Course Descriptions

In addition to regular departmental offerings, the College of Arts and Sciences also offers several interdisciplinary courses, listed below. These courses bring together the resources of two or more disciplines to focus on topics that benefit from being studied from the point of view of more than one discipline. In many cases faculty from several departments teach an interdisciplinary course together, giving students the opportunity to experience faculty dialogue on issues in a cross-disciplinary fashion. Most interdisciplinary courses have no prerequisites. Freshman and sophomore students are especially encouraged to take these courses.

Interdisciplinary Studies (INTDSC)

INTDSC 1000 Special Topics (3)
Topics may vary from semester to semester, however, material will be selected which will focus in the social, economic, historical or political institution of Great Britain.

INTDSC 1002 Freshman Success Seminar (1)
An introduction to technologies and knowledge required in navigating the terrain of higher education, to improve their academic performance, to help determine their strengths and goals, and to encourage them to implement strategies to enhance their personal, academic, and career success. Topics will include study skills, time management, test taking skills, library skills, career development, financial management, health issues, and diversity awareness.

INTDSC 1010 Information Research & Success (1)
Students will gain knowledge and develop critical thinking skills to succeed academically by learning to frame meaningful questions; developing an understanding of the structure and content of library and electronic information resources; evaluating information; and using library and information resources as learning tools.

INTDSC 1030 Language and Communicative Arts Across the Disciplines (3)
This course is designed to advance the academic skills of university-level students. This course consists of listening to academic lectures across the disciplines; reading texts and articles to supplement lectures; writing summaries, essays and responses to exam questions; understanding and editing grammar and sentence structure; phonetics and word stress patterns; presentation skills; and advancing skills in note-taking, critical thinking, and comprehension of advanced college-level vocabulary of various fields of study.

INTDSC 1600 Monday Noon Cultural Seminar (2)
An interdisciplinary examination of topics in the Humanities. Students will attend the Monday Noon Cultural Series program of the Center for the Humanities each week and meet as a group to explore the nature and background of each presentation, e.g., fiction reading, musical event, presentation of scholarly research in the arts or culture, or social and historical analysis.

INTDSC 1990 The City (3) [MI, V, SS]
Same as SOC 1999 and POL SCI 1990. An interdisciplinary course. Consideration of economic factors, urban institutions, historical developments in urbanization, problems of the inner city, suburbia and the metropolitan area, ethnic groups, stratification, and Psychological implications of urban living. This course is primarily for freshmen and sophomores. It is open to juniors and seniors with the instructor's permission.

INTDSC 1999 Big History: From the Big Bang to the Blackberry (9) [C,SS,H]
An introduction to the humanities, social science, and science disciplines through a sweeping overview of natural and human history from the Big Bang to the present. Courses will include lectures from faculty in various Arts and Sciences units, films, field trips and group discussions.

INTDSC 2170 Aging in America: Concepts and Controversies (3)
Same as SOC 2170, SOC WK 2170, and GERON 2170. This course examines the major theoretical and service issues connected to the study of older adults and their families, using multidisciplinary perspectives. Students are provided with an introduction to the field of aging through an examination of current social issues and controversies. This course emphasizes student involvement through class discussion, and is appropriate for students in the arts and sciences, business, communication, education, and nursing.
UMSL Home

Languages and Cultures Home Page

Faculty

Pamela Ashmore, Associate Professor, Chairperson
Ph.D., Washington University

Lorna V. Williams, Professor, Spanish
Ph.D., Indiana University

Jeanne Morgan Zarucchi, Professor, French and Art History
Ph.D., Harvard University

Lauren B. Schmidt, Assistant Professor, Spanish
Ph.D., Indiana University

Roland A. Champagne, Professor Emeritus, Spanish,
Ph.D., Ohio State University

Albert J. Camigliano, Associate Professor Emeritus, German
Ph.D., University of Wisconsin

Ingeborg M. Goessl, Assistant Professor Emerita, German
Ph.D., University of Kansas

Deborah Baldini, Teaching Professor, Spanish
Ph.D., University of Missouri-St. Louis

Anne-Sophie Blank, Associate Teaching Professor, French
M.A., Washington University

Martha Caeiro, Associate Teaching Professor, Spanish
M.A., Washington University

Donna Cays, Associate Teaching Professor, Spanish
M.A., Saint Louis University

Elizabeth Eckelkamp, Associate Teaching Professor, Japanese, Director of Language Programs
M.A., Washington University

Nancy Mayer, Associate Teaching Professor, ESL
M.A.T., Webster University

Denise Mussman, Associate Teaching Professor, ESL
M.A., University of Illinois-Chicago

Margaret B. Phillips, Associate Teaching Professor, Latin
Ph.D., Saint Louis University

Sandra Trapani, Associate Teaching Professor, French
M.A., University of Missouri-Columbia

Susan Yoder-Kreger, Associate Teaching Professor, Spanish
M.A., University of Virginia, Charlottesville

Maria Teresa Balogh, Assistant Teaching Professor, Spanish
M.A., Southern Illinois University, Carbondale, MFA, University of Missouri-St. Louis

Andrew Bennett, Assistant Teaching Professor, Spanish
M.A., Arizona State University

Maria Alejandra Bonifacino, Assistant Teaching Professor, Spanish
M.A., University of Oregon

Suzanne Hendrickson, Assistant Teaching Professor, French
Ph.D., Washington University

Kersten Horn, Assistant Teaching Professor, German
M.A., University of Texas, Austin

Elizabeth Landers, Assistant Teaching Professor, French
Ph.D., Washington University

Maria Kouti, Lecturer, Greek and Spanish
M.A., International University Menéndez Pelayo, Spain

Fushun, Le, Lecturer, Chinese
M.A., Iowa State University
Rosalinda Mariles, Lecturer, Spanish
M.S., Southern Illinois University, Edwardsville

General Information

Degrees and Areas of Concentration
Languages and Cultures in the Department of Anthropology, Sociology, and Languages offers course work in French, German, Japanese, and Spanish, leading to the B.A. in Modern Language degree, and a field of concentration in each of these languages for students seeking the B.S. degree in education. In addition, the program offers courses in English as a Second Language, Arabic, Chinese, Ancient Greek, Modern Greek, and Latin.

Minors may also be earned in the department. For details, see specific requirements for the minor, which appear later in this section.

Cooperative Study
Courses in other languages are available to UMSL students through Washington University, Saint Louis University, Harris-Stowe University, and SIU-Edwardsville. For information, consult the UMSL registrar's office.

Study Abroad
Language students who have been at the University of Missouri-St. Louis at least one semester and have studied the language for at least one year may receive credits for formal study abroad. Students must present a list of language course descriptions from the institution abroad to receive prior consent of the department, and must present a transcript for evaluation upon return to receive credit for those courses. Exchange programs are available with several universities in foreign countries. For information, please contact the study abroad office.

Alumni Scholarship
Qualifed junior and senior language majors may apply for the Modern Language Alumni Scholarship, which is renewable each semester on a competitive basis. For information, please contact the department.

Marcus Allen Memorial Scholarship
Qualifed students of French may apply for the Marcus Allen Memorial Scholarship which is awarded on a competitive basis and must be used within one semester of the award. For information please contact the department.

Baldini Family Scholarship
Qualifed full-time UMSL students pursuing a Modern Language and literature degree with teacher certification may apply for this scholarship which is awarded on a competitive basis and must be used within one semester of the award. For information please contact the department.

Community College Scholarship
Qualifed community college students may apply for the Modern Language Community College Scholarship to be applied for educational fees toward the enrollment in third semester or higher courses in French, German, Japanese, or Spanish. This scholarship must be used within one semester of the award. For information, please contact the department.

German Scholarships
Students of German may apply for the German Scholarship. Funds may be used toward educational fees for German courses during the following semesters or toward study abroad in a German-speaking country. For information please contact the German section coordinator.

Departmental Honors
Candidates for departmental honors in Modern Languages must meet the following requirements:

1) Achieve a GPA of 3.5 in the major for all hours attempted beyond the first two semesters. (Language Courses 1001 and 1002)
2) Maintain an overall GPA of 3.0.
3) Successfully complete an honors thesis or project.

Undergraduate Studies

General Education Requirements
Each language major must satisfy the general education requirements of the university and the general education requirements of the College of Arts and Sciences.

Specific Requirements or Restrictions
Students entering with no high school language units must enroll in Language 1001 or may enroll in Language 2115. Language 2115 (a, b, and c) is the intensive study of a language and will satisfy the foreign language requirement. 2115a, 2115b, and 2115c are co-requisites and must be taken concurrently. All three sections

http://www.umsl.edu/bulletin/as/languages.html[4/12/2012 3:27:42 PM]
must be completed with a grade of C- or better, to satisfy the foreign language requirement.

A grade of D in a Language 1001 course is a passing grade but not an entrance grade for a Language 1002 course. A grade of D in a Language 1002 course is a passing grade but not an entrance grade for a Language 2101 course or its equivalent. A grade of D in a Language 2101 course fulfills the language requirement, but is not an entrance grade for a higher-level course.

Demonstration of a high level of proficiency may affect the number of hours required for the major. Native or heritage speakers of a language should consult with the department concerning appropriate placement.

Students may not take for credit an elementary course if they have already completed a higher-level course for which the elementary course, or its equivalent, is a prerequisite.

**Degree Requirements**

All courses for the major must be passed with a grade of C- or better. No course required for the major may be taken on a satisfactory/unsatisfactory (s/u) basis with the exception of those taken abroad as part of a university program that has received departmental approval.

**Bachelor of Arts**

All students seeking a B.A. in a Modern Language must successfully complete FL 1100 Languages and World View, and must meet the departmental requirement of a minimum of 33 hours in French and German, 37 hours in Japanese and 36 hours in Spanish (excluding Language 1001 and 1002). The maximum number of hours that may be taken in the major is 45 (including Language 1001 and 1002). In addition, students seeking the B.A. in Modern Language who desire a teaching certificate must also FL 4589 (same as SEC ED 4589), Curriculum and Methods of Teaching Foreign Languages, FL 4590 (same as SEC ED 4590), Foreign Language Teaching Seminar, and fulfill the professional secondary education requirements of the College of Education.

**Bachelor of Science in Education**

Those students seeking the B.S.Ed. degree, with a concentration in a modern language, are required to complete 30 hours of work (excluding credit for Language 1001 and 1002) of which 9 hours must be on the 4000 level. Students working toward a degree in elementary education, with related work in a modern language, should consult the College of Education concerning their program.

**Post Baccalaureate Certification Students**

Students who have a bachelor's degree and are seeking teacher certification in a language must have completed 30 hours in that language and will be required to take the Simulated Oral Proficiency Interview exam to determine proficiency. Students who do not demonstrate sufficient proficiency will be required to take additional coursework in the language.

**Transfer Students**

Transfer students majoring in one of the modern languages must complete at UMSL a minimum of 12 graded hours in language courses at the 3000 level or above with a grade point average of 2.0 or better in these courses.

**Native Speakers**

Native speakers must complete at least two courses at the 3000 level and four courses at the 4000 level to obtain a major in their native language.

**Specific Requirements for concentration in French**

Each major with a French concentration must complete the following courses:

- **FRENCH 2101**, French Language and Culture III, or the equivalent
- **FRENCH 2170**, Intermediate French Language and Culture
- **FRENCH 2180**, Readings in French

The following three courses must be completed:

- **FRENCH 3200**, French Grammar in Review
- **FRENCH 3205**, French in Commerce and Media
- **FRENCH 3211**, Contemporary French Culture
- **FRENCH 3271**, Intermediate French Conversation
- **FRENCH 3280**, French Literature and Culture to 1800
- **FRENCH 3281**, French Literature and Culture after 1800 and three courses at the 4000-level.

Each major with a Spanish concentration must complete the following courses:

- **SPANISH 2101**, Intermediate Spanish Language and Culture, or
- **SPANISH 2171**, Spanish Conversation and Pronunciation
- **SPANISH 2172**, Spanish Composition +2172A Grammar for Spanish Composition
One of the following two:
SPANISH 2199, Special Topics: Language Immersion: Spanish + 2199A Grammar for Special Topics: Language Immersion or
SPANISH 2180, Readings in Spanish + 2180A Grammar for Readings in Spanish

SPANISH 3210, Hispanic Culture and Civilization: Spain, or SPANISH 3211, Hispanic Culture and Civilization: Spanish America
SPANISH 3280, Introduction to Hispanic Literature: Spain
SPANISH 3281, Introduction to Hispanic Literature: Spanish America

Plus two additional courses at the 3000-level (see course descriptions for more details) and three courses at the 4000-level, one of which must be SPANISH 4399, Seminar on Hispanic Literature

Specific Requirements for the concentration in German
Each major with a concentration in German must complete the following courses:
GERMAN 2101 Intermediate German Language and Culture
GERMAN 2170 Intermediate Practice in Speaking and Writing German
GERMAN 2180 Intermediate Readings in German
GERMAN 3201 Introduction to German Literature
GERMAN 3202 Introduction to German Film
GERMAN 3208 The German-Speaking Countries in the Modern World
Plus one additional course at the 3000-level
And three courses at the 4000-level

Specific Requirements for the concentration in Japanese
Each major with a concentration in Japanese must complete the following courses:
JAPAN 2101 (5) Intermediate Japanese I
JAPAN 2102 (5) Intermediate Japanese II
JAPAN 3201 Intermediate Japanese III
JAPAN 3202 Intermediate Japanese IV
JAPAN 3280 Readings in Japanese
JAPAN 4301 Advanced Japanese I
JAPAN 4302 Advanced Japanese II
JAPAN 4390 Advanced Readings in Japanese
Plus three courses for a total of 9 hours in Japanese Studies

Learning outcomes for Majors
Students completing the BA in Modern Languages should be able to demonstrate competencies in 4 major Skills and Knowledge areas in the language of concentration: Linguistic, Critical Thinking, Cultural/Global Awareness, and Self-Reflection. The competencies should include the ability to:

- describe and narrate in the past, present and future both orally and in writing
- read authentic documents such as newspapers and literary texts for concrete information
- understand conversations, radio and television programming on concrete topics in the target language
- summarize, analyze and synthesize information derived from a variety of sources and media
- demonstrate knowledge of the history, geography, politics and arts of the target culture
- make connections with, and draw contrasts between, the target culture and their own
- understand the value and necessity of life-long learning and translingual and transcultural competence.

Minor in French, German, Japanese or Spanish
A minor in French, German, Japanese or Spanish requires the completion of four courses in the language beyond the basic foundation sequence (Language 1001, Language 1002, and Language 2101) along with any associated "A" courses for Spanish minors. Transfer students must complete at least two courses for the minor at UMSL. All courses must be passed with a grade of C- or better.

Specific requirement for the minor in French
FRENCH 2170 Intermediate French Language and Culture
FRENCH 2180, Readings in French
Plus two French courses on the 3000-level or above.

Specific requirement for the minor in German
GERMAN 2170 Intermediate Practice in Speaking and Writing German
GERMAN 2180 Intermediate Readings in German
Plus two German courses on the 3000-level or above.

Specific requirement for the minor in Japanese
JPN 2102(5) Intermediate Japanese II
JPN 3201 Intermediate Japanese III
JPN 3201 Intermediate Japanese IV
Plus one course in Japanese Studies
Specific requirement for the minor in Spanish
Two of the following three
SPANISH 2199, Special Topics: Language Immersion: Spanish + 2199A Grammar for Special Topics: Language Immersion
SPANISH 2172, Composition + 2172A Grammar for Spanish Composition
SPANISH 2180, Readings in Spanish + 2180A Grammar for Readings in Spanish

Minor in Modern Languages
A minor in Modern Languages requires the completion of 4 courses beyond the introductory sequence (1001, 1002 and 2101), two in each of two different languages. For students who are seeking a BA in Modern Languages, the two languages must be different than the language in which they are majoring.

Minor in Classical Studies
The minor in Classical Studies is an interdisciplinary course of studies intended to encourage undergraduates in various disciplines to come to a fuller awareness of the cultures of ancient Greece and Rome and of the classical tradition that underlies much of modern Western civilization. Specific requirements for the minor are detailed at online.

Students pursuing a graduate degree in secondary education may select an emphasis area in French, German, Japanese or Spanish. These required eighteen hours may be selected from 3000 and 4000 level courses in these languages.

Certificate in Modern Language and Study Abroad
Students seeking the certificate must complete language courses at UMSL and abroad. The Center for International Studies and Languages and Cultures cooperate in offering the Certificate.

1) Modern language study at UMSL
Students must select one of the following languages and complete the required courses at UMSL. Total: 6 credit hours. (8 hours for Spanish)
A. French
FRENCH 2170, Intermediate French Language and Culture
FRENCH 2180, Readings in French
B. German
GERMAN 2170, Composition and Conversation
GERMAN 2180, Readings in German
C. Spanish
SPANISH 2172, Spanish Composition + SPANISH 2172A Grammar for Spanish Composition
SPANISH 2180, Readings in Spanish + SPANISH 2180A Grammar for Readings in Spanish
D. Japanese
JAPAN 2102 Intermediate Japanese II
JAPAN 3201 Intermediate Japanese III

2) Foreign language study abroad
Students must complete a minimum of two additional three credit hour courses taught in the target language, at a foreign university that is affiliated with the UMSL Study Abroad Program, with the goal of increasing linguistic competence. All courses must be approved by Language faculty members.

Students should consult the study abroad advisor in the Center for International Studies to select a site for their study abroad experience. Then, students should consult their advisor in Languages and Cultures to select appropriate courses.

Career Outlook
Career options for graduates with a major or minor in modern languages include the following fields: teaching, social work, nursing, engineering, business, communications, government, journalism, travel industry, translation, and research. Our graduates have been especially successful when they combine advanced study in a modern language with another major. They are then able to add proficiency in a foreign language and culture to their knowledge and skills in another specialty. Experience with world cultures makes our graduates more adaptable and better prepared to meet the challenges of a global and increasingly diverse job market.
Department of Mathematics and Computer Science

Faculty

Richard Friedlander, Professor, Chairperson  
Ph.D., University of California, Los Angeles

Charles Chu, Curators' Professor  
Ph.D., University of Wisconsin

Raymond Balbes, Professor Emeritus  
Ph.D., University of California, Los Angeles

William Connett, Professor Emeritus  
Ph.D., University of Chicago

Qingtang Jiang, Professor  
Ph.D., Peking University

Wayne L. McDaniel, Professor Emeritus  
Ph.D., Saint Louis University

A Prabhakar Rao, Professor,  
Ph.D., University of California, Berkeley

Stephen Selesnick, Professor Emeritus  
Ph.D., University of London

Jerrold Siegel, Professor Emeritus  
Ph.D., Cornell University

Grant V. Welland, Professor Emeritus  
Ph.D., Purdue University

Sanjiv K. Bhatia, Associate Professor  
Ph.D., University of Nebraska-Lincoln

Haiyan Cai, Associate Professor  
Ph.D., University of Maryland

Uday K. Chakraborty, Associate Professor  
Ph.D., Jadavpur University

Adrian Clingher, Associate Professor  
Ph.D., Columbia University

Ronald Dotzel, Associate Professor  
Ph.D., Rutgers University

Wenzie He, Associate Professor  
Ph.D., University of Georgia

Cezary Janikow, Associate Professor  
Ph.D., University of North Carolina at Chapel Hill

Hyung Woo Kang, Associate Professor  
Ph.D. Korea Advanced Institute of Science and Technology (KAIST)

Martin Pelikan, Associate Professor  
Ph.D., University of Illinois at Urbana-Champaign

Frederick Wilke, Associate Professor Emeritus  
Ph.D., University of Missouri-Columbia

Shiying Zhao, Associate Professor  
Ph.D., University of South Carolina

John Antognoli, Teaching Professor  
M.A., University of Missouri-St. Louis

Donald E. Gayou, Teaching Professor  
Ph.D., Iowa State University

Shahlia Peterman, Teaching Professor  
M.S., University of Wisconsin-Madison

Galina N. Piatnitskaia, Teaching Professor  
Ph.D., Moscow Physical-Technical Institute

Michael Schulte, Associate Teaching Professor  
M.S., Florida Institute of Technology  
Qiang Sun Dotzel, Assistant Teaching Professor  
M.A., University of Missouri-St. Louis  
Nazire Koc, Assistant Teaching Professor  
M.S., Southern Illinois University, Carbondale  
Emily Ross, Assistant Teaching Professor  
M.A., Saint Louis University  
Jennifer Shrensker, Assistant Teaching Professor  
M.A., Washington University  
Albert Stanger, Academic Coordinator and Assistant Teaching Professor  
M.A., University of Missouri-St. Louis  
Joyce Langguth, Teaching Associate  
B.S. Ed., Southeast Missouri State University

General Information

Degrees and Areas of Concentration
The Department of Mathematics and Computer Science offers work leading to the Bachelor of Arts (B.A.) in mathematics, the Bachelor of Science (B.S.) in mathematics, the B.S. in computer science, and, in cooperation with the College of Education, the Bachelor of Secondary Education (B.S.Ed.) in secondary education with an emphasis in mathematics. The department also offers minors in computer science, mathematics, and statistics.

At the graduate level, the department offers a Master of Arts (M.A.) degree in mathematics, a Master of Science (M.S.) degree in computer science and a Doctor of Philosophy (Ph.D.) in applied mathematics – with options in mathematics and computer science.

The program leading to the B.A. in mathematics provides a broad grounding in different areas of mathematics, giving students the depth necessary to pursue various aims such as graduate studies or other career choices.

The B.S. in mathematics provides a substantial background in mathematics, statistics and computer science to produce graduates who can work as mathematicians. Both the B.A. and the B.S. in mathematics allow optional courses that enable the student to focus on areas of interest like pure or applied mathematics. Students pursuing the B.A. or the B.S. in mathematics will graduate with analytic and writing skills in mathematics and will have knowledge of content in core areas of the subject. They will have been exposed to applications of mathematics and they will possess critical thinking and quantitative skills.

The B.S.Ed. in secondary education with an emphasis in mathematics introduces students to those branches of mathematics most relevant to the teaching of secondary school mathematics.

The B.S. in computer science curriculum provides a firm foundation for both more traditional computer science as well as for the technical aspects of the emerging information technology areas. This is accomplished through fundamental courses in mathematics and statistics, a rigorous list of core computer science courses, as well as by emphasizing written and oral communication skills, problem solving, and exposure to modern technology. In addition, the program offers a variety of interest-specific electives such as graphics, image processing, AI, database systems, networking, security, object-oriented, and web-based technology. Given the ever-widening impact of digital technology on daily life, it appears that Computer Science graduates will enjoy significant employment opportunities.

Students pursuing the M.A. degree in mathematics may choose an emphasis in either pure or applied mathematics. The pure mathematics emphasis is well suited for students preparing to teach at the high school, junior college, or four year liberal arts college level. Those who concentrate on applied courses in the M.A. program build a foundation for the application of mathematics in industry and the continuation of their education in the Ph.D. program in applied mathematics. Our graduates will have abilities in the basic areas of algebra and analysis, and a breadth of knowledge in core subjects at the graduate level. They will study at least one area of mathematics or statistics in depth and will understand some of the contemporary research in applied mathematics and statistics. They will develop the ability to prepare and deliver oral and written presentations and the ability to pursue mathematical knowledge independently.

The M.S. degree in computer science emphasizes practical aspects of the field. Our graduates will develop expertise in at least one modern programming language. They will possess a breadth of knowledge of core areas in computer science, and will develop depth of knowledge in one area of the subject. They will be prepared to independently learn and adapt new technology and they will develop the ability to read current research in some areas. They will have the capability to prepare and deliver oral and written presentations on topics in computer science.

The Ph.D. in applied mathematics has options in mathematics and computer science. The mathematics option prepares students for a leadership role involving research and development in both industrial and academic fields.
settings. Students choosing this option will develop abilities in the basic areas of algebra and analysis and will possess breadth of knowledge in core subjects at the graduate level. They will study at least one area of mathematics or statistics in depth and will understand contemporary research in applied mathematics and statistics. They will develop the ability to prepare and deliver oral and written presentations, and they will possess the ability to pursue and produce mathematical knowledge independently.

Students choosing the computer science option will develop a breadth of abilities in the core areas of computer science at the graduate level. They will gain a depth of ability in contemporary research in the chosen subfield of computer science, and will be able to pursue independent research in their area of specialization.

Students may enroll in any of these graduate programs on a part-time basis.

Career Outlook
A degree in mathematics or computer science prepares well-motivated students for interesting careers. Our graduates find positions in industry, government, and education. The demand for individuals well trained in statistics, computer science, and applied mathematics is greater than the available supply. In addition, a number of graduates in mathematics have elected careers in business, law and other related fields where they find logical and analytical skills valuable.

Graduates in computer science and mathematics from UMSL are located throughout the country, and they also have a strong local presence. They have careers in banking, health care, engineering and manufacturing, law, finance, public service, management, and actuarial management. Many are working in areas such as systems management, information systems and data management, scientific computing, and scientific positions in the armed services. Others have careers in education, especially at secondary and higher levels.

Department Scholarships
The Department of Mathematics and Computer Science offers many scholarships available to department majors.

The Alumni Scholarship is a monetary award for outstanding undergraduate students open to all junior and senior department majors.

The Edward Z. Andalafte Memorial Scholarship is a monetary award for outstanding undergraduate department majors at the sophomore level or higher.

Applicants for each of these two scholarships must have a grade point average of 3.5 or higher in at least 24 hours of graded course work at the University of Missouri-St. Louis, and show superior achievement in courses taken in the department.

The Raymond and Thelma Balbes Scholarship in Mathematics is a monetary award for students at the sophomore level or higher who are pursuing a degree in mathematics, have an overall GPA of at least 3.0 and a GPA of at least 3.2 in mathematics and who have completed three semesters of calculus.

The Joseph M. and Mary A. Vogl Scholarship in Mathematics is a need based monetary award for mathematics majors.

Computer Science Scholarship is a monetary award for outstanding computer science majors with preference given to freshman and sophomore students. Applicants must have a grade point average of 3.5 or higher in courses taken in the department.

Application forms for these scholarships may be obtained from the Department of Mathematics and Computer Science.

The deadline for application for all of these scholarships is March 15, and the scholarships must be used for educational fees or for books at UMSL starting in the fall semester following the application.

Undergraduate Studies
General Education Requirements
All majors must satisfy the university and appropriate school or college general education requirements. All mathematics courses may be used to meet the university’s general education breadth of study requirement in natural sciences and mathematics.

Satisfactory/Unsatisfactory Restrictions
Majors in mathematics and computer science may not take mathematical sciences or related area courses on a satisfactory/unsatisfactory basis. Students considering graduate study should consult with their advisers about taking work on a satisfactory/unsatisfactory basis.
Degree Requirements

All mathematical sciences courses presented to meet the degree requirements must be completed with a grade of C- or better. At least four courses numbered 3000 or above must be taken in residence. Students must have a 2.0 grade point average in the mathematical sciences courses completed.

Students enrolling in introductory mathematics courses should check the prerequisites to determine if a satisfactory score on the Mathematics Placement Test is necessary. The dates on which this test is administered are given on the department's website. Placement into introductory courses assumes a mastery of two years of high school algebra.

A minimum grade of C- is required to meet the prerequisite requirement for any course except with permission of the department.

Note: Courses that are prerequisites for higher-level courses may not be taken for credit or quality points if the higher-level course has been satisfactorily completed.

Many students are qualified, as a result of having studied calculus in high school, to begin their major with MATH 1900, Analytic Geometry and Calculus II, or MATH 2000, Analytic Geometry and Calculus III. These students are urged to consult with the department before planning their programs. Credit for MATH 1800, Analytic Geometry and Calculus I, will be granted to those students who complete MATH 1900 with a grade of C- or better.

Similarly, students who are ready to begin their computer science studies with CMP SCI 2250, Programming and Data Structures, will be granted credit for CMP SCI 1250, Introduction to Computing, once they complete CMP SCI 2250 with a grade of C- or better.

Degree Requirements in Mathematics

All mathematics majors in all undergraduate programs must complete the mathematics core requirements.

Core Requirements
1) The following courses are required:
   CMP SCI 1250, Introduction to Computing
   MATH 1320, Applied Statistics I
   MATH 1800, Analytic Geometry and Calculus I
   MATH 1900, Analytic Geometry and Calculus II
   MATH 2000, Analytic Geometry and Calculus III
   MATH 2020, Introduction to Differential Equations
   MATH 2450, Elementary Linear Algebra
   MATH 3000, Discrete Structures
   MATH 4100, Real Analysis I

2) The related area requirements as described below must be satisfied.

Students seeking a double degree, either within this department or with another department, do not have to fulfill the related area requirements.

Bachelor of Arts in Mathematics.
In addition to the core requirements and the College of Arts and Sciences' foreign language requirement, three mathematics courses at the 4000 level or higher must be completed. Of these, one must be 4400, Introduction to Abstract Algebra

B.S.Ed. in Secondary Education with emphasis in mathematics.
In addition to the core requirements and the required education courses, three mathematics/statistics courses at the 4000 level or higher must be completed. Of these, one must be MATH 4400, Introduction to Abstract Algebra, and one must be chosen from:
   MATH 4660, Foundations of Geometry or MATH 4670, Introduction to Non-Euclidean Geometry

Bachelor of Science in Mathematics
In addition to the core requirements, the B.S. in Mathematics degree requires:

1) Completing all of the following:
   MATH 4160, Complex Analysis I
   MATH 4400, Introduction to Abstract Algebra
   MATH 4450, Linear Algebra

2) Completing an additional three courses numbered above 4000 in mathematics, statistics or computer science, at least one of which must be in mathematics/statistics.

Related Area Requirements for majors in Mathematics
Candidates for the B.A. in Mathematics must satisfy the requirements in one of the groups below with a grade of C- or better. Candidates for the B.S.Ed. in Mathematics and B.S. in Mathematics must satisfy the requirements in two of the groups below with a grade of C- or better.

If candidates choose group 2, then they cannot apply either of the two courses listed in that group towards the additional 4000 level mathematics courses (beyond the core requirements) that must be completed for each of these degrees.

Students seeking a double degree, either within this department or with another department do not have to fulfill the related area requirements.

**Related Area Courses**

1) **Computer Science:**
   Two courses from the following list:
   - CMP SCI 2250, Programming and Data Structures
   - CMP SCI 2700, Computer Architecture and Organization
   - CMP SCI 3130, Design and Analysis of Algorithms
   - CMP SCI 4140, Theory of Computation
   - CMP SCI 4410, Computer Graphics
   - CMP SCI 4440, Digital Image Processing

2) **Statistics:**
   - MATH 4200, Mathematical Statistics I
   - MATH 4210, Mathematical Statistics II

3) **Biology:**
   - BIOL 2102, General Ecology
   - BIOL 2103, General Ecology Laboratory

4) **Biology:**
   - BIOL 2012, Genetics
   - BIOL 4182, Population Biology

5) **Chemistry:**
   - CHEM 1111, Introductory Chemistry I
   - CHEM 1121, Introductory Chemistry II

6) **Chemistry:**
   - CHEM 3312, Physical Chemistry I and another 3000-level, or above, chemistry course

7) **Economics:**
   - ECON 1001, Principles of Microeconomics
   - ECON 1002, Principles of Macroeconomics
   - ECON 4100, Introduction to Econometrics

8) **Philosophy:**
   - PHIL 3360, Formal Logic
   - PHIL 3380, Philosophy of Science
   - PHIL 4460, Advanced Formal Logic

9) **Physics:**
   - PHYSICS 2111, Physics: Mechanics and Heat
   - PHYSICS 2112, Physics: Electricity, Magnetism, and Optics

10) **Physics:**
    - PHYSICS 3221, Mechanics and another 3000 level, or above, physics course

11) **Business Administration:**
    - LOG OM 3320, Introduction to Operations Management and one of the following courses:
    - LOG OM 4321, Production and Operations Management
    - LOG OM 4326, Quality Assurance in Business
    - LOG OM 4330, Business-Logistics Systems
    - LOG OM 4350, Management Science Methods

12) **Engineering:**
    - ENGR 2310, Statics
    - ENGR 2320, Dynamics

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**Degree Requirements in Computer Science**
Candidates for the **B. S. Computer Science** degree must complete the following work:

1) **Computer Science Core**
- CMP SCI 1250, Introduction to Computing
- CMP SCI 2250, Programming and Data Structures
- CMP SCI 2261, Object-Oriented Programming
- CMP SCI 2700, Computer Architecture and Organization
- CMP SCI 2750, System Programming and Tools
- CMP SCI 3010, Web Programming
- CMP SCI 3130, Design and Analysis of Algorithms
- CMP SCI 4250, Programming Languages
- CMP SCI 4280, Program Translation
- CMP SCI 4500, Software Engineering
- CMP SCI 4760, Operating Systems

2) **Computer Science Electives**
Five more elective computer science courses, numbered above 3000.

3) **Mathematics and Statistics**
- MATH 1320, Applied Statistics I
- MATH 1800, Analytic Geometry and Calculus I
- MATH 1900, Analytic Geometry and Calculus II
- MATH 2450, Elementary Linear Algebra
- MATH 3000, Discrete Structures

4) **Additional Skills**
- ENGL 3130, Technical Writing

There are no related area requirements for majors in Computer Science

**Minor Requirements**

The department offers minors in computer science, mathematics, and statistics. All courses presented for any of these minors must be completed with a grade of C- or better.

**Minor in Computer Science**
The requirements for the minor are:
- CMP SCI 1250, Introduction to Computing
- CMP SCI 2250, Programming and Data Structures
- and three additional computer science courses numbered 2000 or above.

A minimum of two computer science courses numbered above 2000 must be taken in residence in the Department of Mathematics and Computer Science at UMSL.

**Minor in Mathematics**
The requirements for the minor are:
- MATH 1800, Analytic Geometry and Calculus I
- MATH 1900, Analytic Geometry and Calculus II
- MATH 2000, Analytic Geometry and Calculus III
- **and two additional three-hour mathematics courses** numbered above 2400, excluding 2510. A minimum of two mathematics courses numbered 2000 or above must be taken in residence in the Department of Mathematics and Computer Science at UMSL.

**Minor in Statistics**
The requirements for the minor are:
- MATH 1320, Applied Statistics I
- MATH 4200, Mathematical Statistics I
- **and two additional courses in statistics** numbered above 4200. A minimum of two statistics courses numbered above 2000 must be taken in residence in the Department of Mathematics and Computer Science at UMSL.

**Graduate Studies**
The Department of Mathematics and Computer Science offers an M.A. degree in mathematics, a Ph.D. degree in applied mathematics (with options in mathematics and computer science), and an M.S. degree in computer science.

**Admission**
Applicants must meet the general admission requirements of the Graduate School, described elsewhere in this Bulletin. Additional admission requirements for specific programs are listed below.
Mathematics Programs
Applicants must have at least a bachelor’s degree in mathematics or in a field with significant mathematical content. Examples of such fields include computer science, economics, engineering and physics. An applicant’s record should demonstrate superior achievement in undergraduate mathematics.

