students not meeting the distribution requirement may be required to take additional survey courses.

Program Completion Requirements

To meet major requirements, students must receive a grade of C or better in all history courses taken. Students seeking a bachelor of arts in historical studies must complete at lease two years of study of a single foreign language at the college level.

Minor Requirements

The minor requires that students select three courses from history 111a, b, 112a, b, 113, 114, 130, 200, 201. At least one of these courses must be in European or world history, and at least one must be in United States sistory. In addition, four courses at the upper level (300-499) must be completed. History mini-courses (300 level) may be substituted for up to six credit hours of this requirement. Topical courses numbered as HIST 400 may be taken for up to nine hours of this requirement, as long as no topic is repeated. At least three credit hours must be in either World History (HIST 112) or in an upper-level course in an area other than European and United States history. Students must receive a grade of C or better in all history courses taken to meet the Strong minor requirements in social sciences.

Degree Requirements
Bachelor of Arts or Bachelor of Science
History
Secondary Education Teacher Certification

Students who intend to teach at the secondary level may choose either the bachelor of arts or the bachelor of science degree with a major in historical studies. All students seeking certification must take two semesters of world history and social science/ pedagogy, which is taught in the Department of History, as one of their upper-level courses taken for the major.

The major constitutes the teaching field of concentration. Students pursuing this degree also must complete the Strong minor in social sciences as outlined below. Students must receive a grade of C or better in all courses taken to meet requirements in the Strong minor in social sciences:

ANTH 111 Introduction to Anthropology 3
SOC 111 Introduction to Sociology 3
ECON 111 Macroeconomics 3
ECON 112 Microeconomics 3
GEOG 201 World Regions 3
GEOG 205 Human Geography 3
GEOG 210 Physical Geography 3
POLS 111 Introduction to Political Science 3
POLS 112 American Government and Politics 3
POLS 300 Political Analysis, or POLS 340 American Presidency, ... 3
or POLS 342 Issues in American Public Policy,

or POLS 370 International Relations
Total 30

Two of these 111 courses, outside of one's major, may count toward Introductory credit in social science for general education, along with one of the courses in the minor numbered above 111, which may count toward distribution in social sciences.

The following are required of all students in this program, including transfer students and those who already have a bachelor's degree:

1 Certification requires a 3.00 GPA in history courses, including those completed at past institutions.
2 Completion of Social Sciences/Pedagogy (HIST323) before taking CI 352L, student teaching, history and two semesters of world history.
3 Approval by the teacher education committee of the Department of Historical Studies, three semesters (including summer) prior to the semester in which they plan to begin student teaching

Students also must complete the required program of professional education requirements in the School of Education for certification. Therefore, it is essential that any student desiring teacher certification meet with an adviser in the Office of Clinical Experience, Certification and Advisement of the School of Education or admission to the teacher education program.

Mass Communications

Professors: Donald, R.R., Maynard, R.H.; Murphy, P.D. (Chair)

Associate Professors: Hicks, G.R.,

Assistant Professors: Hale, D.K; Ibroscheva, E.N.; Kapatamoyo, M.; Voss, K.; Yu, J.

Instructors: Byers, C.

The Department of Mass Communications is accredited by the highly selective Accrediting Council on Education in Journalism and Mass Communication (ACEJMC). The program is designed to prepare students for one of the fastest growing and dynamic industries in the United States: mass communication and media arts.

Our curriculum seeks to educate students so that they can be responsive to this fast paced, ever changing professional environment. While some specialized skills are essential to enable students to meet current standards, the goal of the Mass Communications curriculum is to produce graduates who are independent professional communicators capable of growing and changing with the times.

To meet the challenges of the mass communications industries of the 21st century and to provide students with a comprehensive mass communications background, this department's curriculum consists of four components: the introductory core, a professional option, the advanced core, and mass communications electives. The introductory core of four courses consists of an introduction to mass communication plus three basic skills courses. MC 201 (Mass Media in Society) encourages an appreciation for the significant ideas, events and individuals that influenced the development of mass media systems and continue to guide their evolution.

In the three introductory skills courses, MC 202 (Writing for the Media), MC 203 (Audio Production for the Media) and MC 204 (Video Production for the Media), students learn essential analytical and artistic skills in writing and in audio and visual media production. These fundamental media skills are broadly applicable and not bound to specific technologies that may be threatened by obsolescence. Students are required to choose and to complete a professional option consisting of four courses. The options are: print and electronic journalism, television/radio, corporate and institutional media, and media advertising. The keystone courses in each professional option are essential to developing proficiency in a specific media concentration. A choice of three additional courses from the remaining six to eight courses in an option permits a faculty adviser to help a student focus his/her program in the direction best suited to that student's career aspirations.

The advanced core encourages students to develop an understanding of the social, political, legal, economic, artistic and technological environment in which media products are produced, delivered and consumed. Further, the advanced core encourages students to think carefully and critically about the nature and significance of the media in our society. Included in the advanced core are MC 401 (Media Law and Policy), MC 403 (Media Critical Theory), and MC 481 (Internship/Senior Portfolio). A professional internship off campus provides real-life work experience and valuable contacts for the student; the senior portfolio assignment helps students prepare for graduation and for advantageous positioning in the employment

marketplace.

The curriculum also provides for two open major elective courses. This provision enables students not only to explore their own cross-media educational interests, but also, with aid of faculty advisers, to further position themselves for their particular career goals. To provide graduates with additional competencies in other disciplines, a minor in a subject outside the major is also required.

An Ideal Location

The St. Louis metropolitan area is the 21st largest media market in the United States. SIUE's mass communications program takes advantage of the resources of the region by regularly scheduling media professionals for guest appearances in classes, by employing working professionals as part-time faculty, and by sponsoring events such as Mass Communications Week, in which a number of programs about topics as varied as the job search, television and film lighting, independent video producing in St. Louis, and a dialogue with a St. Louis Post-Dispatch columnist are conducted by working professionals and faculty.

Career Opportunities

The Department of Mass Communications graduates take many career paths. Today dozens of careers are available for print journalism students. Besides working as reporters, editors, sport writers or photojournalists on newspapers, graduates may land their first jobs with news wire services, organizational and professional newsletters, national, regional and local magazines, trade periodicals and the World Wide Web publications. Also, many corporations value the skills the SIUE department teaches in writing, editing, layout and design. Recent electronic journalism graduates report success in radio, television and news-related occupations. Rooted in the traditional study of print journalism, the electronic journalism professional option prepares graduates for a growing number of news writing, reporting, newsroom management, documentary production and World Wide Web news sites.

Media advertising is all around us. To name a few, ads can always be found on radio, television, newspapers, magazines and other print media, as well as on billboards, the sides of buses and taxis, on T-shirts, baseball caps and lunch boxes, in the movies, on the World Wide Web, and even on the bags you use to carry home your purchases. Mass communications graduates work for ad agencies, for marketing departments of major corporations, for sales departments of media organizations and in many other ancillary jobs in marketing. In ad agencies, graduates are successful, both on the creative side and as account executives, media specialists and buyers.

Recent television/radio graduates report there are many more jobs "out there" than they imagined when they enrolled at SIUE. Besides finding employment at television and radio stations, SIUE graduates are writing and producing videos for public relations clients, working in industrial and corporate communications, serving the video needs of hospitals, schools, colleges, and law offices, plus designing and producing interactive video and audio for World Wide Web sites. And yes, many graduates still find jobs in radio and broadcast or cable television in news, production, sales, traffic, promotions, operations, and other departments. The new kind of broadcasting graduate this department produces is a valuable commodity throughout the mass communications job market.

Corporations and institutions have learned they can't do without media specialists, and they come to SIUE to find the specialists they need to communicate with their stockholders, their employees, the public — in fact, all their "publics," as public relations practitioners call their audiences. Working in marketing, public relations, and corporate media (video, digital, multimedia, Web, print), SIUE's professional communicators create and deliver the messages for business, industry, institutions and organizations. They are trained in interactive multimedia, World Wide Web site design and construction, computerized manipulation of visual images, digital photojournalism, digital publishing, non-linear video editing, digital animation and many other 21st-century mass communication skills.

Integrated into all these professional options is the study and practice of the leading-edge skills, techniques, theories and aesthetics SIUE graduates will need to succeed in a digital future for webmasters, interactive multimedia producers and many new and emerging digital media jobs yet unnamed. SIUE students learn tried-and-true mass communication basics as well as the most advanced digital media techniques needed to excel in this brave new world.

Admission, Retention, and Graduation Requirements

Except for incoming freshmen, students wishing to apply for a major in mass communications are required to have at least a 2.2 overall grade point average. Mass communications majors must maintain a 2.2 overall grade

point average. Students in the mass communications major and minor must earn a C or better grade in both MC 201 and 202 to declare a major or minor in the department. Only courses in which the student receives a C grade or better will be accepted for credit toward completion of the mass communications major or minor.

Students may attempt (complete a course and receive a grade) any Department of Mass Communications course only twice. If a student fails to achieve a C grade or better in a course after a second attempt, he/she must petition the Mass Communications Department faculty for the opportunity to attempt the course again.

All mass communications majors must choose Philosophy 481, Media Ethics, as part of their fine arts and humanities general education requirement; all mass communications majors who choose general education skills courses option A must choose Speech Communication 105, Public Speaking.

To ensure that mass communications majors learn to apply basic numerical and statistical concepts, each must complete one of the following options:

a Choose either STAT 107, Concepts of Statistics; STAT 244, Statistics; or STAT 380, Statistics for Applications, to complete the SIUE general education skills courses requirement; or

b If a mass communications major chooses a minor in speech communication, complete SPC 329, Communication Research Methods; or

c Choose MC 451, Research Methods in Mass Media, either as a Mass Communications Department elective or as one of the student's three selected courses in the media advertising or corporate and institutional media professional options.

All mass communications majors must complete a minimum of 80 semester hours in courses outside the Department of Mass Communications. Of these, no fewer than 65 semester hours must be completed in courses in the basic liberal arts and sciences. Liberal arts and sciences courses at SIUE include any course taught in the College of Arts and Sciences, the Department of Economics, and the Department of Psychology.

Degree Requirements
Bachelor of Science or Bachelor of Arts
Mass Communications

Requirements for a Major in Mass Communications 39
General Education 42-44
Introductory Core 12
MC201 (Mass Media in Society), 202 (Writing for the Media), 203 (Audio Production for the Media), 204 (Video Production for the Media)
Advanced Core 9
MC401 (Media Law and Policy), 403 (Media Critical Theory), 481 (Internship/Senior Portfolio)
Professional Option
Choose one of the following Mass Communications options: 12

Corporate and Institutional Media: 402 (Media Administration) and three of the following courses chosen in consultation with a Mass Communications Department adviser: 321 (Feature Writing), 323 (Publication Layout and Design), 330 (Advanced Broadcast Writing), 422 (Writing for the Corporate & Institutional Market), 431 (Corporate & Non-broadcast Video), 441 (Multimedia Use in Mass Media), 451 (Research Methods in the Mass Media), 453 (Transnational Media)

Media Advertising: 325 (Fundamentals of Advertising) and three of the following courses chosen in consultation with a Mass Communications Department adviser: 323 (Publication Layout and Design),326 (Advertising Copywriting and Design), 334 (Electronic Media Advertising), 342 (Photojournalism and Digital Imagery), 421 (Advertising Campaigns), 441 (Multimedia Use in the Mass Media), 451 (Research Methods in the Mass Media)

Print and Electronic Journalism: 324 (Public Affairs Reporting) and three of the following courses chosen in consultation with a Mass Communications Department adviser: 321 (Feature Writing), 322 (Copyediting), 323 (Publication Layout and Design), 330 (Advanced Broadcast Writing), 332 (Electronic Media News), 342 (Photojournalism and Digital Imagery), 424 (The Literature of Journalism) or 440 (Visual Media Analysis), 441 (Multimedia Use in Mass Media)

Television/Radio: 330 (Advanced Broadcast Writing) and three of the following courses chosen in consultation with a Mass Communications Department adviser: 331 (Electronic Media Performance), 333 (Advanced Video Writing and Production), 334 (Electronic Media Advertising), 440 (Visual Media Analysis), 402 (Media Administration), 423 (Advanced Topics in Writing for the Media), 431 (Corporate and Non-broadcast Video), 441 (Multimedia Use in Mass Media), 454 (Documentary Media)

Mass Communications Electives 6
Minor Outside of Mass Communications 18-21
University Electives 30
Total 124

Mass Communications Minor

The mass communications minor requires MC 201 and 202 and additional courses selected in consultation with a departmental minor adviser for a total of 21 hours.

Mathematics and Statistics

Professors: Jarosz, K. (Chair); Ledzewicz, U.; Lu, C.; Rigdon, S.E.; Sewell, E.C.

Associate Professors: Agustin, Z.; Agustin, M.; Hasty, M.; Neath, A.A.; Parish, J.L.; Pelekanos, G ; Voepel, T.M.

Assistant Professors: Chew, S.F.; Fick, K.M.; Leem, K.H.; Musa, M.; Song, M.; Staples, S.; Weyhaupt, A.

Mathematics, the queen of sciences, is both a language and a science. As a language, mathematics is used to translate relationships within the universe into mathematical expressions and equations, that is, into mathematical models. The importance of mathematics in this regard was emphasized by Galileo more than three centuries ago when he said, "the laws of nature are written in the language of mathematics." Throughout history, mathematics has had an important role in the efforts of the human race to understand the world and to control the environment. As a science, mathematics is concerned not only with computation, but, more importantly, with the study of relations, interdependencies, and inferential structures. It is a rapidly growing field of study, concerned with problems from within mathematics and from the social sciences as well as the natural sciences. Consequently, students who major in mathematics have a wide range of career opportunities open to them.

With the progress in computers and computing technology, knowledge of the mathematical sciences is more important today than ever before. Having had a central role in the natural sciences for many years, mathematics has become more and more useful in the social sciences and in the humanities. Economics, political science, sociology, psychology and other social sciences now rely on mathematics, particularly statistics, to understand, to control and to predict social phenomena.

The Department of Mathematics and Statistics offers programs leading to a bachelor of arts or a bachelor of science degree with a major in mathematical studies. In addition, as a result of the various applications of mathematical sciences, the department offers a variety of service courses for students majoring in other disciplines.

Please note that most of the courses in this department have other courses as prerequisites. Before enrolling in a course in mathematics, statistics or operations research, students must complete the prerequisite(s) with a grade of C or higher. A grade of D in a prerequisite course indicates inadequate preparation to continue to the next course.