Individuals may apply for direct admission to either the M.A. or Ph.D. program. Candidates for the M.A. degree may choose to concentrate in either pure or applied mathematics. Students in the M.A. program who want to transfer to the Ph.D. program upon successful completion of 15 credit hours must fill out a new application through Graduate Admissions.

Students intending to enter the Ph.D. program must have a working ability in modern programming technologies. A student with a deficiency in this area may be required to take courses at the undergraduate level in computer science.

Applicants for the Ph.D. program must, in addition, submit three letters of recommendation and scores from the Graduate Record Examination (GRE) general aptitude test.

Computer Science Programs
Applicants must have at least a bachelor’s degree, preferably in computer science or in a related area. Applicants with bachelor’s degrees outside of computer science must demonstrate significant proficiency in computer science, either by taking the GRE subject area examinations or by explicitly showing competence (proving related academic or professional experience, or taking a test) in the following areas. Courses in parenthesis are UMSL courses that can be used to fulfill the requirement.

1. Programming skills in C or C++ and Java (CMP SCI 1250 or 2250, and 2261)
2. Proficiency with Object-Oriented concepts and terminology (CMP SCI 2261)
3. Proficiency with dynamic data structures (CMP SCI 2250)
4. Proficiency with computer organization, architecture, or assembly level programming (CMP SCI 2700)
5. Proficiency with design and time/space analysis of algorithms (CMP SCI 3130)
6. Familiarity with Unix/Linux/OSX and with command-line scripting with tools (CMP SCI 2750)

Students must also have satisfactorily completed mathematics courses equivalent to the following UMSL courses:

- Two semesters of calculus (MATH 1800 and 1900)
- A course in elementary linear algebra (MATH 2450)
- A course in discrete mathematics (MATH 3000)
- An elementary course in probability or statistics (MATH 1320)

A student missing some of the above requirements may be admitted on restricted status if there is strong supportive evidence in other areas. The student will have to take the missing courses, or otherwise demonstrate proficiency. Special regulations of the Graduate School that apply to students on restricted status are described in the UMSL Bulletin.

Preliminary Advisement
Incoming students are assigned advisers with whom they should consult before each registration period to determine an appropriate course of study. If necessary, students may be required to complete undergraduate course work without receiving graduate credit.

Students interested in the Ph.D. program in applied mathematics with the computer science option must follow the requirements for that program and that option.

Degree Requirements

Master of Arts in Mathematics
Candidates for the M.A. degree must complete 30 hours of course work. All courses numbered below 5000 must be completed with grades of at least B. The courses taken must include those listed below in group A together with additional courses discussed in B.

Students who have already completed courses equivalent to those in A) may substitute other courses numbered above 4000. All substitutions of courses for those listed in A) require the prior approval of the graduate director.

A) Mathematics core:
MATH 4100, Real Analysis I
MATH 4160, Complex Analysis I
MATH 4450, Linear Algebra

B) M.A. candidates must also complete 15 hours of course work numbered 5000 or above, chosen with the prior approval of the graduate director. Courses may be chosen to develop expertise in either pure or applied
mathematics.

**Thesis Option** Part of B) may consist of an M.A. thesis written under the direction of a faculty member in the Department of Mathematics and Computer Science. A thesis is not, however, required for this degree. A student who wishes to write a thesis should enroll in 6 hours of Math 6900, M.A. Thesis. Students writing an M.A. thesis must defend their thesis in an oral exam administered by a committee of three department members which includes the thesis director.

**Doctor of Philosophy in Applied Mathematics**
The program has two options:

1. **Mathematics Option**
2. **Computer Science Option**

The requirements for the Ph.D. degree include the following:

1. **Course work**
2. **Ph.D. candidacy**
3. **Doctoral dissertation**

The requirements are described in detail below.

**1. Course Work**
A minimum of 60 hours of courses numbered 4000 or above.

In the **Mathematics Option**, at least 33 hours must be in courses numbered 5000 or above.

In the **Computer Science Option**, at least 45 hours must be in courses numbered 5000 or above.

At most 9 hours of a student's enrollment in MATH 7990 (Dissertation Research) may be counted. Students are expected to maintain a 3.0 average on a 4.0 scale. All courses numbered below 5000 must be completed with a grade of at least B. Courses outside the Department of Mathematics and Computer Science will require approval of the graduate director.

When students who have earned a Master's degree are admitted to the doctoral program, appropriate credits of course work may be applied toward meeting the requirements for the doctoral degree, subject to Graduate School regulations and the approval of the graduate director. The same applied to those with some appropriate graduate credits but without a completed Master's degree.

**2. Ph.D. Candidacy**
Advancement to Ph.D. candidacy is a three-step process consisting of:

A) Completing 18 hours of 5000 level courses other than MATH 7990, Ph.D. Dissertation Research.
B) Passing the comprehensive examination.
C) Selecting a Ph.D. committee and preparing a dissertation proposal and defense of the proposal.

**Qualifying Examination**
A student must fulfill the following requirements.

**Basic Requirement**
Pass one written examination covering fundamental topics. This examination would normally take place within the first 12 credit hours of study after admission to the Ph.D. program.

**Mathematics Option:**
Topics from real analysis, complex analysis, and linear algebra (MATH 4100, 4160, 4450).

**Computer Science Option:**
Topics from the theory of programming languages, operating systems, analysis of algorithms, and computer systems (CMP SCI 4250, 4760, 5130, 5700).

**Additional Requirement**
After fulfilling the basic requirement above, the student must meet one of the following:

a. Pass a written examination in an area of the student's interests. This area will be approved by the graduate committee and will be based on a set of two or more graduate courses taken by the student. This examination would normally take place within the first 24 credit hours of study after admission to the Ph.D. program.

b. Write a survey paper in a specialized area under the direction of a member of the graduate faculty. The student should propose to take this option when he/she has already finished at least 2 graduate level courses and has the approval of the graduate committee. The paper should be submitted within four semesters, at which time an oral examination given by a committee of at least three members of the graduate faculty must
be passed.

In both parts a) and b), the graduate committee will determine if the topics are consistent with the option that the student is pursuing.

**Dissertation Committee and Dissertation Proposal**

After completing the comprehensive examinations, each student chooses a dissertation advisor and prepares a Dissertation Proposal. Usually students choose an advisor from contacts made through their course work. The dissertation committee will be formed, and the student will meet with this committee for an oral defense of his/her dissertation proposal. The dissertation proposal is a substantial document describing the problem to be worked on and the methods to be used, as well as demonstrating the student's proficiency in written communication.

**Doctoral Dissertation**

Each Ph.D. candidate must write a dissertation that is an original contribution to the field on a topic approved by the candidate's Ph.D. Committee and the department, and which meets the standards and requirements set by the Graduate School including the public defense of the dissertation. Students working on a dissertation may enroll in MATH 7990, Ph.D. Dissertation Research. A maximum of 9 hours in MATH 7990 can be used toward the required hours of work in courses numbered 5000 or above.

**Master of Science in Computer Science**

Candidates for the M.S. degree in Computer Science must complete 30 hours of course work, subject to the Graduate School regulations. Of these, at least 18 hours must be numbered 5000 or above, with at least one course numbered 6000 or above, chosen with the prior approval of the Graduate Director. All courses numbered below 5000 must be completed with grades of at least B-. Outside computer science, up to 6 hours of related course work is allowed upon permission of the Graduate Director.

Students must satisfy all of the following core requirements:

1. Operating Systems, CMP SCI 4760
2. Programming Languages, CMP SCI 4250
3. Computer Systems, CMP SCI 5700
4. Software Engineering, CMP SCI 5500
5. Advanced Data Structures and Algorithms, CMP SCI 5130

Waiving or substituting for a specific requirement can be done on the basis of prior course work or experience at the discretion of the Graduate Director, but it will not reduce the total hours required for the degree.

Additionally, students must attend at least five different seminars or colloquium presentations in the department.

**Thesis Option**

Students may choose to write an M.S. thesis under the direction of a faculty member in the Department of Mathematics and Computer Science. A thesis is not, however, required for this degree. A student who wishes to write a thesis should enroll in 6 hours of CS 6900, Thesis. Students writing an M.S. thesis must defend their thesis in an oral exam administered by a committee of three department members which includes the thesis director.

**Financial Assistance**

Any student who intends to apply for financial assistance, in the form of a teaching assistantship or a research assistantship, is required to have three letters of recommendation submitted with the application to the graduate program in Mathematics or Computer Science. The application must include scores on the GRE general aptitude test. Applicants are also encouraged to submit scores in the GRE subject area test in Mathematics or Computer Science. Applications for financial assistance should be submitted before February 15 prior to the academic year in which the student expects to begin graduate study. Notifications of awards are generally made March 15, and students awarded financial assistance are expected to return letters of acceptance by April 15.
Philosophy continues to keep alive the tradition begun by Socrates, Plato, and Aristotle of critically examining one's most cherished assumptions. Moreover, it deals with questions that are common to several areas of inquiry, such as art, ethics, the social sciences, the natural sciences, and the various professions. The study of philosophy also encourages logical precision, a heightened awareness of assumptions used in any discussion, and an attitude of both open-mindedness and responsible criticism toward new and unusual ideas. These skills are particularly useful for students planning careers in law, business, computer science, writing, or other fields requiring such disciplines of mind. For these reasons many students have found it useful to combine a major in another field with a major in philosophy. To accommodate such students, the department has a special program for double majors.

The philosophy faculty has an unusually wide range of research interests. Faculty members have written books and articles addressing not only the classical and traditional concerns of philosophy, but also contemporary controversies in the fields of law, psychology, sociology, political theory, biology, medical ethics,
theology, logic, and philosophy of history as well. For their research in some of these areas, members have been awarded a number of national research grants, including fellowships from the National Science Foundation, the American Council of Learned Societies, and the National Endowment for the Humanities.

In keeping with this emphasis on diversity, the department is represented by scholars trained in widely different approaches to philosophy, such as the analytic tradition, Continental idealism and existentialism, Marxist dialectic, and Asian modes of thought.

General Information

Degrees and Areas of Concentration
The department offers two options leading to the B.A. degree in philosophy. The first is for students intending to enter graduate school in philosophy; the second is for students seeking a general liberal arts education as their ultimate academic objective or preparing for professional degrees such as law. Each option offers a balance of training in the techniques of logical analysis, study of philosophical classics, and examination of selected problems in philosophy. The department also offers a minor in philosophy for students wishing to pursue a particular interest in philosophy in an organized way.

Undergraduate Studies

General Education Requirements
Majors must meet the university and college general education requirements. PHIL 1120: Asian Philosophy and PHIL 1125: Islamic Philosophy satisfy the college cultural diversity requirement. Majors may not count philosophy courses taken on a satisfactory/unsatisfactory basis toward the degree requirements.

Expected Learning Outcomes

1. Acquire basic knowledge of traditional philosophical issues in the western tradition.
2. Develop critical thinking skills based on knowledge of the standards governing logical reasoning.
3. Acquire familiarity with philosophical issues that arise in some other disciplines (e.g. biology, art, education, etc.).
4. Acquire a basic understanding of ethical and social-political principles and their role in resolving ethical disputes and in evaluating social practices and institutions.
5. Become acquainted with current philosophical debates in the areas of epistemology, metaphysics, and value theory, and with the arguments and proposals made to resolve them.

Degree Requirements

Bachelor of Arts in Philosophy
Students must complete one of the following programs. At least 36, but not more than 45, hours are required for a major. A minimum of 18 hours including all courses for the major at or above the 3000 level must be taken in residence in the UMSL Department of Philosophy.

Option One: The Major in Philosophy

36 hours of course work are required:
1) PHIL 3360: Formal Logic
2) History of Philosophy
Twelve hours in history of philosophy, at least 6 hours of which must be at the 4000 level. Choose from PHIL 3301-3307 and PHIL 4401-4422.
3) Normative Philosophy
One course from the following:
PHIL 4430: Social and Political Philosophy
PHIL 4435: Classical Ethical Theories
PHIL 4438: Recent Ethical Theory
PHIL 4474: Topics in Aesthetics

PHIL 4474 cannot be used to satisfy both the normative requirement and requirement 5), the "other disciplines" requirement.

4) Core Requirement
One course from the following:
PHIL 4440: Theories of Knowledge
PHIL 4445: Metaphysics

5) Philosophy and Other Disciplines
Choose one course from the PHIL 4470-4490 sequence.

6) PHIL 4491: Senior Seminar

7) Other than the courses specified above, not more than SIX credits at the 1000 level may be used to satisfy the remaining nine hours of coursework requirements for the major. Video courses cannot be used to satisfy course requirements for this program.

When appropriate, PHIL 4451: Special Topics in Philosophy may be used to satisfy the requirement of number 3), 4), or 5).

Students in this program should take Greek, Latin, French, or German to satisfy the foreign language requirement.

**Option Two: The Double Major**
The Double Major is intended for students who plan to complete a major in another discipline as well as in philosophy. Thirty hours of course work in philosophy are required:

1) **Logic**  
PHIL 3360: Formal Logic

2) **History of Philosophy**  
Six hours in history of philosophy, at least three hours of which must be at the 4000 level. Choose from the sequences PHIL 3301-3307 and PHIL 4401-4422.

3) **Core Requirement**  
One course from the following:  
PHIL 4440: Theories of Knowledge  
PHIL 4445: Metaphysics

4) **4000-level Courses**  
A total of nine hours or more at the 4000 level other than courses used to satisfy 2), 3) and 5). Video courses cannot be used to satisfy course requirements for this program.

5) PHIL 4491: Senior Seminar

6) **Electives**  
Other than the courses above, courses at any level may be used to satisfy the remaining six hours of course requirements for the double major.

**Departmental Honors**
Majors with a 3.2 or higher grade point average in all courses may, with the department’s consent, earn departmental honors by completing at least six hours, but not more than nine, of PHIL 4450: Special Readings in Philosophy, submitting an acceptable thesis before the end of the senior year, and passing an oral examination.

In such cases, the thirty hours required for the major will include the credit earned in PHIL 4450: Special Readings, for the senior thesis.

**Related Area Requirements**
Majors are urged to acquire a familiarity with some other field above the introductory level.

Transfer students planning to major in philosophy should consult the department's undergraduate advisor as soon as possible in order to have their transcripts evaluated and plan their programs of study.

The Minor:  
15 hours of course work in philosophy are required:

1) PHIL 3360: Formal Logic

2) A total of twelve hours at or above the 3000 level, at least six of which must be at the 4000 level. Video courses cannot be used to satisfy course requirements for this program.

Minors are strongly encouraged, though not required, to take PHIL 4491: Senior Seminar.

All course work for the minor except PHIL 3360 must be taken in residence in the UMSL Department of Philosophy.

A GPA of 2.0 or better is required in courses presented for the minor. Prospective minors are encouraged to consult with members of the department for advice in planning an appropriate sequence of courses.

**Philosophy of Science and Technology Minor (PST)**
The Minor in Philosophy of Science and Technology (PST) is an interdisciplinary program requiring a minimum of 18 credits in PST.

All required courses must be completed with a “C” or higher. The satisfactory/unsatisfactory option may not be used. No transfer courses may be used towards the PST Minor. A minimum of 12 hours must be taken at 2000 and above with 9 of those hours being at 3000 or above. Courses in the upper division may satisfy requirements for the student’s major, consistently with the major’s requirements.

Requirements

1. Math: Choose one of the following courses in either statistics or calculus
   - BIOL 4122, Biometry
   - ECON 3100, Economic Statistics
   - MATH 1320, Applied Statistics I
   - MATH 1800, Analytic Geometry and Calculus I
   - PSYCH 2201, Psychological Statistics
   - SOC 3220, Sociological Statistics

2. Logic and Methodology: Choose one of the following courses in either logic or methodology.
   - ANTHRO 4308, Practicum in Cultural Research Methods
   - ANTHRO 4310, Laboratory Methods in Archaeology
   - HIST 2999, Introduction to Historical Inquiry
   - PHIL 3360, Formal Logic
   - PHIL 4460, Advanced Formal Logic
   - PSYCH 2219, Research Methods
   - SOC 3230, Research Methods

3. Philosophy: Philosophy of Science (PHIL 3380) plus one of the following other courses in the philosophy of science and technology (6 credits total).
   - PHIL 2280, Minds, Brains, and Machines
   - PHIL 2281, Darwinism and the Philosophy of Biology
   - PHIL 2282, Philosophy of Science in Historical Perspective
   - PHIL 3380, Philosophy of Science
   - PHIL 4452, Feminism and Science
   - PHIL 4479, Philosophy of Cognitive Science
   - PHIL 4480, Topics in Philosophy of Science
   - PHIL 4482, Philosophy of Social Science
   - PHIL 4483, Topics in History and Philosophy of Science
   - PSYCH 3400, Conceptual and Historical Foundations of Psychology

4. Science: 6 credit in the mathematical, physical, life, behavioral, or social sciences. The science courses must be in addition to those satisfying the Gen Ed requirements and conditional upon their acceptance by the PST undergraduate advisor.

Prerequisites:

Some courses required by the Minor in PST have prerequisites. Some students may satisfy prerequisites by virtue of their prior curriculum. When this is not the case, students are responsible for either satisfying the prerequisites by adding courses to their curriculum or obtaining a waiver from the instructor.

Alternative courses to satisfy the Philosophy requirements:

Some courses may satisfy the Philosophy requirement even though they are not listed as such depending on their content. These include variable content courses, courses at the Honors College, history of philosophy courses, and courses in metaphysics. If a course that deals with some aspect of PST and should satisfy a requirement is not listed among those satisfying the requirements, you may do the following:

1. Obtain the description of what the course will cover.
2. Write a very short explanation of why the course ought to count toward satisfaction of the requirement, by showing how it deals with the relevant aspect of PST.
3. Submit both to the PST undergraduate advisor for approval.

Bachelor of Liberal Studies Option:

A minor in PST may be combined with a minor in the History of Science and Technology and a capstone to form a Bachelor of Liberal Studies. The relevant capstones are either Philosophy 4491 or History 4004. Since students taking history 4004 must have taken history 2999, it is suggested such students use History 2999 to satisfy the Logic and Methodology requirement. Students can use the same course to satisfy the Logic and Methodology requirement of both minors, but cannot use the same science courses. Also, students that pursue the Bachelor of Liberal Studies combining these two minors must pursue at least one science at an
advanced level. Such a Liberal Studies program is easily combined, in turn, with a major in any science as a
double major. This provides the student with a deeper historical and conceptual understanding of the
science(s) he or she is studying.

Certificate of History and Philosophy of Science and Technology (Requires Coordinating Board of Higher
Education Approval)

The undergraduate Certificate Program in History and Philosophy of Science and Technology (HPST) is an
interdisciplinary program requiring a minimum of 18 credits in HPST.

All required courses must be completed with a "C-" or higher. The satisfactory/unsatisfactory option may not
be used towards the HPST Certificate. A minimum of 12 hours must be taken at 2000 or above with 9 of those
hours being at 3000 or above. Courses in the upper division (3000 level and above) may satisfy requirements
for the student’s major, consistently with the major’s requirements.

Requirements

1. History: Choose two of the following courses in History of Science and Technology (6 credit hours).
   ECON 3800, History of Economic Thought
   HIST 2089, History of Ideas in the West
   HIST 2770, Introduction to Transportation
   HIST 2772, History of Aviation in American Life
   HIST 2773, Urbanization and Transportation
   HIST 3143, Inquiries in Transnational History: Introduction to the History of Science (Note: History 3143 is
   offered under different topics; only the specific topics listed here counts as HPST).
   PHIL 3383, The History of Science in Philosophical Perspective
   PHIL 4483, Topics in History and Philosophy of Science
   PHIL 4484, Topics in History and Philosophy of Medicine
   PSYCH 3400, Conceptual and Historical Foundations of Psychology

2. Philosophy: Philosophy of Science (PHIL 3380) plus one of the following another courses in the philosophy
   of science (6 credit hours).
   PHIL 2280, Minds Brains, and Machines
   PHIL 2281, Darwinism and the Philosophy of Biology
   PHIL 2282, Philosophy of Science in Historical Perspective
   PHIL 3380, Philosophy of Science
   PHIL 4452, Feminism and Science
   PHIL 4479, Philosophy of Cognitive Science
   PHIL 4480, Topics in Philosophy of Science
   PHIL 4482, Philosophy of Social Science
   PHIL 4483, Topics in History and Philosophy of Science
   PSYCH 3400, Conceptual and Historical Foundations of Psychology

3. Science: Two courses in the mathematical, physical, life, behavioral, or social sciences. The science courses
   must be in addition to those satisfying the Gen Ed requirements (for students pursuing a degree at UM-St.
   Louis) and conditional upon their acceptance by the HPST Certificate Undergraduate advisor (6 credit hours).

Prerequisites:

Some courses required by the Certificate Program in HPST have prerequisites. Some students may satisfy
prerequisites by virtue of their prior curriculum. When this is not the case, students are responsible for either
satisfying the prerequisites by adding courses to their curriculum or obtaining a waiver from the instructor.

Alternative courses to satisfy the History and Philosophy requirements:

Some courses may satisfy either the History or the Philosophy requirement even though they are not listed as
such, depending on what their content is. These include but are not limited to variable content courses,
courses at the Honors College, history of philosophy courses, and courses in metaphysics. If a course that
deals with some aspect of HPST and should satisfy a requirement is not listed among those satisfying the
requirements, you may do the following:

1. Obtain the description of what the course will cover.
2. Write a very short explanation of why the course ought to count toward satisfaction of the requirement, by
   showing how it deals with the relevant aspect of HPST.
3. Submit both to the HPST undergraduate advisor for approval.

Certificate in Neuroscience (Pending Coordinating Board of Higher Education Approval)

The undergraduate Certificate Program in Neuroscience is an interdisciplinary program requiring 20 credits of
training in Neuroscience. The Program provides a group of related courses capped by a research experience.
The Program is likely to be of particular interest to students who want to pursue graduate or professional
training, but it is intended to appeal to any student interested in Neuroscience.
Courses taken for the certificate in the lower division (1000 and 2000 level) may satisfy general education requirements (that is, breadth requirements), if they are approved general education courses. Courses in the upper division (3000 level and above) may satisfy requirements for the student's major, consistently with the major's requirements. All required courses must be completed with a "B-" average or higher. Pass/Fail grades do not count.

Most courses required by the Certificate Program in Neuroscience have prerequisites. Some students may satisfy prerequisites by virtue of their prior curriculum. When this is not the case, students are responsible for satisfying the prerequisites.

Requirements

1. The two entry level courses (8 credit hours):
   - BIOL 1811, Introductory Biology: From Molecules to Organisms
   - PSYCH 2211, Introduction to Biological Psychology

2. One statistics course selected from the list below (3 credit hours):
   - BIOL 4122, Biometry
   - MATH 1320, Applied Statistics I
   - PSYCH 2201, Psychological Statistics
   - SOC 3220, Sociological Statistics

3. Two elective courses (6 credit hours). At least one elective must be taken outside the student's major:
   - BIOL 3102, Animal Behavior
   - BIOL 4822, Introduction to Neuroscience
   - CHEM 4712, Biochemistry
   - CMP SCI 4300, Introduction to Artificial Intelligence
   - CMP SCI 4340, Introduction to Machine Learning
   - HONORS 3050, Advanced Honors Seminar in the Sciences
   - PHIL 2280, Minds, Brains, and Machines
   - PHIL 3378, Philosophy of Mind
   - PHIL 4478, Topics in Philosophy of Mind
   - PHIL 4479, Philosophy of Cognitive Science
   - PHYSICS 4347, Biophysics of Imaging
   - PSYCH 4300, Introduction to Psychopharmacology: Drugs and Mental Illness
   - PSYCH 4314, Behavioral Neuroscience
   - PSYCH 4330, Hormones, the Brain and Behavior
   - PSYCH 4349, Human Learning and Memory

4. At least 3 credits from two semesters of research experience. This requires completion of a Directed Research Assistantship with a Neuroscience faculty member within any of the participating departments. The research project must be approved in advance by the undergraduate advisor with the assistance of a committee of Neuroscience faculty. It is expected that this research will lead to a presentation at the UM-St. Louis Neuroscience seminar and the Undergraduate Research Symposium.

Graduate Studies

Expected Learning Outcomes

1. Acquire advanced knowledge of traditional philosophical issues in the western tradition.
2. Develop critical thinking skills based on knowledge of the standards governing logical reasoning.
3. Acquire familiarity with philosophical issues that arise in some other disciplines (e.g., biology, art, education, etc.).
4. Acquire a basic understanding of ethical principles and their role in resolving ethical disputes.
5. Acquire the knowledge and skills required to write a paper identifying a philosophical issue and presenting arguments supporting a thesis for resolving it.

Master of Arts in Philosophy

To earn a M.A. in philosophy, students must complete at least 30 hours of graduate-level course work. In addition, students must write a thesis, for which they must take three to six credit hours of Thesis Research. Entering students must demonstrate a competence in logic, either by having passed the relevant course prior to admission or by taking PHIL 5561: Graduate Formal Logic here at UMSL. Students should take PHIL 5400: Proseminar in Philosophy in the first year of residency. At least two-thirds of the course work must be
completed in residence at UMSL. In addition, the courses taken are subject to two distribution requirements:

1) At least half of the courses must be at the 5000 level.
2) Two courses (6 credit hours) must be chosen from each of the following four subject areas:
   - Value Theory
   - History of Philosophy
   - Logic/Philosophy of Science
   - Epistemology/Metaphysics

2+3 B.A. and M.A. in Philosophy
The Combined B.A./M.A. Program in Philosophy provides an opportunity for students of recognized academic ability and educational maturity to fulfill integrated requirements of undergraduate and master's degree programs in three years from the beginning of their junior year. When all the requirements of the B.A./M.A. program have been completed, students will be awarded both the B.A. and M.A. degrees. With a carefully designed program, a student can earn both degrees within as few as ten semesters.

The Combined Program requires a minimum of 138 credit hours, of which at least 30 must be at the upper division level course numbers in the 4000-5999 range (excluding 5495 and 5595). In qualifying for the B.A., students must meet all university and college requirements, including all the requirements of the regular undergraduate major in philosophy described above. Students will normally take PHIL 3360: Formal Logic and two courses in the 3301-3307: History of Philosophy sequence in their junior years, along with electives. Any courses still needed to satisfy college foreign language and expository writing requirements would also be taken during this year. PHIL 4491: Senior Seminar and more specialized courses are taken in the senior year.

In the fifth year, students take advanced electives and such required courses as are needed to fulfill remaining university, Graduate School, and departmental requirements for the M.A. This includes satisfactory completion of 30 graduate credit hours, at least 18 of which must be in courses numbered above 5000 and among which must be at least three in each of the four subject areas listed for the regular M.A. program, and one of which must be PHIL 5400: Proseminar in Philosophy. Up to 12 graduate credit hours may be applied simultaneously to both the B.A. and M.A. requirements. In addition to the above coursework, students must also write a thesis, in which case at least three hours must be taken in PHIL 5495 and/or 5595. Students should apply to the Graduate Committee for admission to the Combined B.A./M.A. Program in Philosophy the semester they will complete sixty undergraduate credit hours or as soon thereafter as possible. It is also recommended that students complete the foreign language requirement and the junior-level writing requirement before applying. A cumulative grade point average of 3.0 or higher and three letters of recommendation from faculty are required for consideration.

Students should apply to the Graduate Committee for admission to the Combined B.A./M.A. Program in Philosophy the semester they will complete sixty undergraduate credit hours or as soon thereafter as possible. It is also recommended that students complete the foreign language requirement and the junior-level writing requirement before applying. A cumulative grade point average of 3.0 or higher and three letters of recommendation from faculty are required for consideration.

Students will be admitted to the Combined Program under provisional status until they have completed fifteen credit hours in it with a grade point average of 3.0 or higher. After the completion of the provisional period, and with the recommendation of the Graduate Committee, students can be granted full admission into the program. Students must maintain a grade point average of 3.0 or higher throughout the Combined Program. Students who officially withdraw from the Combined Program who have successfully completed all the requirements for the B.A. degrees will be awarded the B.A. degree.

Philosophy Requirements for Students in the 2+3 Program

A. To be taken in the junior year:
Choose four courses (12 credit hours) from the following:
1) PHIL 3360: Formal Logic
2) Two courses in the History of Philosophy, each at the 2000 level or above.
3) One additional Philosophy course, at the 2000 level or above.

B. To be taken in the senior year:
Choose six courses (18 credit hours) from the following:
PHIL 4491: Senior Seminar
Either
PHIL 4445: Metaphysics or
PHIL 4440: Theories of Knowledge.
Two History courses, each at the upper division
One course from the PHIL 4470-PHIL 4487 sequence
Choose one of the following:
PHIL 4430: Social and Political Philosophy
PHIL 4435: Classical Ethical Theory
PHIL 4438: Recent Ethical Theory

C. To be taken in the final year of the program:
Six courses (18 credit hours)
1) At least five of these courses must be at or above the 5000 level.
2) Courses must be selected so that the student has taken at least one and preferably two courses from each of the four subject areas in the course of completing the 2 + 3 program:
   - Value Theory
   - History of Philosophy
   - Logic/Philosophy of Science
   - Epistemology/Metaphysics

3) PHIL 5400: Proseminar in Philosophy

Cooperative arrangement with Saint Louis University.
The strengths of the UMSL Department of Philosophy are complemented by those of the Saint Louis University Philosophy Department, which has strengths in the history of philosophy as well as in philosophy of religion. To enhance students' opportunities for instruction and expertise, the two departments have worked out a cooperative arrangement that permits graduate philosophy students on each campus to take up to four courses at the partner institution. In any given semester, UMSL graduate students must take at least half of their courses at their home institution. Students admitted to the M.A. program on a probationary basis must take all their courses at UMSL during their first semester.

Course Descriptions
Prerequisites may be waived by consent of the department.

PHIL 1120, 1125 fulfill the Cultural Diversity requirement [CD]. Courses marked [CV] or [H] fulfill the valuing and humanities requirements, respectively.

PHIL 1090 Philosophy Looks at the Arts (3) [V, H]
Video course offering. General introduction to philosophy examines its connections to works of art and related areas. Course does not satisfy any requirements for philosophy major or minor.

PHIL 1091 Great Philosophers [V, H]
Video course introduces philosophy through a survey of the ideas of some of the important figures in the history of the discipline. Course cannot be used to satisfy any requirements for philosophy major or minor.

PHIL 1110 Western Philosophy I: Antiquity to the Renaissance (3) [V, H]
Lectures and discussions tracing the development of Western philosophy from its beginnings among the pre-Socratics through the Middle Ages and Renaissance. Philosophical ideas will be examined in the cultural and historical context: the Greek city-state, the rise of Christianity, etc.

PHIL 1111 Western Philosophy II: Descartes to the Present (3) [V, H]
Lectures and discussions on the development of Western philosophy from Descartes (1596-1650) to the present. Philosophical ideas will be examined with an eye to their historical and cultural setting: the rise of modern science, the industrial revolution, the rise of capitalism, etc.

PHIL 1120 Asian Philosophy (3) [CD, V, H]
Critical study of selected philosophical classics of India and China.

PHIL 1125 Islamic Philosophy (3) [CD, V, H]
Introduction to Arabic philosophy in the Islamic classical period (roughly from mid-9th through 12th centuries). Considers philosophical and theological background and examines the thought of such notable Islamic philosophers as al-Kindi, Ibn Sina, al-Ghazali, and Ibn Rushd. Topics include proofs for the existence of God, whether the world is eternal or had a beginning, the nature of the soul and whether it is immortal, and distinction between essence and existence.

PHIL 1130 Approaches to Ethics (3) [V, H]
A study and discussion of representative topics in moral philosophy such as moral skepticism, moral objectivity, theories of obligation and value, evaluation of social institutions, and the relation between morality and science. Traditional and contemporary writers will be considered.

PHIL 1150 Major Questions in Philosophy (3) [V,H]
A study and discussion of representative topics in philosophy such as free will and determinism, concepts of mind and body, the basis of value judgments, knowledge and belief, and the possibility of constructing a world view.
PHIL 1160 Logic and Language (3) [V, H]
An introduction to the language and logical structure of arguments, the principles of sound reasoning, and application of these principles in a variety of contexts.

PHIL 1175 Arts and Ideas (3) [H]
Same as ST ART 1175, ENGL 1175, HIST 1175, M TL T 1175, TH DAN 1175. An Interdisciplinary course tied to the semester's offerings at the Blanche Touhill Performing Arts Center as well as other events on campus featuring the visual arts, literature, music, and film. Each semester the course will provide background on the arts in general and will critically examine particular performances and offerings. Special themes for each semester will be selected once the Touhill schedule is in place. Students will be expected to attend 6-8 performances or exhibitions. Can be repeated once for credit.

PHIL 1185 Philosophy of Religion (3) [V, H]
A philosophical investigation of such problems as the nature of religious faith and experience, the relation of faith and reason, alternative concepts of deity, and the problem of evil.

PHIL 2250 Philosophy and Current Issues (3)
A careful examination of such current social controversies as women's liberation, the ethics of abortion, public accountability of holders of high offices, and the subtler forms of racism and other prejudices. Although there is no formal prerequisite, it is recommended that students have taken, or be concurrently enrolled in, at least one other philosophy course.

PHIL 2251 Sexual Ethics (3)
A critical review of what philosophers, both classical and contemporary, have said about sexual experience and its place in our lives. Included will be such topics as sexual desire, sexual perversion, love and commitment, marriage and adultery, larger questions might include that role of sexual experience in the good life, issues of sexual privacy, and the morality of laws which regulate sexual activity.

PHIL 2252 Philosophical Foundations of Criminal Justice (3) [V, H]
Same as CRIMIN 2252. Addresses fundamental conceptual and ethical issues that arise in the context of the legal system. Questions may include: How does punishment differ from pre-trial detention? How, if at all, can it be justified? Is the death penalty ever justified? When is it morally permissible for juries to acquit defendants who are legally guilty? Is plea bargaining unjust? Why might people be morally obligated to obey the laws? Are Laws restricting civil liberty (e.g., laws against abortion, homosexuality, or drug use) permissible?

PHIL 2253 Philosophy and Feminism (3) [V, H]
Same as GS 2253. A critical examination of what various philosophers have said about issues of concern to women. Sample topics include oppression, racism, women's nature, femininity, marriage, motherhood, sexuality, pornography, the ethics of care.

PHIL 2254 Business Ethics (3) [V, H]
A critical survey from the perspective of moral theory of businesses and business practices. Topics vary but usually include some of the following: whether the sole moral obligation of businesses is to make money; whether certain standard business practices, e.g., the creation of wants through advertising, are moral; whether businesses ought to be compelled, e.g., to protect the environment or participate in affirmative action programs.

PHIL 2255 Environmental Ethics (3) [V, H]
Examines such issues as the value of wilderness, our duties to animals and the natural world, pollution and development, environmental justice.