Career Opportunities

Because mathematics provides the basic language and method for science and technology, a country needs to have many people who are well trained in mathematical subjects in order to be technologically competitive in a world economy. Mathematicians, statisticians, actuaries, and mathematical educators will continue to be needed by the government, industry, business, and schools. For a student in engineering, physics or computer science, a second major in mathematics may not require a great deal of additional course work, while enhancing the student's background in his or her first major. A mathematics major is also appropriate preparation for graduate studies in several areas including mathematics, operations research, statistics, engineering and law. Statistics provides career possibilities that deserve special mention. Students with undergraduate majors in statistics may find positions doing actuarial work with insurance companies or doing work in quality control and reliability with industrial firms. Also, recent job studies indicate shortages of statisticians and operations researchers trained at the graduate level. Some students enter professional programs in business, law, and medicine after completing a mathematics major. And, of course, the continuing need for highly motivated, well-trained mathematics teachers in the schools has been well publicized.

Departmental advisers can provide information about career possibilities in the mathematical sciences and can suggest elective courses that would be appropriate to various career goals and interests, including the intention to pursue graduate studies.

Admission

To be admitted to the mathematics and statistics program, students must satisfy one of the following:

1. Complete MATH 120 and 125, or mathematics courses having these as prerequisites (or equivalent courses at another accredited institution of higher education), have a GPA of 2.0 or higher in all university mathematics courses, and have a GPA of 2.0 or higher in all SIUE courses taken.
2. Complete in high school seven semesters of university preparatory mathematics courses, including a course in trigonometry, and have no grade lower than a C in those courses. Students who do not qualify for admission into an academic program in the department but hope to seek admission later are

encouraged to obtain advice from a faculty member in the department.

Academic Status

A student may be dropped from this program for any one of the following circumstances:

a Grade point average of 1.0 or below in any term;

b Cumulative grade point average of less than 2.0 in courses in mathematics, statistics and operations research at any time;

c Withdrawal, incomplete, or a combination of failing grades in 50% or more of the courses for which the student is registered during two successive terms;

d Any combination of three grades of D, F, UW, WP, or WF in any single required course in mathematics, statistics, or operations research.

For purposes of computing the GPA of a student seeking admission, the student may not use credit hours earned through proficiency, transfer, CLEP, or from a course, after credit has been received for similar or more advanced course work in the subject at SIUE or elsewhere. For readmission, students must meet the same admission requirements as students entering the program for the first time.

Degree Requirements
Bachelor of Arts or Bachelor of Science
Mathematics

The distinction between the bachelor of arts and bachelor of science degrees through the Department of Mathematics and Statistics is the language requirement. Students seeking majors in this department may choose to be awarded the bachelor of arts degree rather than the bachelor of science degree, provided the electives include 8 hours of credit in a foreign language that is neither English nor the student's native language.

Students must choose from one of the five programs described below, which include four options in mathematical studies and a major in mathematics for secondary school teachers. Through a choice of electives, students may adjust these programs to their goals and interests.

In addition to the specific requirements stated below for each program, students must meet the following requirements:

a Earn a minimum of 124 hours of acceptable credit with a cumulative grade point average of 2.0 or higher;

b Complete at least 12 hours of SIUE credit in major courses numbered 300 or above with a cumulative GPA of 2.0 or higher;

c Earn a GPA of 2.0 or higher in all mathematics, statistics, or operations research courses numbered 300 or above at SIUE within 2 years preceding graduation;

d Complete at least 6 hours of credit in mathematics, statistics, or operations research courses numbered above 299 at SIUE within 2 years preceding graduation.

Duplicate credits earned (through proficiency, transfer, CLEP, or from a course) after credit has been received for similar or more advanced course work in the subject at SIUE or elsewhere are not applicable toward graduation. Students who receive a grade of D in any mathematics, statistics, or operations research course may not count that course toward requirements for a mathematics major.

The Mathematics Core

All programs offered by the Department of Mathematics and Statistics require completion of the mathematics core, which consists of the following courses: Mathematics 150, 152, 250, 223, 321, and 350. Completion of Computer Science 140 or 141 and Physics 211a and 212a also is required for all programs. These courses total 32 hours, of which 8 are applicable to general education requirements. (Physics 211a satisfies 4 hours of the introductory general education requirements. Computer Science 140 or 141 satisfies 4 hours of the skills requirement.)

Degree Requirements
Bachelor of Arts or Bachelor of Science
Mathematical Studies
Specialization in Mathematical Sciences

General Education Requirements 42-44
The general education curriculum requires 42 or 44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 9 hours of the general education requirements. For the bachelor of arts degree, skills option B (8 hours of foreign language) is required.

Mathematics Core Requirements 23
MATH 150, 152, 223, 250, 321, 350

Mathematics Specialization 21
MATH 320, 420, 421, either 435 or 437, 450, 451, and one additional mathematics course at the 400 level

Science Requirements 26
CS 140 or 141, PHYS 211a,b and 212a,b, and one additional

300-level course in physics, chemistry, biology, or computer science; 9 additional hours in mathematics, statistics, operations research, biology, chemistry, physics or engineering
Senior Seminar and Senior Project 4
MATH 498, 499
Free Electives 15-17
Eight hours must be in foreign language for the bachelor of arts degree
Total 124

Degree Requirements
Bachelor of Arts or Bachelor of Science
Mathematical Studies
Specialization in Applied Mathematics

General Education Requirements 42-44
The general education curriculum requires 42 or 44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 9-12 hours of the general education requirements. For the bachelor of arts degree, skills option B (8 hours of foreign language) is required.
Mathematics Core Requirements 23
MATH 150, 152, 223, 250, 321, 350
Required Mathematics Courses 15
MATH 305, 451, 464, 465, 466
Mathematics Electives 9
Students should choose one of the following options:
a) MATH 320 and two additional courses selected from MATH 421, 437, 450a,b, OR 440, 441, 442, STAT 480a,b
b) STAT 380 and two additional courses selected from MATH 421, 437, 450a,b, OR 440, 441, 442.

c) STAT 480a,b and one additional course selected from MATH 421, 437, 450a, OR 440.

d) MATH 421 and two additional courses selected from MATH 437, 450a,b, OR 440, 441, 442, STAT 480a,b.
Science Requirements 20-24
CS 140 or 141, PHYS 211a,b, and 212a,b, and two additional courses in the sciences or engineering
Senior Seminar and Senior Project 4
MATH 498, 499
Free Electives 16-23
Eight hours must be in foreign language for the bachelor of arts degree
Total 124

Degree Requirements
Bachelor of Arts or Bachelor of Science
Mathematical Studies
Specialization in Statistics

General Education Requirements 42-44
The general education curriculum requires 42 or 44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 6 hours of the general education requirements. For the bachelor of arts degree, skills option B (8 hours of foreign language) is required.
Mathematics Core Requirements 23
MATH 150, 152, 223, 250, 321, 350
Science Requirements 9
CS 140 or 141; PHYS 211a, 212a
Required Statistics Courses 9
STAT 480a,b, 482
Statistics-Related Electives 12
Any four courses chosen from STAT 478, 481, 483, 484, 485, 486, 487, 488; Operations Research 440, 441, 442; MATH 465, 466, except that only one of Operations Research 440, MATH 465, 466, may be counted toward this requirement.
Supporting Courses 18
Either a minor, or nine additional hours of mathematics, statistics, or operations research and nine hours of supporting courses approved by the adviser.
Senior Seminar and Senior Project 4
MATH 498, 499
Free Electives 11-13
Eight hours must be in Foreign Language for the bachelor of arts degree
Minimum Total Requirement 124

Degree Requirements
Bachelor of Arts or Bachelor of Science
Mathematical Studies
Specialization in Actuarial Science

General Education Requirements 42-44
The general education curriculum requires 42 or 44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 15 hours of the general education requirements. For the bachelor of arts degree, skills option B (8 hours of foreign language) is required.
Mathematics Core Requirements 23
MATH 150, 152, 223, 250, 321, 350
Science Requirements 9
CS 140 or 141; PHYS 211a, 212a
Required Courses for Actuarial Science 24
STAT 480a,b; 482, 486, MATH 305, 340, 465; Operations Research 441
Related Electives 6
Any two courses selected from STAT 478, 485; Operations Research 442; MATH 466
Courses in Business Administration 21
Econ 111, 112; ACCT 200, 210; FIN 320, 420
Senior Seminar and Senior Project 4
MATH 498, 499
Free Electives 8-10
Eight hours must be in foreign language for the bachelor of arts degree
Total 124

Degree Requirements
Bachelor of Science
Mathematics
Secondary Education Teacher Certification

General Education Requirements 42-44
The general education curriculum requires 42 or 44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 6 hours of the general education requirement. For the bachelor of arts degree, skills option B (8 hours of foreign language is required). An overall grade point average of 2.5 is required for admission to the School of Education teacher certification program.
Mathematics Core Requirements 23
150, 152, 223, 250, 321, 350
Science Requirements 9
CS 140 or 141; PHYS 211a and 212a
Required Courses 15

MATH 311, 320, 400, 435, STAT 380
Electives 6
Choose one of the following options:
a) One of Math 305, Math 315 or 365, and two 400-level MATH, STAT, or operations research courses
b) Two 400-level MATH, STAT, or operations research courses

Professional Education Requirements 28
See Secondary Education
Senior Seminar and Senior Project 4
MATH 498, 499
Free Electives 1
Total 124

Admission to a teacher education program is a joint decision by the academic discipline in the College of Arts and Sciences and the School of Education. Therefore, it is essential that any student desiring teacher certification meet with an adviser in the Office of Clinical Experience, Certification and Advisement of the School of Education for admission to the teacher education program.

Senior Project

All seniors are required to take MATH 498 and 499 (Senior Seminar and Senior Project), which carry 2 credits each. MATH 499 is graded Satisfactory or Unsatisfactory. Passing this course is required for graduation. The student is required to consult with a member of the mathematics/statistics faculty to prepare a proposal for a culminating project. The Senior Assignment Committee, established for this purpose, must approve all proposals. The completed project is evaluated by a Project Evaluation Committee and includes both the documentation and an oral presentation by the student. Members of the faculty are invited to attend the oral presentation.

Minors in Mathematics and Statistics

The department offers minors in three areas: mathematics, statistics, and mathematics education. A minor in mathematics consists of MATH 150 and 152 (Calculus I and II), and nine hours of mathematics (statistics or operations research) courses at the 200 level or above, of which six hours must be at the 300 level or above and at least three of these six hours must be from mathematics. A minor in statistics consists of MATH 150 and 152 and nine additional hours of statistics courses at the 300 level or above. A minor in mathematics education consists of MATH 150, MATH 223 (Logic and Mathematical Reasoning), MATH 311 (Teaching of Secondary Mathematics), and three courses chosen from the following: MATH 315 (Number Theory) or MATH 320 (Introduction to Algebraic Structures); MATH 435 (Foundations of Euclidean and Non-Euclidean Geometry); MATH 300 (History of Mathematics from Antiquity to Descartes) or MATH 400 (Development of Modern Mathematics); Statistics 244 (Statistics); and either Computer Science 140 or 141.

For all three minors, at least six hours of courses at the 300 level or above must be taken at SIUE. Students must maintain a GPA of at least 2.0 in all mathematics, statistics and operations research courses taken, and a GPA of at least 2.0 in all these courses at the 300 level or above. The minor in mathematics education is appropriate for certification for middle school teaching.

Students majoring in mathematical studies may not minor in mathematics, statistics, or mathematics education.

Music

Professors: Bell, J.R.; Haydon, R.G.; Hinson, J.M.; Ho, A.B.; Mishra, M.; Perry, L.W.; Stamps, D.B.; Tallant, A.; Thomas, R.

Associate Professors: Anop, L.M.; Bouman, S.; Coan, D.A.; Knapp, J.; Korak J.; Smith, D.A.; Wells, P.

Assistant Professors: Archer, K.K.; Chin, H.L.; Simidtchieva, M.

Instructors: Eubank, C.; Schapman, M.

The faculty in the Department of Music believe students interested in undergraduate academic programs in music should receive a comprehensive musical background that includes cultural knowledge through the general education program, individual performance, ensemble performance, scholarly studies in music theory and history/literature, and teacher education courses, if appropriate. The intent is to develop skilled and informed musicians, able scholars, and competent and enthusiastic teachers.

The department is an accredited member of the National Association of Schools of Music and offers the bachelor of music degree with specializations in performance, music education, theory/composition, studio music and performance, musical theater, and music merchandising. The department also offers the bachelor of arts degree with majors in music.

The bachelor of arts degree, designed for students who wish to specialize in music within a liberal arts curriculum, may serve as the foundation for advanced studies in

music. The bachelor of music curriculum prepares students for professional performance careers and advanced graduate study in music performance and music education.

Frequently scheduled concerts and recitals by guest artists, faculty, and students offer an excellent and diverse program of cultural events for the enjoyment of the University community and residents of the metropolitan area.

The music computer laboratory is designed primarily to support the educational and individual creative activities of students majoring or minoring in music. However, it is considered an "open access" facility, and as such, welcomes all University students on a space-available basis. The laboratory contains 22 networked stations, each equipped with a MIDI synthesizer. It also houses a central file server, CD-ROM players, color monitors, videodisk, video and audio tape recording and playback equipment, laser printers, a scanner, and a variety of other peripherals. More than 200 titles of operating software are provided.

Students wishing to minor in music must consult with a designated adviser to develop an approved program before beginning course work. Students minoring in music must take at least one course in music theory and two courses in music history/literature, as approved by the adviser. To obtain a minor in music, the student must complete 24 hours of pre-approved music or general education courses with an overall grade point average of 2.6 or better. Music minors are expected to build a concentration in one particular area of music; a minimum of eight (8) hours in any one area constitutes a concentration. The following areas of concentration are suggested: Performance, (solo and ensemble); theory; history/literature; jazz; music merchandising and music education. Certain activities such as private applied study, advanced level courses and some ensembles require an audition and/or prior approval of the instructor.

Career Opportunities

A degree in music may lead to many interesting and productive careers in music and music-related fields. Some of the career opportunities available to graduates of the bachelor's degree programs in music include teaching in public and private schools; playing professionally in symphony orchestras, studio orchestras, and jazz groups; performing in choruses, recitals, operas, oratories and musical theater; and composing and arranging. Additional opportunities exist in music publishing, music management and sales, music criticism, music librarianship, and private studio teaching.

Admission and Advisement

Students seeking admission to any degree program in music must perform an acceptable audition prior to admission. Students are not permitted to register for private lessons until they complete the audition requirement. To schedule an audition, please write or call the Music Department office at 618-650-3900. Transfer students must take a placement test in music theory (written and aural) and class piano.

Students desiring to pursue any academic program in music are advised to file an application for a major upon entry to the University through the Office of Academic Advising and Counseling. Students applying for a major are issued the appropriate curriculum guide and Music Student Handbook, both of which contain requirements for the degree.

Convocation Requirement

Each undergraduate music major (bachelor of music or bachelor of arts) is required to attend a minimum of 15 convocations/recitals/concerts for a total of eight semesters. At least eight of these must be music convocations, and at least four of the remaining seven must be Music Department events. Attendance will be recorded from programs turned in to the music office by students. The requirement is waived for music education students during the semester of student teaching and for music merchandising students during the semester of their internship.

Transfer students will be advised at the time their transcripts are evaluated so that their convocation requirement will conform to the expected number of semesters until graduation.

If circumstances prohibit a student from fulfilling the requirement, the student may formally request permission to deviate from the established policy. The petition should be made in writing to the Convocation Committee.

Students will register for Convocation (MUS 100) on a satisfactory/unsatisfactory option for eight semesters. A grade of U will be removed when the required convocations/recitals have been completed.

Retention Policy

To remain in the music program, students must maintain a minimum GPA of 2.5 and receive a grade of C or better in all required music courses. In addition, each student must continue to make satisfactory progress in private

applied music and participate in appropriate ensembles as assigned by the faculty.

Degree Requirements
Bachelor of Arts Music

Courses in this program are for students who wish to study music as part of their general cultural education. Such courses also may be taken as background for advanced studies in music.

General Education Requirements 44
Some general education requirements may by satisfied while completing this major concentration. Students in this degree program must elect option B in the skills area, which includes foreign language.*

Requirements for Major in Music 49
Music 125 (8), 225 (8), 121 (2), 221 (2) 20
Music, private applied (2 hours per semester) 8
Music Literature 4
Music major ensemble 4
Music 357 6
Music Electives** 7
Minor Concentration 18
Electives 13
Total 124

* Also counts toward general education skills requirement.

** Music 139 (2,2), "Diction for Singers," is required for voice students.

Degree Requirements
Bachelor of Arts
Music Specialization in Music History/Literature

The bachelor of arts degree with a specialization in music history/literature will serve students who wish to specialize within a liberal arts curriculum and provide a foundation for advanced students within the discipline.

General Education Requirements 44
Some general education requirements may be satisfied while completing this major concentration. Students in this degree program must elect option B in the skills area which includes foreign language.**

Requirements for Major in Music 53-57
Music 125(8), 225(8), 121(2), 221(2) 20
Music, Private Applied (2 hours per semester) 8
Music 139 (2,2) Diction for Singers
(required for voice students) 4
Music, Major Ensemble 4
Music 357 6
Music 326 3
Music 442 3
Music Literature Electives 4
Electives 23
Minimum Total Requirement 124

** Also counts toward general education skills requirement.

Degree Requirements
Bachelor of Music
Specialization in Music Merchandising

General Education Requirements 44
Some general education requirements may be satisfied while completing this major concentration. Students in this degree program must elect option B in the skills area, which includes foreign language.*
Requirements for Major in Music 60-63
Music 125 (8), 225 (8), 121 (2), 221 (2),
and electives (3) 23
Music, Major Ensemble 4
Music, Private Applied (2 hours per semester) 8
Music 139 (2,2) Diction for Singers
(required for voice students) 4
Music 357 6
Music 395 6
Music 495 12
Minor Concentration (Business) 21
Economics 111 3
Economics 112 3
Accounting 200 3
Electives 12
Minimum Total Requirement 124

* Also counts toward general education skills requirements.

Degree Requirements
Bachelor of Music
Specialization in Performance

General Education Requirements 44
Some general education requirements may be satisfied while completing this major concentration. Students in this degree program must select option B in the skills area, which includes foreign language.*
Requirements for Major in Music 75-87
Music 125 (8), 225 (8), 121 (2), 221(2), 309a(3),
312a,(3), 318(2), 326a (3) 442a (3)** 34
Music 357*** 6
Music, Private Applied (major instrument) 24-32
Music 139 (2,2) Diction for Singers
(required for voice students) 4
Music, Major Ensemble (one hour per semester)**** 8
Music 411***** 2
(Students with keyboard concentration will substitute 413a,b for 411.)

Total 124*

* Students concentrating in voice or theory/composition should include two years of foreign language (generally one year each of French and German). Students should consult with the music adviser regarding the sequence to be followed. Foreign language counts toward the general education skills requirement. This requirement is in addition to Music 139.

** Students with keyboard concentration will substitute 165a,b (2) for 121 and 221, and also substitute 461a,b for 309a.

*** Up to 6 hours may also count toward general education advanced course requirements.

**** Students with a concentration in piano should substitute a maximum of 6 hours in MUS 365 as partial fulfillment of this requirement. Students with a guitar concentration may substitute 6 hours of guitar ensemble.

Degree Requirements
Bachelor of Music
Specialization in Jazz Performance

General Education Requirements 44
Some general education requirements may be satisfied while completing this major concentration.
Requirements for Major in Music 86
Music 125(8), 225(8), 121(2), 221(2), 331(2), 357(6) .. 28
Music 330 (6), 337(2), 409(4), 430(2), 436(2), 439(2) . 18
Music, Private Applied (major instrument) 26-32
Music, Major Ensemble (1 or 2 hours per semester) 8
Minimum Total Requirement 124

Degree Requirements
Bachelor of Music
Specialization in Music Education
Standard Special Certification K-12

Students who successfully complete course requirements for the music education specialization and pass the required certification examinations will be certified to teach K-12 choral, general and instrumental music.

General Education Requirements 44
Some general education requirements may be satisfied while completing this major concentration. Also note that students seeking teacher certification must take specific general education requirements. See the Secondary Education section of this catalog for details.*
Requirements for Major in Music 80
Music 115 (2), 125 (8), 225 (8), 121 (2), 221 (2), 112a,b (2), 113 (1), 114 (1), 116a,b (2), 301a,b,c (6), 309a (3), 318a,b (4), 326a (3), 411 (2) 46
Music 357 6
Music, Private Applied (major instrument)** 16
Music 139 (2,2) Diction for Singers (required for voice students) 4
Music, Major Ensemble (one hour per semester)*** 8
Professional Education Requirements 24
CI 200 2
EPFR 315 3
EPFR 320 3
Special Education 400 3
Curriculum and Instruction 451c (5) andCurriculum and Instruction 352 (5) 10
CI 440 for Missouri Certification 3
Additional Requirement 3
Health Education 201 3
Minimum Total Requirement 155

* Students concentrating in voice or theory/composition should include two years of foreign language (generally one year each of French and German). Students should consult with their music adviser regarding the sequence to be followed. Foreign language counts toward the general education skills requirement. This requirement is in addition to Music 139.
** One year of French or German is recommended for the student with a choral emphasis in music education.
*** Music 165a,b is substituted for 121 and 221 for students with keyboard emphasis. Two semesters of 365 may be substituted for major ensemble requirements.
**** Study on a secondary instrument is possible if requirements for class instructions are met by proficiency.

Prior to approval for student teaching, students must satisfy the course of study and proficiency prerequisites established by the Music Department.

Admission to a teacher education program is a joint decision by the academic discipline in the College of Arts and Sciences and the School of Education. Therefore, it is essential that any student desiring teacher certification meet with an adviser in the Office of Clinical Experience, Certification and Advisement of the School of Education for admission to the teacher education program.

Degree Requirements
Bachelor of Music
Specialization in Theory/Composition

General Education Requirements 44
Some general education requirements may be satisfied while completing this major concentration. Students in this degree program elect option B in the skills area, which requires a foreign language.*

Requirements for Major in Music 78
Music 125(8), 225(8), 121(2), 221(2), 309(6) 312(6), 326(6), 357(6),411(3), 442 (6) 52
Music, Private Applied** 12
Music, Major Ensemble 8
Music electives*** 6
Minimum Total Requirement 124

* Students concentrating in voice or theory/composition should include two years of foreign language (generally one year each of French and German). Students should consult with the music adviser regarding the sequence to be followed. Courses taken in foreign language may be used in meeting the general education skills requirement. This requirement is in addition to Music 139.
** Class piano until proficiency is satisfied; thereafter, any instrument or voice. Students are expected to enroll for applied study for a total of 6 semesters (not including class piano). Voice students must take 139 (4).
*** A program of electives must be approved by a faculty committee. Students with emphasis in composition normally elect 412 (6), those students emphasizing music theory normally elect 481.

Degree Requirements
Bachelor of Music
Specialization in Musical Theater

General Education Requirements 44
Some general education requirements may be satisfied while completing this major concentration.

Requirements in Theater 28
Dance 114 (3), 210a(2), 211a(2), 212a(2), 213(1) 10
Acting: Theater112a(3),112b(3),210a(3) 9
Music: 460a,b (2,2) 4
Introduction to Technical Theater: Theater 150 or 160 3
Modern Theater History: Theater 201b 3
Requirements in Music 56
Music, Private Applied Voice 16
Music 139 (2,2) 4
Choral Ensemble: 444 (1, 1, 1, 1) 4
Musical Theater Ensemble: Music 342(1,1,1) 3
Music Theater / Opera Workshop 460a,b(2,2) 4
Music: Music 125 (8), 225 (8), 121(2), 221(2) 20
Music History: Music 357b(3) 3

Music 411 2
Minimum Total Requirement 124

Minor Requirements

Students wishing to minor in music must consult with a designated adviser to develop an approved program before beginning coursework. Students must complete a total of at least 24 hours in music which must include: MUS 124 or MUS 125a, MUS 121a or 141k, MUS 111 and one upper level music history/literature course.

Students seeking minors in music are required to build a concentration in one particular area of music; a minimum of 8 hours in any one area constitutes a concentration. The following areas of concentration are available: performance, theory, history/literature, jazz, music education, and music merchandising.

Certain activities such as private applied study, advanced level courses, and some ensembles require an audition and/or prior approval of the instructor.

Philosophy

Professors: Cataldi, S.L.; Danley, J.R.; Simons, M.A. (Chair); Vailati, E.; Ware, R.B.

Associate Professors: Crane, J.K.; Fields, G.P.

Assistant Professors: Birondo, N.; Larkin, W.S.; Pearson, C.; Schossberger, C.A.; Stone, L.W.

Philosophy is the attempt to think carefully and critically about the nature of the world, the significance of life, and goals people should pursue both as individuals and as a society. Philosophers consider a number of complex questions, including the following:

- What is the nature and what are the limits of power that society can exercise legitimately over the individual?
- What makes human life valuable and worthy of respect?
- Are moral values objective or subjective?
- Is there a God? If so, what is God's relationship to the world?
- How can one decide whether a work of art is beautiful?
- Do human beings have free will?

These pursuits also involve inquiring into the reasons for beliefs about these issues. Thus, philosophers are forced to consider the additional problem of what kinds of reasons are sound reasons.

Career Opportunities

A strong liberal arts background provides an excellent foundation from which to launch exciting careers. In today's competitive environment, there is a premium for individuals with the critical skills of reading, writing, and independent thinking. These are the bases for lifelong learning and the skills that philosophy emphasizes. The study of philosophy also enriches one's perspectives by introducing one to very different ways of looking at, and thinking about, the world and how people live in it.

In addition to opening the door to the pursuit of a graduate degree in philosophy, a major in philosophy is highly desirable in any career that puts a premium on critical skills and independent thinking, such as law and theology. Moreover, because of the relatively modest number of hours required for a philosophy major, many students find it convenient to plan a double major, uniting philosophy with other academic fields. Since their other major likely raises questions about values or methodology that philosophy may explore, it may deepen and broaden their training in the other major.

Philosophy is especially appropriate as a minor for those who plan to enter the professions of computer science, teaching, medicine, journalism, business, science, or social science, as well as law or theology. For more information or assistance concerning the Philosophy program, please contact the Department of Philosophical Studies in Peck Hall.

Admission Requirements

Undergraduate students who intend to apply for a major in philosophy must satisfactorily complete (with a grade of C or better) PHIL 106 or its equivalent before applying for a major in philosophy. PHIL 106 or its equivalent does not count for credit toward the major in philosophy.

Degree Requirements
Bachelor of Arts Philosophy or Science Philosophy

General Education Requirements 42-44
Some general education requirements may be satisfied while completing this major concentration.

Requirements for Concentration in Philosophy
Total Number of Hours Required in Philosophy 33
Specific Required Philosophy Courses 18
PHIL 233 (Philosophies and Diverse Cultures) 3
PHIL 300 (Ancient Philosophy) 3
PHIL 302 (Classical Western Modern Philosophy) 3
PHIL 320 (Ethics) 3
PHIL 310 (Theories of Knowledge) or

PHIL 330 (Metaphysics) 3
PHIL 490 (Special Problems) 3
PHIL Electives 15
Other Program Requirements
Foreign Language (for BA, but not for the B.S) 8
Minor 18
Additional Electives for the BA 21-23
Additional Electives for the BS 24-31
Total 124

Every philosophy major must complete the Senior Assignment in order to graduate.

Bachelor of Science Degree

Same as bachelor of arts requirements, but no foreign language.

Minor Requirements

A minor in philosophy consists of 18 hours in philosophy courses. Philosophy 111 may count toward the 18 hours. Students must successfully complete (earn a grade of C or above) PHIL 106 or its equivalent before they apply for a minor in philosophy. PHIL 106 or its equivalent does not count for credit toward the minor in philosophy.

It is strongly recommended that all students elect PHIL 111 early in their careers; the hours credited will count toward the major in philosophy only if they are among the first nine credit hours in philosophy. If students are considering graduate work in philosophy, they should take two years of a foreign language, preferably French or German, and PHIL 207 or 411.

Academic Standards

Both for majors and minors in philosophy, credit is allowed only for those philosophy courses in which the grade earned is C or above.

Physics

Professors: Braundmeier, A.J.; Hill, R.C.

Associate Professor: Foster, T.M.; Hamad, A.Y. (Interim Chair); Kaplan, D.H.

Assistant Professors: Garcia, H.; Glassman, J.; Glosser, C.; Horner, L.; Lindell, R.S; Sabby, J.A.