PHIL 2256 Bioethics (3) [V, H]
Same as GERON 2256. An examination of ethical issues in health care practice and clinical research and in public policies affecting health care. Topics include abortion, euthanasia, health care, experimentation, informed consent, and the right to health care.

PHIL 2257 Happiness and the Meaning of Life (3) [V,H]
This course is an accessible introduction to the historical and contemporary perspectives on happiness and the meaning of life in philosophy. It examines the nature of happiness by focusing on three major theories: happiness as pleasure, happiness as excellence and happiness as desire satisfaction. Other issues examined may include the relevance of virtue for happiness, the experience machine argument, the best way to pursue happiness as a personal or a policy goal, and other related topics.

PHIL 2258 Medicine, Values, and Society (3) [V, H]
Social, conceptual, and policy issues connected with medicine form the focus of the course. Topics may include: role played by race and gender in design of research and distribution of care; whether diseases are socially constructed categories reflecting the values of society; development of social policies that offer universal access to health care; the legitimacy of using Psychotropic drugs to enhance life, rather than treat disease. The course differs from Bioethics by emphasizing policy issues and their conceptual basis. Content of this course may vary.
PHIL 2259 Engineering Ethics (3)
An examination of ethical issues in engineering using professional engineering codes as a starting point. The course will have a problem solving orientation, focusing on the analysis of particular cases. Actual high-profile cases such as the Challenger disaster will be considered, as well as hypothetical cases illustrating the more commonly encountered moral problems in engineering (such as accepting gifts from vendors). Topics include the engineer/manager relationship, engineers and the environment, honest in engineering, and risk, safety, and liability.

PHIL 2276 Philosophy of Film (3) [V,H]
Critical study of such issues as film’s relation to photography, shots and editing, documentary vs. fiction films, cinematic narration, our identification with film characters, criticism and evaluation.

PHIL 2280 Minds, Brains, and Machines (3) [C, V, H]
Introduction to basic philosophical issues in cognitive science. General topics include minds as computers: computers as minds, or the possibility of artificial intelligence that is truly intelligent; relationship between mental function and brain function. Some areas of current research, such as reasoning, vision, and emotion.

PHIL 2281 Darwinism and the Philosophy of Biology (3)
Prerequisites: Six hours of philosophy graduate standing, or consent of instructor. Examines Darwin’s theory of evolution by natural selection and its philosophical consequences. Besides the theory itself, topics may include (but are not limited to): how we can test evolution and what the evidence is for it; the design argument; adaptationism; evolutionary psychology; evolution and morality; the fact-value distinction; nature versus nurture; differences between humans and other animals; evolution and human history; genetic engineering and possible futures.

PHIL 2282 Philosophy of Science in Historical Perspective (3) [C]
The course considers the history and philosophy of ancient, medieval and early modern science, with a focus on theories of scientific methodology, biology and physics. Figures treated may include Pythagoras, Hippocrates, Plato, Aristotle, Euclid, Galen, Harvey, Copernicus, Kepler, and Newton. Topics may include Hippocratic and Galenic medicine; geocentric and heliocentric astronomy; theories of induction; scientific realism vs. instrumentalism; and the role of logic and mathematics in ancient and medieval sciences. Content of this course may vary.

PHIL 3301 Ancient Philosophy (3)
Freshmen admitted by consent of department. The principal philosophical doctrines of the ancient world, with special emphasis on the philosophies of Plato and Aristotle. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

PHIL 3302 Medieval Philosophy (3)
A critical study of the important philosophies of the period from Augustine to the Renaissance. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

PHIL 3303 Early Modern Philosophy (3)
Principal figures in the development of rationalism, empiricism and skepticism in early modern Europe, from Descartes through Hume. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

PHIL 3304 Kant and Nineteenth-Century Philosophy (3)
A study of Kant and such major nineteenth-century figures as Hegel and Nietzsche, Mill, and Peirce. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

PHIL 3305 Twentieth-Century Philosophy (3)
Representative topics in contemporary philosophy, with readings selected from pragmatism, logical positivism, linguistic analysis, and existentialism. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course.

PHIL 3307 American Philosophy (3)
Prerequisite: Six hours of philosophy or consent of instructor. A study of selected American philosophers.

PHIL 3360 Formal Logic (3)
An introductory study of logical truth and deductive inference, with emphasis on the development and mastery of a formal system.

PHIL 3374 Philosophy of Art (3)
Same as ART HS 3374. A critical study of such issues as the definition of art, the nature of aesthetic experience, meaning and interpretation in the arts, art and emotion, value in art.

PHIL 3378 Philosophy of Mind (3)
Prerequisites: Three hours of philosophy or consent of instructor. An introduction to philosophical issues
pertaining to the mind. Topics may include how the mind relates to the body, how the mind represents the world, how the mind works, consciousness, and free well.

**PHIL 3380 Philosophy of Science (3)**
An examination of science: what makes science special? Topics may include (but are not limited to): empiricism and scientific method; confirmation and the problem of induction; paradigms and revolutions; explanation, causation and laws; realism versus instrumentalism; critiques of science such as those of feminism or postmodernism; and reductionism – ultimately is it all just physics?

**PHIL 4401 Plato (3)**
Prerequisites: Six hours of philosophy, a course in Ancient Philosophy recommended, graduate standing, or consent of instructor. A study of selected Platonic dialogues.

**PHIL 4402 Aristotle (3)**
Prerequisites: Six hours of philosophy, a course in Ancient Philosophy, recommended, graduate standing, or consent of instructor. A selective study of Aristotle’s major works.

**PHIL 4403 Topics in the History of Philosophy (3)**
Prerequisites: Six hours of philosophy (PHIL 3301, 3302 or 3303 strongly recommended) or consent of instructor. Examines in depth a particular topic or topics of school of thought from the history of philosophy. This is a variable content course and may be taken again for credit with the consent of the instructor and department chair.

**PHIL 4405 The Rationalists (3)**
Prerequisites: Six hours of philosophy, a course in Ancient Philosophy recommended, graduate standing, or consent of instructor. An examination of the philosophies of such major figures as Descartes, Spinoza, and Leibniz.

**PHIL 4406 The British Empiricists (3)**
Prerequisite: Six hours of philosophy, a course in Early Modern Philosophy recommended, graduate standing, or consent of instructor. An examination of the philosophies of such major figures as Locke, Berkeley and Hume.

**PHIL 4407 Kant (3)**
Prerequisites: Six hours of philosophy, PHIL 3304 or equivalent recommended, graduate standing, or consent of instructor. A systematic study of the Critique of Pure Reason.

**PHIL 4408 Hegel (3)**
Prerequisites: Six hours of philosophy, PHIL 3304 or equivalent recommended, graduate standing, or consent of instructor. A critical study of the writings and influence of Hegel.

**PHIL 4410 Significant Figures in Philosophy (3)**
Prerequisites: Nine hours of philosophy, graduate standing, or consent of instructor. Examination of the work of an important twentieth-century philosopher or philosophical movement. The philosopher or movement to be studied will be announced prior to registration. This is a variable content course that may be taken again for credit with approval of instructor and department chair.

**PHIL 4420 Topics in Non-Western Philosophy (3)**
Prerequisites: PHIL 1120, graduate standing, or consent of instructor. An extensive exploration of issues in some particular non-Western traditions (Islamic, Indian, or Chinese). This is a variable content course and may be taken again for credit with consent of instructor and department chair.

**PHIL 4421 The Analytic Tradition (3)**
Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. PHIL 3305 and PHIL 3360 strongly recommended. Course studies in depth the development of analytic philosophy with a broad emphasis on its style and substance. Topics may include early writings that set the stage for this tradition (Frege, Moore, Russell), the basic texts of Logical Positivism (Carnap, Schlick, Neurath, Hempel), and later responses including reassessment of the doctrine, the revival of naturalism, and the “death” of philosophy (Wittgenstein, Quine, Sellars). This is a variable content course that may be taken again for credit with consent of the instructor and the department chair.

**PHIL 4430 Social and Political Philosophy (3)**
Prerequisites: Six credit hours of philosophy required or consent of instructor. This course will cover several classic works of political theory, with a particular focus on the nature of justice, the proper extent of liberty, and social contract arguments for the legitimacy of state authority. Readings from Plato, Hobbes, Locke, Hume, Rousseau, Bentham, Mill, Marx and Rawls.

**PHIL 4435 Classical Ethical Theories**
Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. Significant contributions to moral philosophy from Plato and Aristotle to Bentham and Mill.
PHIL 4437 Metaethics (3)
Prerequisites: 6 credit hours of Philosophy. The course deals with questions regarding the foundations of ethics and the status of our ethical judgments about what's right and wrong, good and bad. The course will consider contemporary approaches to issues such as moral motivation, moral reasons, moral explanations, moral disagreement, moral knowledge, and moral supervenience, as well as various debates between realists and antirealists, and between cognitivists and expressivists.

PHIL 4438 Recent Ethical Theory (3)
Prerequisites: Six hours of philosophy, graduate standing or consent of instructor. A study of major contributions to twentieth-century ethics, including works by such writers as Moore, Dewey, Ross, Stevenson, Hare, and Rawls.

PHIL 4439 Topics in Ethical Theory (3)
Prerequisites: PHIL 4435, 4438, nine hours of philosophy, graduate standing, or consent of instructor. Formulation and evaluation of major theories in normative ethics, metaethics, and axiology. Topics include: egoism, moral realism, act and rule utilitarianism, and varieties of naturalism and non-naturalism in ethics. This is a variable content course and can be taken again for credit with consent of instructor and department chair.

PHIL 4440 Theories of Knowledge (3)
Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. An examination of concepts and problems involved in the characterization of knowledge. Specific topics will vary, but will usually include knowledge, belief, skepticism, evidence, certainty, perception, truth, and necessity.

PHIL 4445 Metaphysics (3)
Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. An examination of selected metaphysical topics such as substance, universals, causality, necessity, space and time, free will, being, and identity.

PHIL 4450 Special Readings in Philosophy (1-3)
Prerequisite: Special consent required. Independent study through readings, reports, and conferences. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

PHIL 4451 Special Topics in Philosophy (3)
Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. A critical study of classical and/or contemporary contributions to a selected topic in philosophy. The topic to be considered will be announced prior to registration. This is a variable content course and can be taken again for credit with the consent of the instructor and department chair.

PHIL 4452 Feminism And Science (3)
Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. Same as GS 4452. This course will explore major themes and issues in feminist science scholarship, a body of research that focuses on the relationship between science and gender. Feminist research in the philosophy and history of science, and in the biological sciences, are emphasized. Issues include: the nature of objectivity, evidence, and truth; the factors that contribute to the acceptance or rejection of research hypothesis and theories; the nature and consequences of science's cognitive authority; and the relationship between science and values.

PHIL 4457 Media Ethics (3)
Same as MEDIA ST 4357. Prerequisites: nine hours of philosophy or nine hours of communication or consent of instructor. This course is concerned with some of the issues that arise from the intersection of ethics and modern media communications. Attention is given to some of the more specific concerns of media ethics, such as truth, honesty, fairness, objectivity and bias; personal privacy and the public interest; advertising; conflicts of interest; censorship and offensive or dangerous content (pornography, violence). Particular attention will be given to problems posed by the development of personal computer communications through bulletin boards, on-line services, and the Internet.

PHIL 4458 Ethics and the Computer
Prerequisites: 6 hours of course work above the level of MATH 1030 in Math/Computer Science or at least 6 hours of philosophy or consent of instructor. Examination of ethical issues concerning the use of computer's generally and software engineering in particular. Aims at developing awareness of these issues and skills for ethical decision making regarding them through careful, analytical methods. Typical issues include privacy, intellectual property, computer fraud, and others.

PHIL 4460 Advanced Formal Logic (3)
Prerequisites: PHIL 3360, graduate standing, or consent of instructor. Rigorous study of major developments in contemporary logic. Emphasis is given to theoretical problems and some attention is devoted to philosophical issues arising from logic.

PHIL 4465 Theory of Decisions and Games (3)
Prerequisites: Six hours of Philosophy and junior standing, POL SCI 6401 (or the equivalent) or consent of instructor. Same as POL SCI 4060. A study of rational decision making, including games against nature, zero-
sum games and social choices. Topics will include the following: expected utility maximization, the Prisoner's Dilemma, Nash equilibria, and Arrow's theorem on the impossibility of a social welfare function. Parts of the course are technical in nature; a prior course in mathematics e.g., finite mathematics, calculus, statistics or an economics course with a mathematical component, symbolic logic, or some other course with comparable mathematical content is strongly recommended.

PHIL 4470 Topics in Philosophy of Language (3)
Prerequisites: Six hours of philosophy, graduate standing, or consent of instructor. Intensive examination of selected problems encountered in developing philosophical accounts of truth, reference, propositional attitudes, and related concepts. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

PHIL 4474 Topics in Aesthetics (3)
Prerequisites: PHIL 3374, graduate standing, or consent of instructor. Selected topics, such as vision and representation, musical aesthetics, and recent theorists. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

PHIL 4478 Topics in Philosophy of Mind (3)
Prerequisites: PHIL 3378 or six hours of other philosophy courses graduate standing, or consent of instructor. An examination of selected topics at the interface of philosophical and psychological research. This is a variable content course and can be taken again for credit with consent of instructor and department chair.

PHIL 4479 Philosophy of Cognitive Science (3)
Prerequisites: PHIL 3378 or PHIL 4478 or nine hours of other philosophy courses or consent of instructor. An exploration of the philosophical foundations and implications of cognitive science, a cooperative effort of philosophers, cognitive psychologists, brain scientists, computer scientists, and others to understand the relationship between the mind and the brain.

PHIL 4482 Philosophy of Social Science (3)
Prerequisites: Six hours of philosophy or consent of instructor. An intensive examination of selected topics such as the nature theory, and the postmodernism debate e.g., Habermas of explanation in social science versus natural science, interpretation, Foucault, Clifford. This course may be repeated for credit on approval by the department.

PHIL 4483 Topics in History and Philosophy of Science (3)
Prerequisites: Six hours of philosophy (PHIL 3380, strongly recommended), graduate standing, or consent of instructor. Examines in depth a particular topic or topics from either the history or philosophy of science. This is a variable content course and may be taken again for credit with the consent of the instructor and department chair.

PHIL 4487 Topics in Philosophy of Law (3)
Same as CRIMIN 4487. Prerequisite: CRIMIN 1100 and 3 hours of philosophy, graduate standing or consent of instructor. An intensive study of recent philosophical debate about such issues as the authority of law, legal equality and justice, legal responsibility, self-determination and privacy, and legal punishment. This is a variable content course and may be taken again for credit with consent of the instructor and the department chair.

PHIL 4491 Senior Seminar (3)
Prerequisites: Senior standing; at least 12 hours of philosophy at the 1000 level or above; or consent of instructor. Intensive study of a central philosophical problem. The course emphasizes the fundamentals of philosophical writing and scholarship. Students will write a major paper to be evaluated by two members of the Philosophy Department and the course instructor.

PHIL 5400 Proseminar in Philosophy (3)
Prerequisite: Graduate standing. Required of all entering graduate students in the fall semester of the first full year of residency. Topics vary. Other graduate students may take this course with the permission of the instructor and the director of graduate studies in Philosophy. Students will be expected to write papers, give presentations, and join in class discussion.

PHIL 5403 Seminar on Themes in the History of Philosophy (3)
Prerequisite: Graduate standing or consent of instructor. Close study of selected topics, texts, or school of thought in the history of philosophy. Topics may include but are not limited to historical theories of science. Hellenistic philosophy, Neoplatonism, and historical approaches concerning the nature of time. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

PHIL 5410 Seminar in Significant Figures in Philosophy (3)
Prerequisite: Graduate Standing. In-depth study of work of a single philosopher. The philosopher selected will be announced prior to registration. This is a variable-content course any may be taken again for credit with consent of instructor and department chair.

PHIL 5478 Seminar in Philosophy of Mind (3)
Prerequisite: Graduate standing. Topics may include functionalism and physicalism; representation and nature of propositional attitudes such as belief, desire, and various emotions; folk psychology and knowledge of other minds; introspection and knowledge of one’s own mind; conscious and unconscious mental states and processes. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

PHIL 5495 Thesis Research (3)
Prerequisite: Graduate standing or consent of instructor. May be repeated once for credit with consent of instructor and department chair.

PHIL 5521 Seminar in Analytic Philosophy (3)
Prerequisite: Graduate standing or consent of instructor. Intensive study of selected topics, texts, or individuals in historical or contemporary analytic philosophy. Topics may include, but are not limited to, Fregean semantics, Russell’s theory of definite descriptions, logical positivism, Wittgenstein’s philosophy of language, Quine on the analytic/synthetic distinction, Kripke possible-world semantics, theories of propositions, the analysis of knowledge, contextualism in epistemology and language, relativistic semantics, epistemic two-dimensionalism, conceivability vs. possibility, three-dimensionalism vs. four-dimensionalism, presentism vs. eternalism, and applications of core concepts in other areas of philosophy. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

PHIL 5530 Seminar in Social and Political Philosophy (3)
Prerequisite: Graduate standing or consent of instructor. An intensive study of contemporary philosophical debate about such issues such as civil liberty, economic justice, political decision-making, and state authority. Variable content course and may be taken again for credit with consent of instructor and department chair.

PHIL 5537 Seminar in Metaethics (3)
Prerequisite: Graduate standing or consent of instructor. The course deals with questions regarding the foundations of ethics and the status of our ethical judgments about what’s right and wrong, good and bad. The course will consider contemporary approaches to issues such as moral motivation, moral reasons, moral explanations, moral disagreement, moral knowledge, and moral supervenience, as well as various debates between realists and antirealists, and between cognitivists and expressivists.

PHIL 5538 Seminar in Ethical Theory (3)
Prerequisite: Graduate standing or consent of instructor. Answers questions from normative ethics or metaethics, which may include the following: What do all morally wrong actions have in common? What does the word "wrong" mean? How, if at all, can we verify moral judgements? Are any moral judgements valid for all societies? Do we always have good reason to be moral?

PHIL 5540 Seminar in Epistemology (3)
Prerequisite: Graduate standing or consent of instructor. Close study of selected topics, texts, or individuals in epistemology. Topics may include (but are not limited to) theories of justification, naturalism in epistemology, and conceptions of knowledge. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

PHIL 5545 Seminar in Metaphysics (3)
Prerequisite: Graduate standing. Intensive study of a selected topic or problem area in metaphysics, e.g., mind-body identity, nature of the self, or conception of time. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

PHIL 5546 Seminar in Modality (3)
Prerequisites: Graduate standing or consent of instructor. Intensive study of selected topics, texts, or individuals in modality. Topics may include (but are not limited to): Kripke semantics, Lewis’ genuine modal realism about possible worlds, linguistic ersatzism, epistemic two-dimensionalism, conceivability vs. possibility, theories of epistemic modals, theories of propositional attitude reports, theories of knowability, provability, and computability, modal paradoxes, and applications of core concepts in other areas of philosophy. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

PHIL 5551 Special Readings in Philosophy (3)
Prerequisites: Graduate standing, written consent of instructor. Independent study through readings, reports, and conferences. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

PHIL 5560 Seminar in Logic (3)
Prerequisite: Graduate standing. Focused study of topics in logic and/or its history. Representative topics include Aristotelian logic, modal logic, Gödel incompleteness theorems, relevance logic, paraconsistent logic, free logic. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

PHIL 5561 Graduate Formal Logic (3)
Prerequisites: Graduate standing; permission of the department. A rigorous introduction to formal logic that
includes sentential calculus, predicate logic, and completeness proofs. May be taken for graduate credit only with permission of the graduate advisor and chair.

**PHIL 5570 Seminar in Philosophy of Language (3)**
Prerequisite: Graduate standing or consent of instructor. Close study of selected topics, texts, or individuals in the philosophy of language. Topics may include (but are not limited to): theories of indexicals and demonstratives, theories of proper names and descriptions, sense and reference, compositionality, natural language semantics, syntax pragmatics, applications of core concepts in other areas of philosophy. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

**PHIL 5579 Seminar in Philosophy of Cognitive Science (3)**
Prerequisite: Graduate standing. General topics include role of computation in cognitive science, merits of symbolic computation and connectionism, aims and methods of artificial intelligence, and relationship between cognitive science and our everyday understanding of people. Specific topics may include perception, reasoning, consciousness, language, emotion, and will. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

**PHIL 5580 Seminar in Philosophy of Science (3)**
Prerequisite: Graduate standing or consent of instructor. Focus on recent issues and controversies. Topics may include theories and observation, models of explanation, confirmation, realism and antirealism, empiricism and naturalism, "social construction" and feminist views of science. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

**PHIL 5582 Seminar in Philosophy of Social Science (3)**
Prerequisite: Graduate standing or consent of instructor. Intensive examination of selected topics, such as the nature of explanation in social science, rationality, value-freedom and objectivity, or relation of social to natural sciences. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

**PHIL 5590 Philosophical Issues in Other Disciplines (3)**
Prerequisite: Graduate standing or consent of instructor. Examination of selected philosophical issues in disciplines other than philosophy. One or more such disciplines as history, political science, psychology, sociology, biology, chemistry, physics, or mathematics will be chosen. The discipline(s) and issues selected will be announced prior to registration. This is a variable content course and may be taken again for credit with consent of instructor and department chair.

**PHIL 5595 Thesis Research (1-6)**
Prerequisite: Graduate standing or consent of instructor. May be repeated to a total of six credit hours.
Department of Physics and Astronomy

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Atmospheric Science Course Descriptions | Geology Course Descriptions | Physics Course Descriptions

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Faculty

Bernard Joseph Feldman, Professor and Chairperson
Ph.D., Harvard University

Jacob J. Leventhal, Curators’ Professor
Ph.D., University of Florida

Ta-Pei Cheng, Professor Emeritus
Ph.D., Rockefeller University

Ricardo A. Flores, Professor
Ph.D., University of California-Santa Cruz

Thomas F. George, Professor and Chancellor
Ph.D., Yale University

Peter Herwig Handel, Professor
Ph.D., University of Bucharest

Bob Londes Henson, Professor
Ph.D., Washington University

Jingyue Liu, Professor
Ph.D., Arizona State University

Richard Dean Schwartz, Professor Emeritus
Ph.D., University of Washington

Bruce A. Wilking, Professor
Ph.D., University of Arizona

Sonya Bahar, Associate Professor
Ph.D., University of Rochester

Philip Fraundorf, Associate Professor
Ph.D., Washington University

Erika Gibb, Associate Professor
Ph.D., Rensselaer Polytechnic Institute

Eric Majzoub, Associate Professor
Ph.D., Washington University

Wilfred H. Sorrell, Associate Professor Emeritus
Ph.D., University of Wisconsin

Dan Zhou, Research Associate Professor
Ph.D., University of Arizona

Michael Fix, Associate Teaching Professor
A.M., Washington University

Xiangfeng Liu, Research Assistant Professor
Ph.D., Chinese Academy of Sciences

Charles E. Burkhardt, Adjunct Professor
Ph.D. Washington University

Lu Fei, Adjunct Associate Professor
Ph.D., University of Missouri-St. Louis

J. Daniel Kelley, Adjunct Professor
Ph.D., Georgetown University

Mary Jane Kernan, Adjunct Associate Professor
Ph.D., Washington University

Florence Lopez Leban, Adjunct Assistant Professor
Ph.D. University of Missouri-St. Louis

Guoqiang Li, Adjunct Assistant Professor
Ph.D., Shanghai Institute of Optics and Fine Mechanics
General Information

Degrees and Areas of Concentration
The Department of Physics and Astronomy offers course work leading to the B.A. in physics, the B.S. in physics, and in cooperation with the College of Education, the B.A. in physics with teacher certification and the B.S. in education with an emphasis in physics. The Department offers meritorious students opportunities to participate in teaching and research to help prepare them for the independent effort required in industry or graduate school. The Department’s faculty members have a diversity of interests and are active in various experimental and theoretical research areas. Students successfully completing this program will obtain an understanding of basic physics concepts, mathematical and problem-solving skills needed to solve basic physics problems, experimental skills in physics, astrophysics, or biophysics, and the ability to analyze and interpret scientific data and write scientific papers or reports.

The Master of Science in physics program combines a sound basis in the fundamental areas of classical and modern physics from both a theoretical and an applied perspective. The program is designed to enable students with undergraduate backgrounds in physics or other technical areas to further their professional development and maintain and improve their technical development. The program is offered almost entirely in the evening to serve students who are employed locally. Students receiving a M.S. in physics will obtain an understanding of advanced physics concepts and mathematical and problem-solving skills needed to solve advanced physics problems. Students are strongly encouraged to be involved with faculty research programs that will develop experimental skills in physics, astrophysics, or biophysics as well as experience in analyzing and interpreting scientific data and the writing of scientific papers, reports, or theses. The Department offers the Ph.D. degree in cooperation with Missouri University of Science and Technology Physics Department. Students must satisfy the Missouri S&T admission standards, and the Missouri S&T Qualifying Exam in Physics is required of University of Missouri-St. Louis Ph.D. students. However, all course work and dissertation research may be completed while the student is in residence at UMSL. In addition to obtaining an understanding of advanced physics concepts and mathematical and problem-solving skills needed to solve advanced physics problems, Ph.D. students are expected to conduct independent scientific research in physics, astrophysics, or biophysics while learning to analyze and interpret scientific data and write scientific papers, reports, and a dissertation.

Undergraduate Studies

General Education Requirements: Majors must complete the university and college general education requirements. Any of the following courses may be used to satisfy the physical science requirement:

ASTRON: 1001, 1001A, 1011, 1012, 1050, 1051, 1121
ATM SCI: 1001, 1001A
GEOL 1001, 1002, 1001A, 1002A
PHYSICS: 1001, 1011, 1012, 2111, 2112.

Degree Requirements
All physics majors, who are transfer students, must complete PHYSICS 1099, Windows on Physics. First time freshman must take INTDSC 1003. All physics majors in all programs must complete the physics core curriculum with the exception that majors pursuing the Physics Education option are not required to take PHYSICS 1099 and CMP SCI 1250. In addition to the core courses, each individual program has its own specific requirements. Required Physics, Mathematics, Chemistry, Biology, Optometry and Computer Science courses for a major or minor in physics may not be taken on a satisfactory/unsatisfactory grading basis.

Core Curriculum: The following physics courses are required:
PHYSICS 2111, Physics: Mechanics and Heat
PHYSICS 2112, Physics: Electricity, Magnetism, and Optics
PHYSICS 3200, Mathematical Methods of Theoretical Physics
PHYSICS 3221, Mechanics
PHYSICS 3223, Electricity and Magnetism
PHYSICS 3231, Introduction to Modern Physics I

Also required are:
MATH 1800, Analytic Geometry and Calculus I
MATH 1900, Analytic Geometry and Calculus II
MATH 2000, Analytic Geometry and Calculus III
MATH 2020, Introduction to Differential Equations
CHEM 1111, Introductory Chemistry I or equivalent

**CMP SCI 1250**, Introduction to Computer Science

**Note:** Students are urged to begin the calculus sequence [MATH 1800, Analytic Geometry and Calculus I] as soon as possible to avoid delays in graduation.

Students with experience in digital computer programming may be excused from CMP SCI 1250.

**Bachelor of Arts in Physics**
The B.A. program is tailored to students wishing to preserve the option for specialization in graduate school without sacrificing the advantages of a liberal arts education. In addition to the core curriculum, including the foreign language requirement, at least three electives at the 3000 or 4000 levels must be completed. It is recommended that at least one of these three electives include ASTRON 4322, PHYSICS 4311, or PHYSICS 4347 for the required capstone course. The Department of Physics and Astronomy will accept the three-course sequence in American Sign Language as a substitution for the foreign language requirement for the degree. At least 31 hours of physics courses, but no more than 45 hours, are required.

**Bachelor of Science in Physics**
The B.S. degree provides students with six options: general physics, astrophysics, engineering physics, medical physics, optical biophysics or physics education.

**General Physics Option**
This option may be elected by students desiring a greater concentration in physics and mathematics and recommended for students wishing to enter graduate study in physics. At least 50 hours are required. In addition to the core curriculum, the following physics courses are required:

**Physics**
PHYSICS 4310, Modern Electronics  
PHYSICS 4311, Advanced Physics Laboratory I  
PHYSICS 4323, Modern Optics  
PHYSICS 4331, Introduction to Quantum Mechanics  
PHYSICS 4341, Thermal and Statistical Physics  
PHYSICS 4350, Computational Physics

and three electives at or above the 4000 level in physics or astronomy.

**Astronomy**
ASTRON 1050, Introduction to Astronomy I or ASTRON 1051, Introduction to Astronomy II

Also required are:
**Mathematics**
MATH 2450, Elementary Linear Algebra

and one elective in mathematics at or above the 3000 level, or in computer science at or above the 2000 level.

**Chemistry**
CHEM 1121, Introductory Chemistry II, or equivalent.

**Astrophysics Option**
Students who have interests in the aerospace sciences or anticipate graduate studies in astrophysics may elect this option. At least 48 hours must be taken. In addition to the core curriculum, the following physics courses are required:

**Physics**
PHYSICS 4323, Modern Optics  
PHYSICS 4331, Introduction to Quantum Mechanics  
PHYSICS 4341, Thermal and Statistical Physics  
PHYSICS 4350, Computational Physics

**Astronomy**
ASTRON 1050, Introduction to Astronomy I  
ASTRON 1051, Introduction to Astronomy II  
ASTRON 4301, Astrophysics  
ASTRON 4322, Observational Astronomy

And one physics elective at or above the 4000 level. With consent of the astronomy adviser, there may be substitution of ASTRON 1001, 1001A, 1011 or 1012 for 1050 or 1051.

Also required:
Mathematics  
MATH 2450, Elementary Linear Algebra

Engineering Physics Option  
Students interested in careers in the research and development field of industry should consider this option. This program exposes the student to a basic engineering curriculum, as well as to areas of physics with industrial applications, such as electronics, modern optics, and linear analysis. At least 49 hours, but no more than 51, are required. In addition to the core curriculum, the following courses are required:

Joint Engineering  
ENGR 2310, Statics  
ENGR 2320, Dynamics

Joint Electrical Engineering  
JE ENGR 2300, Introduction to Electrical Networks

Physics  
PHYSICS 4310, Modern Electronics  
PHYSICS 4311, Advanced Physics Laboratory I  
PHYSICS 4323, Modern Optics  
PHYSICS 4331, Introduction to Quantum Mechanics  
PHYSICS 4341, Thermal and Statistical Physics

Mathematics  
MATH 1320, Applied Statistics I  
MATH 2450, Elementary Linear Algebra  

Also required is one elective in mathematics at or above the 3000 level, or in a computer science at or above the 2000 level.

Medical Physics Option  
This option is designed for students who are interested in careers in various medical fields or biophysics. This option provides a strong preparation in physics, mathematics, chemistry, and biology for students who intend to apply for admission to medical schools. At least 41 hours of physics and biology combined, but no more than 51, are required. In addition to the core curriculum, the following physics and biology courses are required:

Physics  
PHYSICS 4310, Modern Electronics  
PHYSICS 4347, Biophysics of Imaging

Biology  
BIOL 1811, Introductory Biology I: From Molecules to Organisms  
BIOL 1821, Introductory Biology II: Organisms and the Environment  
and two additional physics electives at the 4000 level.

Also required are:

Chemistry  
CHEM 1121, Introductory Chemistry II  
CHEM 2612, Organic Chemistry I  
CHEM 2622, Organic Chemistry II  
CHEM 2633, Organic Chemistry Laboratory

Optical Biophysics Option  
This program is designed for students wanting to obtain a strong biophysics emphasis that will also prepare them for the optometry program at UMSL. This 3+4 program allows students to complete their B.S. in physics and Doctor of Optometry degrees in seven years. Students can complete their B.S. in physics degree in their fourth year while starting coursework in the College of Optometry. A total of 55 hours in physics, biology, and optometry courses are required. In addition to the physics core curriculum, the following courses are required:

Physics  
PHYSICS 4341, Thermal and Statistical Physics

Biology  
BIOL 1811, Introduction to Biology I: From Molecules to Organisms  
BIOL 1821, Introduction to Biology II: Organisms and the Environment  
BIOL 2482, Microbiology  
BIOL 2483, Microbiology Laboratory
Optometry (fourth year only)
OPTOM 8020, Geometric Optics
OPTOM 8060, Biochemistry
OPTOM 8120, Ocular Optics
OPTOM 8140, Physical Optics and Photometry

Also required are:

Chemistry
CHEM 1121, Introductory Chemistry II
CHEM 2612, Organic Chemistry I
CHEM 2622, Organic Chemistry II
CHEM 2633, Organic Chemistry Laboratory

Psychology
PSYCH 1003, General Psychology and one elective in psychology

Statistics,
MATH 1320, Applied Statistics I or PSYCH 2201, Psychological Statistics

Note: Upon declaring physics as a major and selecting this option, students should seek an initial interview with the Director of Student Services and the Pre-Optometry Advisor in the UMSL College of Optometry to ensure that all prerequisites for the College of Optometry will be completed. A similar review is recommended at the beginning of the Winter Semester of the second year. In August following the completion of their second year of this program, students may apply formally to the UMSL College of Optometry and arrange to take the Optometry Admissions Test (OAT) during the Fall semester of their third year. The applicant will be invited for a formal interview for acceptance into the College of Optometry professional program following receipt of a completed application in the Fall Semester of the candidate's third year. Following the formal interview with the College of Optometry at the beginning of the third year, students with a 3.0 or better grade point average in the science prerequisites for optometry and a score of 310 or better on the OAT exam may be accepted into the College of Optometry.

B.S. degree in Physics, Physics Education Option and B.S. degree in Secondary Education with an Emphasis in Physics.

The course sequence below meets the science requirements for Missouri certification for teaching physics at the secondary school level. All candidates must enroll in a program that includes Levels I, II, and III coursework in the College of Education, which includes one semester as a Teacher Intern and one semester of full-time Student Teaching. In addition, students must complete the following Science Core Courses and the courses listed under Physics Endorsement:

Science Core Courses:

Philosophy
PHIL 3380, Philosophy of Science

BIOL 1811, Introductory Biology I: From Molecules to Organisms
BIOL 2102, General Ecology or another Environmental Science
CHEM 1111, Introductory Chemistry I
CHEM 1121, Introductory Chemistry II
PHYSICS 2111, Physics: Mechanics and Heat
PHYSICS 2112, Physics: Electricity, Magnetism, and Optics
GEOL 1001, General Geology or ATM SCI 1001, Elementary Meteorology or ASTRON 10xx

Physics Endorsement
Physics
PHYSICS 3200, Mathematical Methods of Theoretical Physics
PHYSICS 3221, Mechanics
PHYSICS 3223, Electricity and Magnetism
PHYSICS 3231, Introduction to Modern Physics
PHYSICS 4310, Modern Electronics
PHYSICS 4311, Advanced Physics Laboratory I
PHYSICS 4802, or SEC ED 3240, Methods of Teaching Science in Secondary Schools
PHYSICS 4837, Teaching Intern Seminar

Minor in Physics
Students may complete a minor in physics with the flexibility of emphasis on classical physics, modern physics, or a combination of the two areas. The following physics courses are required:

PHYSICS 1099, Windows on Physics or INTDSC 1003, Freshman Success Seminar

PHYSICS 2111, Mechanics and Heat
PHYSICS 2112, Electricity, Magnetism, and Optics
PHYSICS 3200, Mathematical Methods of Theoretical Physics
and two additional emphasis courses chosen from the following
PHYSICS 3221, Mechanics
PHYSICS 3223, Electricity and Magnetism
PHYSICS 3231, Introduction to Modern Physics I
PHYSICS 4310, Modern Electronics

A GPA of at least 2.0 is required in courses presented for a minor. It is required that a student completes a minimum of 6 hours of graded work in 2000 level or above courses on the UMSL campus.