Physics is a study of the basic building blocks of the universe and of the laws that govern their interactions. Students of physics attempt to develop images or descriptions of the universe using mathematical and conceptual models that are continually revised in light of new observations and discoveries. The models also help to predict properties of nature that have not yet been observed. Students will study classical physics (the physics of Newton and Maxwell), Einstein's theory of relativity, Bohr's theory of the atom (which forms a bridge between classical physics and modern physics), and, modern physics, including quantum theory and atomic and statistical physics. Throughout their study of physics, students learn applications that lead to a variety of specialized fields of study. For example, solid state theory of semiconductors and transistors brings students into contact with electrical engineering and the electronics industry; classical mechanics introduces the techniques of the mechanical and civil engineer; and nuclear physics acquaints the student with nuclear fission and nuclear fusion reactions.

The Department of Physics provides three degree programs: the bachelor of arts, the bachelor of science, and the bachelor of science — secondary education teacher certification. The bachelor of science degree is recommended for those students planning to work in industry immediately upon graduating, or for those students who wish to pursue graduate studies in physics. The bachelor of arts degree requires one year of a foreign language as part of the general education requirements for the major.

The Physics Department maintains teaching and research laboratories in which students develop measurement and data-analysis skills. Seniors often develop individual research projects suited to their interests. The department provides experimental research opportunities in the areas of thin film physics, optical coatings, nonlinear optical properties of materials and holographic data storage, and studies of the photon yields of prototypes of scintillating optical fibers. Our theoretical group offer research opportunities in mathematical physics, optical properties of solids, single-electron states for electrons confined to two dimensions in the presence of strong magnetic fields and charge impurities and how simple rules can lead to complex phenomena, such as self-organized criticality, self-similar structures, and power laws and elementary particle physics, concentrating on gauge field theories, quantum chromodynamics and weak interactions, and more. The department also has an active physics and Astronomy Education Research group studying problem-solving in physics and astronomy, conceptual difficulties in astronomy, inclusiveness issues in science, implementing and developing novel and inquiry-based curriculum, and developing reliable and valid assessments.

Career Opportunities

A degree in physics opens the door to a variety of scientific and technical careers. Physicists are employed in industrial and national laboratories, and work with other scientists and engineers. Such industrial functions may include research and development in lasers and electro-optics, radiation damage, and measurement and control. Many students choose to continue their education by pursuing graduate studies. Teaching at any level from primary through college is another career possibility. Because of the fundamental nature of the subject, a bachelor's degree in physics is an ideal point of departure for specialized study in almost any field, from astronomy to philosophy to music.

Admission

High school students who plan to major in physics should complete at least three years of college preparatory mathematics (two years of algebra and one year of geometry) before entering the University. A fourth year of college preparatory mathematics (to include trigonometry) and one year of physics and chemistry are strongly recommended.

Admission to a degree program in physics requires an application for a major and acceptance by the department. Once admitted, students are formally affiliated with the department and assigned a faculty adviser. Advisement is mandatory; majors are permitted to register each term only after their Course Request Forms have been approved by a departmental adviser. Because the study of science is progressive, students are encouraged to select their major field of study early in their academic careers to ensure orderly progress toward meeting degree requirements. To be admitted, students already enrolled in the University must have a minimum grade point average of 2.0 in science and mathematics courses completed as well as a cumulative grade point average of 2.0 or higher in all courses taken at SIUE. Transfer students should have a 2.0 grade point average in science and mathematics courses as well as a 2.0 average in courses taken at other colleges and universities.

Academic Standards

1 Students should show satisfactory academic progress to be retained in a degree program. Students may be dropped from the program for any of the following circumstances:

   A grade point average of 1.0 or below in any term;

   B cumulative grade point average below 2.0 in the major at any time;

   C withdrawal, incomplete, and a combination of failing grades in 50% or more of the courses for which the student is registered during two successive terms;

   D any combination of three withdrawals, incomplete, or failing grades in any single required course in the major discipline.

2 For readmission, students must meet the same admission requirements as students entering the program for the first time.

Graduation Requirements

The following requirements must be met in order to obtain a degree in physics:

A Earn a minimum of 124 hours of acceptable credit with a cumulative grade point average of 2.0 or higher;

B Complete the minimum number of credit hours required for a particular degree;

C Complete at least 12 hours of SIUE credit in major courses numbered above 299 with a cumulative grade point average of 2.0 or above;

D Earn a GPA of 2.0 or above in all major courses numbered above 299;

E Complete at least 6 hours of credit in major courses numbered above 299 earned at SIUE within 2 years preceding graduation.

Duplicate credits of several types are not applicable toward graduation requirements: credit hours earned (through proficiency, transfer, CLEP, or from a course) after credit has been received for similar or more advanced course work in the same subject at SIUE or elsewhere.

Physics Honors Program

An application for admission to the physics honors program will be accepted only upon the student's admission to the honors scholars program and after application for a major in physics. The requirements for admission to the Honors Scholars Program are described elsewhere in this catalog.

The honors curriculum core courses are taken in the last two years of study and include Junior Physics Honors 390 (3), Senior Physics Honors 490 (3), and Physics

Honors Thesis 495 (3). In addition, honors students are required to take the quantitative Graduate Record Examination, or the equivalent, and achieve a score in the 85th percentile or better. Students who complete the curriculum will be recognized by the designation "Physics Honors" on their diploma.

Upon receiving an application to the honors program, the designated honors scholars adviser will serve as the adviser for physics honors Students. The faculty adviser will help students complete the program requirements.

Degree Requirements
Bachelor of Arts
Physics

General Education Requirements 44
The general education curriculum requires 44 hours of general education credit. For the bachelor of arts degree, 8 hours of foreign languages are required. Also note that students seeking teacher certification must take specific general education requirements. See the Secondary Education section of this catalog for details.
Physics Requirements 33
PHYS 211a,b; 212a,b; 302; 312; 497 or 498; 9 hours selected from PHYS 308; 318; 320; 405a,b; 410; 415a,b; 6 additional hours selected from physics courses numbered 300 or higher
Chemistry Requirements 10
CHEM 121a,b, 125a,b,
Mathematics Requirements 14
MATH 150, 152, 250.
Electives and/or Minor 23
The following electives are suggested for students planning to enter medical school; CHEM 241 a,b, 245; BIOL 120, 121
Total 124

Degree Requirements
Bachelor of Science
Physics

General Education Requirements 42-44
The general education curriculum requires 42 or 44 hours of general education credit. Also note that students seeking teacher certification must take specific general education requirements. See the Secondary Education section of this catalog for details.
Physics Requirements 43
PHYS 211a,b; 212a,b; 302; 303; 308; 312; 318; 405a,b; 410, 415a,b; 497 or 498
Chemistry Requirements 10
CHEM 121a,b, 125a,b,
Mathematics Requirements 17
MATH 150, 152, 250, 305
Electives and/or Minor 10-12
Total 124

Degree Requirements
Bachelor of Science
Physics
Secondary Education Teacher Certification

Admission to a teacher education program is a joint decision by the academic discipline in the College of Arts and Sciences and the School of Education. Therefore, it is essential that any student desiring teacher certification meet with an adviser in the Office of Clinical Experience, Certification and Advisement of the School of Education for admission to the teacher education program.

General Education Requirements 38
An overall grade point average of 2.5 is required for admission to the School of Education Teacher Certification program. The Natural science and mathematics general education distribution course requirements are met within the program.

Skills Courses
ENG 101 and ENG 102 6
SPC 103 (Recommended) 3
IME 106 (Recommended) 3
CS 140 3
Introductory Courses
ENG 111 (recommended) 3
PSYC111 (recommended) 3
MATH 150 5
Fine Arts and Humanities or Social Science elective 3
Distribution Courses
Fine Arts and Humanities and Social Science electives 6
Interdisciplinary Studies 3
IS 364, 336 or IS 363
Biology Requirements 11
BIOL 120, 121, 319
Chemistry Requirements 13
CHEM121a,b with CHEM125a,b, 241a
Earth/Space Requirements 6
GEOG 210, PHYS 356
Physics Requirements 23
PHYS 211a,b with PHYS 212a,b, PHYS 301, 302, 303, 318
Mathematics Requirements 9
MATH 152, 250
Methods of Teaching Science 3
PHYS 494
Science Requirements 3
SCI 451
Professional Education Requirements 28
CI 200
See Secondary Education
Total 134

Minor Requirements

The minor program in physics consists of 20 hours with a grade point average of 2.0 or higher in the following courses:

PHYS 211a,b, 212a,b, and 302

At least one of PHYS 301, 303, 308, 312, 318, 320, 405a,b, 410, 416, or 450

Any additional physics course(s) numbered 300 or higher.

At least 6 hours of the above courses must be SIUE

credit. The physics undergraduate advisory committee must approve any exceptions to the requirements listed above for the physics minor program

Political Science

Associate Professor: Maurer, L.M. (Chair)

Assistant Professors: DeGarmo, D.; Guehlstorf, N.P; Harward, B.M.; Hayden Foster, C.; Mangum, M.L.; Moffett, K.; Rice L.; Theising, A.J.

The Department of Political Science offers courses broadly concerned with the study of government and politics, organized into seven fields. In American government and politics, students examine various aspects of the American political system, including legislatures, parties, campaigns and elections, and issues of public policy. In comparative politics, students learn about and compare the political cultures, economies, parties, and institutions within other countries. Students in international relations study the relations among nations and relations with international bodies such as the United Nations. In political theory, students examine the attempts of important thinkers to define the functions of the state and the rights and obligations of citizens. Students in this field also study efforts to develop comprehensive theories of politics through analysis and the evaluation of political behavior. In public administration, students explore bureaucracies and ways in which public business is conducted. In public law, students examine the nature of the judicial process and the role of the courts in interpreting and applying the Constitution of the United States. Political analysis explores research design, concepts and methodology.

The study of political science can serve as preparation for a number of different careers, as the core of a liberal education, or as a source of interesting and valuable electives. Students entering political science programs must have completed the general education requirement for writing skills courses (i.e., English 101 and 102 or equivalent) and must have resolved all high school course deficiencies. Students should consult the department's advisers as soon as possible after applying for a major. The adviser will provide students with initial orientation to the department's programs and will arrange for their continuing advisement. A pre-law adviser helps students prepare courses of study and can provide useful information about law school admission. Faculty members in public administration can provide course work, information and guidance for undergraduates planning a career in public service. Minor programs and transfer credits must be approved in the minor department. Transfer courses for the political science major or minor must carry a grade of C or better and must be approved by the department chairperson.

The department conducts two internship programs in which students can obtain both practical experience and an opportunity to evaluate potential careers. The legal internship places selected pre-law students in the offices of public defenders, prosecuting officers, and court officials or in campaigning. The internship in government allows students to work in the offices of local, county or state officials.

Career Opportunities

Students who major in political science have entered careers in business, government service (at the federal, state and local levels), law, teaching, journalism, and public and private interest groups. We offer a program in secondary education teacher certification. Recent projections both by government and by public agencies indicate demand for government employees will continue near the present level for lawyers, and for college graduates interested in careers in government. A major in political science provides knowledge of political and bureaucratic processes and analytical skills. Such students will also have an opportunity to develop specialized knowledge in a number of policy areas. Careers in business organizations or with interest groups often call for similar skills. Many students have found this major a useful preparation for law school as well as for the practice of law. In all these areas, experience gained in an internship can be a significant advantage.

In addition to providing preparation for specific careers, a major in political science can provide general career-building skills. Courses that focus on the analysis of political and social data help students develop analytical and reasoning skills. Students also can become familiar with statistical techniques and computer use, and develop writing skills.

Entrance Requirements

Students applying for a major or minor in political science must have completed the General Education requirements for writing skills (Eng 101 and 102 or equivalent), all high school course deficiencies, and must have a minimum overall G..P.A of 2.5. This requirement also applies to any transfer G.P.A.

Degree Requirements
Bachelor of Arts or Bachelor of Science
Political Science

General Education Requirements 42-44
For the bachelor of arts degree, option B in general education skills must be chosen.
Major Requirements 33
A minimum of 33 hours, including POLS 111 and 112, and at least 3 hours in four of the six fields of political science: american government and politics, comparative politics, international relations, political theory, public administration, and public law.
Minor (Required) 18-21
Electives 26-31
Total 124

* Requirements for the bachelor of science degree differ from those for the bachelor of arts degree in that a foreign language is not required. A minimum grade of C is required in major courses.

Exit Requirements

All students majoring in political science must complete a Senior Assignment, which includes a comprehensive written examination and a portfolio during their last term in residence.

Students must receive a grade of C or better in all Political Science courses that count toward the major or minor, with a minimum G.P.A of 2.0 in all Political Science classes taken at SIUE.

Degree Requirements
Bachelor of Science
Political Science
Secondary Education Teacher Certificate

Students who intend to teach at the secondary level may complete the bachelor of science degree with a major in political science. The major constitutes the teaching field of concentration. Students pursuing this degree also must complete the Strong minor in Social Sciences as outlined below:

ANTH 111 Introduction to Anthropology 3
SOC 111 Introduction to Sociology 3
ECON 111 Macroeconomics 3
ECON 112 Microeconomics 3
GEOG 201 World Regions 3
GEOG 205 Human Geography 3
GEOG 210 Physical Geography 3
HIST 112A World History 3
HIST 112B World History 3
HIST 219 American History for Teachers 3
HIST 323 History/Pedagogy 3

Two of these 111 courses, outside of one's major, may count toward Introductory credit in social science for general education, along with one of the courses in the minor numbered above 111, which may count toward distribution in social sciences.

The following are required of all students including transfer students and those who already have a bachelor's degree:

1 Certification requires a 2.75 GPA in political science courses, including those completed at past institutions.

2 completion of the strong minor in social sciences.

3 completion of social sciences/pedagogy before taking CI 352L, Student Teaching.

4 approval by an interdisciplinary committee on Teacher education and composed of representatives of the departments of Geography, Historical Studies and Political Science.

Returning students who hold a degree in political science must complete POLS 430, Review for Teacher Certification.

Students also must complete the required program of professional education requirements in the School of Education and state requirements for certification. Therefore, it is essential that any student desiring teacher certification meet with an adviser in the Office of Clinical Experience, Certification and Advisement of the School of Education or admission to the teacher education program.

Minor Requirements

The requirements for a minor in political science include the following: a minimum of 18 hours, including POLS 111 and 112, and at least one course in three of the six areas of specialization. A minimum grade average of C is required in political science courses.

Pre-Law Preparation

Entrance into law school does not require any specific major or any specific course requirements. Law schools judge applicants based upon their cumulative grade point average and law school admission test (LSAT) scores. Students wishing to attend law school must obtain an undergraduate degree before entering law school. However, students typically apply to law school beginning in the fall of their senior year. To prepare for entrance, students are encouraged to take the law school

admission test the June following their junior year, or in October of their senior year.

Many students find that undergraduate courses in philosophy, such as critical thinking, and courses in political science, history and English are helpful in law school. Any course that emphasizes technical writing skills is especially helpful in law school. Students considering a law career should enjoy working with people, have good communication skills, enjoy reading, and be excellent writers.

The University encourages students interested in a law career to participate in the Pre-Law Association. The association, together with Student Legal Services, sponsors an annual Pre-Law Night in the fall of each year, which brings recruiters from numerous law schools to campus to discuss admission to law school with interested students. The Pre-Law Association also visits area law schools and brings in speakers on law-related topics.

Science
(Earth and Space Science)

Associated Faculty: AbuSharbain E.M. (Biological Sciences); Barry, K. (Biological Sciences); Foster, T.M. (Physics); Hasty, M.L. (Mathematics); Lindell, R.S. (Physics); Plunk, D.L. (Office of Science and Math Education); Springer, C. (Geography); Voepel, T.M. (Mathematics); Wiediger, S.D. (Chemistry)

The College of Arts and Sciences, in cooperation with the Department of Curriculum and Instruction in the School of Education, offers a broad teaching field program in earth and space science. This program, through which prospective teachers can meet Illinois certification requirements to teach earth and space science in junior and senior high schools, satisfies the guidelines of the National Science Teachers Association. Students interested in science and/or mathematics education should seek advice from one of the faculty members listed above.

Prospective teachers, both elementary and secondary, are served by the Science Resource Center, which contains samples of textbooks, teaching aids, videotapes, and computer programs for the teaching of science. A complete set of mathematics and science kits may be borrowed from the Science Resource Center for student teaching.

Degree Requirements
Earth and Space Science Education
Secondary Education Teacher Certification

General Education Requirements 38
An overall grade point average of 2.5 is required for admission to the School of Education teacher certification program. The natural science and mathematics general education distribution course requirements are met within the program.
Skills Courses
ENG 101, 102 6
SPC 103 (recommended) 3
IME 106 (recommended) 3
STAT 244 (recommended) 3
Introductory Courses
ENG 111 (recommended) 3
PSYC 111 (recommended) 3
MATH 150 5
Fine Arts and Humanities or Social Science elective 3
Distribution Courses
Fine Arts and Humanities and Social Science electives . 6
Interdisciplinary Studies
IS 324, 326, 336, 340, 353, 363, 364, 377, or 400 3
Biology Requirements 11
BIOL 120, 121, 319
Chemistry Requirements 13
CHEM121a,b with 125a,b, CHEM 241a
Earth/Space Requirements 21
ESCI 111, GEOG 202, 210, 211, 314, PHYS 356, 366
Physics Requirements 10
PHYS 206a,b (or PHYS 211a,b and PHYS 212a,b)
Methods of Teaching Science 6
CHEM 494 or PHYS 494, PHYS 434
Science Requirements 3
SCI 451
Professional Education Requirements 28
CI 200 See Secondary Education
Science/Mathematics Electives 3
Total 133

Admission to a teacher education program is a joint decision by the academic discipline in the College of Arts and Sciences and the School of Education. Therefore, it is essential that any student desiring teacher certification meet with an adviser in the Office of Clinical Experience, Certification and Advisement of the School of Education for admission to the teacher education program.

Social Work

Professors: Brown, V. (Chair); Regulus, T.

Associate Professors: Bentelspacher, C.,(MSW Admissions Coordinator); O'Brien, G.; Tunney, K. (MSW Program Director)

Assistant Professors: Boyd, R.; Duckham, B.; Lawrence, S.; Wesley C. (Director of Practica)

Instructors: Hamilton, K.; Rakers, S. (BSW Program Director)

The undergraduate social work program focuses on the knowledge, values, and skills needed for social work practice. Its primary purpose is to prepare graduates for entry-level direct practice in social work. The program also prepares students for graduate studies in advanced social work practice. The undergraduate program is accredited by the Council on Social Work Education (CSWE).

The Social Work program prepares generalist social workers for many types of practice, and offers opportunities to explore specific interests through the selection of electives and the field placement setting. The program consists of specialized courses in the general education program, supporting courses in other disciplines, and social work courses. The primary professional purpose of social work is to promote social functioning and enhance social development at all systems levels. The social worker acts as a facilitator of change with individuals, families, groups, organizations and communities; promotes improvement in social conditions; serves as an advocate for people who are subject to discrimination or social or economic injustice; serves as an advocate for people who are subject to discrimination or social or economic injustice; and provides individuals access to needed resources and services. In addition to completing on-campus course work, social work students engage in field work in local social service agencies in several courses. This culminates in the senior field placement (SOCW 482 and 483), which requires a minimum of 400 hours of supervised social work practice in a local agency over two consecutive semesters. This field placement is arranged in advance with the Director of Practica and is designed to meet students' needs and interests within the context of the educational objectives of the program.

Additional information about the undergraduate social work program may be found at: www.siue.edu/SOCIAL.

Admission Requirements

Students may apply for admission to the undergraduate program in social work after two semesters of full-time college or university enrollment. Applicants to the undergraduate social work program must submit through the SIUE Office of Academic Counseling and Advising the following information to be considered for admission:

1 an application to SIUE certifying their admission to the University;

2 an academic transcript certifying that the student has a grade point average of 2.5 or better at the time of application for admission to the undergraduate program: and

3 a referral to the undergraduate social work program by his or her adviser in the SIUE Office of Academic Counseling and Advising.

In addition to this process, students transferring to SIUE may apply for direct declaration when applying for admission to SIUE. If you are a declared major in a different department and wish to change your major to social work, you must come to the Social Work Office to complete a major/minor approval form. Students may apply for admission to the program at any time during the academic year.

Eligibility for Admission to the Undergraduate Social Work Program

To be eligible for admission to the program, applicants must:

1. have a (GPA) of at least 2.5 and have completed the equivalent (30 hours) of two full-time semesters at any college or university.
2. demonstrate written proficiency in English by completing English Comp I and II with a grade of C or better.
3. demonstrate the ability to communicate clearly and effectively by completing a speech course in interpersonal communication with a grade of C or better.
4. read, sign and agree to abide by the National Association of Social Workers (NASW) Code of Ethics and the SIUE Social Work Department Standards for Social Work Education.

Application materials are reviewed for approval or denial by the Undergraduate Admissions Committee, composed of the director of the undergraduate program and two members of the Undergraduate Curriculum and Planning Committee. Students who plan to enter the program should meet with the director of the

undergraduate program as early as possible.

It is important that students become familiar with sequences and prerequisites for courses in this major and the various required and recommended courses offered by collaborating departments.

Transfer Credit and Policy on Life and Work Experience

Transfer course credit from other CSWE-accredited programs will be considered for acceptance toward the SIUE undergraduate degree with a major in social work. No course credit will be awarded for work or life experience.

Retention Standards

Once accepted into the social work program, students are expected to maintain an overall GPA of 2.5 and a social work GPA of 2.5; to complete all required social work courses and social work electives with a grade of C or above; and to demonstrate professional behavior consistent with the National Association of Social Workers Code of Ethics and the SIUE Social Work Department Standards for Social Work Education. Grade point averages are reviewed by the director of the undergraduate program and the Student Affairs Committee following each semester. Students who fall below the required 2.5 GPA and/or are experiencing issues in professional development will be placed on department probation for one semester or may be terminated from the program. During their probationary period, students must meet regularly with their department adviser to monitor their progress and receive suggestions and advice toward regaining the required 2.5 GPA. Students who do not attain the required GPA of 2.5 or do not resolve their professional development issues following this probationary period may be dropped from the major and withdrawn from all social work courses. Students may re-apply to the social work program once their GPA has again reached the required 2.5 if they were dropped for academic reasons.

The student, the department chair and the student's adviser will be notified in writing when the student is placed on department probation, and a copy of this notification will be placed in the student's file. Notification of removal from the program will be placed in the student's file; the file will be returned to Academic Counseling and Advising for continued academic counseling.

Career Opportunities

The bachelor's degree in social work qualifies graduates for practice in entry-level positions in a wide range of social service settings. Most graduates work in child welfare, family service or mental health agencies. The bachelor's degree from a Council on Social Work Education (CSWE) accredited program qualifies graduates to take the licensed social worker (LSW) examination as stipulated by the Illinois Department of Professional Regulation. In addition, many graduate social work programs offer advanced standing to students with a bachelor's degree in social work from a CSWE accredited program.

Degree Requirements
Bachelor of Arts or Bachelor of Science
Social Work

General Education Requirements 54
Skills for bachelor of science 15
ENG 101, ENG 102, PHIL 106, SPC 103, STAT 107
Students pursuing a bachelor of arts degree are required to take two semesters (8 hours) of a foreign language.
Fine Arts & Humanities 9-12
INTRO FAH (*one additional INTRO FAH), ENG 201, PHIL not 106 (233, 245, 320, 321, 334, 346 recommended)
Natural Sciences and Mathematics 6-9
BIOL 111 (*one additional INTRO NSM), DIST NSM
Social Sciences 18
ANTH 111, ECON 111, HIST 201, POLS 112, PSYC 111, PSYC 206
Interdisciplinary Studies 3
IS
General Education Electives 15
(*Choose one additional INTRO FAH or one additional INTRO NSM)
Social Work Required Courses 46
200, 201, 202, 211, 301, 302, 303, 315, 316, 390, 400, 401, 482, 483, 480
Social Work Electives 9
Total 124

Note: No academic minor is required for social work majors; however, a minor in the social or behavioral sciences is strongly encouraged.

Senior Assignment

All undergraduate majors in social work are required to complete a senior assignment as part of the undergraduate social work program and the University's assessment process. The social sork senior assignment is composed of two parts: a written case study and a final evaluation of students' achievement of learning objectives completed by their field instructors.

Sociology and Criminal Justice Studies

Professors: Finkelstein, M.; Markowitz,L.

Associate Professors: Hedley, M.; Kauzlarich, D. (Chair); Petrocelli, M.;

Assistant Professors: Blad, C.; Cannon, K.; Campbell, L.; Cobb, P.D.; Dirks-Linhorst, P.A.; Frey, C.; Maatita, F.C.; Mares, D.; Oberweis, T.; Welch, L.C.

Criminal Justice Studies

The B.A./B.S. degree in criminal justice studies at SIUE is a multi-disciplinary degree program with a strong academic foundation in the liberal arts. Among the general topics studied are theories of crime and delinquency; the origins and development of criminal law and procedure; the functions and operations of criminal justice agencies in America, including the criminal justice response to juvenile offenders; the prevention of crime and delinquency; privatization in corrections and policing; the nature, meaning, and purpose of criminal punishment; the nature and impact of criminal justice policy; and the relationship between criminal justice and human diversity.

The criminal justice major prepares students for a broad range of career opportunities, including, but not limited to, work in law enforcement and security, probation and parole, the court system, and corrections. Experiential learning is an important component of the program, and all students are required to complete an internship with an organization or agency involved with some aspect of criminal justice. The internship could be with a public agency such as a police department, state or federal prison, local jail, circuit and municipal courts, or prosecutor's office, or with a private organization delivering products or services to the criminal justice system.

During the internship, all students complete a reflective essay on the relationship between the internship experience and their course work in criminal justice studies.

Statement of Major Goals: Criminal Justice Studies

- Ability to effectively communicate orally and in writing
- Ability to understand, use, and apply theories of crime and justice
- Ability to define a problem, generate appropriate data, and propose logical solutions
- Ability to search and use criminal justice literature
- Ability to understand diversity and its impact on criminal justice and society

Career Opportunities

In recent years, career opportunities in fields linked with criminal justice have shown steady growth. While some jobs do not require a university degree, many others do, and a degree almost always improves a person's chances for promotions and other career advancement. Because the criminal justice program at SIUE rests on a strong academic foundation, a wide variety of occupations will be accessible to its graduates. These include court administration, probation and parole, research and planning, community-based prevention and treatment, and working with juveniles and other special populations of offenders. Criminal justice majors also are hired by law firms as researchers, and by corporations that maintain internal security services or provide security services to clients. The many state and federal agencies involved in law enforcement and crime prevention also hire criminal justice majors as front-line officers as well as in the areas of administration, research, planning, and human resources. Newer areas of work such as victim-witness advocacy, dispute resolution, and neighborhood/community justice centers also provide employment opportunities for criminal justice majors.

Degree Requirements
Bachelor of Arts or Bachelor of Science
Criminal Justice Studies

General Education Requirements	48-50
Some general education requirements may be satisfied while completing the major requirements	
Requirements for Major in Criminal Justice Studies	39
CJ 201, 202, 208, 272, 302 , 303, 366, 488,	24
CJ Electives	15
Other Electives	35-37
Bachelor of Arts	37
Bachelor of Science	35
Total	124

Admission/Entrance Requirements

Admission to the criminal justice major is competitive, and students must meet the following conditions to be considered for admission:

1. completion of all general education skills courses with grades of C or better
2. completion of 15 hours of introductory courses with

grades of C or better

3. completion of the following courses with grades of C or better: SOC 111, POLS 112, and CJ/SOC 201, or their equivalents
4. completion of the Pre-CJ Program, described below
5. a cumulative GPA of 2.75.

The pre-CJ program is a two-semester introduction to the major in criminal justice studies and includes one-on-one contact with criminal justice advisors. All students planning to major in criminal justice studies at SIUE must enroll in the pre-CJ program and complete its requirements before they are eligible to apply for admission to the major. The director of criminal justice studies admits students to the pre-CJ program.

Ordinarily, students are admitted to the pre-CJ program at the beginning of the fall semester after they have completed at least 30 semester hours of undergraduate study.

In addition to completing CJ/SOC 201 and other course prerequisites for the major, students must take CJ 202 and CJ 208 and at least one other 200-level CJ course during the two-semester pre-CJ program. They also are encouraged to join the Criminal Justice Club, and to participate in other activities that relate to the major.

The pre-CJ program is waived for transfer students who have already completed the relevant courses or have received an associate's degree in criminal justice or equivalent field from a community college.

Application for admission to the pre-CJ program must be made in person at the CJ director's office, currently Peck Hall 1211. Students are strongly encouraged to apply during spring registration of the calendar year in which they intend to enter the pre-CJ program, but in no case later than September 15 of that calendar year. Admission to the pre-CJ program is not a guarantee of acceptance into the major in criminal justice studies.