Graduate Studies

Admission Requirements
The Department requires applicants to have adequate backgrounds in such areas as mechanics, thermodynamics, electromagnetism, optics, electronics, and modern physics. Students admitted to the program with deficiencies in these areas are required to take appropriate undergraduate courses. If necessary, a remedial program is determined in consultation with the department graduate studies director at the time of application for admission.

Graduate Degree Requirements

Master’s
A student must complete 30 credit hours in graduate physics courses with at least 15 of these at the 5000 or 6000 level. Writing a thesis is optional. A maximum of six (3) credit hours of Research, PHYSICS 6490, may be counted toward the minimum 15 hours with (or without) the thesis option. Students must pass a comprehensive examination, which includes a defense of the thesis for students who have chosen to write one. A grade point average of 3.0 must be maintained during each academic year. The requirements must be fulfilled within six years from the time of admission. Two-thirds of required graduate credit must be taken in residence. There is no foreign language requirement.

Typical Program:

First Semester
PHYSICS: 6000 level and 4000, 5000 level course
Total: 6 hours

Second Semester
PHYSICS: 6000 level and 4000, 5000 level course
Total: 6 hours

Third Semester
PHYSICS: 6000 level and 4000, 5000 level course
PHYSICS 6490, Thesis Research or Seminar
Total: 9 hours

Fourth Semester
PHYSICS: 6000 level and 4000 level course
PHYSICS 6490 Thesis Research or Seminar
Total: 9 hours

Doctorate
Students must complete a minimum of 48 hours past the master’s degree with satisfactory performance. The university has a residency requirement of three years/six semesters (for those with master’s degree, two years/four semesters) at UMSL and/or Missouri S&T. The Ph.D. qualifying exam, dissertation, and dissertation exam are administered in cooperation with Missouri S&T. All graduate work requires B grades or better. The dissertation may be written in absentia, and there is no foreign language requirement.

Special Equipment, Facilities, or Programs
The William L. Clay Center for Nanoscience, which opened in 1996, is an interdisciplinary facility bringing together both physicists and chemists for research in materials science. A focus of the center is to foster collaborations between its members and colleagues in industry. The center houses the Microscope Image and Spectroscopy Tech Lab where research at the forefront of nanotechnology is conducted with transmission electron, scanning probe, and scanning electron microscopes in a building uniquely designed for such work. The center is spearheading the formation of the Missouri NanoAlliance, a nano-characterization and synthesis network that will facilitate the sharing of resources across Missouri. The Center for Neurodynamics, established in 1995, conducts research at the interface between physics and biology, with a focus on the roles of noise and stochastic synchronization in neural processing. The center has an on-site high speed (CCD) imaging system for studying the spatial dynamics of neural activity in the mammalian brain. Collaborations with St. Louis University will permit high time-resolution magnetoencephalography (MEG) image analysis, making use of a high-speed Internet 2 connection, UMSL’s new high-speed (3.8 GHz) 128-node Beowulf cluster, and Missouri’s first MEG machine. Astronomers make use of national facilities at Kitt Peak, Cerro
Tololo, and Mauna Kea Observatories. The university provides email and internet services through numerous student labs equipped with computers with Windows and Macintosh operating systems, flat-bed document scanners, and color printers. The department maintains a network of UNIX/LINUX/OSX system and workstations and a workstation for image processing. In addition, the department maintains a library containing some of the most frequently used physics journals and machine and electronics shops.

**Career Outlook**

Many of our students have been successful in subsequent graduate studies in astronomy and atmospheric science, biomedical engineering, medical physics, and patent law, as well as in physics. Our alumni have pursued graduate studies and earned doctorate degrees at institutions such as Cornell University, University of Wisconsin, Washington University, and University of Chicago. The many students who elected a career in industry are now working in a variety of settings for such firms as International Business Machines, Emerson Electric, MEMC Electronic Materials, Motorola, A T & T, Hewlett-Packard, Boeing, and the National Center for Atmospheric Research. Several former students are currently teaching physics in high schools around the St. Louis area.

**Course Descriptions**

Prerequisites may be waived by consent of the department. Courses in this section are grouped as follows: Astronomy; Atmospheric Science; Geology; and Physics.

**Astronomy**

**ASTRON 1001 Cosmic Evolution/Introductory Astronomy (4) [MI, MS]**
Overview of astronomy, from the planets to the Big Bang. Topics include the celestial motions, planets and the formation of the solar system, stars and stellar evolution, galaxies, and cosmology. Students will be introduced to the latest discoveries and how they affect our understanding of the universe. The format is three classroom hours and one 2-hour laboratory session per week to enhance lecture material.

**ASTRON 1001A Cosmic Evolution/Introductory Astronomy (3) [MS]**
Overview of astronomy, from the planets to the Big Bang. Topics include the celestial motions, planets and the formation of the solar system, stars and stellar evolution, galaxies, and cosmology. Students will be introduced to the latest discoveries and how they affect our understanding of the universe. The format is three classroom hours per week. Same as ASTRON 1001 without the laboratory.

**ASTRON 1011 Planets and Life in the Universe (3) [MS]**
Man's concept of the solar system from Stonehenge to Einstein; geology and meteorology of the planets of our solar system, with particular attention to results from the space program; exobiology-study of the possibilities of life on other worlds and the best method of communicating with it. Three classroom hours per week.

**ASTRON 1012 The Violent Universe and the New Astronomy (3) [MS]**
A nontechnical course focusing on recent results which larger telescopes and the space program have made available. Pulsars, x-ray stars, and black holes; radio astronomy, our galaxy, and interstellar molecules; exploding galaxies and quasars; origin of the expanding universe. Three classroom hours and one observing session per week.

**ASTRON 1050 Introduction to Astronomy I (3) [MS]**
Prerequisites: MATH 1030 and MATH 1035. A survey of the history of astronomy from the ancient times to present. Theories for the formation and evolution of the solar system and the general features of the solar system and planetary motions are discussed. The physical concept of gravity is presented. The detailed properties of the planets, comets, and asteroids are reviewed, concentrating on recent results from space missions.

**ASTRON 1051 Introduction to Astronomy II (3) [MS]**
Prerequisites: MATH 1030 and MATH 1035. A survey of astronomy beyond the solar system. Topics include stars and stellar evolution, neutron stars, and black holes. The physical concept of light and the design of telescopes is discussed in detail. The structure of the Milky Way Galaxy and the large scale structure of the universe are explored. Dark matter, quasars, and active galactic nuclei are discussed in the context of theories for the formation and evolution of the universe. Course does not need to be taken in sequence with ASTRON 1050.

**ASTRON 1121 The Search for Extraterrestrial Life (3) [MS]**
Prerequisite: ASTRON 1001 or 1011. Are we alone? The possibility of life in the universe in addition to our own will be explored. Our discussion of the chances for extraterrestrial life will be built around the current theories of chemical, biological, and cultural evolution, which have led to our own technological civilization on Earth. Strategies for communication with extraterrestrial intelligence will be discussed.

**ASTRON 4301 Astrophysics (3)**
Prerequisite: PHYSICS 3231 or consent of instructor. A moderately technical introduction to astrophysics. Topics will include: physics of stellar interiors and atmospheres; interpretation of stellar spectra; stellar evolution; radio astronomy; and cosmology.

**ASTRON 4322 Observational Astronomy (4)**
Prerequisites: ASTRON 1050, ASTRON 1051, and PHYSICS 3231. Tools of the astronomer: telescopes, spectroscopy, photoelectric photometry. Students will work on a number of projects which will enable them to develop expertise in obtaining, reducing, and analyzing astronomical observations. Student night observing will be an important part of the course. This course is primarily for persons who are astronomy or physics majors or who have some equivalent background.

**Atmospheric Science**

**ATM SCI 1001 Elementary Meteorology (4) [MS, MI]**
Prerequisite: MATH 1020 or equivalent. An elementary course covering atmospheric phenomena, weather, and climate. Topics included are temperature, pressure, and moisture distributions in the atmosphere and dynamical effects such as radiation, stability, storms, and general circulation. Four classroom hours per week with one hour being a learning enhancement session to include demonstrations and exercises on problem solving.

**ATM SCI 1001A Elementary Meteorology (3) [MS]**
Prerequisite: MATH 1020 or equivalent. An elementary course covering atmospheric phenomena, weather, and climate. Topics included are temperature, pressure, and moisture distributions in the atmosphere and dynamical effects such as radiation, stability, storms, and general circulation. Same as ATM SCI 1001 without the learning enhancement session.

**Geology**

**GEOL 1001 General Geology (4) [MI, MS]**
Earth materials and processes, including geological aspects of the resource/energy problem. Laboratory involves identification of common rocks and minerals.

**GEOL 1001A General Geology (3) [MS]**
Earth materials and processes, including geological aspects of the resource/energy problem. Same as GEOL 1001 without the laboratory.

**GEOL 1002 Historical Geology (4) [MI, MS]**
Prerequisite: GEOL 1001. Study of changes in geography, climate and life through geological time; origin of continents, ocean basins, and mountains in light of continental drift. Laboratory primarily involves description and identification of fossils.

**GEOL 1002A Geology (3) [MS]**
Study of changes in geography, climate and life through geological time; origin of continents, ocean basins, and mountains in light of continental drift. Same as GEOL 1002 without the laboratory.

**Physics**

**PHYSICS 1001 How Things Work (3) [MS]**
Provides a practical introduction to understanding common life experiences by using physical intuition and basic ideas of physics. Powerful scientific principles are demonstrated through topics ranging from airplane wings to compact disk players, from lightning strikes to lasers.

**PHYSICS 1011 Basic Physics I (4) [MI, MS]**
Prerequisite: MATH 1800 or MATH 1100 (may be taken concurrently). A course specifically designed for students in health and life sciences, covering the topics of classical mechanics, heat and sound. Will not fulfill the PHYSICS 2111 requirement for physics, chemistry, and engineering majors. Three classroom hours and two hours of laboratory per week.

**PHYSICS 1012 Basic Physics II (4) [MI, MS]**
Prerequisite: PHYSICS 1011. A continuation of PHYSICS 1011. A course specifically designed for students in health and life sciences covering the topics of electricity, magnetism, light and radiation. Will not fulfill the PHYSICS 2112 requirement for physics, chemistry, and engineering majors. Three classroom hours and two hours of laboratory per week.

**PHYSICS 1099 Windows on Physics (1)**
A seminar designed to introduce physics majors to research areas in physics and physics-related fields in the Department of Physics & Astronomy. In addition to fundamental areas of physics, the areas of astrophysics, biophysics, materials science, and nanotechnology will be included. Career opportunities for students with physics degrees will be discussed and the physics curriculum will be reviewed. The course meets weekly and is required of all physics majors and minors who are transfer students.
PHYSICS 2111 Physics: Mechanics and Heat (5) [MS, MI]
Prerequisite: MATH 1900 (may be taken concurrently), PHYSICS 1001, or CHEM 1121, or equivalent is recommended. An introduction to the phenomena, concepts, and laws of mechanics and heat for physics majors and students in other departments. Three classroom hours, one hour discussion, and two hours of laboratory per week.

PHYSICS 2112 Physics: Electricity, Magnetism, and Optics (5) [MI, MS]
Prerequisites: PHYSICS 2111 and MATH 2000 (MATH 2000 may be taken concurrently). A phenomenological introduction to the concepts and laws of electricity and magnetism, electromagnetic waves, optics and electrical circuits for physics majors and students in other departments. Three classroom hours, one hour discussion, and two hours of laboratory per week.

PHYSICS 3200 Mathematical Methods of Theoretical Physics (3)
Prerequisites: PHYSICS 2112 and MATH 2000. Mathematical techniques specifically used in the study of mechanics, electricity, magnetism, and quantum physics are developed in the context of various physical problems. Course includes the topics of vector calculus, coordinate systems, the Laplace equation and its solutions, elementary Fourier analysis, and complex variables. Applications to electrostatics, mechanics, and fluid dynamics are emphasized. Three classroom hours per week.

PHYSICS 3221 Mechanics (3)
Prerequisites: PHYSICS 3200 and MATH 2020. MATH 2020 may be taken concurrently. Advanced course covering single and many particle dynamics, rigid-body dynamics, and oscillations. Variational principles and the Lagrangian and Hamiltonian formulations of mechanics are covered. Three classroom hours per week.

PHYSICS 3223 Electricity and Magnetism (3)
Prerequisites: PHYSICS 3200 and MATH 2020. MATH 2020 may be taken concurrently. Advanced course covering the rigorous development, from basic laws, of Maxwell's equations for electromagnetic fields along with applications of these equations. Topics covered are electrostatics and electrodynamics including currents, magnetic fields, motion of charged particles in fields and an introduction to electromagnetic waves. Three classroom hours per week.

PHYSICS 3231 Introduction to Modern Physics I (3)
Prerequisites: PHYSICS 2111, PHYSICS 2112, and MATH 2020 (may be taken concurrently), and PHYSICS 3200 strongly recommended. Photons and the wave nature of particles, wave mechanics, Schrödinger equation, with applications to atomic physics; and radiation; the physics of solids; elementary particles; special relativity; health physics. Three classroom hours per week.

PHYSICS 3281 Directed Readings in Physics (1-5)
Prerequisite: Consent of instructor. An independent study of special topics in physics. A paper may be required on an approved topic. Topics must be substantially different from regular courses. Hours arranged.

PHYSICS 3390 Research (1-10)
Prerequisite: Consent of department. Independent research projects arranged between student and instructor. Hours arranged.

PHYSICS 4306 Nanoscience Practicals (1-3)
Prerequisite: Consent of instructor. 1.0 credit hour per module with a maximum of 3 credit hours. Studies of nanoscience characterization, synthesis, and modeling techniques designed for clients of these tools, as well as for technical users interested in a current overview. Course consists of a set of 1/3 semester modules. Check with the instructor on more specialized modules (e.g. on materials microscopy) if interested. Each module will cover instrumentation, current applications, weaknesses, and will involve lab visits for hands-on experience, weekly web interaction and classroom hours.

PHYSICS 4308 Transmission Electron Microscopy (3)
Same as BIOL 4308. Prerequisite: Consent of instructor. Course introduces students to transmission electron microscopy techniques and their applications to solving challenging materials and biological problems. Course includes fundamental principles (electron optics, electron-specimen interactions, diffraction of electrons, image formation and interpretation, image processing and analysis, energy dispersive X-ray spectroscopy, electron energy loss spectroscopy, and sample preparation of both biological and non-biological systems. Laboratory experiments will provide students "hands-on" experience with TEM operations and problem solving skills. Successful completion of the course enables students to independently operate transmission electron microscopes to perform basic research experiments. This course is ideal for students interested in ultrastructural or nanocharacterization of biological or materials systems. Two classroom hours and two hours of laboratory per week.

PHYSICS 4309 Scanning Probe Microscopy (3)
Prerequisite: Consent of instructor. A lecture/laboratory study of research techniques using scanning probe microscopy. Topics include atomic force microscopy, scanning tunneling microscopy, feedback control, scanning tip fabrication, scan calibrations, air/solution/vacuum imaging, image processing and analysis, near-field optical probes, metrology, and lateral force/displacement microscopy. Applications in physics, chemistry,
biology, engineering, and surface science are discussed. Two classroom hours and two hours laboratory per week.

**PHYSICS 4310 Modern Electronics (3)**
An integrated recitation/laboratory study of modern analog and digital electronics with emphasis on integrated circuits. Topics include circuit elements, operational amplifiers, logic gates, counters, adc/dac converters, noise reduction, microprocessors, embedded microcontrollers, and digital processing. Six hours of laboratory per week.

**PHYSICS 4311 Advanced Physics Laboratory I (3)**
Prerequisites: Advanced standing with at least nine completed hours of physics at or above the 3000 level. Physics majors are introduced to the experimental techniques used in research. A student will choose and do several special problems during the semester. Six hours of laboratory per week.

**PHYSICS 4323 Modern Optics (3)**
Prerequisite: PHYSICS 3223. A study of modern optics including diffraction theory, polarization, light propagation in solids, quantum optics, and coherence. Three classroom hours per week.

**PHYSICS 4331 Introduction to Quantum Mechanics (3)**
Prerequisites: PHYSICS 3200 and PHYSICS 3231. Photons and the wave nature of particles; wave mechanics, the Schroedinger equation, operator and matrix formulations, and Dirac notation; applications to single particle systems, atomic physics, and spectroscopy. Three classroom hours per week.

**PHYSICS 4341 Thermal and Statistical Physics (3)**
Prerequisites: MATH 2000 and PHYSICS 3231. Introduction to statistical mechanics, classical thermodynamics and kinetic theory. Three classroom hours per week.

**PHYSICS 4343 Selected Topics in Physics I (3)**
Prerequisites: PHYSICS 3221, PHYSICS 3223, PHYSICS 3231, and PHYSICS 4341. Topics include special phenomena from research areas such as scattering of waves, biophysics, nonlinear physics, geophysical fluid dynamics and the atmospheric sciences treated by methods of advanced mechanics, thermodynamics and quantum mechanics. Three classroom hours per week.

**PHYSICS 4347 Biophysics of Imaging (4)**
Prerequisites: PHYSICS 3231, BIOL 1811, BIOL 1821. An introduction to the application of physical principles to problems in medical physics and biology, with a particular focus on the biophysics of various technologies for imaging both human patients and biological macromolecules. Topics covered will include the principles of X-ray crystallography, metabolic and optical changes in the brain, NMR and fMRI, magnetoencephalography, PET imaging, the electrophysiology of EEG and ECG, dynamics in the body and brain, and dynamics in genetics. Laboratory projects on brain imaging and data analysis are an integral part of the course. Three classroom hours and two laboratory hours per week.

**PHYSICS 4350 Computational Physics (3)**
Prerequisites: CMP SCI 1250, plus PHYSICS 3221, PHYSICS 3223, and PHYSICS 3231. Computer analysis in physics; solutions of eigenvalue problems; coupled differential equations. Three classroom hours per week.

**PHYSICS 4351 Elementary Solid State Physics (3)**
Prerequisite: PHYSICS 331. Theoretical and experimental aspects of solid state physics, including one-dimensional band theory of solids; electron emission from metals and semiconductors; electrical and thermal conductivity of solids. Three classroom hours per week.

**PHYSICS 4353 Physics of Fluids (3)**
Prerequisites: PHYSICS 3221, PHYSICS 3223, and PHYSICS 3441, or consent of instructor. Dynamical theory of gases and liquids. Course covers the mathematical development of physical fluid dynamics with contemporary applications. Three classroom hours per week.

**PHYSICS 4354 Atmospheric Physics (3)**
Prerequisites: PHYSICS 4341 and 3221. The mathematical application of physical laws to atmospheric dynamics and physical meteorology. Application of mechanics, thermodynamics, optics, and radiation to atmospheric phenomena including the ionosphere. Three classroom hours per week.

**PHYSICS 4365 Introduction to Plasma Physics (3)**
Prerequisites: PHYSICS 3223 and PHYSICS 3441. A study of the nonlinear collective interactions of ions, electrons, and neutral molecules with each other and with electric and magnetic fields. Topics include plasma confinement and stability, electrical discharges and ionization, kinetic theory of plasma transport, plasma waves and radiation, and controlled fusion. Solutions of the Boltzmann, Fokker-Planck, and Vlasov equations are discussed and methods of advanced electromagnetism and statistical physics are utilized. Three classroom hours per week.

**PHYSICS 4370 Relativity and Cosmology (3)**
Prerequisites: PHYSICS 3221, PHYSICS 3223, and PHYSICS 3231. An introduction to Einstein's general theory
of relativity. Topics will include special relativity in the formalism of Minkowski’s four dimensional space-time, Principle of Equivalence, Riemannian geometry and tensor analysis, Einstein Field Equation and cosmology. Three classroom hours per week.

PHYSICS 4381 Directed Readings in Physics (1-10)
Prerequisite: Consent of instructor. An independent study of special topics in physics for senior undergraduates or graduate students.

PHYSICS 4802 Curriculum and Methods of Teaching Physical Sciences (3)
Prerequisites: TCH ED 3310 and a near-major in the subject matter. A study of the scope and sequence of the physical science courses in the school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of science. To be taken prior to student teaching. This course must be completed in residence.

PHYSICS 4837 Chemistry/Physics Teaching Intern Seminar (1)
Same as CHEM 4837. Prerequisite: CHEM 4802 or PHYSICS 4802. A seminar to accompany student teaching covering integration of physical science curricula and methods into the classroom setting. To be taken concurrently with Secondary Student Teaching, SEC ED 3290 One hour discussion per week.

PHYSICS 5307 Advanced Scanning Electron Microscopy (3)
Prerequisite: Consent of instructor. This course introduces students to advanced scanning electron microscopy techniques and their applications to solving challenging materials and biological problems. The course includes electron optics, electron-specimen interactions, image formation and interpretation, composition analysis by energy dispersive X-ray spectroscopy, and sample preparation of both biological and nonbiological systems. Laboratory experiments will provide students "hands-on" experience with SEM operations and problem-solving skills. Successful completion of the course enables students to independently operate scanning electron microscopes to perform research experiments. Two classroom hours and two hours of laboratory per week.

PHYSICS 5345 Nonlinear Dynamics and Stochastic Processes (3)
Prerequisites: PHYSICS 3221 and PHYSICS 4341 and Consent of Instructor. Dynamical systems; theory of oscillations; introduction to bifurcation theory and chaos in dissipative systems with applications in physics and biology; introduction to stochastic processes with applications in physics, chemistry and biology; dynamics of nonlinear systems perturbed by noise; noise-induced phase transitions; linear and nonlinear time series analysis. Three classroom hours per week.

PHYSICS 5357 Fundamental Particles and Forces (3)
Prerequisites: PHYSICS 3223, PHYSICS 3231 and PHYSICS 4331 (may be taken concurrently). Introduction to nuclear and particle physics. Nuclear phenomenology and models; high energy particle accelerators and detectors; phenomenology of strong, electromagnetic and weak interactions; symmetry principles; quark compositions of strongly interacting baryons and mesons; gauge theories and the standard model of particle interactions; grand unification. Three classroom hours per week.

PHYSICS 5402 Introduction to Mathematical Physics (3)
Prerequisite: Graduate standing in Physics or consent of instructor. A course covering mathematical techniques as applied in advanced theoretical physics including generalized vector spaces and their dual spaces, linear operators and functionals, generalized functions, spectral decomposition of operators, tensor analysis, and complex variables. Three classroom hours per week.

PHYSICS 5403 Principles of Mathematical Physics (3)
Prerequisite: graduate standing in physics or consent of instructor. Boundary value problems; Strum-Liouville theory and orthogonal functions; Green's function techniques; and introduction to group theory with emphasis on representations of Lie Algebras. Three classroom hours per week.

PHYSICS 6300 Master’s Thesis (3)
Prerequisites: Consent of Instructor. Thesis work under the supervision of a faculty member. The course is designed for those students intending to present a thesis as part of their M.S. program. Students who do not write a thesis cannot apply PHYSICS 6300 to a degree. This course transfers to the Cooperative Ph.D. program as three research credits.

PHYSICS 6400 Special Problems (1-5)
Prerequisites: Must have a faculty mentor and approval of the Department Chair. A study of special topics in physics for graduate students.

PHYSICS 6401 Special Topics (1-4)
Prerequisite: Consent of instructor. This course is designed to give the Department an opportunity to test a new course.

PHYSICS 6404 Experimental Research Techniques (3)
Prerequisite: Graduate standing. Experiments in various fields of physics designed to stress techniques and
PHYSICS 6405 Theoretical Physics I (3)
Prerequisites: PHYSICS 3221 and PHYSICS 3223 or equivalent. Newton’s laws applied to simple systems, central force problem, variational principles. Lagrangian and Hamiltonian formulations, electrostatics. Maxwell field operations, wave propagation.

PHYSICS 6406 Theoretical Physics II (3)
Prerequisites: PHYSICS 3221, PHYSICS 4341, or equivalent, and PHYSICS 6405. Schrödinger equation and wave mechanical treatment of simple systems: perturbation theory; identical particles and spin. Laws of thermodynamics, canonical systems; thermodynamic potentials and Maxwell equations, open systems, and chemical potential. Clausius-Clapeyron equation.

PHYSICS 6407 Modern Physics (3)
Prerequisite: PHYSICS 4331. A study of some of the more important concepts of modern physics.

PHYSICS 6409 Theoretical Mechanics I (3)
Prerequisite: PHYSICS 3221. Classical mechanics, methods of Newton, Lagrange, and Hamilton, applied to motion of particles and rigid bodies, elasticity, and hydrodynamics.

PHYSICS 6410 Seminar (variable hours)
Prerequisite: Approval of department chair. Discussion of current topics.

PHYSICS 6411 Electrodynamics I (3)
Prerequisite: PHYSICS 3223. A rigorous development of the fundamentals of electromagnetic fields and waves. Electrostatics, magnetostatics, Maxwell’s equations, Green’s functions, boundary value problems, multipoles, and conservation laws.

PHYSICS 6413 Statistical Mechanics (3)
Prerequisites: PHYSICS 4331 and PHYSICS 4341. A study of statistical ensembles; Maxwell-Boltzmann, Fermi-Dirac, and Einstein-Bose distribution laws, application to some simple physical systems.

PHYSICS 6415 Theoretical Mechanics II (3)
Prerequisite: PHYSICS 6409. Transformation theory of mechanics, Lagrange and Poisson brackets, Hamilton-Jacobi theory, introduction to the classical theory of fields.

PHYSICS 6417 Advanced Statistical Mechanics (3)
Prerequisite: PHYSICS 6413. Further applications as to such topics as the imperfect gas, condensation and the critical region, magnetism, liquid state, and transport phenomena.

PHYSICS 6423 Electrodynamics II (3)
Prerequisite: PHYSICS 6411. A continuation of PHYSICS 6411. Applications of time-dependent Maxwell’s equations to such topics as plasmas, wave guides, cavities, radiation: fields of simple systems and multipoles. Relativity: covariant formulation of Maxwell’s equations and conservation laws, fields of uniformly moving and accelerated charges.

PHYSICS 6425 Plasma Physics (3)
Prerequisites: PHYSICS 4341 and PHYSICS 6411. Fundamentals of kinetic theory, fluid equations, MHD equations, and applications; wave propagation, shielding effect, diffusion stability, and charged particle trajectories.

PHYSICS 6435 Cloud Physics (3)
Prerequisites: PHYSICS 3223 and PHYSICS 4341. A study of cloud microphysics and dynamics, atmospheric condensation and freezing nuclei, phase, precipitation mechanisms, aerosol scavenging, role of electrification, current dynamical models, and review of diagnostic techniques.

PHYSICS 6455 Theoretical Nuclear Physics (3)
Prerequisite: PHYSICS 6461. A study of the basic properties of nuclei, nuclear scattering and forces, nuclear reactions, and models.

PHYSICS 6461 Quantum Mechanics I (3)
Prerequisite: PHYSICS 4331. A study of the Schrödinger wave equation, operators and matrices, perturbation theory, collision, and scattering problems.

PHYSICS 6463 Quantum Mechanics II (3)
Prerequisite: PHYSICS 6461. Continuation of PHYSICS 6461 to include such topics as Pauli spin-operator theory, classification of atomic states, introduction to field quantization. Dirac electron theory.

PHYSICS 6465 Quantum Mechanics III (3)
Prerequisites: PHYSICS 6461 and PHYSICS 6463. Topics chosen from such fields as: relativistic quantum mechanics, potential scattering, formal collision theory, group theoretical methods in quantum mechanics,
PHYSICS 6467 Quantum Statistical Mechanics (3)
Prerequisites: PHYSICS 6413 and PHYSICS 6463. Techniques for calculation of the partition function with examples drawn from interacting Fermi gas, interacting Bose gas, superconductors, and similar sources.

PHYSICS 6471 Atomic and Molecular Structure (3)
Prerequisite: PHYSICS 6461. Applications of quantum mechanics to the structure of atoms and molecules; perturbation and variational calculations, self-consistent fields, multiplets, angular momenta, Thomas-Fermi model, diatomic molecules, spectral intensities.

PHYSICS 6473 Atomic Collision Theory (3)
Prerequisite: PHYSICS 6471 or PHYSICS 6463. Basic quantum mechanical concepts involved in atomic scattering theory. Topics include: elastic and inelastic collisions of electrons and ions with neutral atoms and molecules; collisions between heavy particles; curve crossing; photo-processes; and Coulomb wave functions.

PHYSICS 6475 Molecular Spectroscopy (3)
Prerequisite: PHYSICS 6461. Introduction to classical and quantum treatment of the vibrational and rotational structure and spectra of diatomic, linear triatomic, and simple polyatomic molecules: vibrational-rotational interactions, point group symmetry in simple infrared spectra analysis, calculations of vibrational frequencies, and normal coordinates of polyatomic atoms.

PHYSICS 6481 Physics of the Solid State (3)
Prerequisite: PHYSICS 6461. Crystal symmetry, point and space groups, lattice vibrations, phonons, one-electron model, Hartree-Fock approximation, elementary energy band theory transport properties, the Boltzmann equation, introduction to superconductivity, semiconductors, and magnetism.

PHYSICS 6483 Selected Topics of the Solid State (3)
Prerequisite: PHYSICS 6481. Introduction to many-body perturbation theory, the use of Feynman diagrams. Green's functions, treatment of the electron-electron, phonon-phonon, and electron-phonon interactions, theory of magnetism, and theory of superconductivity.

PHYSICS 6485 Advanced Quantum Mechanics (3)
Prerequisite: PHYSICS 6465. Selected topics such as many-body problems field theory, S matrix theory and symmetries.

PHYSICS 6490 Research (variable hours)
Prerequisites: Must have a faculty mentor and approval of the Department Chair. Investigations of an advanced nature leading to the preparation of a thesis or dissertation.

PHYSICS 6493 Oral Examination
After completion of all other program requirements, oral examinations for on campus students may be processed during the first two weeks of an academic session or at any appropriate time for off-campus students upon enrollment in PHYSICS 6493 and payment of an oral examination fee. All other students must enroll for credit commensurate with uses made of facilities and/or faculties. In no case shall this be for less than three semester hours for resident students.

PHYSICS 6495 Continuous Registration
Doctoral candidates who have completed all requirements for the degree except the dissertation, and are away from the campus, must continue to enroll for at least one hour of credit each registration period until the degree is completed. Failure to do so may invalidate the candidacy. Billing will be automatic as will registration upon payment.
Political Science faculty are nationally known scholars in their respective fields, dedicated to high-quality teaching and education. Department faculty members have received distinctions such as the Curators’ Distinguished Teaching Professor Award, Presidential Award for Research and Creativity, Chancellor’s Award for Research and Creativity, Chancellor’s Award for Excellence in Teaching, Governor’s Teaching Awards,
Burlington Northern Faculty Achievement Award, Emerson Electric Excellence in Teaching Award and E. Desmond Lee Endowed Professor Award. They have received research grants from such prestigious agencies as the John F. Kennedy Library, the Ford Foundation, the MacArthur Foundation, the National Science Foundation, the German Marshall Fund, the United States Department of Education, the Fulbright Program, and the United States Institute for Peace. The faculty has published its research in more than 80 books and 400 articles in scholarly journals and is devoted to using its research findings to improve teaching.

In addition to helping students become more knowledgeable about politics and public policy, political science course work provides rich opportunities for students to develop a variety of practical skills—such as information-gathering and processing, analysis, research, decision making and oral and written communication—that are transferable to many career paths and job settings after graduation.

General Information

Degrees and Areas of Concentration
The political science department offers undergraduate work leading to the B.A. degree in political science, B.S. degree in public policy and administration, and, in cooperation with the College of Education, the B.A. in political science with teacher certification and the B.S. in education with an emphasis in social studies. (See College of Education section in this Bulletin for details.) Minors in political science are available to students who are majoring in another discipline and who have a special interest in law, government, politics, and public policy.

Principal areas of concentration include urban politics, American political processes and behavior, international politics, comparative politics, public policy and administration, public law, and political theory. In many courses, emphasis is placed on the ways in which public policies are developed and administered. In addition to formal course work, internships are available in which the student can relate classroom learning to practical field experience.

The political science department also offers graduate courses leading to the M.A. and Ph.D. in political science. The M.A. program in political science offers advanced education for those seeking careers in government, business, secondary education, community, or not-for-profit agencies. The principal foci of the 33-hour program are public administration and public policy analysis/evaluation in the local, state, national, and international areas. The flexibility of the general master's degree allows for individualized programs in urban politics, prelegal education, American national government, comparative politics, international relations, and political theory.

The Ph.D. in political science emphasizes the study of theoretic, analytic, and substantive approaches to public policy. Core courses include research methods, normative and empirical theory, and policy processes and institutions. Doctoral candidates, in consultation with the faculty, develop a policy concentration, which can be interdisciplinary. Internships, when appropriate, may be a component. All successful doctoral candidates must complete a dissertation, which makes a significant contribution to knowledge in the field.

Most graduate classes are scheduled so those employed outside the university can participate in the programs on a part-time basis. Financial assistance is available to full-time students.

Special Interdisciplinary Degree
The Department of Political Science also cooperates with the Department of Economics in the College of Arts and Sciences and the College of Business Administration in offering a master's degree in public policy administration (MPPA). For information on the MPPA degree program, see that section in this Bulletin.

Cooperative Programs
Political science students may also study overseas, or obtain a Certificate in International Studies, European Studies, African Studies, East Asian Studies, Latin American Studies, Women's & Gender Studies, or Writing, in conjunction with their political science major. See Certificate Programs in this Bulletin and consult with the Center for International Studies.

Research in political science is encouraged for students at all levels. Assistance is available at UMSL's Public Policy Research Centers, the Center for International Studies, and the Office of Computing. The department's membership in the Interuniversity Consortium for Political and Social Research provides access to a wide range of survey data on local-state-national, comparative, and international politics. In addition, extensive research opportunities are available within the metropolitan St. Louis area. Scholarships are available for qualified students; details can be obtained from the department office.

Undergraduate Studies

General Education Requirements
Majors must satisfy the university and college general education requirements. Political science courses may be used to satisfy the social sciences requirement. The foreign language requirement for the B.A. degree may be satisfied in any language.