Applications for admission to the major in criminal justice studies are reviewed prior to the start of fall semester. Students enrolled in the pre-CJ program should apply in person at the CJ director's office no later than the fifth week of spring semester of the calendar year in which they wish to become a CJ major. Transfer students must apply no later than August 1.

Applications will be reviewed by an admissions committee composed of the director of criminal justice studies and two members of the full-time criminal justice faculty. Among the factors considered will be:

- overall GPA at SIUE
- GPA in the pre-CJ program
- current or previous employment in criminal justice field
- previous course work in criminal justice at other institutions
- letters of recommendation from past or present instructors
- other considerations that support the University's Long-term Goal of Engaged Students and Capable Graduates

Retention and Graduation

Students majoring in criminal justice are required to maintain a cumulative average of C or better in their criminal justice course work.

Program Graduation Requirements

A cumulative grade point average of 2.0 or above in criminal justice course work is required for graduation.

Students must pass all required courses with a grade of C or better. A minimum of 15 semester hours of upper-level courses is required for graduation.

Transfer Credit

Ordinarily, up to 12 semester hours of transfer credit with C or better grades may be accepted. Up to 15 hours of transfer credit may be accepted from Illinois universities and community colleges, as recommended under the Illinois Articulation Agreement. Subject to appropriate articulation agreements, community college students may count the following courses, or their equivalents, as credit toward the major. Additional transfer hours may be used if approved by criminal justice advisors.

CJ 201 Introduction to Criminal Justice
[IAI Course No. CRJ 901]

CJ 202 Introduction to Corrections
[IAI Course No. CRJ 911]

CJ 205 Juvenile Justice
[IAI Course No. CRJ 914]

CJ 206 Criminal Law and Procedure

[IAI Course No. CRJ 913]

CJ 208 Introduction to Law Enforcement
[No IAI equivalent]

CJ 272 Criminology [IAI Course No. CRJ 901]

Senior Assignment

As part of the University's assessment program, all undergraduate majors in criminal justice are required to complete a senior assignment. This will occur during completion of the Supervised Internship (CJ 488).

Minor Requirements

For a minor in criminal justice, students are required to complete at least 21 semester hours of CJ electives. Minors must maintain an average of C or better in their criminal justice courses. Ordinarily, minors do not take CJ 488. Up to 9 hours of transfer credit may be accepted toward the minor.

Major Course Work

The core of the criminal justice major consists of 24 hours of course work required of all students, plus 15 hours of criminal justice electives. Majors must complete CJ 201, 202, and 208 with a C or better grade before they take any 300- or 400-level CJ course. CJ 302 and 3038 will be are prerequisites for all 400-level CJ courses. Completion of at least 18 hours of criminal justice courses work is required for enrollment in the supervised internship. Criminal justice majors may count up to 6 hours of 300- or 400-level courses in other programs with permission of the director of criminal justice studies.

Sociology

Sociology is the scientific study of human groups and relationships. A major purpose is to find efficient and effective ways to improve them. Sociologists study human values, customs, leadership, and cooperation and conflict in every kind and size of group including families, schools, religions, corporations, the economy, government, cities, and societies. Sociologists use questionnaire surveys, participant observation, government statistics, and computer simulations to find patterns and general principles that can help solve problems of group living ranging from infant mortality and juvenile delinquency to world population growth and migration. Sociologists investigate causes of crime and deviance; racial, gender, and ethnic conflict; poverty; social inequality; health care; globalization and workplace change. Applied sociologists use sociological insights to identify and solve practical problems in group living. Many students majoring in other fields find sociology courses relevant to their studies.

Statement of Major Goals

The undergraduate major in sociology seeks to foster the development of the following knowledge and skills while encouraging students to become well-informed, active citizens who appreciate creativity and diversity.

- ability to understand, use, and apply social theory
- ability to understand, use, and apply social research methods
- ability to effectively communicate orally and in writing
- ability to search and use relevant sociological literature
- ability to understand diversity and its impact on society, social theory, and social research
- ability to define a problem, generate appropriate sociological data, and propose logical solutions

Career Opportunities

Many employers emphasize that a good liberal arts education is an excellent foundation for specialized skills that can be learned on the job. A major in one of the social sciences often is preferred by industry, government , and private service agencies. While professional training in sociology is primarily associated with advanced degrees, there are many employment opportunities for those with a liberal arts major in sociology. The optional concentration in employment relations (see below) adds occupationally relevant training to the liberal arts program in sociology. In addition to providing classroom and experiential training in employment relations, the concentration helps develop marketable research and communication skills. The required internship helps create job opportunities and provides training and research skills that make students more attractive to potential employers.

Details about career opportunities for sociology graduates are available in the departmental office, room 1230, Peck Hall. Interested students may also contact the chair or undergraduate advisers by calling 618-650-3713.

Degree Requirements
Bachelor of Arts or Bachelor of Science
Sociology

General Education Requirements 42-44
Some general education requirements may be satisfied while completing the major requirements.
Requirements for Major in Sociology 36
Sociology 111, 301, 302, , 303, 495 15
Sociology Electives 21
Electives 44-46
Bachelor of Arts 44
Bachelor of Science 46
Total 124

Program Option in Employment Relations

The program option in employment relations is designed to prepare students to apply sociological knowledge to the practical problems of the workplace. Fundamental changes in work and industry have intensified employer demands for broadly skilled professionals, supervisors, administrators, coordinators and consultants capable of critically evaluating, planning and implementing workplace changes.

In addition, employment relations places great emphasis on the acquisition of practical knowledge through case study analyses and an internship (SOC 433) in an actual employment setting. As interns, students have the opportunity to apply course concepts, ideas, and methods in a supervised employment context. As the capstone learning experience in developing concrete skills and abilities, the internship may provide students with valuable contacts and networks that will be of use to them in achieving their professional and career goals. For more information, please contact the employment relations adviser in Peck Hall, room 0206 .

Degree Requirements
Bachelor of Arts or Bachelor of Science
Sociology
Employment Relations Option

General Education Requirements 42-44
Requirements for the Sociology Major with the Program option in Employment Relations 45
Sociology 111, 301, 302, 303, 338, 431, 433 21
Sociology Electives 9-15
Non-sociology Electives from a list provided by the Employment Relations Adviser 9-15
Electives 35-37
Total 124

Admissions/Entrance Requirements

The admission requirements for a bachelor of arts or bachelor of science degree in sociology include admission to the University and successful completion of high school course-specific requirements.

Students must normally declare a major in sociology no later than halfway through their junior year (i.e. before the completion of 75 semester credits). Students who declare a major later than this explicitly understand and agree that they will not be able to graduate sooner than the end of the third semester of full-time course work following declaration.

Retention Standards

Students majoring in sociology are required to maintain a cumulative average of 2.0 (C) or above in their sociology courses.

Program Completion Requirements

A cumulative grade point average of 2.0 or above in sociology courses is required for graduation, and students must achieve at least a C grade in all required sociology courses. Ordinarily, up to 15 semester hours of transfer credit in sociology may be accepted. No more than nine semester hours from community colleges will be accepted for credit toward the major. Transfer credit will be accepted only if the course grade is C or above. Social Work courses do not count toward the 36 semester hours required for the major.

Senior Assignment

As part of the University's assessment program, all undergraduate majors in sociology are required to complete a senior assignment. General majors (those not enrolled in the program option in employment relations) must take Sociology 495 (Senior Seminar) after completing 21 semester hours of sociology. Sociology 495 usually is offered both in spring and fall semesters, but not in the summer term.

Before enrolling in Sociology 495, all students must complete a sequence consisting of Sociology 301 (Theory), Sociology 302 (Methods) and 303 (Statistics). Students should begin this sequence as soon as possible after declaring the major.

Students enrolled in employment relations are required to take Sociology 433 (Internship) as part of their senior assignment. Employment relations students are not required to enroll in Sociology 495, but they are required to complete the written and oral components of the senior assignment in their final spring term. A grade of C or better on the senior assignment is required for

graduation. More information about the senior assignment in Sociology may be obtained from the departmental office, Peck Hall, room 1230.

Minor Requirements

For a minor in sociology, students are required to complete 21 semester hours of sociology electives, which may include courses in other departments that are cross-listed with sociology. Sociology minors must maintain an average of 2.0 or above in their sociology courses. Ordinarily, nine semester hours of transfer credit may be counted toward the sociology minor. Transfer credit will count toward the sociology minor only when the grade is C or above. Social work courses do not count toward the 21 semester hours of sociology credits required for the minor.

Speech Communication

Professors: McClearey, K.E.

Associate Professors: Perkins, L. (Chair); Stern, L.A.; Wrobbel, E.D.; Zamanou-Erickson, S.

Assistant Professors: Blankson, I.A.; Cattafesta, J.; Reynard, L.J.; VanCleave, J.T.

Instructors: Bumpers, K.; Fussell, R.; Grant, E.; Meyer, J.; Shiller, A.

Speech Communication is rooted in the great ancient civilizations Egypt, Rome, Africa, and Athens, where culturally rich oral traditions formed the underpinnings of the social-political community life.

The study of communication involves developing theories and research tools to analyze, explain, and improve human interaction. Departmental courses focus on two-person interaction, small-group decision making, communication patterns in organizations and other complex systems, and speaker-audience interaction in public speaking.

The Speech Communication Department encourages students to work closely with faculty in advising, teaching, research projects, and informal interactions. Speech communication majors and minors receive their formal academic advisement from a faculty member assigned by the director of undergraduate studies. Students interested in careers may contact the department at (618) 650-3090.

Career Opportunities

In America, employers increasingly recognize the need for more effective communication. As a result, job opportunities for graduates trained in speech communication are prevalent in business and industry, government agencies, educational systems, non-profit organizations, and community-based resource centers. Graduates often have several career choices. Examples of communication careers some departmental graduates have entered are: teaching and administration; management, training and consulting in organizations; public relations; working in human relations and employee assistance programs; sales; and government service. Career opportunities in communication are expanding for women and minorities.

The department is committed to helping undergraduate majors identify jobs and work environments for which they are best suited; the department also helps them select internships, minors, and elective courses to complement the speech communication major. To focus their academic programs most effectively, students also are required to select and follow the academic track most appropriate for their individual career goals.

Speech Communication Tracks

Corporate and Organizational Communication Track

Students who choose the corporate and organizational communication track focus on communication within the context of businesses and other organizations. Effective communication in organizations is necessary both for the attainment of organizational goals and for individual productivity and satisfaction. This track is designed for those who will work in organizational settings and who want to become more effective in their interactions with others for a more successful and fulfilling work life. This knowledge is especially important now that the "world of work" is undergoing such rapid change. In addition to learning, understanding, and applying organizational theories and research, students also will develop important organizational skills such as conflict management, decision making, goal setting and team building. Students completing this track will be prepared for careers in a wide variety of organizational settings and roles (sales, management, human resources and training), as well as for graduate study in communication or business.

Interpersonal Communication Track

Students in the interpersonal communication track are generally attracted to it for the solid preparation it

provides for graduate school. This track provides students with a thorough theoretical and practical understanding of the ways in which verbal and nonverbal communication are used in defining, negotiating, and modifying relationships. This track also increases students' awareness both of the many types of, and the myriad influences on, interpersonal relationships. A thorough, systematic examination of relevant theory and research regarding interpersonal communication is provided. Students who select this track as pre-graduate study preparation will find themselves with an excellent foundation upon which to begin careers in the academic community, such as professor, researcher, or administrator. Those choosing this track also will be well prepared for positions in the business sector such as recruiters and trainers.

Public Relations Track

Students who choose the public relations track will study under a model program, designed to meet and exceed national guidelines for undergraduate public relations education described in Public Relations Education for the 21st Century: A Port of Entry, sponsored by the Commission on Public Relations Education. This track stresses written, oral, graphic, and technological applications of communication skills. Elements of the program are designed to keep entry-level students in touch with upper-division students, and past graduates in touch with all students. In addition, students will experience the "paired course" concept, an idea that helps students integrate materials across their sequence of study. And finally, students may join SIUE's award-winning chapter of the Public Relations Student Society of America, which is affiliated with the national professional association, Public Relations Society of America.

Admission to the Major

To be accepted as a major in speech communication, a student must have completed both the general education oral skills course SPC 103, Interpersonal Communication Skills (or equivalent) and the general education oral skills course SPC 105, Public Speaking Skills (or equivalent) with a grade of C or higher and must have a cumulative grade point average of 2.0 or higher (on a 4.0 scale).

Degree Requirements
Bachelor of Science
Speech Communication

General Education Requirements 42-44
Some general education requirements may be satisfied while completing the major concentration.

Requirements for Major in Speech Communication 36
1. SPC 200, 329, 330, Capstone Course (409 or 415, depending on track) 12
2. Complete all required courses within one track as outlined below.
3. Complete additional hours of applicable course work within the department (including SPC 309, 419 & 491).

Notes:

SPC 111 does not count for major credit.
No more than three hours of SPC 309, Independent Projects may be counted toward 36-hour major.

No more than three hours of SPC 491, Internship may be counted toward 36-hour major.

SPC 419, Special Topics may be substituted for courses in any given track with faculty consent. No more than three hours of SPC 419 may be counted toward 36-hour major.

At least 18 of the hours counted toward 36-hour major must be completed at SIUE.

Track Requirements and Recommendations

Corporate and Organizational Communication Track
Required: SPC 201, 203, 300, 403
Recommended electives: SPC 210, 213, 223, 331, 430, 434, 491

Interpersonal Communication Track
Required: SPC 201, 223, 433, 434, 464
Recommended electives: SPC 210, 305, 331, 423

Public Relations Track
Required: SPC 213, 313, 315, 413, 414, 415 (Senior Project)
Recommended electives: See Public Relations adviser

Minor 18
The actual number of hours for the minor may vary, depending on the field that is selected.

Electives 26-28
Total 124

In addition to meeting their academic responsibilities, students are expected to integrate into their learning a broad range of campus and community communication activities. The independent projects course, SPC 309, offers one to six hours of academic credit for such activities (no more than three of which may be applied toward the major). SPC 491, an internship course, enables qualified juniors and seniors to gain professional experience in career environments.

Degree Requirements
Bachelor of Arts in Speech Communication

The requirements are the same as those described above, plus eight hours of the same foreign language as part of the 24-26 elective hours.