Departmental Honors
The department awards honors to students having a grade point average (GPA) of 3.2 in the major, an overall GPA of 3.2 (except in extraordinary circumstances), and successfully completed an honors thesis, project, or report.

**Degree Requirements**

**Bachelor of Arts in Political Science**

All majors must complete at least 36, but not more than 45, hours of political science. All students are required to take the following core curriculum:

**Political Science**

- **POL SCI 1100**, Introduction to American Politics
- **POL SCI 1500**, Introduction to Comparative Politics
- **POL SCI 2000**, Political Analysis
- **POL SCI 3950**, Senior Seminar in Political Science

Majors are urged to take **POL SCI 1100, 1500, and 2000** as early as possible since these courses are designed to provide a substantive foundation as well as conceptual and analytical tools for subsequent course work. Because the seminar topics in **POL SCI 3950** change from semester to semester, the course can be repeated as an elective. All majors must take at least one Seminar in Political Science.

Students also must complete at least one course in **four** of the following political science areas:

- **Public Law** (chosen from among courses listed in bulletin at the 1000, 2000, or 3000 or 4000 level)
- **American Politics** (chosen from among courses listed in bulletin at the 1000, 2000, or 3000 or 4000 level).
- **Public Policy and Administration** (chosen from among courses listed in bulletin at the 1000, 2000, or 3000 or 4000 level).
- **Comparative Politics** (chosen from among courses listed in bulletin at the 1000, 2000, or 3000 or 4000 level).
- **Political Theory** (chosen from among courses listed in bulletin at the 1000, 2000, or 3000 or 4000 level).
- **International Relations** (chosen from among courses listed in bulletin at the 1000, 2000, or 3000 or 4000 level).
- **Methodology** (chosen from among courses listed in bulletin at the 1000, 2000, or 3000 or 4000 level).

At least **15 hours** of political science course work must be at the 3000 or 4000 level, including **POL SCI 3950** Senior Seminar. B.A. degree students may take a maximum of 3 hours of political science on a satisfactory/unsatisfactory basis; this can include any course except the required courses in the core curriculum.

**Note:** As early as possible, students should determine their educational objectives and consult with an adviser regarding a plan of study. **Those students who are uncertain of their future plans are urged to include in their 36-45 hours of political science a broad set of courses in American politics, public policy and administration, public law, comparative politics, international politics, political theory, and methodology.** In addition to this general course of study in political science, the department offers B.A. degree students several specialized programs of study in political science geared to various student academic and career interests.

**Graduate School Preparation**

This program is designed for students planning to pursue graduate studies in political science, particularly the Ph.D. degree, with the aim of a career as either an academic or practitioner (working as a researcher, policy analyst, or in some other capacity calling for advanced knowledge and skills). In addition to the core curriculum and common requirements for all political science majors, students are advised to (1) take as many political science courses at the 2000 and 3000 or 4000 level as possible in a variety of areas (public law, American politics, comparative and international politics, etc.), (2) complete a departmental honors project based on independent research and writing in **POL SCI 3900**, Special Readings, and (3) give special consideration to courses in normative political theory (such as **POL SCI 2620**, Modern Political Thought) and research methods (such as **POL SCI 6401**, Introduction to Policy Research, which is a graduate course open to undergraduates with Graduate School approval). Students are also encouraged to take course work outside the department in microeconomics, macroeconomics, and statistics.

**Legal Studies**

This is an ideal program of study for double majors in political science and criminal justice or for any student interested in law school and a career in the law. In addition to the core curriculum and common requirements for all political science majors, students are advised to take **POL SCI 1200**, Foundations of Law: An Introduction to Legal Studies, and at least four of the following political science courses:

- **POL SCI 2260**, Law, Politics and Society
- **POL SCI 2280**, Judicial Politics and Policy
- **POL SCI 2290**, Gender and the Law
- **POL SCI 2650**, American Political Thought
- **POL SCI 2900**, Studies in Political Science (when appropriate)
Students are also advised to take political science coursework that gives them a strong background in American political institutions and processes. Those students considering practicing law in the international arena should take coursework in comparative and international politics. Political science coursework may be supplemented by coursework in criminal justice and criminology.

**American Politics**

Designed for those students interested in careers in communications, education, business, social work, political consulting, and other fields requiring knowledge of American urban, state, and national politics and institutions. Education majors planning to teach in the social studies field, communications majors planning on a career in journalism, or business majors thinking about working in corporate relations may especially wish to consider a double major in political science with a focus in this area. In addition to the core curriculum and common requirements for all majors, students are advised to take at least five of the following political science courses:

- **POL SCI 2280**, Judicial Politics and Policy
- **POL SCI 2300**, State Politics
- **POL SCI 2320**, African Americans and the Political System
- **POL SCI 2350**, Introduction to Urban Politics
- **POL SCI 2380**, The Politics of Gender in the United States
- **POL SCI 2420**, Introduction to Public Policy
- **POL SCI 2650**, American Political Thought
- **POL SCI 2820**, United States Foreign Policy
- **POL SCI 2900**, Studies in Political Science (when appropriate)
- **POL SCI 3300**, The American Presidency
- **POL SCI 3330**, Introduction to Political Behavior
- **POL SCI 3331**, Congressional Politics
- **POL SCI 3340**, Politics and the Media
- **POL SCI 3350**, Political Parties and Elections
- **POL SCI 3390**, Studies in American Politics
- **POL SCI 3480**, Environmental Politics
- **POL SCI 3900**, Special Readings (when appropriate)
- **POL SCI 3940**, Public Affairs Internship (when appropriate)

In addition, students may wish to choose other political science courses listed below under the public policy and administration program of study. Given the growing reality of international interdependence, students should not restrict their studies completely to American politics but should take some coursework in comparative and international politics as well. Depending on their specific career interest, students may wish to round out their program with coursework in other social science departments such as criminal justice, communications, economics, or social work.

**Public Policy and Administration**

Designed for students interested in working inside or outside government, in a career requiring familiarity with how public policies are formulated and implemented. (Students alternatively may wish to consider the B.S. in public policy and administration degree offered by the political science department.) In addition to the core curriculum and common requirements for all majors, students are advised to take **POL SCI 2420**, Introduction to Public Policy, and at least four of the following political science courses:

- **POL SCI 2400**, Public Administration
- **POL SCI 2820**, United States Foreign Policy
- **POL SCI 2900**, Studies in Political Science (when appropriate)
- **POL SCI 3420**, Public Personnel Management
- **POL SCI 3439**, Studies in Policy Formation
- **POL SCI 3440**, Public Budgeting
- **POL SCI 3450**, Urban Administration
- **POL SCI 3460**, The Politics of Poverty and Welfare
- **POL SCI 3480**, Environmental Politics
- **POL SCI 3570**, Gender, Race, and Public Policy
- **POL SCI 3900**, Special Readings (when appropriate)
- **POL SCI 3940**, Public Affairs Internship (when appropriate)
- **POL SCI 4460**, Urban Planning and Politics
- **POL SCI 4510**, Comparative Public Policy and Administration


**POL SCI 4940, Leadership and Management in Nonprofit Organizations**

Depending on career interests, students should add course work in American, comparative, or international politics. Students are encouraged to develop a policy concentration in a particular policy area, such as urban, labor, health, education, and business studies, with multidisciplinary course work taken in political science and other departments.

**International and Comparative Studies**

Designed for students interested in international careers in government service (not only the U.S. State Department but also other federal government agencies), intergovernmental and non-governmental organizations, business, education, and other areas of employment. In addition to the core curriculum and common requirements for all political science majors, students are advised to take POL SCI 1800, World Politics, or POL SCI 2500, Comparing Different Worlds, and at least four of the following political science courses (some of which are international politics courses that focus on conflict and cooperation between countries, and some of which are comparative politics courses that focus on political, economic, and social change within countries):

- **POL SCI 1800**, Contemporary Political Ideologies
- **POL SCI 1820**, Global Issues
- **POL SCI 2510**, The Politics of European Union
- **POL SCI 2520**, Middle Eastern Politics
- **POL SCI 2530**, Political Systems of South America
- **POL SCI 2540**, Political Systems of Mexico, Central America, and the Caribbean
- **POL SCI 2580**, African Politics
- **POL SCI 2820**, United States Foreign Policy
- **POL SCI 2900**, Studies in Political Science (when appropriate)
- **POL SCI 3570**, Gender, Race, and Public Policy
- **POL SCI 3595**, Studies in Comparative Politics
- **POL SCI 3690**, The Marxist Heritage
- **POL SCI 3830**, International Political Economy
- **POL SCI 3850**, International Organizations and Global Problem Solving
- **POL SCI 3860**, Studies in War and Peace
- **POL SCI 3890**, Studies in International Relations
- **POL SCI 3900**, Special Readings (when appropriate)
- **POL SCI 3940**, Public Affairs Internship (when appropriate)
- **POL SCI 4510**, Comparative Public Policy and Administration
- **POL SCI 4850**, International Law

Students interested in working for the U.S. Foreign Service, American-based multinational companies, and nonprofit organizations should also take course work that familiarizes them with the American political system and how public policy is made. Students should explore the various interdisciplinary area studies and international studies certificate programs offered through the Center for International Studies.

**Bachelor of Science in Public Policy and Administration**

The BSPA degree has three emphasis areas. The first is a public administration track, which emphasizes management in both the public and nonprofit sectors; it may produce a terminal degree or be a precursor to graduate training. The second is a public policy track in which a student may focus on a particular policy area and also acquire specialized analytic training and research skills, in preparation for relevant entry-level jobs in the public or the voluntary sector as well as in certain parts of the private sector. The third emphasis area focuses explicitly on the administrative and leadership concerns of organizations in the nonprofit sector, which constitutes a growing field of research and employment opportunities.

All BSPA majors must complete at least 33, but no more than 45, hours in political science. The following core curriculum is required of all BSPA majors:

**Political Science**

- **POL SCI 1100**, Introduction to American Politics
- **POL SCI 1500**, Introduction to Comparative Politics
- **POL SCI 2000**, Political Analysis
- **POL SCI 2400**, Public Administration
- **POL SCI 2420**, Introduction to Public Policy
- **POL SCI 3940**, Public Affairs Internship
- **POL SCI 3950**, Senior Seminar in Political Science
- **ECON 1001**, Principles of Microeconomics
- **ECON 1002**, Principles of Macroeconomics

In addition, students must provide a demonstration of computer proficiency through one of the following:

**BUS AD 1800**, Computers and Information Systems, extension courses, or other study approved by the BSPA coordinator.

**BSPA students may take a maximum of 3 hours of political science on a satisfactory/unsatisfactory basis, except for the following (which may not be taken on a satisfactory/unsatisfactory basis): POL SCI 1100, 1500, 2400, 2000, 2420, 3940, and 3950.**

**Public Administration Emphasis Area**
In addition to the core curriculum requirements for all BSPA majors, students in the public administration emphasis area are required to complete the following courses:

- **POL SCI 3420**, Public Personnel Management
- **POL SCI 3440**, Public Budgeting
- **BUS AD 2400**, Fundamentals of Financial Accounting

Students in the public administration emphasis area also must take two of the political science courses listed under policy and institutions courses below, as well as take at least two additional elective courses chosen from among that list or any other political science offerings.

**Public Policy Emphasis Area**
In addition to the core curriculum requirements for all BSPA majors, students in the public policy emphasis area must take four political science courses, preferably selected from the policy and institutions courses listed below but which may include other political science course offerings as well.

**Policy and Institutions Courses:**
- **POL SCI 1450**, Introduction to Labor Studies
- **POL SCI 2280**, Judicial Politics and Policy
- **POL SCI 2300**, State Politics
- **POL SCI 2350**, Introduction to Urban Politics
- **POL SCI 3300**, The American Presidency
- **POL SCI 3331**, Congressional Politics
- **POL SCI 3430**, Union Leadership and Administration
- **POL SCI 3439**, Studies in Policy Formation
- **POL SCI 3450**, Urban Administration
- **POL SCI 3460**, The Politics of Poverty and Welfare
- **POL SCI 3480**, Environmental Politics
- **POL SCI 4460**, Urban Planning and Politics
- **POL SCI 4510**, Comparative Public Policy and Administration
- **POL SCI 4940**, Leadership and Management in Nonprofit Organizations

Students will adopt a policy concentration of at least 15 credit hours. Possible areas of specialization include, but are not limited to, environmental policy, government and business, society and the legal system, urban policy, labor studies, health care, human services, and nonprofit service provision. In fulfilling the concentration requirement, students, in consultation with the BSPA coordinator, will select courses from related disciplines in addition to taking two more political science courses related to the policy area.

**Nonprofit Emphasis Area**
In addition to the core curriculum requirements for all BSPA majors, students in the nonprofit emphasis area are required to complete the following courses (9 credit hours):

- **POL SCI 4911**, Staff Management Issues in Nonprofit Organizations (1 credit hour)
- **POL SCI 4912**, Legal Issues in Managing Nonprofit Organizations (1 credit hour)
- **POL SCI 4913**, Financial Issues in Managing Nonprofit Organizations (1 credit hour)
- **POL SCI 4940**, The Management and Leadership of Nonprofit Organizations
- **POL SCI 4960**, American Philanthropy and Nonprofit Resources Development

Students in the nonprofit emphasis area also must take four political science courses from the list below.

- **POL SCI 2320**, African Americans and the Political System
- **POL SCI 2350**, Introduction to Urban Politics
- **POL SCI 3350**, Political Parties and Elections
- **POL SCI 3420**, Public Personnel Management*
- **POL SCI 3430**, Union Leadership and Administration
- **POL SCI 3440**, Public Budgeting*
- **POL SCI 3450**, Urban Administration
- **POL SCI 3460**, The Politics of Poverty and Welfare
- **POL SCI 3480**, Environmental Politics
- **POL SCI 4510**, Comparative Public Policy and Administration

With the permission of an advisor, students may also choose from relevant special topic courses frequently offered as Studies in Political Science (2900)

Students who complete the required 9 credit hours for the Nonprofit Emphasis, as well as an additional three
selected courses (two are marked with an asterisk*, above), are eligible to earn the Undergraduate Certificate in Nonprofit Management and Leadership. Further details about earning the certificate are available at the program's webpage.

**Note:** Students considering the B.S. in public policy and administration should see a political science adviser as early as possible to plan their program.

**Requirements for the Minors**
A general minor in political science can be arranged, as well as specialized minors in eight different subfields of the discipline. Interested students should see a faculty adviser to plan a coherent program of study as a minor field.

Students must achieve a cumulative 2.0 GPA in the political science courses chosen to qualify for the minor. Students may count no more than 3 hours in political science taken on a satisfactory/unsatisfactory basis toward the minor. Students taking an internship POL SCI 3940 may count no more than three hours of the internship toward the minor.

**Minor in Political Science, General**
Fifteen hours, chosen from among all political science courses.

**Minor in American Politics**
Fifteen hours, chosen from the following political science courses:
- **POL SCI 1100**, Introduction to American Politics
- **POL SCI 2280**, Judicial Politics and Policy
- **POL SCI 2300**, State Politics
- **POL SCI 2320**, African Americans and the Political System
- **POL SCI 2350**, Introduction to Urban Politics
- **POL SCI 2380**, Politics of Gender in the United States
- **POL SCI 2420**, Introduction to Public Policy
- **POL SCI 2650**, American Political Thought
- **POL SCI 2820**, United States Foreign Policy
- **POL SCI 3260**, The Supreme Court
- **POL SCI 3300**, The American Presidency
- **POL SCI 3311**, Congressional Politics
- **POL SCI 3330**, Introduction to Political Behavior
- **POL SCI 3340**, Politics and the Media
- **POL SCI 3350**, Political Parties and Elections
- **POL SCI 3390**, Studies in American Politics
- **POL SCI 3900**, Special Readings (when appropriate)
- **POL SCI 3940**, Public Affairs Internship (when appropriate)

**Minor in Comparative Politics**
**POL SCI 1500**, Introduction to Comparative Politics, plus 12 hours from the following political science courses:
- **POL SCI 2500**, Comparing Different Worlds
- **POL SCI 2510**, The Politics of European Union
- **POL SCI 2530**, Political Systems of South America
- **POL SCI 2540**, Political Systems of Mexico, Central America, and the Caribbean
- **POL SCI 2580**, African Politics
- **POL SCI 3570**, Gender, Race, and Public Policy
- **POL SCI 3595**, Studies in Comparative Politics
- **POL SCI 3900**, Special Readings (when appropriate)
- **POL SCI 4510**, Comparative Public Policy Administration

**Minor in International Relations**
Fifteen hours, chosen from the following political science courses:
- **POL SCI 1800**, World Politics
- **POL SCI 1820**, Global Issues
- **POL SCI 1850**, Global Ecology
- **POL SCI 2520**, Middle Eastern Politics
- **POL SCI 2820**, United States Foreign Policy
- **POL SCI 3830**, International Political Economy
- **POL SCI 3850**, International Organizations and Global Problem-Solving
- **POL SCI 3860**, Studies in War and Peace
- **POL SCI 3890**, Studies in International Relations
- **POL SCI 3900**, Special Readings (when appropriate)
- **POL SCI 3940**, Public Affairs Internship (when appropriate)
- **POL SCI 4850**, International Law

**Minor in Political Theory**

Fifteen hours, chosen from the following political science courses:

**POL SCI 1600**, Contemporary Political Ideologies  
**POL SCI 2610**, Ancient and Medieval Political Thought  
**POL SCI 2620**, Modern Political Thought  
**POL SCI 2650**, American Political Thought  
**POL SCI 3690**, The Marxist Heritage  
**POL SCI 3900**, Special Readings (when appropriate)

**Minor in Public Administration**  
**POL SCI 2400**, Public Administration, plus 12 hours chosen from the following political science courses:  
**POL SCI 2420**, Introduction to Public Policy  
**POL SCI 3420**, Public Personnel Management  
**POL SCI 3439**, Studies in Policy Formation  
**POL SCI 3440**, Public Budgeting  
**POL SCI 3450**, Urban Administration  
**POL SCI 3900**, Special Readings (when appropriate)  
**POL SCI 3940**, Public Affairs Internship (when appropriate)  
**POL SCI 4460**, Urban Planning and Politics  
**POL SCI 4510**, Comparative Public Policy and Administration

**Minor in Public Law**  
Fifteen hours, chosen from the following political science courses:  
**POL SCI 1200**, Foundations of Law: An Introduction to Legal Studies  
**POL SCI 2260**, Law, Politics and Society  
**POL SCI 2280**, Judicial Politics and Policy  
**POL SCI 2290**, Gender and the Law  
**POL SCI 3200**, Constitutional Law  
**POL SCI 3210**, Civil Liberties  
**POL SCI 3260**, The Supreme Court  
**POL SCI 3290**, Studies in Public Law  
**POL SCI 3900**, Special Readings (when appropriate)  
**POL SCI 4850**, International Law

**Minor in Public Policy**  
**POL SCI 2420**, Introduction to Public Policy, plus 12 hours chosen from the following political science courses:  
**POL SCI 2300**, State Politics  
**POL SCI 2350**, Introduction to Urban Politics  
**POL SCI 2400**, Public Administration  
**POL SCI 3300**, The American Presidency  
**POL SCI 3440**, Public Budgeting  
**POL SCI 3450**, Urban Administration  
**POL SCI 3460**, The Politics of Poverty and Welfare  
**POL SCI 3480**, Environmental Politics  
**POL SCI 3570**, Gender, Race, and Public Policy  
**POL SCI 3900**, Special Readings (when appropriate)  
**POL SCI 3940**, Public Affairs Internship (when appropriate)  
**POL SCI 4460**, Urban Planning and Politics  
**POL SCI 4510**, Comparative Public Policy and Administration

**Minor in Urban Politics**  
**POL SCI 2350**, Introduction to Urban Politics, plus 12 hours chosen from the following political science courses:  
**POL SCI 2320**, African-Americans and the Political System  
**POL SCI 3450**, Urban Administration  
**POL SCI 3460**, The Politics of Poverty and Welfare  
**POL SCI 3900**, Special Readings (when appropriate)  
**POL SCI 3940**, Public Affairs Internship (when appropriate)  
**POL SCI 4460**, Urban Planning and Politics

**Minor in Women and Politics**  
**POL SCI 1550**, Women and Politics in the Developing World and 12 hours from among the following political science courses:  
**POL SCI 2290**, Gender and the Law  
**POL SCI 2380**, The Politics of Gender in the United States  
**POL SCI 3439**, Studies in Policy Formation (consent of instructor required)  
**POL SCI 3460**, The Politics of Poverty and Welfare  
**POL SCI 3570**, Gender, Race, and Public Policy (Comparative)  
**POL SCI 3590**, Politics, Leadership and the Global Gender Gap  
**POL SCI 3900**, Special Readings (consent of instructor required)
**POL SCI 4940**, Leadership and Management in Nonprofit Organizations (consent of instructor)

Outstanding BSPPA students may want to consider the BSPPA/MPPA 2+3 program. This accelerated program allows students to complete a BS degree and Master of Public Policy Administration (MPPA) degree in five years. The program allows students to apply 12 of the MPPA credit hours towards the BS, reducing the overall required hours for the two degrees to 148 credit hours from the 150 credit hours required when taking the programs separately (120 are required for the BS and 40 for the MPPA). Please see the PPA section of the Bulletin for specific information.

**Bachelor of Arts with Teacher Certification**
For information, refer to the Secondary Education section in this Bulletin.

**Bachelor of Science in Education: Emphasis in Social Studies**
The Political Science requirements are the same as for the B.A. degree except students fulfill the College of Education general education requirements rather than those of the College of Arts and Sciences. For information, refer to the College of Education section in this Bulletin.

**Graduate Studies**
The department offers the MA and PhD in Political Science. Qualified students may enter the MA through two different routes, either as graduates with a baccalaureate degree or as exceptional undergraduates in the program via a 2 + 3 program.

**Master of Arts in Political Science**
Admission Requirements: For admission, a student should have a baccalaureate degree with a minimum grade point average of 2.75 and an undergraduate background in the social sciences. The GRE is required, and scores should be submitted at the time of application. Two letters of recommendation are also requested for each student applying to the program. Students who do not meet these requirements may be admitted upon approval of the department and the dean of the Graduate School. Application materials may be obtained from and should be returned to the office of the director of admissions.

Deadlines are July 1 for the fall semester; December 1 for the winter semester; and May 1 for the summer term.

**Degree Requirements**
Beyond the general requirements of the Graduate School, the department requires a minimum of 27 semester hours of course work, of which 18 hours must be at the 6400 level and 12 hours must be in core courses in political science, including:

**POL SCI 6401**, Introduction to Policy Research
and three of the following political science courses:
**POL SCI 6410**, Introduction to Policy Analysis
**POL SCI 6420**, Proseminar in Public Law
**POL SCI 6430**, Proseminar in American Politics
**POL SCI 6440**, Proseminar in Public Policy Administration
**POL SCI 6450**, Proseminar in Comparative Politics
**POL SCI 6470**, Proseminar in Urban Politics
**POL SCI 6480**, Proseminar in International Relations

Students can plan their degree program to reflect the following six emphasis areas:

American Politics
Comparative Politics
International Politics
Political Process and Behavior
Public Administration and Public Policy
Urban and Regional Politics

Students must also select one of the following exit projects: a six-hour thesis, a six-hour internship, or six hours of additional course work and an approved paper. Students will have a mid-program review at the end of 12-15 hours of course work, at which time they will discuss their academic performance and program with a faculty committee and determine the most appropriate exit project. Each candidate is given a final oral review conducted by a faculty committee and focused on the course work completed and the student's chosen exit project.

**2+3 B.A. and M.A. in Political Science**
The 2+3 Combined BA/MA program in Political Science provides an opportunity for students of recognized academic ability and educational maturity to complete the requirements for both degrees in 5 years of fulltime study.

The combined program requires a minimum of 140 credit hours of which at least 33 must be at the graduate level in political science. In qualifying for the BA, students must meet all University and College requirements. Students in the combined 2+3 who successfully complete the requirements for the MA degree will be awarded a BA degree simultaneously upon completion of at least 107 hours of undergraduate credit.

Student should apply to the Department for admission to the 2+3 combined degree program in Political Science during the semester they will complete 60 undergraduate credit hours. A cumulative grade point average of 3.0 or higher and three letters of recommendation from faculty are required. Students will be admitted to the 2+3 program under provisional status until they have completed 30 hours in that program with a grade point of 3.0 or higher. After completion of the provisional period, with the recommendation of the Graduate Director, students can be granted full admission into the 2+3 program.

Students must maintain a grade point average of 3.0 or higher throughout the combined program. Students who officially withdraw from the 2+3 combined degree program, who have successfully completed all the regular requirements for the BA degree (120 hours) will be awarded their BA degree.

### Undergraduate Requirements for Student in the 2+3 Program

#### A. The following must be completed prior to enrolling in the 2+3 program

1. Students must take
   - POL SCI 1100, Introduction to American Politics
   - POL SCI 1500, Introduction to Comparative Politics

2. PLUS two of the following:
   - POL SCI 1600, Contemporary Political Theory
   - POL SCI 1800, World Politics
   - POL SCI 2300, State Politics
   - POL SCI 2350, Introduction to Urban Politics
   - POL SCI 2400, Introduction to Public Administration
   - POL SCI 2650, American Political Thought

#### B. Undergraduate Requirements Within the 2+3 Program

1. Two of the following:
   - POL SCI 2280, Judicial Politics and Policy
   - POL SCI 2620, Modern Political Thought
   - POL SCI 3200, Constitutional Law
   - POL SCI 3210, Civil Liberties
   - POL SCI 3300, The American Presidency
   - POL SCI 3331, Congressional Politics
   - POL SCI 3350, Political Parties and Elections
   - POL SCI 3470, Gender, Race and Public Policy
   - POL SCI 3480, Environmental Politics

2. PLUS two of the following:
   - POL SCI 2510, The Politics of European Union
   - POL SCI 2520, Middle Eastern Politics
   - POL SCI 2530, Political Systems of South America
   - POL SCI 2540, Political Systems of Mexico, Central American & the Caribbean
   - POL SCI 2580, African Politics
   - POL SCI 3690, The Marxist Heritage (PHIL 3369; INTDSC 3690)
   - POL SCI 3830, International Political Economy
   - POL SCI 3850, International Organizations and Global Problem Solving
   - POL SCI 4850, International Law

3. Plus one additional course from B-1 or B-2

#### C. Graduate Requirements

1. POL SCI 6401, Introduction to Policy Research (3 credits)

2. PLUS 3 of the following (9 credits):
   - POL SCI 6420, Proseminar in Public Law
   - POL SCI 6430, Proseminar in American Politics
   - POL SCI 6440, Proseminar in Public Policy Administration
   - POL SCI 6450, Proseminar in Comparative Politics
   - POL SCI 6470, Proseminar in Urban Politics
   - POL SCI 6480, Proseminar in International Relations

3. PLUS 5 additional graduate Political Science classes (15 credits)
Students should select an emphasis in American Politics, Public Policy, Comparative Politics, Political Theory, or International Relations.

4. PLUS Exit Project or Internship or Thesis (6 credits)

Summary of Credits in Political Science:
BA: 27 hours (12 completed in lower division courses before admission to the 2+3 program)  
MA: 33 hours at the graduate level

TOTAL: 60 hours in Political Science classes

Ph.D. in Political Science
The doctoral program emphasizes theoretical, analytic, and substantive approaches to public policy analysis and administration. Students are provided an opportunity to link core skills in policy analysis and political science with substantive emphasis in specific policy areas. The program is designed to prepare pre-career and mid-career students for advanced positions in policy research and administration, as well as for academic research and teaching.

Admission Requirements
Admission and financial aid decisions are made on the basis of past academic record, intellectual ability, and career commitment and performance. Applications are accepted from students who have either baccalaureate or master's degrees. Past graduate work will be credited toward degree requirements as appropriate. Applicants must submit a) complete academic transcripts, b) three letters of recommendation, c) aptitude tests of the GRE and d) a statement of objectives for the course of study. Application materials may be obtained from and should be returned to the office of the director of admissions. Applications for fall semester should be submitted by February 15 and for winter semester by October 15.

Graduate Assistantships Stipends for teaching and research assistantships (nine month/20 hours per week) are awarded on a competitive basis. Out-of-state educational fees are waived for graduate assistants.

Degree Requirements
The department requires 60 credit hours beyond the baccalaureate degree for completion of the Ph.D. To ensure sufficient background for doctoral-level policy courses, students must demonstrate appropriate competence in computing and intermediate economics during their course of study. Course requirements are as follows:

Core courses (18 credit hours)
18 credit hours will be required in the areas of research methods, and policy process and institutions. Contact the department for specific courses.

Additional Requirements (12 credit hours)
In addition, students will select a minimum of 12 credit hours in public policy, theory, or process as they apply to major subfields in political science.

Policy Concentration (24 credit hours)
Students, in consultation with the program director, will develop expertise in a substantive policy area. Policy concentrations (many interdisciplinary) include but are not limited to:
American National Policy  
Urban Politics and Planning  
Comparative/International Policy  
Policy Analysis and Research Social Welfare

Internship (6 credit hours) optional.
The Ph.D. intern program offers an opportunity to gain first-hand experience in select research and administrative positions.

General Examination and Dissertation
Upon completion of course work, students are advanced to candidacy by successfully completing three general examinations, 1) public policy institutions, processes, and analysis, 2) methodology, and 3) the student's chosen subfield and area of policy concentration. The degree is awarded upon completion and defense of the Ph.D. dissertation.

Career Outlook

Bachelor of Arts, Bachelor of Science, and Master of Arts in Political Science
Political science graduates have done well in obtaining appropriate employment and in pursuing graduate education. Majors develop communications and decision-making skills, learn to analyze complex policy issues, both domestic and international in scope, and have a thorough understanding of government and politics. Political science is a particularly good undergraduate major for pre-law students. Many other majors pursue graduate education in business, education, public administration, public policy administration, journalism, public relations, non-profit organizations, and many other fields.

Ph.D. in Political Science
The Ph.D. in political science prepares students for three career areas: 1) government leadership and management positions at the local, state, and federal levels (both for new employees and in-service employees); 2) careers in the private sector, particularly positions in public affairs, policy research, and governmental relations departments of corporations, as well as consulting firms and nonprofit organizations; and 3) research and teaching careers in academic institutions.

Requests for further information about the M.A. or Ph.D. program should be sent to the Director of Graduate Studies, Department of Political Science, University of Missouri-St. Louis, One University Blvd, 347 SSB, St. Louis, MO 63121-4499 or by e-mail: umslpolisci@umsl.edu.

Learning Outcomes
Majors in the BA learn about power, conflict and cooperation in society, within and outside government. Students understand the fundamentals of scientific-based inquiry, the postulating of cause-effect relationships, and the marshalling of evidence using quantitative or qualitative methods to draw conclusions about problems in politics.

We train students to communicate information effectively.

The BSPPA program provides knowledge and skills for real world application in the context of American institutions and structures.

Students learn the fundamentals of administration and policymaking in the Untied States by acquiring skills in budgeting, personnel management, accounting, and expertise in a specific policy area.

The M.A. in political science provides a firm grounding in scientific-based inquiry into problems in politics.

Students learn how institutional design and economic and cultural factors shape the distribution of power and patterns of cooperation and conflict in society within and outside of government.

Students master the postulating of cause-effect relationships, and the marshalling of evidence using quantitative or qualitative methods to test hypotheses about problems in politics.

The Ph.D. in political science trains students to become independent researchers who may apply their skills in the academic, government, non-profit, and business worlds.

Students master the skills to frame researchable questions that make original contributions to empirical and theoretical knowledge about problems in politics.

Students learn to rigorously specify cause-effect relationships, and to master techniques for marshalling evidence using quantitative and qualitative methods to test competing hypotheses about problems in politics.

Course Descriptions

**POL SCI 1100 Introduction to American Politics (3) [V, SS, ST]**
Introduction to basic concepts of government and politics with special reference to the United States, but including comparative material from other systems.

**POL SCI 1200 Foundations of Law: An Introduction to Legal Studies (3)**
Same as CRIMIN 1200. As a broad liberal arts approach to the study of law, this course is designed to familiarize students with legal ideas, legal reasoning, and legal processes. It also provides comparative and historical perspectives on law that will help explain legal diversity and legal change. Finally, it offers opportunities to explore some of the persistent issues in law and legal theory: for example, issues about the sources of law, the responsibilities of the legal profession, or the relative merits of the adversary system.

**POL SCI 1450 Introduction to Labor Studies (3) [MI, SS]**
This course covers many topics important to the role of unions in the American political system and American society from a labor perspective. Institutional structure, collective bargaining strategies. Topics include the role of workers in the current and future times, unions' and obstacles for union organizing, recent union campaigns, labor's political role, and the relationship between labor and the media.

**POL SCI 1500 Introduction to Comparative Politics (3) [MI, V, SS, CD]**
This course introduces students to western and non-western systems. It examines similarities and differences in the basic political ideologies, structures, economies, social institutions and governmental processes of developed and developing countries. It also provides frameworks for understanding the cultures of the world that are the basis for formal economic and political institutions. In addition, the course examines the role of non-state institutions, including trans-national ones, in shaping national policies. It uses case studies from Africa, Asia, Latin America, as well as Europe, to enhance student understanding of comparative politics.
POL SCI 1550 Women and Politics in the Developing World (3) [MI, V, SS, CD]
Women play a central role in the transformation of political, economic, cultural and gender relations in developing nations. This course examines the political role of women in these transformations. In particular, the course examines ways that modernity, universal education, the market economy and globalization have widened the scope of women's public activities; the emergence of social movements driven by the transformation of economic and political roles brought about by the inclusion of women in the political arena; the re-interpretation of religious doctrines, especially those that emphasize women's "return" to the private sphere and legitimate the denial of women's political rights.

POL SCI 1600 Contemporary Political Ideologies (3)
An introduction to the major political ideologies of the world today. Emphasis is placed on democracy, feminism, Marxism, and nationalism.

POL SCI 1800 World Politics (3) [V, SS]
An introduction to the field of international relations, covering such topics as nationalism, power, foreign policy-making, diplomacy, war, arms control and disarmament, interdependence, the regulation of conflict, and other aspects of politics among nations.

POL SCI 1820 Global Issues (3) [MI, SS]
A freshman- and sophomore-level course designed to introduce students to a range of global concerns, including population, hunger, trade, energy, and the environment. The worldwide implications of these and other problems will be considered, as well as their effects on local communities such as St. Louis.

POL SCI 1990 The City (3) [MI, V, SS]
Same as SOC 1999 and INTDSC 1990. An interdisciplinary course. Consideration of economic factors, urban institutions, historical developments in urbanization, problems of the inner city, suburbia and the metropolitan area, ethnic groups, stratification, and Psychological implications of urban living. This course is primarily for freshmen and sophomores. It is open to juniors and seniors with the instructor's permission.