Minor Requirements

To be accepted as a minor in speech communication, a

student must have a cumulative grade point average of 2.0 or higher (on a 4.0 point scale). An 18-hour minor in speech communication may include any courses offered in the speech communication curriculum at the 200 level or above, except for those courses restricted to majors only. Students and their respective advisers will set up a minor program that includes courses that best meet the students' academic and career interests. Nine hours of the minor must be completed at SIUE. At the time they apply for their minor (or earlier), students should consult with the speech communication director of undergraduate studies, (618) 650-3090.

Speech Communication Education Minor (available to Language Arts Secondary Certification students only)

Students who apply for language arts certification through the Department of English Language and Literature also must, within 30 days, apply for the speech communication education minor through the Department of Speech Communication. Minor advisement by the director of speech communication education, available at 650-3090, is mandatory.

The speech communication education minor consists of 21 hours of the following courses: SPC 103, SPC 104, SPC 105, SPC 201, SPC 261, SPC 305, and SPC 461. These courses may also be used to fulfill general education requirements. At least 9 hours of the 21-hour Speech Communication Education minor must be completed at SIUE.

Students must maintain a minimum major and minor GPA of 3.0 and pass the screening of the Department of English Language and Literature to be eligible for student teaching. Students are required to gain advisement for professional education courses through the Office of Clinical Experience, Certification, and Advisement.

Theater and Dance

Professors: Bukalski, P.J.; Jarrell, J.C.; Neely, M.K. (Dean, College of Arts and Sciences); Sill, D. (Senior Scholar); Sweezey, C.O.

Associate Professors: Cocuzza, P. (Chair); Shaul, K.J.; Wulfsong, J.

Assistant Professors: Hanson, L.M.; Harper, C.B.; Schmitz, J.L.; Sol, D.L.

Instructors: Bozark, K.; Goldston, V.; Hagan, L.; Speidel, R.; Thomas, M.

Career Opportunities

An undergraduate degree in theater or dance provides a student with pre-professional theater and dance training in acting, directing, dance, choreography, technical production, and design. With a specialization in Theater Education, students can prepare for a career in teaching in the high school.

Description of Department and Programs

The Department of Theater and Dance provides instruction and practical performance experience in all phases of theater and dance production for the stage.

The department enhances the liberal arts experience of students through general education courses and through main stage and student experimental theater productions. Students majoring in theater and dance may elect from one of five specialization programs: performance, design/technical theater, dance, history/literature/criticism and theater education.

Students seeking admission to the Theater and Dance Department must first be admitted to the University by contacting the Admissions Office. Students who are considering theater and dance as a major should call or visit the department (Dunham Hall, room 1031, telephone 618-650-2773) as early as possible. They will be referred to a faculty adviser who will provide more information about the curricula and the department and help them plan an academic program. Early advisement will enable students to complete their programs with minimal conflicts and within the shortest possible time.

Students in the theater and dance major or minor must maintain at least a 2.0 cumulative GPA and must complete all required theater and dance courses with a grade of C or above to remain in the program. Students may attempt any required theater and dance course only twice (complete a course and receive a grade). If a student fails to achieve a C grade or better in a required course after a second attempt, he/she will be dropped from the program. Students dropped from the major or minor may direct a written appeal for reinstatement to the departmental advisory committee for readmission.

Students must complete a department senior assessment class (THEA 499a,b,c, or DANC 499). Details of this requirement may be obtained from the student's departmental adviser. In addition to departmental

requirements, students must complete all University requirements for graduation.

Degree Requirements
Bachelor of Arts or Bachelor of Science
Theater Specialization in Design/Technical Theater

General Education Requirements 42-44
*For a bachelor of arts degree, students must select option B in the general education skills area, which includes foreign language.
Major Requirements 51
The Core must be completed before taking any 300- or 400-level Theater and Dance courses.
Core Courses:
THEA 112a, 114a, 114b, 201a, 201b, 220, DANC 114 21
Choose one of the following: THEA 150, 160, 170 3
Specialization Courses:
THEA 250 3
Choose two of the following, if not taken above:
THEA 150, 160, 170 6
Choose two of the following: THEA 350, 360, 370 6
Choose nine hours of the following, if not taken above:
THEA 265, 350, 355, 360, 370, 375, 450, 460, 470, 475, 480, 482 9
Senior Assignment (THEA 499a,b,c) 3
Electives (limit of 15 credits of electives in major.) 31
Total 124-128

Degree Requirements
Bachelor of Arts or Bachelor of Science
Theater
Specialization in Dance

General Education Requirements 42-44
*For a bachelor of arts degree, students must select option B in the general education skills area, which includes foreign language. Six credit hours of major courses may satisfy general education requirements while completing this degree.
Major Requirements 49
The Core must be completed before taking any 300- or 400-level theater and dance courses.
Core Courses:
THEA 112a, DANC 114 6
Choose one of the following: THEA 114a or 114b 3
Choose one of the following: THEA 150, 160, or 170 3
DANC 230 3
DANC 240 3
Choose one of the following: THEA 201a or 201b, ART225a, or 225b, MUS 357a or 357b 6
Choose one of the following: DANC 210 or 211 2
Choose one of the following: KIN 315, or BIOL 240a 3
Specialization Courses:
DANC 310a, 310b, 311a, 311b, 320, 420a, 420b, 433 21
Choose one of the following: DANC 410a, 410b, 411a, 411b 2
Senior Assignment (DANC 499) 3
Theater Practicum Courses:
THEA 199 — Pass/Fail — 4 Semesters 0
An additional THEA 150, 160, or 170 course can be substituted for 2 semesters of THEA 199
Electives (limit of 15 credits of electives in major.) 33
Total 124-126

Degree Requirements
Bachelor of Arts or Bachelor of Science
Theater Specialization in History, Literature and Criticism

General Education Requirements 44
*For a bachelor of arts degree, students must select option B in the general education skills area, which includes foreign language. Six credit hours of major courses may satisfy general education requirements while completing this degree.
Major Requirements 42
The Core must be completed before taking any 300- or 400-level theater and dance courses.
Core Courses:
THEA 112a, 114a, 114b, 201a, 201b, 220, DANC 114 21
Choose one of the following: THEA 150, 160, or 170 3
Specialization Courses:
Choose one of the following: ENG 307, 471a, 471b 3
Twelve additional hours in Theater and Dance classes selected with consent of adviser, six of which have to be at the 300 or 400 level. 12
Senior Assignment (THEA 499 c) 3
Theater Practicum Courses:
THEA 199 — Pass/Fail — 4 Semesters 0
An additional THEA 150, 160, or 170 course can be substituted for 2 semesters of THEA 199
Electives (limit of 15 credits of electives in major.) 38
Total 124
*Bachelor of Arts or Bachelor of Science

Degree Requirements
Bachelor of Arts or Bachelor of Science
Theater Specialization in Performance

General Education Requirements 42-44
*For a bachelor of arts degree, students must select option B in the general education skills area, which includes foreign language.
Major Requirements 51
(The Core must be completed before taking any 300- or 400-level theater and dance courses)
Core Courses:
THEA 112a, 114a, 114b, 201a, 201b, 220, DANC 114 21
Choose one of the following: THEA 150, 160, or 170 3
Specialization Courses:
THEA 112b, 215a, 312, 310a,310b, 410, ... 18
Choose six hours from the following: THEA 210a, 210b, 215b, 230, 235, 265, 315a, 315b, 412 6
Senior Assignment (THEA 499a) 3
Theater Practicum Courses:
THEA 199 — Pass/Fail — 4 Semesters 0
An additional THEA 150, 160, or 170 course can be substituted for 2 semesters of THEA 199
Electives (limit of 15 credits of electives in major) 31
Total 124-126

* Bachelor of arts or bachelor of science

Degree Requirements
Bachelor of Arts or Bachelor of Science
Theater and Dance
Theater Education
Secondary Education Teacher Certification

General Education Requirements 42-44
*For a bachelor of arts degree, students must select option B in

the general education skills area, which includes foreign language.
Students seeking teacher certification must take specific general education courses. See the Secondary Education Section of the undergraduate catalog for details.

Requirements for the Major in Secondary Education 28
Note: Requirements may change.
Curriculum and Instruction 200 2
EPFR 315.....3
EPFR 320 ..... ……. 3
Special Education 400 3
Curriculum and Instruction 315a 2
Curriculum and Instruction 315b 2
Curriculum and Instruction 440 3
Curriculum and Instruction 352 10
There are specific admission requirements for the initial teacher certification, secondary education program. See the Secondary Education section of this catalog for details.

Requirements for the Major in Theater 41
Theater Core:
THEA 112a — Introduction to Acting 3
THEA 114a — Forms of Dramatic Action I 3
THEA 114b — Forms of Dramatic Action II 3
THEA 150— Scene Design and Construction....3
THEA 201a — Theater History I 3
THEA 201b — Theater History II 3
THEA 220 — Directing 3
DANC 114 — Movement Fundamentals 3

Theater Education Specialization 17
Two of the following group, not taken in core:.....6
THEA 160 — Technical Theater — Costumes; Design and Construction 3
THEA 170 — Technical Theater Lighting and Sound 3
THEA 265 — Theater Makeup 2
THEA 298 — Intro to Theater Education in the Sec Schools.....3
THEA 309 — Musical Theater or 312 Multi-Cultural Theater ... 3
THEA 398 — AdvancedTheater Education in the Sec Schools 3

Electives 10-13
Total 124
*Bachelor of Arts or Bachelor of Science

Students in the educational theater degree program must maintain a 2.5 cumulative G.P.A. for teacher education and must complete each required course with a grade of C or above to remain in the program.

Secondary education majors are recommended to have a second teaching field. The Department of Theater and Dance strongly urges each student to complete enough courses in language arts to prepare for a teaching career.

Admission to a theater education program is a joint decision by the academic discipline in the College of Arts and Sciences and the School of Education. Therefore, it is essential that any student desiring teacher certification meet with an adviser in the Office of Clinical Experience, Certification, and Advisement of the School of Education for admission to the teacher education program.

Senior Assessment: Students must satisfactorily complete student teaching with a grade of pass, direct a theatrical production with pre-college students, and prepare a student portfolio which should include: a) a set of four lesson plans or total unit, b) a 1,000-word essay regarding the importance of general education as part of the theater education curriculum, c) excerpts from the student teaching journal describing peak experiences in teaching, d) other pertinent material that the student might feel appropriate. The portfolio must be professional in appearance and be aesthetically pleasing for future use with job placement. All theater and dance faculty will be invited to attend the theatrical production.

Musical Theater Degree

See Department of Music.

Theater and Dance Minor

The theater and dance minor consists of 21 hours: THEA 112a, THEA 150 or 160 or 170, THEA 201a or THEA 201b or DANC 240, DANC 114, 9 hours of approved electives in theater and/or dance, and one semester of THEA 199. Students who minor in theater and dance must complete all required courses with a grade of C or above and must maintain at least a 2.0 cumulative GPA.

The Bachelor of Liberal Studies (BLS) Traditional Program

The bachelor of liberal studies degree program is designed to enable students to pursue a broad-based education in liberal arts and sciences. Students pursuing the bachelor of liberal studies degree are offered the flexibility to develop an individualized program of study with a specific interdisciplinary focus. Unlike other majors, the BLS emphasizes breadth of study rather than focus on a single discipline. The program is designed to meet the needs of students whose educational, employment, career, professional, and personal goals may not be fully met with a specific SIUE major, and for students who have integrative abilities to plan and develop a program appropriate to their interests.

Admission to the program is based on approval of a proposed plan of study that demonstrates both an interdisciplinary focus and the inability to satisfy goals with a specific SIUE major. The plan of study must satisfy all the requirements listed below. The proposal must include a statement of educational goals, the interdisciplinary focus, courses selected to satisfy all

requirements, and the revelance of the BLS degree to those goals. Students submit the proposal for a review by three faculty who must acknowledge the appropriateness of the interdisciplinary focus and who agree that the focus cannot be supported within any existing SIUE major. This process must also include the student's planning for the Senior Assignment. Students should have at least a 2.0 grade point average at the time of entry into the program. An approved student proposal constitutes an educational program, which may be modified only after approval by the director of the BLS degree. The educational program should reflect a curriculum with an interdisciplinary focus in the Liberal Studies Disciplinary Course Description requirements as well as in elective courses.

Students who plan to pursue graduate study should develop a program that can satisfy graduate admission requirements. Students should apply for a BLS major before their senior year. Seniors may enter the program, provided they develop an approved program that demonstrates both an interdisciplinary focus and the inability to satisfy goals with a specific SIUE major. This student, having completed more than 90 credit hours, must demonstrate revelance of the BLS degree to his or her goals and propose a plan of study that satisfies SIUE requirements.

Career Opportunities

The bachelor of Liberal Studies program is intended to enhance knowledge in a variety of areas. Extensive course alternatives available through this program allow students to adapt their curriculum to meet individual needs. This enables the student to develop a comprehensive resumé to reflect individual characteristics and capabilities expected of all graduates in the College of Arts and Sciences.

The program is of special value to those who are not seeking a career based in a single discipline, to those who already possess occupational skills, and to those who seek enrichment of their personal and professional lives. Part-time students are able to complete this degree through evening and weekend course offerings.

Degree Requirements
Bachelor of Liberal Studies

Each student must develop an educational contract that satisfies the following requirements:

A. Total number of hours required 124
B. General Education 42-44
C. Required Courses in Arts and Sciences 45

At least 5 courses consisting of a minimum of 15 semester hours, above and beyond the general education requirements, must be completed with grades of C or better, of the disciplinary distributions indicated below.

1. Natural Sciences and Mathematics 15
2. Social Sciences 15
3. Fine Arts and Humanities 15

D. Elective Hours 32-34
1. General Electives 10-16
2. Focused Electives 18-22

A specific interdisciplinary focus will be formulated upon the student's entry into the program and will become a part of the student's educational contract. Courses taken to satisfy elective hours will explicitly relate to this focus.

E. Senior Project 3-6

The Senior Project (a capstone academic experience), serving as a component in senior assessment, affords the student an opportunity for self reflection and independent study. The academic breadth of the liberal studies program orients students' attention toward activities that might include, but are not limited to, a student practicum, internship, integrative research paper, presentation, or creative undertaking. A minimum grade of C in LIBS 400 is required to meet degree requirements.

At least 45 hours of the total required for graduation should be earned through junior- and senior-level courses (300 and/or 400 level).

A maximum of 24 hours, beyond general education requirements, may be used in any one discipline to meet degree requirements.