POL SCI 2000 Political Analysis (3)
An introduction to political analysis, emphasizing both the logic of inquiry and practical methods. Students learn about the construction and evaluation of theories that relate to real-world politics. They also have an opportunity for hands-on experience with qualitative and quantitative methods including graphics, descriptive statistics, cross-tabular and correlational analysis, hypothesis testing, and computer applications.

POL SCI 2260 Law, Politics and Society (3)
Prerequisites: POL SCI 1100, or POL SCI 1200, or consent of instructor. This course examines the ways in which law in America connects with politics and society. The course will cover the litigation process, access to the courts, how and why individuals and groups bring litigation to pursue political and policy goals, and how lawyers, judges and other political actors use law to solve policy problems. Attention will be placed on current legal policy issues facing American Society.

POL SCI 2280 Judicial Politics and Policy (3) [ST]
Prerequisite: POL SCI 1100 or 1200, or consent of instructor. This course is an examination of the American state and federal legal systems. Topics examined in this course include an analysis of the structure, organization and function of courts. Emphasis will be placed on the role of juries, judges, attorneys, litigants, and interest groups in the judicial system. The objective of the course is to evaluate courts as political institutions and analyze the policy-making role of judges.

POL SCI 2290 Gender and the Law (3) [ST]
Same as GS 2290. Legal position of women in the United States, emphasizing constitutional law, criminal law, domestic relations, and fair employment practice laws. This course examines the ways in which laws and interpretations of laws affect gender equality in the United States. Emphasizing how traditional roles impact both women and men historically and currently, the course highlights major pieces of legislation and court rulings related to employment, economics, education, sexual harassment, pornography, rape, reproductive rights, and domestic relations. The course stresses the impact of federal and state institutions and non-governmental influences on equality. It also addresses gender representation in the legal profession and its effect on judicial decisions. (This course satisfies State requirements in American History and Government)

POL SCI 2300 State Politics (3) [ST]
Prerequisite: POL SCI 1100 or consent of instructor. An examination of contemporary state politics in the United States; social, economic, and political determinants of policies; federal-state-local relations; elections, interest groups, and participation; executive, legislative, and judicial institutions and policies, and their impact.

POL SCI 2320 African Americans and the Political System (3) [ST]
Prerequisite: POL SCI 1100 or consent of instructor. Examination of the status of African Americans in the context of the American political system. The course will focus on a number of issues, including: attitudes of various publics toward racial concerns; nature of problems in specific policy areas (e.g., unemployment, school desegregation, housing, poverty); representation of African Americans in governmental institutions and the
private sector; and the role of African American leadership and civil rights groups in the political process.

**POL SCI 2350 Introduction to Urban Politics (3) [ST]**
Prerequisite: POL SCI 1100 or consent of instructor. Examination of structure and process of politics in the urban community, with emphasis on their relationships to community power structures.

**POL SCI 2380 The Politics of Gender in the United States (3) [ST]**
Same as GS 2380. Prerequisite: POL SCI 1100 or consent of instructor. This course examines the role of gender in political institutions, practices and policy in the United States, past and present. It focuses on various movements for political equality, the relationship between gender and political participation, vote choice, and public opinion, and how legislative, executive, and judicial offices are gendered at the national, state, and local levels. (This course satisfies State requirements in American History and Government.)

**POL SCI 2400 Public Administration (3) [ST]**
Prerequisite: POL SCI 1100 or consent of instructor. Survey of public administration, with reference to organization, financial administration, personnel management, and judicial control of the administrative process.

**POL SCI 2420 Introduction to Public Policy (3) [ST]**
Prerequisite: POL SCI 1100 or consent of instructor. Study of differing approaches to understanding the public policy process. Course surveys the application of social science to public issues and problems.

**POL SCI 2500 Comparing Different Worlds (3)**
This course focuses on the role of political institutions, economic structures and social groups in explaining differences in forms of government and levels of socioeconomic development. It explores in detail one or more of these themes in cases drawn from developing and developed nations.

**POL SCI 2510 The Politics of European Union (3)**
Prerequisite: POL SCI 1500 or consent of instructor. The European Union has become the driving force in European economic and social development. This course assesses the changing nature of national identity and national sovereignty in Europe. It compares and contrasts key public policies (single market, welfare, migration, gender mainstreaming, "democratic deficits"), along with core EU actors and institutions, and includes participation in the annual Midwest Model EU.

**POL SCI 2520 Middle Eastern Politics (3) [CD]**
Prerequisite: POL SCI 1100, or POL SCI 1500, or consent of instructor. Survey of political movements, governments, and international conflicts in the Middle East. Islam, nationalism, ideologies, and economic systems will be studied. The effects of oil and the military will also be considered.

**POL SCI 2530 Political Systems of South America (3) [CD]**
Prerequisite: POL SCI 1500 or consent of instructor. An introduction to the study of the political systems of South America. Examination of the cultural context that has shaped the political, economic, and social development of states in the region.

**POL SCI 2540 Political Systems of Mexico, Central America, and the Caribbean (3) [CD]**
Prerequisite: POL SCI 1500 or consent of instructor. An introduction to the study of the political systems of Mexico, Central America, and the Caribbean. Examination of the cultural context that has shaped the political, economic, and social development of these countries.

**POL SCI 2550 East Asian Politics (3) [CD]**
An introduction to the study of the Chinese and Japanese political systems. Examination of the cultural context that has shaped the path of political development for both states.

**POL SCI 2580 African Politics (3) [CD]**
Prerequisite: POL SCI 1500 or consent of instructor. An introduction to the nature of societies, governments, and international relations in Africa. The course deals with forms of governance on the continent, regional groupings of states, and persistent conflicts within and among states. Problems of economic underdevelopment, food supplies, health and population trends, and cultural change are analyzed, along with the role of outside major power intervention.

**POL SCI 2610 Ancient and Medieval Political Thought (3)**
Study of political thought from Plato to Machiavelli.

**POL SCI 2620 Modern Political Thought (3)**
Study of political thought from Machiavelli to the present.

**POL SCI 2650 American Political Thought (3)**
History of political thought in the United States from colonial times to the present.

**POL SCI 2820 United States Foreign Policy (3)**
Prerequisite: POL SCI 1100, or POL SCI 1500, or consent of instructor. Examination of the factors influencing
the formation and the execution of United States foreign policy, with a focus on specific contemporary foreign policy issues.

**POL SCI 2900 Studies in Political Science (3)**
Selected topics in political science.

**POL SCI 3200 Constitutional Law (3) [ST]**
Prerequisite: POL SCI 1100, or POL SCI 1200, or consent of instructor. Study of leading American constitutional principles regarding legislative, executive, and judicial power, federalism, the commerce clause, and economic due process as they have evolved through the important decisions of the U.S. Supreme Court.

**POL SCI 3210 Civil Liberties (3) [ST]**
Prerequisite: POL SCI 1100, or POL SCI 1200, or POL SCI 3200, or consent of instructor. Civil rights in the American constitutional context, emphasizing freedom of religion, freedom of expression, minority discrimination, and the rights of defendants.

**POL SCI 3220 Labor Law (3)**
Prerequisite: Consent of instructor. In this course, participants will examine the role of government in the regulation of labor-management relations in the United States. While the focus of the course will be on federal laws regulating private sector labor relations, parallel issues addressed in the Railway Labor Act and state public sector labor relations law will also be covered. Specific topics include the legal framework for the organization of workers, definition of prohibited or unfair labor practices of employers and unions, legal regulation of the collective bargaining process, regulation of the use of economic weapons in labor disputes, enforcement of collective bargaining agreements and the regulation of internal trade union activities.

**POL SCI 3260 The Supreme Court (3) [ST]**
Prerequisite: POL SCI 1100, or POL SCI 1200, or consent of instructor. An examination of the role, function and assertion of power by the U.S. Supreme Court in our constitutional democracy. Topics include historical overview of the Supreme Court, the process of selecting Supreme Court Justices, life in the Court, Supreme Court decision making, Supreme Court policymaking, implementation and impact of Court decisions and the role of the Supreme Court as a national policymaker. This course fulfills the state requirement.

**POL SCI 3290 Studies in Public Law (3)**
Prerequisite: POL SCI 1100, or consent of instructor. Selected topics in public law. May be repeated.

**POL SCI 3300 The American Presidency (3) [ST]**
Prerequisite: POL SCI 1100 or consent of instructor. Study of the constitutional, political, legislative, and administrative roles played by the American chief executive in the development of public policy.

**POL SCI 3330 Introduction to Political Behavior (3) [ST]**
Prerequisite: POL SCI 1100 or consent of instructor. An introduction to political behavior employing perspectives from both political psychology and political sociology. Subjects include political socialization, the character of public opinion, citizen participation, group dynamics, the social determination of reality, and the underlying bases of leadership and authority.

**POL SCI 3331 Congressional Politics (3) [ST]**
Prerequisite: POL SCI 1100 or consent of instructor. An examination of the Congress of the United States, its history and evolution, its contemporary politics, and its role in the national policy-making process. Topics include candidate recruitment, campaigns and elections, representation, committees, legislative leadership, roles and norms, voting alignments, lobbyists and interest groups, oversight of administration, and House-Senate comparisons. The role of Congress in foreign policy, economic policy, and social-welfare policy will be examined.

**POL SCI 3340 Politics and the Media (3)**
Prerequisite: POL SCI 1100 or consent of instructor. An analysis of the role the media play in shaping American political life. The first part of the course examines the organizational structures, the economic and psychic incentives, and the social and professional norms that define how television and newspapers report news about public affairs. The second part then considers the nature of a mass-communications society by looking at how reality is defined, the susceptibility of mass publics to persuasion and propaganda, the peculiar form of media election campaigns, and the manner in which the media link changes the basic character of a citizenry.

**POL SCI 3350 Political Parties and Elections (3) [ST]**
Prerequisite: POL SCI 1100 or consent of instructor. An examination of the part played by parties and elections in American politics. Topics include the historical development of the party system, the organization and management of political parties and campaigns, contemporary changes in the nature of electoral politics, and the effects of elections on public policy.

**POL SCI 3390 Studies in American Politics (3)**
Prerequisite: POL SCI 1100 or consent of instructor. Selected topics in American politics. May be repeated.
POL SCI 3420 Public Personnel Management (3)
Prerequisite: POL SCI 1100, or POL SCI 2400, or consent of instructor. A study of personnel practices in the public sector, including recruitment, job development, labor relations, and administration of equal employment/affirmative action programs.

POL SCI 3430 Union Leadership and Administration (3)
Prerequisite: Consent of instructor. This course will focus on the roles and challenges of union leadership in a changing environment. Topics will include the union leader's roles as representative, organizer and educator as well as administrative responsibilities within the union and the relationship with enterprise management in both adversarial and participatory situations. Options for leadership style and organizational models will be discussed and explored in both theory and practice. Leaders will develop their skills of motivation, speaking, strategic planning and managing complex campaigns and diverse organizations.

POL SCI 3439 Studies in Policy Formation (3)
Prerequisite: Consent of instructor. Selected topics in policy formation. May be repeated.

POL SCI 3440 Public Budgeting (3)
Prerequisite: POL SCI 1100 or consent of instructor. Budgeting is the study of "who gets what" and who pays for it. This course examines the administration and politics of federal, state, and local government budgets. Students gain experience in interpreting budget documents and making budget choices, using electronic and other resources.

POL SCI 3450 Urban Administration (3) [ST]
Prerequisite: POL SCI 1100 or consent of instructor. Study of administrative machinery and practices of metropolitan government, how metropolitan areas organize themselves to provide services, how urban policies are made and implemented, how budgeting and personnel recruitment processes operate, and how these relate to urban policies.

POL SCI 3460 The Politics of Poverty and Welfare (3)
Prerequisite: POL SCI 1100 or consent of instructor. An examination of the structure of income inequality in the U.S. and public policies designed to redistribute wealth and to treat poverty. The history of welfare programs, the growth of the welfare state, and attempts to cut social spending are closely examined.

POL SCI 3470 Collective Bargaining (3)
Prerequisite: Consent of instructor. This course involves a study of collective bargaining processes including contract negotiations, contract administration, and methods for the resolution of bargaining disputes. Both theoretical and applied issues in collective bargaining will be addressed. Specific topics include the economic determination of bargaining power, legal constraints on the bargaining process, negotiations strategies and techniques, and the use of mediation and arbitration in the resolution of bargaining disputes.

POL SCI 3480 Environmental Politics (3)
Prerequisite: POL SCI 1100 or consent of instructor. This course examines the process of environmental policy-making and key environmental issues. Topics include national and international policies toward air and water pollution, energy use, solid and toxic waste disposal, global warming, overpopulation, and wilderness and wildlife conservation.

POL SCI 3570 Gender, Ethnicity and Public Policy (3)
Prerequisite: POL SCI 1100, or POL SCI 1500, or consent of instructor. Raises the question as to whether "more women in politics," stemming from diverse economic, racial, ethnic backgrounds and age groups, will necessarily result in better policies for women and men. Compares gendered and racialized impacts of a wide array of public policies (in the areas of education, employment, health care, welfare, and reproductive technologies) across a broad sample of advanced industrial societies. Analyzes the "empowerment" potential of new equality policies being generated at the international and supranational levels (e.g., in the UN and the European Union).

POL SCI 3590 Women and Leadership World-Wide: Breaking the Glass Ceiling (3)
Same as GS 3590. Prerequisite: POL SCI 1500 or consent of instructor. Compares women's day-to-day leadership and participation patterns across a wide variety of political-economic contexts, emphasizing their performance as elective and executive office holders. It examines the experiences of individual female leaders, the effect of country-specific nomination and recruitment strategies, party dynamics, and the larger political opportunity structure hindering or promoting the balanced participation of women and men in national leadership. Understanding how gender (the socially constructed meanings related to biological sex) operates within these specific contexts is a major concern.

POL SCI 3595 Studies in Comparative Politics (3)
Prerequisite: POL SCI 1500 or consent of instructor. Selected topics in comparative politics. May be repeated.

POL SCI 3830 International Political Economy (3)
Prerequisite: Introduction to international political economy. In particular, it will focus on the politics of international trade, finance, and investment. It will analyze the relationships between developed and
developing countries, and it will assess the relative usefulness of alternative frameworks for studying international political economy.

**POL SCI 3850 International Organizations and Global Problem Solving (3)**
Prerequisite: POL SCI 1100 or POL SCI 1500, or consent of instructor. Introduction to the study of international organization. The course focuses on relationships between nation-states and "nonstate" actors (e.g., global intergovernmental organizations such as the United Nations, and nongovernmental organizations such as multinational corporations) in world politics and on the role of international institutions in such problem areas as economic development, management of resources, and control of violence across national boundaries.

**POL SCI 3860 Studies in War and Peace (3)**
Prerequisites: Junior standing and POL SCI 1100, or POL SCI 1500, or consent of instructor. Exploration, development, and testing of theories about the causes and consequences of war, peace, and conflict among nations. A broad range of literature on war and peace will be reviewed and applied to crisis situations in the international system.

**POL SCI 3890 Studies in International Relations (3)**
Prerequisite: POL SCI 1100, or POL SCI 1500, or consent of instructor. Selected topics in international relations. May be repeated.

**POL SCI 3900 Special Readings (1-10)**
Prerequisite: Consent of instructor. Independent study through readings, reports, and conferences. May be repeated.

**POL SCI 3940 Public Affairs Internship (1-6)**
Prerequisites: Junior standing and consent of instructor. Independent study involving work with an appropriate public or private agency. A maximum of 6 credit hours may be earned.

**POL SCI 3950 Senior Seminar in Political Science (3)**
Prerequisites: Senior standing and consent of instructor. Required of all political science majors in their last year of course work as an integrative capstone experience. Emphasis is on student-faculty interaction in a seminar format designed to engage upper-level students in a critical examination of a broad theme in political science, leading to the production of a major research paper. Topics vary. May be repeated. This course is not available for graduate student credit.

**POL SCI 4040 Survey Research Practicum (3)**
Same as ECON 4140 and SOC 4040. Prerequisites: Junior standing and consent of the instructor. The execution of a sample survey, including establishing study objectives, sampling, questionnaire construction, interviewing, coding, data analysis, and presentation of results.

**POL SCI 4060 Theory of Decisions and Games (3)**
Same as PHIL 4465. Prerequisites: Six hours of Philosophy and junior standing, POL SCI 6401 (or the equivalent) or consent of instructor. A study of rational decision making, including games against nature, zero-sum games and social choices. Topics will include the following: expected utility maximization, the Prisoner's Dilemma, Nash equilibria, and Arrow's theorem on the impossibility of a social welfare function. Parts of the course are technical in nature; a prior course in mathematics (e.g., finite mathematics, calculus, statistics or an economics course with a mathematical component), symbolic logic, or some other course with comparable mathematical content.

**POL SCI 4090 American Government for the Secondary Classroom (3)**
Prerequisites: POL SCI 4090/SEC ED 4090 must be taken concurrently with HIST/SEC ED 4011 except with special consent of the School Studies Coordinator. (Same as SEC ED 4090) Adapts the themes and subject matter of American government to the secondary classroom and trains teachers in techniques particularly designed to maximize the use of primary sources, foster critical inquiry, and encourage knowledge of subject matter. Particular emphasis will be placed on defining the broad and connecting themes of American government, on expanding bibliography, and on choosing methods of inquiry for use in an interactive classroom. Either HIST 3257 /SEC ED 3257 or SEC ED 3258 or POL SCI 3209 /SEC ED 3209 must be taken the same semester as HIST 3255/SEC ED 3255 except with special consent of the Social Studies Coordinator. Can be counted towards the Political Science major requirement, but not the American Politics subgroup. Counts towards Social Studies Certification.

**POL SCI 4460 Urban Planning and Politics (3) [ST]**
Prerequisite: POL SCI 1100, or POL SCI 2400, or consent of instructor. Examination of the political processes of urban areas as they relate to the planning of services and facilities.

**POL SCI 4510 Comparative Public Policy and Administration (3)**
Prerequisite: POL SCI 1500 or consent of instructor. A comparative study of the characteristics of public administrators, their institutions and environments in Western democratic, developing nations, and communist political systems.
POL SCI 4850 International Law (3)
Prerequisite: POL SCI 1100, or 1500, or consent of instructor. Study of the international legal system, including the content and operation of the laws of war and peace, how law is created and enforced with regard to the oceans and other parts of the globe, and the relationship between international law and international politics.

POL SCI 4900 Topics in Political Science (3)
Prerequisite: POL SCI 1100 or consent of instructor. Selected topics in political science.

POL SCI 4911 Staff Management Issues in Nonprofit Organizations (1)
Same as SOC WK 4911 and P P ADM 4911. Prerequisite: Junior Standing. This course addresses issues involved in managing staff in nonprofit organizations. The course will cover the following topics: fundamentals of staff supervision; balancing supervisory processes with counseling and coaching; selecting, hiring, evaluating, and terminating staff; and legal issues that affect these processes.

POL SCI 4912 Legal Issues in Managing Nonprofit Organizations (1)
Same as SOC WK 4912 and P P ADM 4912. Prerequisite: Junior Standing. This course addresses legal issues involved in managing and governing nonprofit organizations. The course will cover the following topics: The Board as steward of the organization; Director and officer liability; tax laws concerning charitable giving; legal issues in managing staff and volunteers (e.g., hiring, evaluating, and terminating employees); Missouri nonprofit law.

POL SCI 4913 Financial Issues in Managing Nonprofit Organizations (1)
Same as SOC WK 4913 and P P ADM 4913. Prerequisite: Junior Standing. This course addresses financial issues involved in governing and managing nonprofit organizations. The course will cover the following topics: Cash flow analysis; budgeting; fund accounting; cost accounting (determining costs for programs and services); understanding and using standard financial statements, including balance sheets, cash flow statements, statements of activity, and operating and capital budgets.

POL SCI 4940 Leadership and Management in Nonprofit Organizations (3)
Same as P P ADM 4940, SOC WK 4940, and SOC 4940. Prerequisite: Junior standing. Addresses the role and scope of the independent sector in the United States, as well as the leadership and sector, the role of volunteerism in a democratic management of nonprofit organizations within that sector. Topics include the economic and political scope of the independent society, and the role and scope of philanthropy. Topics include the dynamics, functions and membership voluntary organization management and leadership structure of NPOs, especially staff-board and other volunteer relations; governance and management of NPOs; resource mobilization; and program development management and evaluation.

POL SCI 4960 American Philanthropy and Nonprofit Resources Development (3)
Same as SOC WK 4960 and P P ADM 4960. Prerequisite: Junior standing or consent of instructor. This course addresses the history, philosophy, roles and scope of philanthropy in the United States, including its role in the nonprofit, voluntary sector. It further examines the contemporary forces which impact philanthropy and charitable giving, both by institutions and individuals. The course examines the effective planning and management of development programs (e.g., annual giving), fund raising vehicles (e.g., mail solicitations) and the fund raising process, from planning through donor relations.

POL SCI 6400 Analytic Perspectives in Political Science (3)
An introduction to the graduate study of political science. The course presents a number of analytic approaches to the scientific examination of a wide variety of political phenomena.

POL SCI 6401 Introduction to Policy Research (3)
Same as P P ADM 6010. Procedures for testing explanations, including research design, principles of measurement, probability sampling, methods of data collection, and techniques for analyzing data.

POL SCI 6402 Intermediate Techniques in Policy Research (3)
Prerequisites: Graduate standing and POL SCI 6401. Elementary distribution theory, statistical inference, and an introduction to multiple regression. Emphasis on practical applications.

POL SCI 6403 Advanced Techniques in Policy Research (3)
Prerequisites: Graduate standing and POL SCI 6402. Selected topics in policy research emphasizing forecasting, modeling, and estimation.

POL SCI 6404 Multi-Method Research Design (3)
Prerequisite: POL SCI 6403 or consent of instructor. Develops policy research skills that combine qualitative and quantitative social science tools and applies an appropriate mix of these tools to specific policy problems. Topics include alternative approaches to causal analysis, levels of analysis, triangulation from a variety of qualitative and quantitative research techniques, building contextual effects into multiple research projects, techniques for assessing alternative program theories and clarifying implicit assumptions, and meta-analyses of secondary data sources.

POL SCI 6405 Directed Readings in Research Methods (1-10)
Independent study through readings, reports, research projects, and conferences.

**POL SCI 6410 Introduction to Policy Analysis (3)**
Same as P P ADM 6000. Systematic development of a critical/analytic base for dealing with public policy.

**POL SCI 6415 Directed Readings and Research in Public Policy (1-10)**
Same as P P ADM 6150. Prerequisite: Consent of Instructor. Independent study through readings, reports, research projects, and conferences. May be repeated for credit, provided the subject matter is different.

**POL SCI 6420 Proseminar in Public Law (3)**
Prerequisite: Graduate standing. Study of judicial systems and processes (judges, courts, litigants, and juries) and evaluation of legal policies (compliance, impact, and deterrence).

**POL SCI 6421 Seminar in Public Law (3)**
Research problems and designs, models and approaches to the study of public law. May be repeated for credit when the subject matter is different.

**POL SCI 6422 Law, Courts, and Public Policy (3)**
Prerequisite: Graduate standing. Analysis of public policies, as represented by laws, court decisions, and agency adjudication, judicial review, discrimination, affirmative action, urban planning, social welfare, intergovernmental relations, environmental law, freedom of information, and privacy concerns will be surveyed. The relationship between courts and the Constitution, courts and legislatures, and courts and the administrative process will be stressed.

**POL SCI 6425 Directed Readings and Research in Public Law (1-10)**
Independent study through readings, reports, research projects, and conferences.

**POL SCI 6430 Proseminar in American Politics (3)**
Study of individual and group political behavior, including socialization, participation, consensus formation, representation, and legislative and judicial behavior.

**POL SCI 6431 Seminar in American Politics (3)**
Research problems and design in American political process and behavior. May be repeated for credit when the subject matter is different.

**POL SCI 6433 Elections, Public Opinion, and Public Policy (3)**
Prerequisite: Graduate standing. This course provides an opportunity for graduate students to examine electoral politics and democratic governance. It includes an historical review of the dynamics of the American party system, paying particular attention to the ways that politicians translate social and economic change into the political system. It surveys the scientific community's understanding about mass political behavior, covering such topics as the nature of political beliefs, partisanship, political trust, tolerance, ideology, motives for participation, and so on. Then it gives particular attention to the instruments that seem to shape public opinion - the family, the social peer group, and the mass media. Finally, it presents analyses of the contemporary political system in terms of the links between citizen preferences, electoral outcomes, and the government's provision of public policies.

**POL SCI 6435 Directed Readings and Research in American Politics (1-10)**
Independent study through readings, reports, research projects, and conferences.

**POL SCI 6440 Proseminar in Public Administration (3)**
Same as P P ADM 6400. Examination of major approaches to analyzing public policies and their administration. Emphasis is on the effects of administrative organization and procedures on policy decisions and their impacts. Specific topics may include administrative accountability, intergovernmental relations, public-private interaction, implementation processes, bureaucratic expertise, the legal environment of public policy administration, and public service and merit issues.

**POL SCI 6441 Seminar in Public Administration (3)**
Research problems and design in public administration. May be repeated for credit when the subject matter is different.

**POL SCI 6442 The Policy Process (3)**
Prerequisite: Graduate standing. The course will require a major research project using federal documents and other primary sources of information about the United States policy process. Topics will include the sources of public policy; the policy agenda; policy design, legitimation, and implementation.

**POL SCI 6443 Health Care Policy (3)**
Same as P P ADM 6430 GERON 6443, SOC 6443, and SOC WK 6443. Prerequisite: Graduate standing or consent of instructor. (MSW students will normally take the social policy foundation course before enrolling in this course). Survey course examining current issues in health policy that face the nation. Policies are placed in a historical context to show how issues have been influenced by different political and economic conditions. Secondary consequences and limitations of current trends in health policy are explored.
POL SCI 6444 Seminar in Public Policy and Aging (3)
Same as P P ADM 6444, GERON 6444 and SOC 6444. Prerequisite: Consent of instructor. The study of specialized issues and methods related to federal, state, and local policies that affect the elderly. Potential policy areas to be covered include housing, taxation, mental health, transportation, etc. May be repeated for credit, provided the subject matter is different.

POL SCI 6445 Directed Readings and Research in Public Administration (1-10)
Independent study through readings, reports, research projects, and conferences.

POL SCI 6446 Selected Topics in Health Care Policy (3)
Same as P P ADM 6460 and SOC 6446. Prerequisite: Consent of instructor. The study of specialized issues and methods relating to health care policy. May be repeated for credit, provided the subject matter is different.

POL SCI 6448 Political Economy and Public Policy (3)
Prerequisite: Graduate standing. This course examines political economy in its contemporary manifestations as public choice and as the study of the ways in which institutional power shapes economic policies and performance. The course explores the origins and major concepts of political economy, the institutions of economic policy-making and economic policies in the U.S. It emphasizes the consequences of budget constraints, inflation, unemployment, and sectoral decline on the design and administration of public programs at all levels of government.

POL SCI 6449 Human Resources in the Public Sector (3)
Same as SOC WK 6449 and P P ADM 6490. Prerequisite: P P ADM 6600 or consent of instructor. Presents an overview of personnel and labor relations in the public sector. Particular emphasis placed on issues which are unique to the public sector, such as the merit system, the questions of representative bureaucracy and the constraints of personnel in the nonprofit sector. The topics include personnel reforms in the federal sector, equal employment and affirmative action policies, testing, selection, hiring, comparable worth, job evaluation, and labor relations including grievance arbitration and collective bargaining.

POL SCI 6450 Proseminar in Comparative Politics (3)
Classification and topology of political systems; structural-functional analysis; political culture, ideology, affiliation and participation; decision-making processes; political roles; organization of authority.

POL SCI 6451 Seminar in Comparative Politics (3)
Research problems and design in comparative politics. May be repeated for credit when the subject matter is different.

POL SCI 6452 Public Policy of Conservation and Sustainable Development (3)
Same as BIOL 6250. Prerequisites: Graduate standing in Political Science or Biology and consent of instructor. Prior course in ecology recommended. This course will introduce the student to concepts and techniques for formulating, implementing, and analyzing public policy with an emphasis on environmental concerns, conservation, and sustainable development. The course will be team-taught by a political scientist and a biologist. Course materials will include case studies that demonstrate the special problems of environmental policymaking in developing and developed economies.

POL SCI 6455 Directed Readings and Research in Comparative Politics (1-10)
Independent study through readings, reports, research projects, and conferences.

POL SCI 6457 Seminar in East Asian Politics (3)
Prerequisite: Graduate standing or consent of instructor. Study of concepts and research on the political culture, ideology, groups, political processes and institutions, and policy outcomes in the Chinese and/or Japanese political systems.

POL SCI 6465 Directed Readings and Research in Political Theory (1-10)
Independent study through readings, reports, research projects, and conferences.

POL SCI 6470 Proseminar in Urban Politics (3)
Examination of the relationships among the social, economic, and political systems of urban areas. Urban political structure, patterns of influence, political participation, and communication and political change. Special attention to problems of access to and control of urban political systems.

POL SCI 6471 Seminar in Urban Politics (3)
Research problems and design in urban and regional politics. May be repeated for credit when the subject matter is different.

POL SCI 6475 Directed Readings and Research in Urban Politics (1-10)
Independent study through readings, reports, and conferences.

POL SCI 6480 Proseminar in International Relations (3)
Examination of various approaches to the study of international politics and foreign policy, focusing on studies of conflict, decision making, international political economy, and related topics. Included are realist, idealist,
and Marxist perspectives.

**POL SCI 6481 Seminar in International Relations (3)**
Research problems and design in international politics. May be repeated for credit when the subject matter is different.

**POL SCI 6482 International Political Economy (3)**
Prerequisite: Graduate standing. This course will examine the theoretical and policy issues of international political economy. In particular, it will focus on the politics of international trade, finance and investment. It will also analyze the themes of interdependence, hegemony, and dependency, as well as consider relations between developed and developing countries. Finally, the relative usefulness of liberal, Realist and Marxist approaches to the study of international political economy will be weighed.

**POL SCI 6485 Directed Readings and Research in International Relations (1-10)**
Independent study through readings, reports, research projects, and conferences.

**POL SCI 6488 Studies in International Relations (1-6)**
Prerequisite: Graduate standing. Selected topics in international studies. May be repeated for credit provided the topic of the course is different each time.

**POL SCI 6490 Strategic and Program Planning for Nonprofit Organizations (3)**
Same as P P ADM 6550 and SOC WK 6491. Prerequisite: Graduate standing or consent of instructor. Strategic and program planning enable an organization to concentrate on efforts and set priorities guided by a mission, a vision, and an understanding of its environment. Focus is on preparing a strategic plan and a program plan for a nonprofit organization and analyzing an organization's ability to deliver goods and/or services to its constituents in today's economic, social and political climate.

**POL SCI 6494 Thesis Research (1-10)**
Arranged.

**POL SCI 6495 Internship (1-6)**
Independent study involving work with an appropriate public or private agency.

**POL SCI 6499 Directed Dissertation Proposal Research (3)**
Prerequisite: Consent of Instructor. Supervised study through readings and research leading to the preparation of a dissertation proposal plan. Open to doctoral students who have completed at least 42 hours of course work. The proposal plan will indicate the following: statement of research question, importance of the problem, literature review and research design.

**POL SCI 7499 Dissertation Research (1-10)**
Arranged.
Pre-Professional Programs

**UMSL Home**

Students at the University of Missouri-St. Louis may develop pre-professional study programs from the university's academic offerings in dentistry, journalism, law, medicine, optometry, pharmacy, or veterinary sciences. With early and careful advising, students may develop an appropriate program to prepare for the intended professional study.

Students should seek pre-professional faculty advisers in their interest area early in their academic careers to ensure development of sound, comprehensive study programs that fulfill the admission requirements of the professional program to which they wish to apply.

The following information on pre-professional study at UMSL is provided to give students minimal guidelines and assistance in planning a program.

For advisement and information, contact the Office of Undergraduate Student Affairs in the College of Arts and Sciences, 303 Lucas Hall, 314-516-5501.

**Pre-Law**

All students must have a major. Pre-Law is not a major - it is an emphasis (though not posted on the student's transcript). Selecting a major can be done when applying or in person in 303 Lucas Hall.

**Declaring the Pre-Law Emphasis**: A student may only declare the pre-law emphasis during the freshman, sophomore or first semester junior year. Declaring the pre-law emphasis can only be done at the beginning of the respective semester of the academic calendar year.

**Standards for Declaring the Pre-Law Emphasis as a Freshman**: The student must have a minimum 2.50 cumulative high school grade point average in the core courses if declaring the pre-law emphasis as a first semester freshman. If a second semester freshman, the student must have a minimum 2.70 cumulative grade point average at the university/community college level.

The student must attend the pre-law orientation session in the Fall semester of the freshman year. If declaring the pre-law emphasis as a second semester freshman, the student must attend the pre-law orientation session in the Fall semester of the following academic calendar year.

**Standards for Declaring the Pre-Law Emphasis as a Sophomore or first semester Junior**: If a sophomore, the student must have a minimum 2.80 cumulative grade point average to declare the pre-law emphasis. If a junior, the student must have a minimum 2.90 cumulative grade point average to declare the pre-law emphasis.

**Attendance at Pre-Law Orientation Session - Requirement**: If the student declares the pre-law emphasis in the Fall semester of the academic calendar year, the student must attend the pre-law orientation session that same Fall semester. If the student declares the pre-law emphasis in the Winter/Spring semester, the student must attend the pre-law orientation session the Fall semester of the next academic calendar year. Each student is responsible for recording his/her attendance at the pre-law orientation session.

**Student Standards of Progression in the Pre-Law Emphasis**: It is critically important that the student maintain a high undergraduate GPA, for example, a 3.6 or higher for a high-ranking law school, or at least a 2.95 or higher for a Tier 4 school. (See [www.prelawhandbook.com/grade_point_average](http://www.prelawhandbook.com/grade_point_average).)

**Course Requirements**: Students having a pre-law emphasis must successfully complete, by earning a grade of C- or higher, the following courses by the end of their sophomore year to remain in the pre-law emphasis track:

1. POL SCI 1100: Introduction to American Politics
2. POL SCI 1200: Foundations of Law
3. PHIL 1160: Logic and Language

Students having a pre-law emphasis must successfully complete, by earning a grade of C- or higher, the following courses by the end of their junior year to remain in the pre-law emphasis track:

1. POL SCI 3200: Constitutional Law
2. CRI MIN 1120: Criminal Law

For more information, please be referred to the pre-law advisor by contacting the College of Arts and
Sciences in 303 Lucas Hall, 314-516-5501.

**Pre-Health Sciences**

Students wishing to enter medical, dental, optometry, or veterinary medicine schools should pursue B.A. or B.S. degrees with majors in the disciplines of their choice, but should take whatever additional courses may be necessary as prerequisites for admission to the professional school.

A baccalaureate degree is generally not required before entering pharmacy school. (See Pre-Pharmacy section below).

Since admission requirements vary, students should consult the catalogs of the schools to which they intend to apply. Updated information may be found in:

- **Medical School Admission Requirements (MSAR)**
  - Phone: 1-202-828-0416; Website: www.aamc.org
- **American Dental Education Association Official Guide to Dental Schools**
  - Phone: 1-202-289-7201; Website: www.adea.org
- **Schools and Colleges of Optometry Admission Requirements**
  - Phone: 1-301-231-5944; Website: www/opted.org (see Pre-Optometry section below)
- **Pharmacy School Admission Requirements**
  - Phone: 1-703-739-2330; Website: www.aacp,org (See Pre-pharmacy section below)
- **Veterinary Medical School Admission Requirements in the United States and Canada**
  - Phone: 1-202-371-9195; Website: www.aavmc.org/

**A copy of the MSAR is also available at the reference desk of the Thomas Jefferson Library.**

**Suggested Courses (Pre-Med, Pre-Dental, Pre-Vet)**

Many medical schools recommend the following undergraduate courses:

- **Biology**: BIOL 1811, Introductory Biology: From Molecules to Organisms; BIOL 1821, Introductory Biology: Organisms and the Environment; BIOL 2012, Genetics; and additional courses in molecular and/or cell biology.

- **Chemistry**: CHEM 1111, Introductory Chemistry I; CHEM 1121, Introductory Chemistry II; CHEM 2612, Organic Chemistry I; CHEM 2622, Organic Chemistry II; CHEM 2633, Organic Chemistry Lab; and additional courses in organic chemistry and quantitative analysis. (Biochemistry is also recommended.)

- **Mathematics**: Students should take courses at least through calculus, as appropriate for the major degree: MATH 1100, Basic Calculus or MATH 1800, Analytical Geometry & Calculus I for biology majors; through MATH 2000, Analytical Geometry and Calculus III for chemistry majors; and through MATH 2020, Introduction to Differential Equations for physics majors. Consult with the Pre-Health Sciences advisor to determine the appropriate course(s).

- **Physics**: 8 - 10 hours (as appropriate for the degree chosen). PHYSICS 1011 & 1012, Basic Physics (for biology majors), OR PHYSICS 2111, Physics: Mechanics and Heat and PHYSICS 2112, Physics: Electricity, Magnetism and Optics (for chemistry or physics majors). Consult with the Pre-Health and Sciences advisor.

Successful completion of these recommended courses also helps students prepare for required standardized exams.

Since students are not confirmed for admission to professional schools until the science requirements for admission are fulfilled, students should meet the science requirements before the end of the junior year. To complete these requirements in time, BIOL 1811 and BIOL 1812, Introductory Biology I and II as well as CHEM 1111 and 1112, Introductory Chemistry I and II should be taken during the freshman year.

Students also should take the required national standardized examination before or during the junior year as is appropriate for the exam: The Medical College Admission Test (MCAT) for Pre-Med students; the Dental Aptitude Test (DAT) for Pre-Dental students; the Optometry Admission Test (OAT) for Pre-Optometry students; and the Pharmacy College Admission Test (PCAT), (if required) for Pre-Pharmacy students; and the Medical College Admission Tests or Graduate Record Exam (GRE) for Pre-Vet students. (Pre-Vet students should consult with their intended veterinary colleges for appropriate test information.)

Each year the number of applicants to health profession schools exceeds the number of available places (by a factor of two in most cases). Students, therefore, are encouraged to have alternative plans should they not gain entrance. Nursing, laboratory technology, and other allied health science areas may be considered as alternative fields.

**Pre-Optometry**

The University of Missouri-St. Louis offers a four-year program of study leading to the Doctor of Optometry
degree; this professional degree is administered by the College of Optometry. It is one of only 20 schools of optometry in the United States and the only one in the state of Missouri. This program, as a result, makes UMSL an ideal institution for Pre-Optometry education. Various programs are available for Pre-Optometry students as noted below.

Students may pursue a traditional 4 + 4 program, which is a bachelor's degree followed by the four-year graduate optometry program. In this case, students may pursue any bachelor's degree, as long as the pre-optometry requirements are met in biology, chemistry, math, physics, psychology and English.

Alternatively, the Department of Biology, the Department of Physics & Astronomy, and the Department of Chemistry & Biochemistry sponsor 3+4 Programs for the UMSL College of Optometry, for which a student may be admitted after completing three years (90 semester hours) of study in their respective majors and successful completion of the Optometry Admission Test (OAT). See your specific department for undergraduate degree requirements.

The Pierre Laclede Honors College and the College of Optometry also offer the Scholars Program, which allows a student to complete both the undergraduate and Doctor of Optometry degrees in seven years. To qualify for this program, a student must be a senior in high school; score a minimum composite of 27 on the ACT; and be accepted to the UMSL Pierre Laclede Honors College program. For more information about the Scholars Program, contact the Pierre Laclede Honors College, 314-516-7769.

For the programs described above (3+4 or Scholars), the undergraduate degree is granted when the student satisfactorily completes the first year of the professional program and has met all of the conditions for the specific undergraduate degree for which the student has applied. 1) All general education requirements and all requirements for the biology, physics, or chemistry major, except electives, must be completed. 2) Any deficiency in required courses must be remedied with courses taken at UMSL within three years after entering the College of Optometry. 3) Up to 6 hours from the College of Optometry may be substituted for undergraduate degree in Biology with approval of the Department of Biology. 4) Up to six hours is used to satisfy degree requirements in biology, and 14 hours in physics to complete the B.S. in Physics degree. For more information, contact the Department of Biology, 314-516-6200 or the Department of Physics & Astronomy at 314-516-5931. The Department of Chemistry & Biochemistry offers a similar program, which may require taking summer classes in order to complete the degree requirements for a B.A. or B.S. degree in three years. For more information, please contact the Department of Chemistry & Biochemistry at 314-516-5311.

In some cases, students are admitted to the College of Optometry program prior to completing the requirements for their baccalaureate degree.

Note: Math 1800, Analytical Geometry and Calculus I must be taken in the first semester for most 3+4 or Scholars Programs.

For more information on admission requirements for the College of Optometry, please refer to the Optometry section of this Bulletin.

**Pre-Pharmacy**

In general, a pharmacy program may consist of 1-3 years of pre-professional study followed by 4-5 years in a professional program (normally, six years total). Some institutions, however, offer the entire program at the pharmacy college or school. Since entrance requirements vary, students should consult the catalog and/or web site of the college or school to which they intend to apply. Missouri has two pharmacy schools: St. Louis College of Pharmacy, a private institution, and University of Missouri-Kansas City School of Pharmacy. Beginning in Fall 2005, the metropolitan St. Louis area also includes Southern Illinois University Edwardsville School of Pharmacy. Internet links for these and other pharmacy programs in the United States, Canada and abroad can be found at the web site for the American Association of Pharmacy Colleges, www.aacp.org.

Before taking any courses for pre-pharmacy, UMSL students should contact the College of Arts and Sciences, 303 Lucas Hall, for pre-pharmacy information. It is important that students take the correct courses for the pharmacy programs they intend to pursue. Generally, science admission requirements may include some or all of the courses listed below (and possibly other courses):

- **BIOL 1811**, Introductory Biology: From Molecules to Organisms
- **BIOL 1821**, Introductory Biology: Organisms and the Environment
- **BIOL 1131**, Human Physiology and Anatomy I
- **BIOL 1141**, Human Physiology and Anatomy II
- **CHEM 1111**, Introductory to Chemistry I
- **CHEM 1121**, Introductory to Chemistry II
- **CHEM 2612**, Organic Chemistry I
- **CHEM 2622**, Organic Chemistry II
- **CHEM 2633**, Organic chemistry Laboratory

MATH 1800, Analytical Geometry and Calculus I
PHYSICS 1011, Basic Physics
PHYSICS 1012, Basic Physics

Usually, pre-pharmacy requirements also include courses in English composition, humanities, social and behavioral sciences. The specific pharmacy school or college specifies these requirements. In addition, many pharmacy institutions require applicants to take the Pharmacy College Admission Test (PCAT). Detailed information about the PCAT is available online at www.pcatweb.info. For additional information about application deadlines and procedures, GPA requirements, and letters of recommendation, students should consult the catalogs and/or web sites for the programs to which they intend to apply.

Pre-Pharmacy advising and information is available through the Office of Undergraduate Student Affairs in the College of Arts and Sciences, 303 Lucas Hall, 314-516-5501.
Faculty

George T. Taylor, Professor, Chairperson
Ph.D., University of New Mexico

Steven E. Bruce, Associate Professor, Director, Center for Trauma Recovery
Ph.D., Virginia Commonwealth University

Barbara Bucur, Assistant Professor
Ph.D., University of Akron

Jerry H. Dunn#, Associate Clinical Professor, Director, Children's Advocacy Center
Ph.D., University of Missouri-St. Louis

Tara Galovski, Assistant Professor
Ph.D., University of Albany-State University Of New York

Michael G. Griffin, Associate Professor, Associate Chairperson
Ph.D., University of Missouri-St. Louis

Dyan W. Harper, Teaching Professor,
Ph.D., Northern Illinois University

Robert N. Harris, Clinical Professor
Ph.D., University of Kansas

Brenda A. Kirchhoff, Assistant Professor
Ph.D., Boston University

Matthew Kliethermes#, Assistant Clinical Professor
Ph.D., St. Louis University

Therese M. Macan, Associate Professor, Director, Doctoral Program in Industrial/Organizational Psychology
Ph.D., Rice University

John P. Meriac, Assistant Professor
Ph.D., University of Tennessee

Stephanie Merritt, Assistant Professor
Ph.D., Michigan State University

Miles L. Patterson, Professor,
Ph.D., Northwestern University

Robert H. Paul, Professor, Director, Doctoral Program in Neuroscience, Behavior, and Cognition
Ph.D., University of Oklahoma Health Sciences Center

Zoë Peterson, Assistant Professor
Ph.D., University of Kansas

Megan Schacht#, Assistant Clinical Professor
Ph.D., University of Missouri-St. Louis

Jennifer Siciliani, Associate Teaching Professor, Director, Academic Advising
Ph.D., University of Tennessee-Knoxville

Ann M. Steffen, Associate Professor, Director, Doctoral Program in Clinical Psychology
Ph.D., Indiana University

Deana L. Smith, Assistant Clinical Professor
Ph.D., University of Missouri-St. Louis

Matthew J. Taylor, Assistant Professor
Ph.D., University of Missouri-St. Louis

Mark E. Tubbs, Associate Professor,
Ph.D., University of Houston

Brian Vandenberg, Professor
Ph.D., University of Rochester

Kamila S. White, Associate Professor
Ph.D., Virginia Commonwealth University

Carl Bassi^, Associate Professor
Ph.D., Vanderbilt University

Bulletin 2011-2012: Department of Psychology

James A. Breaugh+, Professor
Ph.D., Ohio State University

Berit Brogaard®, Associate Professor
Ph.D., The State University of New York, Buffalo

Catherine Creeley, Research Instructor in Psychiatry at Washington University Medical School, Ph.D.,
University of Missouri – Saint Louis

Chaya Gopalan, Associate Professor of Physiology, St. Louis College of Pharmacy
Ph.D. Michigan State University

Thomas Meuser*, Associate Professor
Ph.D., University of Missouri-St. Louis

Gualtiero Piccinini®, Associate Professor
Ph.D., University of Pittsburgh

David F. Wozniak, Research Professor in Psychiatry at Washington University Medical School, Ph.D.,
Washington University

Carla Yue, Postdoctoral Fellow in Psychiatry at Washington University Medical School, Ph.D., University of
Missouri-St. Louis

Lee Konzak, Adjunct Assistant Professor
Ph.D., University of Missouri-St. Louis

Gary A. Morse, Adjunct Professor
Ph.D., University of Missouri-St. Louis

John W. Rohrbaugh, Adjunct Associate Professor
Ph.D., University of Illinois-Urbana Champaign

Sandra K. Seigel, Adjunct Assistant Professor
Ph.D., Saint Louis University

David E. Smith, Adjunct Associate Professor
Ph.D., Colorado State University

Gary K. Burger, Professor Emeritus
Ph.D., Loyola University

Robert J. Calsyn, Professor Emeritus
Ph.D., Northwestern University

Edmund S. Howe, Professor Emeritus
Ph.D., University of London

Samuel J. Marwit, Professor Emeritus
Ph.D., The State University of New York, Buffalo

Jayne E. Stake, Professor Emerita
Ph.D., Arizona State University

Dominic J. Zerbolio, Jr., Professor Emeritus
Ph.D., Michigan State University

# Primary appointment in Children's Advocacy Center
+ Primary appointment in the College of Business Administration
^ Primary appointment in the College of Optometry
@ Primary appointment in the Department of Philosophy
* Primary appointment in the School of Social Work; Director of Gerontology

General Information

Psychology Academic Advising Office
Undergraduate psychology majors and other students interested in majoring or minoring in Psychology are
encouraged to visit an Academic Advisor in the Psychology Advising Office (Stadler 322) to receive specific
information on degree requirements and course offerings, discuss questions about career options, and receive
information about graduate work in Psychology. All students are encouraged to see a Psychology Academic
Advisor regularly throughout their collegiate careers. It is especially important for all students who are within
one calendar year of graduation to meet with a Psychology Academic Advisor. Students will minimize waiting
time and will be assured one-to-one attention from an Academic Advisor by calling (314) 516-4561 to
schedule an appointment. Office hours for the Psychology Academic Advising office are posted to the
Psychology Academic Advising MyGateway site or can be obtained by e-mailing: psy_advising@umsl.edu.

Career Outlook

The undergraduate major in Psychology can provide the foundation for further training in psychology at the
graduate level, the background necessary for graduate training in other fields such as social work and
counseling, or the liberal arts background necessary for entry level positions in many fields such as business,
communication, and some human service and health care positions. For more career information please
schedule an appointment with an Academic Advisor in the Psychology Academic Advising Office (Stadler 322;
314-516-4561; psy_advising@umsl.edu). To function specifically as a psychologist, a graduate degree is
required. Students with such an interest should work with Psychology Academic Advisors to plan for this
additional training early. Much of this preparation must start during the first half of students' undergraduate
studies. For additional information, students may also the student's undergraduate studies. For additional
Facilities
The department has several animal and human experimental laboratories furnished with a wide range of psychophysiological equipment. The department also operates three facilities (Community Psychological Services, the Center for Trauma Recovery, and Children's Advocacy Services of Greater St. Louis) which provide training opportunities for the doctoral students in the psychology program as well as providing psychological assessment and treatment services for citizens of the region.

Undergraduate Programs: Overview

Bachelor of Arts Degree.
The Psychology department offers a broad-based curricular plan leading to the Bachelor of Arts (BA) degree in Psychology.

Minor in Psychology
The department offers a minor in Psychology to students who have a special interest in this field but wish to major in another discipline.

2+3 Bachelor of Arts, in Psychology and Master of Science in Gerontology
This is an accelerated program which allows students to receive a B. A. degree in Psychology and Master of Science in Gerontology after completing 138 credit hours in a carefully prescribed program. A full description of program requirements and procedures is available from the Gerontology Program office.

Undergraduate Certificate in Neuroscience
The undergraduate Certificate Program in Neuroscience is an interdisciplinary program requiring 20 credits of training in Neuroscience. The Program provides a group of related courses capped by a research experience. The Program is likely to be of particular interest to students who want to pursue graduate or professional training, but it is intended to appeal to any student interested in Neuroscience.

Graduate Programs: Overview

Master's Degrees
The department offers a terminal Master of Arts in Psychology, with a specialization in either Industrial/Organizational Psychology or Neuroscience, Behavior, and Cognition.

Doctoral Degrees
The department offers three options within its Ph.D. Program: Clinical Psychology; Neuroscience, Behavior and Cognition; Industrial/Organizational Psychology.

Graduate Certificate in Trauma Studies
This is an 18 credit hour graduate certificate program.

Clinical Psychology Respecialization-Advanced Graduate Certificate Program
This program is designed for individuals who already have a doctoral in Psychology who wish to receive specialty training in Clinical Psychology.

Undergraduate Programs in Depth

General Education Requirements
Majors must satisfy the university and college General Education curricular requirements. Selected courses in Psychology may be used to meet General Education social sciences Social and Behavioral Sciences and/or Valuing requirements courses are listed here in *The Bulletin* and can be found on the Degree Audit Report System.

Requirements for the Minor
Candidates must complete a minimum of 15 hours of courses taught by or cross-listed with the Psychology Department, including at least 6 hours at the 3000 or 4000 level (no more than 3 of these can be PSYCH 3295 or 3390). Candidates must have a cumulative grade point average of 2.0 or higher in the minor. Psychology courses taken on a satisfactory/unsatisfactory basis may not be applied to the minor.

Bachelor of Arts in Psychology
At least 34, but no more than 45, hours must be completed in courses taught by or cross-listed with the Psychology Department. Credits that exceed the 45 hour maximum in Psychology will not be counted toward graduation. Candidates must have a cumulative grade point average of 2.0 or higher in the major overall, and must earn a C- or above in each of the courses comprising the 34 credits required of all Psychology majors. Failure to earn a C- or above in these required courses will necessitate re-taking them for a satisfactory completion of the C- requirement in all 34 hours. It is recommended that students complete the prerequisites necessary to start taking the Psychological Statistics (PSYCH 2201) and Research Methods (PSYCH 2219) course sequence as early as possible after declaring a Psychology major. Psychological Statistics and Research Methods are 2000-level courses; it is important to complete these when students are taking other...
2000-level courses. Students who wait to take these courses are not as prepared for their 3000 and 4000 level courses as are those who take them at the appropriate time. No Psychology courses taken on a satisfactory/unsatisfactory basis may be applied to the major.

A grade of C- or above is required by all Psychology majors in the following 34 credit hours of courses:

**PSYCH 1000**, Careers in Psychology (1)
- Native and transfer students must satisfactorily complete this course during their first semester of study at UMSL.
- A grade of C- or above is required for Psychology majors taking this course. Psychology majors earning below a C- must repeat this course to earn a satisfactory grade.

**PSYCH 1003**, General Psychology (3)
- A grade of C- or above is required for Psychology majors taking this course. Psychology majors earning below a C- must repeat this course to earn a satisfactory grade.

**PSYCH 2201**, Psychological Statistics (4)
- Meeting the University mathematical skills requirement is a prerequisite for this course. Students may register for this course only after satisfactory completion of this requirement.
- A grade of C- or higher in PSYCH 2201 is required before students may register for PSYCH 2219.
- A grade of C- or above is required for Psychology majors taking this course. Psychology majors earning below a C- must repeat this course to earn a satisfactory grade.

**PSYCH 2211**, Introduction to Biological Psychology (3)
- PSYCH 1003, and three hours of BIOl chosen from either BIOl 1012, or BIOl 1102, or BIOl 1811 are prerequisites of this course and must be completed before enrollment.
- A grade of C- or above is required for Psychology majors taking this course. Psychology majors earning below a C- must repeat this course to earn a satisfactory grade.

**PSYCH 2219**, Research Methods (3)
- A grade of C- or above in PSYCH 2201 at UMSL is a prerequisite of this course. Students may not register for PSYCH 2219 until a final grade of C- or above has been earned in PSYCH 2201. Students wishing to have statistics courses from other institutions reviewed for possible course equivalency must see the Director of Academic Advising for the Department of Psychology for a review.
- PSYCH 2201 and PSYCH 2219 cannot be taken concurrently.
- A grade of C- or above is required for Psychology majors taking this course. Psychology majors earning below a C- must repeat this course to earn a satisfactory grade.

**PSYCH 2245**, Abnormal Psychology (3)
- A grade of C- or above in PSYCH 1003 is a prerequisite for this course.
- A grade of C- or above is required for Psychology majors taking this course. Psychology majors earning below a C- must repeat this course to earn a satisfactory grade.

**PSYCH 2160, Social Psychology (3)** *OR*
**PSYCH 2270, Developmental Psychology: Infancy, Childhood & Adolescence (3)**
- A grade of C- or above in PSYCH 1003 is a prerequisite for taking either of these courses.
- A grade of C- or above is required for Psychology majors in at least one of these two courses.
- Psychology majors earning below a C- must either repeat the course in which the unsatisfactory grade was earned, or satisfactorily complete the other course listed here.

**PSYCH 4999**, Integrated Psychology (2)
- Students may register for this course during their final semester of study at UMSL.
- A grade of C- or above is required for Psychology majors taking this course.
- PSYCH 3000/4000 level Psychology courses (12) At least four additional courses totaling a minimum of 12 credit hours in Psychology (in addition to the 2 credits earned in PSYCH 4999) must be satisfactorily completed at the 3000/4000 level.
- A grade of C- or above is required by all Psychology majors in a total of 12 credit hours of 3000/4000 level Psychology courses. Psychology majors earning below a C- must either repeat courses in order to earn a C- or above in 12 hours at this level, or satisfactorily complete other 3000/4000 level courses for satisfactory completion of a cumulative total of 12 hours.

Additional Notes:
Psychology majors must not take courses in excess of 45 hours in Psychology. Psychology credits completed
in excess of 45 will not count toward graduation. For example, students earning 48 hours in Psychology will consequently be required to earn a minimum of 123 hours to graduate. The required completion of Math, Psychological Statistics (PSYCH 2201), and Research Methods (PSYCH 2219) require a minimum of three semester to complete. Students must satisfy the current University mathematical skills requirement before taking PSYCH 2201, Psychological Statistics. PSYCH 2201 is a prerequisite for PSYCH 2219, and hence, PSYCH 2201 must be completed with a grade of C- or higher PRIOR to enrollment in PSYCH 2219. PSYCH 2201 and PSYCH 2219 cannot be taken concurrently. Students are advised to plan accordingly and to seek assistance from Psychology Academic Advising whenever needed.

Students are required to satisfactorily complete 13 credit hours in a foreign language.

**Graduate School Preparation**

In addition to the required courses listed above, students interested in applying to graduate school in Psychology are strongly encouraged to become involved in a research project with a Psychology faculty member by securing enrollment in PSYCH 3390, Directed Studies. These positions are available on a limited and competitive basis. No enrollments in PSYCH 3390 are possible without special Instructor permission. Those invited to participate must obtain a special consent form from the instructor in order to enroll. Contact the Psychology Academic Advising office for more information on such positions (psy_advising@umsl.edu).

**Undergraduate Learning Outcomes**

The Undergraduate Psychology Learning Goals and Outcomes represent reasonable departmental expectations for the psychology major at the University of Missouri-St Louis. They have been modified from the undergraduate learning goals recommended by the American Psychological Association.

**Goal 1. Knowledge Base of Psychology**

Students will demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.

PSYCH 1003 introduces these concepts; all other psychology courses expand on these issues in more depth.

**Goal 2. Research Methods in Psychology**

Students will understand basic research methods in psychology, including the development and refinement of theory, hypothesis generation and testing, research design, data analysis and interpretation.

All courses touch on these issues, but two required courses, PSYCH 2201 and PSYCH 2219 specifically address these issues in depth. In addition, students may take elective courses to strengthen their skills in this area.

**Goal 3. Biological and Cognitive Approaches to Understanding Behavior**

Students will have a basic understanding of the biological basis of behavior and cognitive theory and research in psychology.

The following courses specifically address this goal: PSYCH 2211, PSYCH 4349, and PSYCH 4356.

**Goal 4. Application of Psychology to Personal Development and Mental Health**

Students will understand and apply psychological principles to personal development and mental health.

Many psychology courses have a specific application to the personal development and mental health of students and their families, including PSYCH 2232, PSYCH 2245, PSYCH 2270, PSYCH 2280, PSYCH 3340, PSYCH 3346, PSYCH 4305, PSYCH 4306, and PSYCH 4376.

**Goal 5. Application of Psychology to Social and Organizational Issues**

Students will understand and apply psychology principles of social and organizational issues, including understanding and respect for cultural diversity.

The following courses address this goal: PSYCH 2160, PSYCH 2222, PSYCH 2230, PSYCH 3318, PSYCH 4310, and PSYCH 4311.

**Goal 6. Values in Psychology and Critical Thinking**

Students will be able to weigh evidence, tolerate ambiguity, act ethically, and reflect other values that are the underpinnings of psychology as a discipline. Students will also learn to use critical thinking in evaluating research and other types of information.

All courses are relevant to this goal.

**Goal 7. Information and Technological Literacy**

Students will demonstrate information competence and the ability to use computers and other technology for many purposes.

PSYCH 2219 addresses these topics in considerable detail.
Goal 8. Communication Skills
Students will be able to communicate effectively in a variety of formats.

All courses provide some training in communication skills, with initial skills reinforced in upper division courses.

Goal 9. Career Planning and Development
Students will emerge from the major with realistic ideas about how to implement their psychological knowledge, skills, and values in occupational pursuits in a variety of settings.

PSYCH 1000 addresses this goal directly.

Graduate Programs in Depth

Admission Requirements
In addition to meeting the general admission requirements of the Graduate School, applicants should have completed undergraduate courses at minimum in general psychology, psychological statistics, and research methods. Each doctoral program has additional admission requirements specific to that program.

Applications:
Each program has independent deadlines for completed applications. They are as follows:

Ph.D. in Psychology:
Clinical Psychology—December 15
Industrial/Organizational Psychology—January 15
Neuroscience, Behavior, And Cognition—January 15

Teaching and Research Assistantships.
Stipends for teaching and research assistantships are available for the doctoral programs only.

Master of Arts in Psychology
The psychology department at the University of Missouri-St. Louis devotes most of its graduate level training to its three doctoral programs. However, the department does offer a flexible program of studies leading to the Master of Arts degree with a specialization in either Industrial/Organizational Psychology or Neuroscience, Behavior, and Cognition. These positions are very limited in number. Course work is possible, depending on student demand and course availability. The M.A. degree does not constitute a license to practice in Missouri or elsewhere as a professional Psychologist. The M.A. program does not offer course work in Counseling or Clinical Psychology.

There is no thesis or language requirement. Part-time or full-time enrollment is permissible. The M.A. degree is a terminal degree and is separate from the Ph.D. program in Psychology.

The M.A. in Psychology requires a total of 32 semester hours of course work in Neuroscience, Behavior, and Cognition or 45 semester hours of course work in Industrial/Organizational Psychology. Before applying for admission to the Master's Program, interested applicants are encouraged to discuss their interest with either the Director of the Neuroscience, Behavior, and Cognition program or the Director of the Industrial/Organizational Psychology program.

All students in the Master's program must take the course work prescribed by their emphasis area. All programs of study for M.A. students require the approval of the Director of the Behavioral Neuroscience program or Director of the Industrial/Organization program.

Description of Ph.D. Programs/Options
There are three distinct programs: Clinical Psychology; Neuroscience, Behavior, and Cognition; and Industrial/Organizational Psychology. Details on each program can be found on the Psychology Department webpage. Each has its own specific curricular and research requirements. The following briefly describes each program.

Clinical Psychology
The Clinical Psychology program has been fully accredited by the American Psychological Association since 1977 and is patterned upon the scientist-practitioner model of clinical training. The Clinical Psychology program requires five years of full-time study. Students are not considered for admission on a part-time basis. Through the medium of courses, practicum, and research experiences, this emphasis area prepares Clinical Psychologists for careers in research, teaching, and clinical practice.

Students in the Clinical Psychology program participate for three years in the Psychology Department’s Community Psychological Service. This facility provides psychological services to the public and consultation to outside agencies. Students also receive clinical experience in clerkships and during a full-time, year-long internship. Research requirements include an initial independent research project, a major critical review of research in a specialty area, and a dissertation.
Learning Outcomes for the Ph.D. in Clinical Psychology:

The Ph.D. in Clinical Psychology has the following goals and outcomes:

Goal 1. Students will gain a broad-based foundation of knowledge and conceptual skills necessary for psychological research and practice.

The following courses address this goal: PSYCH 5465, PSYCH 5468, PSYCH 6466, PSYCH 7403, PSYCH 7405, PSYCH 7412

Students will be prepared in multiple approaches to assessment and treatment that are theory-based and research-supported.

The following courses address this goal directly: PSYCH 7404, PSYCH 7406, PSYCH 7430, PSYCH 7431, PSYCH 7434, PSYCH 7439, PSYCH 7450, PSYCH 7451.

Goal 2. Students will develop the ability to evaluate and conduct methodologically sound research of potential benefit to the practice of psychology.

The following courses address this goal directly: PSYCH 7421, PSYCH 7422, PSYCH 7474, PSYCH 7485, PSYCH 7486, PSYCH 7487, PSYCH 7488, PSYCH 7492.

Goal 3. Students will develop a firm basis for ethical decision-making and adherence to professional standards of conduct in research and practice.

Most courses provide some training in this area, and PSYCH 7432 addresses this goal directly as a required course.

Goal 4. Students will develop and display sensitivity and adaptability in their applications of research, assessment and treatment approaches to diverse populations.

Most courses provide some training in this area, and PSYCH 6448 addresses this goal directly as a required course.

Goal 5. Students will continue to develop a commitment to the goals of life-long learning, and an awareness of clinical psychology as an evolving science.

All courses are relevant to this goal.

Neuroscience, Behavior, and Cognition

The Neuroscience, Behavior, and Cognition (NBC) program provides opportunities for study, research, and training in various areas including psychophysiology, psychopharmacology, neuroendocrinology, cognitive neuroscience, and neuropsychology. This program prepares students for research careers in academia or industries, such as pharmaceutical firms and medical schools. Full-time enrollment is required.

Learning Outcomes for the Ph.D. in Neuroscience, Behavior, and Cognition:

The graduate program in Neuroscience, Behavior, and Cognition has the following goals. Outcome measures for each goal allow the faculty to assess the students.

Goal 1. Students will gain a broad-based foundation of terminology and basic and conceptual knowledge necessary for teaching and research in the NBC field. Outcome measures include grades in coursework, performance on both the written and oral segments of the qualifying exam, as well as active participation in our journal reading groups.

Goal 2. Beginning early in their studies, students will learn the basic skills to conduct research in a variety of different paradigms. Outcome measures include successful accomplishments in the laboratories of mentor professors.

Goal 3. Beginning early in their studies, students will come to recognize the key to success in the NBC field is publishing and seeking grant support. Outcome measures include an easily observable mindset that assesses all scholarly activities in regard to possible publication and/ or a suitable idea for submission to a grant agency. Also, regular attendance is expected at all relevant colloquia on campus and at the grant writing seminar offered by the NBC faculty.

Goal 4. Students will come to recognize importance of writing and will be constantly developing their writing skills as applied to manuscript preparations and grant applications. Outcome measures are the numbers of manuscripts written and submitted to journals or grant agencies each year.

Goal 5. As they progress through the program, students will show increasing self-reliance to initiate a research project and carry it to its completion. Outcome measures are numbers and quality of self-initiated research projects.
Goal 6. At the end of their graduate studies, the students will have grown into full colleagues of the faculty and be ready for careers in research and teaching. Outcome measures are a quality dissertation that is successfully defended before peers and being hired for a suitable position (post-doc, assistant professor, junior-level researcher) in the field.

**Industrial/Organizational Psychology**

The Industrial/Organizational Psychology program is offered in cooperation with selected faculty from the College of Business to prepare students for careers in industry or academia. This program embraces the scientist-practitioner model and provides a balanced training in I/O. This emphasis provides "industrial" training in areas such as personnel selection, training, and test development/validation, as well as "organizational" training in areas such as work motivation, leadership, and group processes. Research and other training experiences in various settings are also incorporated.

**Learning Outcomes for the Ph.D. in Industrial/Organizational Psychology:**

The Ph.D. in Industrial/Organizational (IO) Psychology has the following goals:

- **Goal 1.** Students will gain a broad-based foundation of knowledge and conceptual skills necessary for applied psychological research and practice.
- **Goal 2.** Students will develop the ability to evaluate and conduct methodologically sound research of potential benefit to the theory and practice of psychology.
- **Goal 3.** Students will develop the ability to apply psychological principles that are theory-based and research-supported to individuals and groups in organizational settings.
- **Goal 4.** Students will develop a firm basis for ethical decision-making in research and practice.
- **Goal 5.** Students will display adaptability in their applications of research, assessment and practical psychological approaches to individuals and groups in organizational settings.

**Graduate Certificate Programs**

**Clinical Psychology Respecialization-Advanced Graduate Certificate Program**

This program is designed for graduates of accredited doctoral programs in psychology who wish to receive training in the specialty field of clinical psychology. Respecialization students are trained within the context of the UMSL Clinical Psychology Doctoral Program, which is accredited by the American Psychological Association. The program provides an integrated sequence of training experiences, including didactic course work and practicum placements. Core graduate-level psychology educational requirements not completed elsewhere are included in the respecialization student's course of study.

**Graduate Certificate in Trauma Studies**

The graduate certificate is awarded upon the completion of 18 credit hours of coursework on the topic of trauma studies. No more than nine hours of graduate level independent research or fieldwork may be used for the certificate. The coursework for the certificate must be taken in at least two departments and may include no more than three hours at the undergraduate 3000 or 4000 level.

**Course Descriptions**

**PSYCH 1000 Choosing a Career in Psychology (1)**
- Prerequisite: Psychology major or consent of instructor. This course is an orientation to the field of psychology for majors and for students who are considering declaring the major. This course is to be completed by native and transfer Psychology majors during their first semester of study at UMSL. Students will be engaged in activities that will help them develop and identify their professional goals, learn about the various specialties and careers available within the field of Psychology, understand the education and skills necessary for various careers, learn the requirements for a Psychology major, become familiar with minors that are available at UMSL, think about a possible choice of minor or certificate, and become acquainted with the interest areas of UMSL faculty in Psychology and related fields. All Psychology majors must complete this course during the first semester at UMSL with a grade of C- or higher.

**PSYCH 1003 General Psychology (3)**
- [Meets General Education Social and Behavioral Sciences requirement] A broad introductory survey of the general principles of human behavior. A survey of the basic concepts, theories, and pivotal findings over the past 100 years in the science of Psychology, with special emphasis on contemporary concepts and findings that focus on the relation of the brain to normal and pathological behaviors. All Psychology majors must complete this course with a grade of C- or higher.

**PSYCH 1268 Human Growth and Development (3)**
- [Meets General Education Social and Behavioral Sciences requirement] Prerequisite: PSYCH 1003. A survey course, designed for non-major. This course examines development over the lifespan with an emphasis on the
developmental tasks and hazards of each age period. Majors in Psychology and students planning to pursue a 
career in Psychology research, teaching, or practice are strongly encouraged to take PSYCH 2270 instead of 
this course.

**PSYCH 2160 Social Psychology (3)**
Same as SOC 2160. Prerequisite: PSYCH 1003 or SOC 1010. This course examines the behavior, thoughts, 
and feelings of individuals in their social environments. The content focuses not only on how people relate to 
one another, but also on the processes affecting their interactions with others. Specific topics include the self, 
social judgments, attitudes and persuasion, helping behavior, prejudice, aggression, attraction, conformity 
and obedience, and group processes. All Psychology majors taking this course instead of PSYCH 2270 must 
complete it with a grade of C- or higher.