Environmental Sciences Minor

The Environmental Sciences Program now offers an undergraduate minor in Environmental Sciences. The undergraduate minor will increase students' technical competence in addressing and analyzing environmental issues, their origins, ramifications, and resolutions. The Environmental Sciences Program at SIUE is designed to enhance and promote multidisciplinary education while providing students with career opportunities in a wide area of interests.

Faculty from several departments in the College of Arts and Sciences provide mentoring, direction, and instruction. Practicing professionals also lend their expertise to the program. A close relationship is maintained with industries and environmental agencies so that students and faculty members can incorporate real-world issues into their studies.

Requirements

Students must apply for and be accepted into the minor program in Environmental Sciences. Minimum

requirements for admission are a cumulative GPA of 2.5. To satisfy the Minor requirements, students must take and complete the following courses while maintaining a minimum cumulative GPA of 2.5: Survey of Environmental Sciences (120); Applied Research Methods (210); Principles of Environmental Sciences (220); Environmental Health and Waste Management (330);

Ecosystem Management and Sustainability (340); Environmental Law (402); and Science, Experts and Public Policy (419). These 19 units of courses are administered through the Environmental Sciences Program.

Master of Science Degree
Environmental Sciences

The College of Arts and Sciences administers an interdisciplinary program leading to a master of science degree in Environmental Sciences. The mission of the Environmental Sciences Program is to cultivate students' perspectives of environmental issues and provide students with refined knowledge of environmental issues on local, regional, and global scales. Students successfully completing the undergraduate minor with an acceptable grade point average (see the program description in the SIUE Graduate Catalog) will be accepted in the master's program.

Interdisciplinary Minors

Minor in Black Studies

The Black Studies minor is multi-disciplinary, with courses in nine departments: Anthropology, Art, English, Historical Studies, Music, Political Science, Sociology, Speech Communication and Theater and Dance. Within the 18 hours required for this minor, students are required to take two specific courses: English 340 and History 130.

The remaining 12 elective hours selected from a listing of designated courses. Electives must include courses from three different departments and at least three courses related to the Black experience in America:

Black Studies Courses

Required Courses

English 340
History 130

Designated Black Studies Electives

Anthropology 310, 311, 411
Art 469a
English 205, 341, 342
History 352a, b, 442 (400 Topic: Film and African Experience)
Music 337, 338
Political Science 342
Sociology 304
Speech 210
Theater 290, 312

* The director may approve other courses not listed above.

For more information about this minor or any of the courses, contact the Black Studies Office at 650-5038, Peck Hall, room 3402. For advisement, contact the Black Studies adviser, Reggie Thomas, Dunham Hall, room 2106. A description of the program and a schedule of courses offered each term are available at the office.

Minor in Classical Studies

The minor in classical studies is a multidisciplinary program sponsored by the College of Arts and Sciences and supported by the Departments of Art and Design, English Language and Literature, Foreign Languages and Literature, Historical Studies, and Philosophical Studies.

The classical studies minor contributes to cultural enrichment through the study of Latin and Greek, and of the history, philosophy, literature, and art of the Greek and Roman civilizations; to language sensitivity by close attention to the grammatical and syntactical structure of Latin and/or Greek and by careful analysis of texts; to expansion of a general working vocabulary; and to knowledge of special vocabularies of such fields as medicine, law, theology, and foreign languages derived from Latin and Greek.

Requirements

The minor in classical studies requires 20 credit hours of courses designated classical studies. Of these, eight hours are required either in Greek or in Latin. Credit is granted only for those courses in which grades of C or above are earned.

Greek 101, 102 — Introduction to Greek
Greek 201, 202 — Intermediate Greek
Greek 499a-f — Readings in Ancient Greek
Latin 101, 102 — Introduction to Latin
Latin 201, 202 — Intermediate Latin
Latin 499a-f — Readings in Latin
Foreign Languages and Literature 106 — Building Vocabulary Through Latin and Greek Word Elements
Foreign Languages and Literature 401 — Comparative Latin and Greek Grammar
English 303 — Literary Masterpieces: Ancient and Medieval
English 310 — Classical Mythology and Its Influence
History 113 — Civilization of the Ancient World
History 302 — Ancient Egypt
History 303 — History of Ancient Near East
History 304 — History of Greece
History 306a,b — History of Rome
Philosophy 300 — Ancient Greek and Roman Philosophy
Philosophy 440 — Classical Political Theory Same as Political Science 484
Art 225a — History of World Art

Art 447a,b — Ancient Art
Because the following courses have variable content, they require advance approval by the Coordinator of the Classical Studies minor:
Foreign Languages and Literature 390— Readings
English 478 — Studies in Women, Language, and Literature Same as Women's Studies 478
History 300 — Special topics
History 400 — Topics in History
History 410 — Directed Readings
Humanities 400 — Symposium in the Humanities
Philosophy 490 — Special Problems
Philosophy 495 — Independent Readings
Art 470 — Topics in Art History

For more information, please contact the coordinator of classical studies, currently Carl Springer, Associate Dean, College of Arts and Sciences, Peck Hall, room 3432, (618) 650-5058.

Minor in Peace and International Studies

The peace and international studies minor is interdisciplinary and allows students to receive recognition for pursuing a particular concentration of courses related to the international community. This minor is especially appropriate for students planning to enter professions such as journalism, radio or television newscasting, government service, teaching, law, international business, or international relations. It is also a good minor for people interested in preparing themselves for their roles as informed citizens in a democracy. For details and advisement, call (618) 650-3375, or visit the coordinator of the Peace and International Studies Program in Peck Hall, Room 0414.

Students desiring a minor in Peace and International Studies must choose a concentration in one of four available areas: (1) World Peace Studies, (2) Western European Studies, (3) Latin American Studies, or (4) African Studies. Some courses listed for the concentration have prerequisites, which are not included in the listing. Note also that courses used for one's major cannot be used for this minor. Students choosing the 2nd, 3rd, or 4th concentration must take IS 340, The Problem of War and Peace, as their IS course for graduation.

Requirements

(1) World Peace Studies Concentration (21 hours):

Required Courses (12 hours):
- IS 340 — The Problem of War and Peace
- POLS 370 — Introduction to International Relations
- POLS 472 — International Organizations (Plus one of the following courses related to war in the 20th century)
- HIST 344b — History of American Diplomacy since 1919
- HIST 416 — World War I and its Aftermath: 1914-1921
- HIST 418 — World War II
- HIST 422b — Late Modern Europe (WW I through WW II)

Elective Courses (select 9 hours)
- ANTH 452 — Political Anthropology
- ECON 361 — Introduction to International Economics
- ECON 425 — Economic Systems
- ECON 461 — International Trade Theory & Practice
- ECON 450/FIN 450 — International Finance
- GEOG 300 — Geography of World Population
- HIST 318b — History of Russia (since 1914)
- HIST 422c — Late Modern Europe (since WW II)
- HIST 454 — History of the Arab-Israeli Conflict
- HUM 310a,b — Esperanto [or HUM 150 — Basics of Esperanto]
- IS 336 — Global Problems & Human Survival
- IS 364 — The Atomic Era: European Refugees, American Science, & the Bomb
- MKTG 476 — International Marketing
- PHIL 340 — Social and Political Philosophy
- PHIL 344 — Socialism & Social Democracy ECON 463 — Introduction to Economic Development & Growth
- PHIL 440/POLS 484 — Classical Political Theory
- PHIL 441/POLS 485 — Modern Political Theory
- POLS 351 — Eastern European Political Systems in Transition
- POLS 385 — Introduction to Political Theory
- POLS 473 — U.S. Foreign Policy
- SOC 200 — Cooperation & Conflict

All courses listed above under required courses but not used as required courses can also be used as elective courses. All courses listed below under the various area concentrations can be used as electives for this world peace studies concentration. Special topics and independent/special readings courses in anthropology, economics, French, geography, German, history, humanities, philosophy, political science, sociology, and Spanish also may be used as electives for any concentration in the peace and international studies minor when appropriately focused, as determined by the coordinator. The coordinator may also approve other appropriate substitutions when courses are not available.

In addition to the concentrations listed below as part of this Peace and International Studies program, a 26-hour minor is available in Russian area studies under the Department of Foreign Languages and Literature.

(2) Western European Studies Concentration (21 hours):
Students taking this concentration must choose option B (17 hours) under General Education Requirements and must take French or German as their foreign language.

Required Courses (12 hours):
- HIST 422b — Late Modern Europe: World War I through World War II
- HIST 422c — Late Modern Europe: Europe since World War II
- Six hours of additional courses in French or German at 300 or 400 level. Note the prerequisites for these courses at the advanced level.

Elective Courses (select 9 hours)
- FL 491 — Cultural and Language Workshop (appropriate topic)
- GEOG 330 — Geography of Europe
- HIST 322 — History of Italy
- POLS 350 — Political Systems of Western Europe
- HIST 413 — History of Modern France
- HIST 415 — Modern German History
- HIST 422a — Late Modern Europe: Vienna Congress to the Great War
- PHIL 441/POLS 485 — Modern Political Theory or additional courses in French or German at 300 or 400 level. Note the prerequisites for these courses at the advanced level.

(3) Latin America Studies Concentration (21 hours):
Students taking this concentration must choose option B (17 hours) under General Education Requirements and must take Spanish as their foreign language.

Required Courses (12 hours):
HIST 360b — History of Latin America (since 1580)
IS 326 — Modern Latin America
SPAN 312 — Contemporary Spanish America
SPAN 352 — Survey of Spanish-American Literature: Colonial Period to Present. Note the prerequisites for these Spanish courses at the advanced level.

Elective Courses (select 9 hours)
ANTH 307 — People & Culture of Latin America & the Caribbean
ANTH 333 — Origins of New World Civilization
ANTH 463 — Introduction to Economic Development & Growth
FL 491 — Cultural and Language Workshop (appropriate topic)
GEOG 334 — Geography of Latin America
HIST 360a — History of Latin America (from pre-Columbian to 1850)
HIST 461 — Central America & the Caribbean in the 20th Century
POLS 355 — Political Systems of Latin America Or additional courses in Spanish at 300 or 400 level. Note the prerequisites for these courses at the advanced level.

(4) African Studies Concentration (21 hours):
Students taking this concentration must choose option B (17 hours) under General Education Requirements and must take French as their foreign language.

Required Courses (15 hours):
ANTH 310 — People & Culture of Africa
GEOG 332 — Geography of Africa
HIST 352a — History of Africa: South of the Sahara, prehistoric to colonial times
HIST 352b — History of Africa: South of the Sahara, colonial times to present.
Three hours of additional courses in French at 300 to 400 level. Note the prerequisites for these courses at the advanced levels.

Elective Courses (select 6 hours):
ECON 463 — Introduction to Economic Development & Growth
ENG 340 — Literature of the Third World
FR 457 — African & Caribbean Literature of French Expression
FL 491 — Cultural Language and Workshop (appropriate topic)
GEOG 401 — Area Economic Development Or additional courses in French at 300 or 400 level. Note the prerequisites for these courses at the advanced levels.

Minor in Religious Studies

The minor in religous studies is a mutidisciplinary program administered by the Department of Philosophy offering opportunities for the academic study of religion.

A minor in religious studies consists of 18 hours, 9 hours of which are required courses: PHIL 333, Philosophy of Religion; PHIL 334, World Religions; and, PHIL 336, Christian Thought. Students must successfully complete (earn a grade of C or above) PHIL 106, Critical Thinking, or its equivalent, before they apply for a minor in religious studies. PHIL 106, or its equivalent, does not count for credit toward the minor in religious studies. Students select elective courses from those appproved by the adviser as appropriate to the minor. The adviser will provide a list of appropriate courses from a variety of disciplines, including anthropology, art and design, english, history and philosophy. Only 3 credit hours of courses counted toward a major in philosophy may also count toward the religious studies minor.

Elective courses for the proposed minor, which would be approved by the adviser, might include such courses as the following:

ANTH 410 — Anthropology of Religion
ART 448 a; b — Early Christian, Byzantine, and Medieval Art, and Romanesque & Gothic Art
ENG 306 — Introduction to the Bible
FL 330 — Celtic Culture: Mythology and Religion
HIST 306b — History of Rome, Principate, 30 B.C. - A.D. 476
HIST 308a — Imperium and Christianity, Western Europe 300 — 1000 CE.
HIST 308b — Medieval Conquests and Kingdoms, 1000-1500 CE.
HIST 313 — Witchcraft, Magic and the Occult
HIST 321 — Reformation Europe, 1500-1648
HIST 354a, b — History of the Arab World
HIST 404a, b — Topics in Medieval Social, Religious, and Intellectual History
HIST/WS 428 — History of Female Spirituality
PHIL 220 — Religion, Reason and Humanity
PHIL 301 — Medieval Western Philosophy

In addition, the Departments of Historical Studies and Philosophy have special topics courses which could be appropriate, depending on the topics.

Admissions Requirement

Undergraduate students who intend to apply for a minor in religious studies must complete (with a grade of C or above) PHIL 106, Critical Thinking, or its equivalent.

Minor in Women's Studies

Women's studies is a growing interdisciplinary field that emphasizes gender perspectives and contributions of women. Women's experience and learning styles often have been omitted from traditional curricula and textbooks. Consequently, women's studies courses focus on issues relating to gender as well as many untold stories of women, their lives, and their work.

Since its beginning in the United States in the early 1970s, women's studies has generated much scholarly inquiry into gender difference. In particular, women's studies encourages equal dignity and empowerment for women and men, and examines teaching styles and educational theories that incorporate women's concerns and experience.

A background in women's studies is valuable in the

Required Courses ..... 3 hrs.
WMST 200
Departmental Courses ..... 15 hrs.
Select any of the following cross-listed courses from at least three different departments, with a maximum of 6 hours from your major. Courses are credited to a department in accordance with the faculty member's departmental assignment.
ANTH/WMST 313, 402 and 426; ART/WMST 473 a and

b; BIOL/WMST 450; EPFR/WMST 451; ENG/WMST 341 and 478; FR/WMST 456; HIST/WMST 314, 428 and 440; IS/WMST 350 and 353; MC/WMST 351; PHIL/WMST 345 and 346; PSYC/WMST 405; SOC/WMST 308, 391, 394 and 444; SPC/WMST 331; WMST 390, 490, 495, 499

See the Course Descriptions section for descriptions of women's studies courses, including courses cross-listed with departments. For more information, please contact the office, Peck Hall, room 3407, 618-650-2744, or Anne Valk, Coordinator, Peck Hall, room 3227, 618-650-3660, or by e-mail at avalk@siue.edu. The women's studies Web site is www.siue.edu/WS/.