**PSYCH 2170 Aging in America: Concepts and Controversies (3)**
Same as GERON 2170, ID 2170, SOC WK 2170, and SOC 2170. This course examines the major theoretical 
and service issues connected to the study of older adults and their families, using multidisciplinary 
perspectives. Students are provided with an introduction to the field of aging through an examination of 
current social issues and controversies. This course emphasizes student involvement through class discussion, 
and is appropriate for students in the arts and sciences, business, communication, education, and nursing.

**PSYCH 2200 Drugs and Behavior (3)**
Prerequisites: PSYCH 1003. The course is an introduction to psychopharmacology and the relationship among 
drugs, and how these impact the brain and behavior. The emphasis is on physiological mechanisms underlying 
the behavioral responses to psychotherapeutic substances, illicit psychoactive drugs, commonly used 
substances (alcohol, nicotine, caffeine), and drug-like substances produced naturally in the body.

**PSYCH 2201 Psychological Statistics (4)**
Prerequisites: PSYCH 1003 and satisfaction of the university's mathematical skills requirement. (With 
laboratory) This course serves as an introduction to statistical concepts and methods used in Psychological 
measurement and the analysis and interpretation of social sciences data. Topics include descriptive statistic s,
frequency distributions, centrality, variability, and correlational measures; as well as an introduction to 
statistical inference, sampling fundamentals, significance testing and effect size, t-test, and analysis of 
variance. All Psychology majors must complete this course with a grade of C- or higher before registering for 
PSYCH 2219.

**PSYCH 2205 Human Sexuality: Psychological Perspectives (3)**
Prerequisite: PSYCH 1003. [Meets General Education Social and Behavioral Sciences and Valuing 
requirements] This course is a comprehensive overview of human sexuality from the standpoint of the 
behavioral science of Psychology. This course includes a study of sexual anatomy and physiology, intersex 
classifications, sex and gender differences, sexual orientation, interpersonal and intrapersonal aspects of 
human sexuality, classification and treatment of sexual dysfunction and sexual disorders, sexual victimization, 
and the methods employed for the scientific examination of human sexual behavior.

**PSYCH 2211 Introduction to Biological Psychology (3)**
Prerequisites: PSYCH 1003, BIOL 1012 and 3 additional hours in Psychology or Biology. A fundamental course 
designed to introduce psychology students to the new findings for the biological bases of human behavior.

**PSYCH 2216 Personality Theory (3)**
Prerequisite: Six hours of psychology. Structural and dynamic aspects of the human personality considered in 
the context of selected theoretical systems.

**PSYCH 2219 Research Methods (3)**
(With laboratory.) Prerequisite: grade of C- or higher in PSYCH 2201. Research methods and analysis 
techniques used in psychological inquiry. Special emphasis placed on the logic of research design. Includes 
laboratory study and analysis of selected methods.

**PSYCH 2222 Group Processes in Organizations (3)**
Prerequisite: PSYCH 1003 or MGMT 3600. Topics include theory, research, and practice in coordination, 
conflict, and decision making in groups and organizations, as well as the role of influence, power, and 
leadership effectiveness in understanding interpersonal and group relations.

**PSYCH 2230 Psychology of Gender (3)**
[Meets General Education Social and Behavioral Sciences and Valuing requirements] Same as GS 2230 
Prerequisite: PSYCH 1003. Evaluation of psychological theories and research regarding physiological, 
cognitive, and personality gender differences and similarities, gender related problems in adjustment, and 
gender specific clinical interventions.

**PSYCH 2232 Psychology of Victims (3)**
Same as GS 2232. Prerequisite: PSYCH 1003. This course is designed to review the psychological effects of 
crime, violence, war, natural disasters, and other traumas. Particular attention is paid to the development of 
specific psychopathology and other negative consequences of traumatic events. The process of recovery from 
distress following psychological events is further emphasized. The role of gender and its relationship to
victimization and the development of psychopathology and recovery are considered throughout the course.

**PSYCH 2245 Abnormal Psychology (3)**
Prerequisite: PSYCH 1003. Introduction to major symptom complexes, theories of etiology, and treatment of behavior disorders.

**PSYCH 2270 Developmental Psychology: Infancy, Childhood & Adolescence (3)**
Prerequisite: PSYCH 1003. The theory and research surrounding cognitive, social, emotional, and physical development from conception through adolescence. Intended for students with career interests in the study, education, and/or treatment of children.

**PSYCH 2272 Developmental Psychology: Adulthood and Aging (3)**
Same as GERON 4280. Prerequisite: PSYCH 1003. Personality, social, and physiological development from the onset of early adulthood through maturity and old age.

**PSYCH 2280 Psychology of Death and Dying (3)**
[Meets General Education Social and Behavioral Sciences and Valuing Requirements] Same as GERON 2280. Prerequisite: PSYCH 1003. A beginning exploration of end-of-life issues integrating the scholarly, social, and individual dimensions of death and dying. This course provides a solid grounding in theory and research, as well as practical application to students' lives.

**PSYCH 2285 American Culture & Minority Mental Health (3)**
[Meets General Education Social and Behavioral Sciences and Valuing Requirements] Prerequisite: PSYCH 1003. Provides an examination of the relationship between American culture and mental health. The focus is on the lives of American minority groups, with specific attention given to how racism, prejudice, and minority status currently reveal themselves within a mental health framework. An eclectic, multidisciplinary approach drawings from clinical and social Psychology will be utilized.

**PSYCH 3205 Evolutionary Psychology (3)**
Prerequisite: PSYCH 2211. Evolutionary Psychology refers to a fundamentally unique approach to studying and thinking about human and animal behavior through considerations of 1. the challenges and stressors encountered in ancestral environments, 2. the proximate physical, psychological, and anatomical methods that evolved to meet these adaptive problems, and 3. how adaptive or maladaptive these mechanisms are in current environments. Special emphasis will be placed on the evolution of brain structures, cognitive processes, and social behaviors. The content for this course is not new; Evolutionary Psychology involves looking at the science of Psychology through a unique lens, shaped by its tenets. Although appreciation for this approach to psychological research is increasing, it remains controversial in psychology circles. We will discuss the state of this aspect of Psychology as well.

**PSYCH 3256 Environmental Psychology (3)**
Prerequisite: PSYCH 2160 or SOC 2160. Analysis of environmental influences on behavior and man's influence, in turn, on the environment. Topics will include a consideration of both individual processes relating to the environment (such as the perception, evaluation, and adaptation to the environment) and social processes relating to the environment (such as privacy, territoriality, and crowding).

**PSYCH 3290 Traumatic Stress in Childhood and Adolescence (3)**
Prerequisites: PSYCH 2270 (majors) or PSYCH 1268. Exploration of the impact of stressors experienced during infancy, childhood and adolescence. Integrates how theoretical frameworks, cultural considerations and policy implications apply to child development research and practice.

**PSYCH 3316 Fundamentals of Leadership (3)**
Prerequisites: 9 hours of Psychology or consent of instructor. This course addresses concepts and methods for developing leadership skills in work and everyday settings. Contemporary approaches to leadership development are reviewed in relation to psychological and organizational theory. This course is designed to be relevant to the wide range of leadership opportunities that arise in work and daily life. Experiential exercises are used to help students discover and develop new leadership skills.

**PSYCH 3318 Industrial and Organizational Psychology (3)**
Same as MGMT 3623. Prerequisite: PSYCH 2201 or MGMT 3600. This course introduces the student to psychological research and theories pertaining to human behavior in the work setting. Topics covered include: selection, performance appraisal, training, leadership, motivation, job satisfaction, and organizational design.

**PSYCH 3340 Clinical Problems of Childhood (3)**
Prerequisites: A total of twelve hours of psychology including PSYCH 1003 and PSYCH 2270. This course will address the clinical disorders and difficulties of children and the treatment of these disorders. Topics that will be addressed include autism, childhood schizophrenia, behavior disorders, drug abuse, enuresis, encopresis, and childhood co-compulsive and phobic reactions. Treatments designed for specific use with children, including behavioral, drug, and community mental health approaches will be addressed.

**PSYCH 3346 Introduction to Clinical Psychology (3)**
Prerequisites: Nine hours of Psychology, including PSYCH 2216 or PSYCH 2245. A conceptual framework for
research, description, and understanding of clinical phenomena. Assessment, interviewing, the clinical use of tests, and psychological approaches to treatment.

PSYCH 3390 Directed Studies (1-5)
Prerequisite: Consent of instructor. Directed reading and research. May be repeated for a maximum total of six hours.

PSYCH 3400 Conceptual and Historical Foundations of Psychology (3)
Prerequisite: PSYCH 1003. Examines the conceptual, theoretical and historical foundations that underlie all areas of psychology.

PSYCH 3500 Health Psychology (3)
Prerequisite: PSYCH 1003. Health psychology involves the disciplines and principles of psychology and behavior in understanding how the mind, body, and behavior interact in health and disease. Class topics include theoretical foundations of health and illness, health promotion and primary prevention of illness, health enhancing and health damaging behaviors, psychosomatic illness, stress and coping, pain management, and a variety of specific behavior-related medical illnesses (e.g., heart disease, eating disorders, cancer, AIDS).

PSYCH 3820 Cross-Cultural Psychology (3)
Prerequisites: PSYCH 1003 and 9 hours of Psychology. The purpose of this course is to present students with a broad theoretical and applied overview of cross-cultural psychology. To this end, the course presents an orientation to the definitions, concepts, theories, and methodologies of cross-cultural psychology. Included is an examination of cultural and ecological factors and their influences on perceptual and cognitive processes, personality, language, and other psychological variables.

PSYCH 4300 Introduction to Psychopharmacology: Drugs and Mental Illness (3)
Prerequisites: PSYCH 2211 or PSYCH 2200, and PSYCH 2245. The course is designed to provide an introduction to drugs used to treat anxiety disorders, major depression, schizophrenia, and other psychopathologies. The emphasis will be on understanding neural mechanisms related to psychological disorders and to the effectiveness of current drug treatments.

PSYCH 4305 Cognitive Development (3)
Prerequisites: Junior standing and PSYCH 2270, or consent of instructor. Data and theory concerned with how children's thinking changes over time. Discussion will include domain-general versus domain-specific theories, social and cultural influences on cognition, gains in memory, attention, problem solving, and metacognition, conceptual development, children's naive theories, schooling, and various definitions and measures of intelligence.

PSYCH 4306 Social Development (3)
Prerequisites: Junior standing and PSYCH 2270, or consent of instructor. Data and theory concerned with social behavior in infants, preschoolers, and school-aged children. Discussion will include emotional regulation, measurement and nature of temperament, formation and maintenance of attachment relationships, sex-role development, theories of aggression and the effects of socializing agents such as family, peers, media, and culture on development.

PSYCH 4310 Motivation Theory (3)
Prerequisites: Junior standing and twelve hours of Psychology, or consent of instructor. Survey of current theoretical material in the area of motivation.

PSYCH 4311 Psychology of Nonverbal Behavior (3)
Prerequisite: PSYCH 2160 or SOC 2160. Psychological perspective on the role of nonverbal behavior in social settings. Primary concerns of the course will include an analysis of a) functions of nonverbal behavior (e.g., communication, intimacy exchange, control), b) factors influencing nonverbal expression (e.g., culture, personality, relationships), and c) various theoretical views on nonverbal behavior and communication. Applications to various problems and settings in everyday life will also be pursued.

PSYCH 4330 Hormones, the Brain and Behavior (3)
Prerequisites: Nine hours of Psychology or Biology, including at least one of the following: either PSYCH 2200, PSYCH 2211, or PSYCH 4300, or permission of instructor. This course may be taken for graduate credit with permission of the instructor. Historically, hormones have been studies for their role in reproduction, including reproductive physiology and sexual behaviors. It is now clear, however, that the endocrine system actively interacts with brain regions unrelated to reproduction with the result that sex hormones and neuropeptide hormones influence a wide range of behaviors including mood, anxiety, stress responses, cognition, memory, violence, attachment, aging, weight control, and athletic prowess. Emphasis of the class is on hormonal contribution both to reproductive and non-reproductive behaviors with special attention paid to gender behavioral differences.

PSYCH 4349 Human Learning and Memory (3)
Prerequisites: Nine hours of psychology or consent of instructor. This course is an introduction to classic and contemporary theories, methodologies, and theoretical perspectives used in the fields of learning and
memory. The course will explore the various divisions of memory along with processes involved in the
acquisition, retention, and retrieval of information. Some of the specific topics include infantile amnesia, false
memory, flashbulb memories, and photographic memory. The course will explore various theories of learning
as well as optimal conditions for the long-term retention of information.

**PSYCH 4356 Cognition Processes (3)**
Prerequisites: Nine hours of psychology or consent of instructor. This course is an overview of the major
topics in cognitive psychology, including perception, visual imagery, attention, memory, knowledge
representation and retrieval, language, problem solving, reasoning, judgment, decision making and
intelligence.

**PSYCH 4365 Psychological Tests and Measurements (3)**
Prerequisites: Grade of C- or above in PSYCH 2201 and PSYCH 2219, or consent of instructor. This course is a
survey of the basic principles, research, and theories on testing and measurement of psychological constructs.
Students will critically examine several professionally developed tests and learn about the administration,
interpretation, and psychometric qualities of each.

**PSYCH 4374 Introduction to Clinical Neuropsychology (3)**
Prerequisite: Nine hours of psychology. An introduction to current theory and practice of clinical
neuropsychology with a focus on neuropsychological findings concerning relationships between the brain and
behavior. Particular attention is devoted to function, neuroanatomy, neurological syndromes, patterns of brain
impairment associated with various medical diseases, and methods of neuropsychological assessment and
intervention.

**PSYCH 4376 Mental Health and Aging (3)**
Same as GERON 4376 and SOC WK 4376. (MSW students normally take all foundation courses prior to
enrolling in this course.) Prerequisites: 9 hours of psychology, graduate standing, or consent of instructor.
This course provides a survey of theory and research in mental health issues for older populations, focusing on
psychological and social aspects of mental health and impairment. The course details approaches to
understanding prevalence, etiology, assessment, and treatment of the psychological disorders most commonly
experienced by older adults, including anxiety, depression, delirium, and dementia, among others.

**PSYCH 4392 Selected Topics in Psychology (1-3)**
Prerequisites: Twelve hours of psychology and consent of instructor. A seminar of selected issues and
methods in psychology. May be repeated once for credit.

**PSYCH 4999 Integrated Psychology (2)**
Prerequisites: This course is restricted to Psychology majors and must be taken during majors’
final semester of study. This capstone course serves as a review of the primary sub-fields of psychology.
An advanced general psychology textbook will guide the class through important contemporary topics in
behavioral neuroscience, learning & memory, cognition, psychopathologies and their treatments, and
developmental and social psychology. The Major Field Aptitude Test in Psychology will serve as the final exam
for the course. All Psychology majors must complete this course with a grade of C- or higher.

**Note:** Courses above the 4000-level are designated as Graduate School Curriculum.

**PSYCH 5001 Neuropsychological Assessment (3)**
Prerequisite: Admission to Psychology graduate program, or consent of instructor. This graduate level course
will review neuroanatomical systems that mediate primary cognitive networks and methods of assessments
and interpretation of data. The course will also review common neurological and psychiatric conditions that
result in neuropsychological compromise.

**PSYCH 5407 Psychopharmacology (3)**
Prerequisite: 12 units of graduate-level psychology courses and consent of instructor. An examination of the
effects of drugs on the brain and on behavior. Primary emphasis is on those drugs used in the treatment of
affective disorders, schizophrenia, and anxiety.

**PSYCH 5465 Seminar: Behavioral Neuroscience (3)**
Prerequisite: Graduate standing or permission of instructor. Behavioral neuroscience is the study of the
relation of the brain to behavior. This field has emerged as the new face of psychology; there are few
subfields in psychology that have not been influenced by findings from animal labs, and from human studies
employing physiological recordings, neuroimaging and psychotherapeutic drugs. This course will serve as an
introduction for graduate students in psychology of brain morphology and function with an emphasis on
normal and pathological behaviors.
PSYCH 5468 Seminar: Cognitive Processes (3)
Prerequisite: Admission to the Graduate Program in Psychology or consent of instructor. This course is an introduction to classic and contemporary theories, methodologies and theoretical perspectives used in the field of cognitive psychology. The emphasis is on basic research in the field of cognitive psychology but some applications of these experiments are discussed as well. The class will read and discuss chapters from cognitive psychology textbooks as well as classic and contemporary empirical journal articles in cognitive Psychology.

PSYCH 5610 Mechanisms of Aging I: The Aging Body (1)
Prerequisite: Admission to Clinical Psychology program or permission of the instructor. A critical examination of the clinical-experimental literature on psychopathology. Etiologies of cognitive/affective functions and Prerequisites: Graduate standing and BIOL 1102 or equivalent. Same as SOC WK 5610 and GERON 5610. (MSW students normally take all foundation courses prior to enrolling in this course.) Introduces students with a social sciences/humanities background to the normal changes in the biology and chemistry of the aging human body and how these changes affect behavior.

PSYCH 5611 Mechanisms of Aging II: The Aging Brain (1)
Same as SOC WK 5611 and GERON 5611. Prerequisites: GERON 5610 or SOC WK 5610 or PSYCH 5610 or equivalent or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background a basic introduction to the biology and chemistry of the aging human brain and nervous system and how these systems impact behavior.

PSYCH 5612 Mechanisms of Aging III: Diseases of Aging (1)
Same as SOC WK 5612 and GERON 5612. Prerequisites: GERON 5610 and GERON 5611 or SOC WK 5610 and 5611 or PSYCH 5610 and PSYCH 5611 or equivalent or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background with information on how diseases associated with aging exacerbate the effects of aging on the human body, mind, and behavior.

PSYCH 6441 Aging and Health Behavior (3)
Same as GERON 6441. Prerequisite: Graduate standing. This course examines sociocultural influences on health care practices of older adults. The role of social support and other social resources in the health behavior of older adults is emphasized. Topics include self care decisions, formal service utilization, family caregiving, and planned interventions for older adults.

PSYCH 6444 Clinical Geropsychology (3)
Prerequisite: Graduate standing or consent of instructor. This course examines major predictors of psychosocial functioning in older adults. The emphasis is on assessment and research methods appropriate to studying developmental issues in late life. Topics include interpersonal relationships, mental health, and a critique of interventions designed to increase life satisfaction.

PSYCH 6448 Multicultural Issues in Clinical Psychology (3)
Prerequisite: Admission to the doctoral program in Clinical Psychology or consent of instructor. A survey of theoretical perspectives utilized in the treatment of various cultural groups. Their relationship to and implications for the treatment of members of various cultural groups will be explored. Strategies and ethical concerns in diagnosis, test interpretation, and treatment are considered.

PSYCH 6466 Seminar: Developmental Psychology (1-3)
Prerequisite: Admission to the doctoral program in Clinical Psychology or consent of instructor. A critical examination of contemporary problems in developmental psychology.

PSYCH 7403 Psychopathology (3)
Prerequisite: Admission to Clinical Psychology program or permission of the instructor. A critical examination of the clinical-experimental literature on psychopathology. Etiologies of cognitive/affective functions and dysfunctions are explored, and implications for therapeutic intervention are considered.

PSYCH 7404 Introduction to Clinical Assessment I (4)
Prerequisite: Admission to Clinical Psychology program. Fundamentals of clinical assessment with emphasis on interviewing and the measurement of cognitive functioning. This course includes a laboratory.

PSYCH 7405 History and Systems in Psychology (3)
Prerequisite: Admission to Clinical Psychology program or consent of the instructor. A comprehensive overview of the history of psychology with an emphasis on the systems of thought that have shaped contemporary psychological theory and research.

PSYCH 7406 Introduction to Clinical Assessment II (4)
Prerequisite: PSYCH 7404. Theory and techniques of personality assessment with a focus on objective and projective personality tests. This course includes a laboratory.

PSYCH 7410 Women and Mental Health (3)
Prerequisite: Admission to the doctoral program in Clinical Psychology or consent of instructor. Same as CiS
This course will focus on contemporary research on the psychology of women pertaining to mental health issues. Etiology and treatment of disorders disproportionately affecting women will be emphasized.

**PSYCH 7412 Social Psychology (3)**
Prerequisite: Admittance to psychology doctoral program or consent of instructor. A review of key areas in contemporary theory and research in social psychology.

**PSYCH 7419 Existential Issues in Clinical Psychology (3)**
Prerequisite: Admission to the doctoral program in Clinical Psychology or consent of instructor. This course will review existential thought in psychology and its application to understanding clinical problems and treatment. Particular attention will be given to how Psychotherapy can be understood within an existential framework that focuses on the issues of death, freedom, responsibility, and isolation.

**PSYCH 7421 Quantitative Methods I (4)**
(With laboratory) A comprehensive study of the use of analysis of variance procedures in analyzing data. Topics include completely randomized designs, randomized blocks, factorial designs, and the analysis of covariance.

**PSYCH 7422 Quantitative Methods II (4)**
Prerequisites: PSYCH 7421 and consent of instructor. (With laboratory) A comprehensive study of the use of multivariate statistics in data analysis. Topics include the general linear model, multiple regression, factor analysis, and multivariate analysis of variance.

**PSYCH 7423 Quantitative Methods III (3)**
Prerequisites: PSYCH 7422 and PSYCH 7429 and consent of instructor. A selective study of the use of multivariate statistics in data analysis. Topics include structural equation modeling, multilevel modeling, and analysis of longitudinal data.

**PSYCH 7429 Psychometric Theory (3)**
Prerequisites: PSYCH 7421, PSYCH 7422 and consent of instructor. A consideration of classical and modern theories of psychological testing. Topics include test reliability, validity and construction.

**PSYCH 7430 Introduction to Clinical Skills (1)**
Prerequisite: Admission to doctoral program in clinical psychology. An introduction to processes and procedures involved in psychotherapy.

**PSYCH 7431 Clinical Supervision (1-3)**
Prerequisite: Admission to Clinical Psychology program. Supervised experience in clinical practice. Maybe repeated six times for credit.

**PSYCH 7432 Ethics and Professional Issues (3)**
A study of issues in professional development, clinical supervision, risk management, and ethical standards as they relate to teaching, research, and professional practice.

**PSYCH 7433 Clerkship in Clinical Psychology (1)**
Prerequisite: Admission to the doctoral program in Clinical Psychology. Supervised training in an affiliated agency or organization following completion of two years of course work. (May be repeated 3 times.)

**PSYCH 7434 Seminar: Introduction to Clinical Interventions (3)**
Prerequisites: Admittance to Clinical Psychology program and PSYCH 7406. This course focuses on conceptual and methodological issues that are central to the development, evaluation and application of interventions in clinical psychology. Topics include efficacy and effectiveness research, introduction to theories of behavior change, and applications with specific populations.

**PSYCH 7439 Summer Supervision (1)**
Prerequisite: PSYCH 7431. Supervision experience in clinical practice at all graduate year levels during the summer months. Can be repeated for credit.

**PSYCH 7442 Seminar: Cognitive and Behavior Interventions (3)**
Prerequisite: PSYCH 7434. This course focuses on the theory and practice of cognitive-behavioral interventions in the field of clinical psychology.

**PSYCH 7445 Seminar: Special Topics in Clinical Psychology (1)**
Prerequisites: Admission to doctoral program in clinical psychology or consent of instructor. A seminar of selected issues and methods in clinical psychology. May be repeated for a total of 3 credit hours, provided the subject matter is different.

**PSYCH 7447 Trauma and Recovery (3)**
Prerequisite: Graduate Trauma Studies Certificate. A comprehensive seminar on the psychological effects associated with exposure to potentially traumatic events. The course will include information on the history of trauma studies; definitions of stressful and traumatic events; common responses to these events; theoretical
models for conceptualizing traumatic responses; information on specific types of traumatic events; and issues in treatment.

**PSYCH 7449 Research Methods in Applied Psychology (3)**
Prerequisite: One graduate course in statistics. This course focuses on the basics of conducting research in applied psychology. Topics include: philosophy of science; reliability and validity; experimental, quasi-experimental, and nonexperimental designs; power; and meta-analysis.

**PSYCH 7450 Clinical Internship I (1)**
Prerequisite: Consent of adviser. Formal, one year, full-time internship providing student with in-depth supervised training within a site approved by the American Psychological Association. (1 credit taken in both the fall and spring semesters of the internship year.)

**PSYCH 7451 Clinical Internship II (1)**
Prerequisites: PSYCH 7450 and consent of adviser. Formal, one year, full-time internship providing student with in-depth supervised training within a site approved by the American Psychological Association. (1 credit taken in the final summer of the internship.)

**PSYCH 7454 Seminar: Personnel Psychology (3)**
An analysis of theories and research in personnel and industrial psychology. Topics include testing, assessment centers, performance appraisal, and interviewing.

**PSYCH 7455 Seminar: Organizational Psychology (3)**
An analysis of theories and research in organizational psychology. Topics include theories of motivation, leadership, job design, group process decision making, organizational effectiveness, and the relationship between organizations and their environment.

**PSYCH 7457 Seminar: Special Topics in Industrial Psychology (3)**
A seminar of selected issues and methods in personnel psychology.

**PSYCH 7458 Seminar: Special Topics in Organizational Psychology (3)**
A seminar of selected issues and methods in organizational psychology.

**PSYCH 7459 Practicum in Industrial/Organizational Psychology (1-4)**
Supervised experience in personnel or human resource management.

**PSYCH 7461 Summer Research in I/O Psychology (1)**
Prerequisite: Admission to I/O program. Supervised experience on research topics in I/O psychology at all graduate year levels during the summer months. Can be repeated for credit.

**PSYCH 7465 Applied Issues in Organizational Psychology (3)**
Prerequisite: PSYCH 7455 or consent of instructor. This course focuses on the application of psychological theory and principles to organizational development consulting. While such consulting is ultimately intended to enhance organizational level functioning, applications of this approach begin with learning at the individual and small group levels. In this course, students work through real-world cases that address real organizational problems. In addition to this casework, the readings and class discussions will address the theoretical and practical links between individual/team learning and organizational development.

**PSYCH 7466 Seminar Series in Industrial/Organizational Psychology (1)**
Prerequisite: Only open to students in the I/O Psychology Graduate Program. A seminar series involving speakers, presentations, and discussions focusing on applied and theoretical perspectives, techniques, and research in the field of Industrial/Organizational Psychology. May be taken up to 6 times for credit.

**PSYCH 7469 I/O Professional Issues & Ethics (3)**
Prerequisite: Consent of instructor. In this course, students learn the ethical standards as they relate to teaching, research, and professional practice in industrial/organizational psychology. Other professional and career issues are also discussed.

**PSYCH 7472 Special Topics in Psychology (3)**
A seminar of selected issues and methods in psychology.

**PSYCH 7474 Clinical Research in Applied Settings (3)**
Prerequisites: PSYCH 7421 and PSYCH 7422. This course provides information on the design and implementation of research in applied settings (e.g., human service agencies). Topics include program evaluation, consultation models, risk factor analysis, presentation and health promotion, and quality control.

**PSYCH 7476 Seminar in Developmental Psychopathology (2)**
Prerequisite: Admission to the doctoral program in Clinical Psychology or consent of instructor. Introduction to principles, theory, and methods of study in the field of clinical child psychology. Emotional and behavioral dysfunctions are considered from developmental and socialization perspectives.
PSYCH 7477 Clinical Interventions with Children and Families (3)
Prerequisites: PSYCH 7434 and PSYCH 7476. This course provides an overview of the theory and practice of clinical interventions with children, adolescents, and families.

PSYCH 7478 Directed Research in Industrial/Organizational Psychology (1-4)
Independent study of an issue in industrial/organizational psychology through the application of research techniques.

PSYCH 7479 Directed Readings in Industrial/Organizational Psychology (1-4)
Independent literature review of a topic in industrial/organizational psychology.

PSYCH 7483 Directed Research (1-10)

PSYCH 7484 Directed Readings (1-10)

PSYCH 7485 Research Team I (2)
Prerequisite: Admittance to doctoral program in Clinical Psychology. Group supervision of beginning research leading to the Independent Research Project.

PSYCH 7486 Research Team II (2)
Prerequisite: Completion of Independent Research Project or Third Year standing in doctoral program in Clinical Psychology. Group supervision of advanced research related to dissertation proposal and program’s comprehensive examination required for doctoral candidacy.

PSYCH 7487 Independent Research Project (1-6)
Prerequisite: Admission to the doctoral program in Clinical Psychology. Supervised original research project of a clinically-related topic.

PSYCH 7488 Specialty Examination Research (1-6)
Prerequisites: Admission to the doctoral program in Clinical Psychology. Supervised original review and analysis of a clinically-related topic.

PSYCH 7491 M.A. Thesis Research (1-10)

PSYCH 7492 Ph.D. Thesis Research (1-10)
Sociology

Faculty

Nancy Shields, Associate Professor, Director
Ph.D., Southern Illinois University-Carbondale

George J. McCall, Professor Emeritus
Ph.D., Harvard University

Harry H. Bash, Associate Professor Emeritus
Ph.D., University of Pennsylvania

Sarah L. Boggs, Associate Professor Emerita
Ph.D., Washington University

Teresa J. Guess, Associate Professor Emerita
Ph.D., University of Missouri-Columbia

Chikako Usui, Associate Professor
Ph.D., Stanford University

Robert Keel, Teaching Professor
M.A., Washington University

Peter Marina, Visiting Assistant Professor
Ph.D., New School for Social Research

The faculty prides itself on its commitment to high standards of teaching and sound scholarly research. Systematic course evaluations by students each semester are taken seriously, and individual faculty have been singled out as nominees and recipients of university Excellence in Teaching awards. The ongoing scholarly research of the faculty is reflected in the department's upper-level and graduate courses, as well as in the numerous publications in journals and books or presentations at national and international meetings. Information on current academic activities of the faculty is posted on the departmental web page.

General Information

Degrees and Areas of Concentration
The sociology department offers courses leading to the B.A. in sociology and the B.S. in sociology; in cooperation with the College of Education, the B.A. in sociology with teacher certification; in cooperation with the College of Business Administration, the B.A. in sociology with a business option; and cooperative minor or certificate programs in American studies, black studies, legal studies, urban studies, religious studies, women's and gender studies, and international studies.

Students completing the B.A. or B.S. degree in sociology are well-prepared for graduate study in sociology or careers in industry, health and social services, and urban, intergroup, political, or community issues.

In addition to a balanced program of basic undergraduate to advanced graduate courses, the department provides a range of opportunities for students to develop specialized research methods. Seminars and internship placements are offered in support of this goal and are typically designed around the ongoing research interests of department faculty. The department provides students with opportunities for intensive direction and guidance from faculty. Students and faculty working in particular subject areas consult freely with members working in other areas. Research interests of sociology faculty extend beyond the department into a wide variety of joint projects with faculty in other departments and programs, including criminology and criminal justice, political science, trauma studies, women's and gender studies, gerontology, public policy research centers, and the Center for International Studies.

Undergraduate Studies

General Education Requirements
Students must satisfy the university and college general education requirements. Courses in sociology may be
used to meet the social science requirement. The foreign language requirement for the B.A. degree may be satisfied in any language. Not more than 12-15 hours of community college transfer credit may be applied toward the combined minimum of required credit hours for the B.A. (30 credit hours) or B.S. (36 credit hours) major. No course in which a grade below a C- is received will count toward satisfying the core requirement.

Satisfactory/Unsatisfactory Restrictions
Sociology majors may not take courses counting toward their major requirements on a satisfactory/unsatisfactory basis.

Learning Goals and Outcomes
The sociology major should study, review, and demonstrate understanding of:

1. The discipline of sociology and its role in contributing to our understanding of society, such that the student will be able to:
   - describe how sociology differs from and is similar to other social sciences, and give examples of these differences;
   - describe how sociology contributes to a social scientific understanding of social life; and
   - apply the sociological imagination, sociological principles and concepts to her/his own life.

   Courses: Introduction to Sociology; Social Psychology; Urban Sociology; Social Problems.

2. The role of theory in sociology, such that the student will be able to:
   - define theory and describe its role in building sociological knowledge;
   - compare and contrast basic theoretical orientations;
   - show how theories reflect the historical context of times and cultures in which they were developed; and
   - describe and apply some basic theories or theoretical orientations in at least one area of society.

   Courses: Sociological Theory; all 4000 level courses.

3. The role of evidence and qualitative and quantitative methods in sociology, such that the student will be able to:
   - identify basic methodological approaches and describe the general role of methods in building sociological knowledge;
   - compare and contrast the basic methodological approaches for gathering data;
   - design a research study in an area of choice and explain why various decisions were made; and
   - critically assess a published research report.

   Courses: Statistics; Methods; Qualitative Methods; Survey Research Practicum.

4. The role of data analysis in sociology, such that the student will be able to:
   - use the necessary technical and analytic skills to retrieve relevant information and data from the internet;
   - use computers appropriately for data analysis;
   - accurately convey data findings in writing; and
   - describe and apply the principles of ethical practice as a sociologist.

   Courses: Statistics; Methods; Qualitative Methods; Social Psychology; all 4000 level courses.

5. Basic concepts in sociology and their fundamental theoretical interrelations, such that the student will be able to:
   - define, give examples, and demonstrate the relevance of the following: culture; social change; socialization; stratification; social structure; institutions; and differentiations by race/ethnicity, gender, age, and class.

   Courses: Introduction to Sociology; all 4000 level courses.

6. How culture and social structure operate, such that the student will be able to:
   - demonstrate the interdependencies of social institutions, and the reflexive nature of interaction between individuals and groups within these institutional structures;
   - demonstrate how social change affects social structures and individuals;
   - demonstrate how culture and social structure vary across time and place, and the effect of such variations; and
   - identify examples of specific policy implications based upon social structural analysis.
Courses: Introduction to Sociology; Sociological Theory; Social Psychology; Sociology of the Family; Sociology of Health; Sociology of Deviant Behavior; Alcohol, Drugs, and Society; Social Problems; Gerontology.

7. Reciprocal relationships between individuals and society, such that the student will be able to:
   - provide a sociological analysis of the development of the self;
   - demonstrate how societal and structural factors influence individual behavior and the development of the self;
   - demonstrate how social interaction influences society and social structure; and
   - distinguish sociological approaches to analyzing the self from psychological, economic, and other approaches.

Courses: Introduction to Sociology; Social Psychology; Sociological Theory; Gerontology.

8. The macro/micro distinction, such that the student will be able to:
   - compare and contrast theories at one level with those at another;
   - summarize research documenting connections between the two; and
   - identify a related research question that could be pursued to more fully understand the connections between the two.

Courses: Introduction to Sociology; Social Problems; Sociological Theory; Sociology of the Family; Urban Sociology; Gerontology.

9. At least one specialty area within sociology, such that the student will be able to:
   - summarize basic questions and issues in the specialty area;
   - compare and contrast basic theoretical orientations in the specialty area; and
   - summarize current research in the specialty area.

Specialty area Inequality Courses: Sociology of Wealth and Poverty; Sociology of Minority Groups; Urban Sociology; Power, Ideology and Social Movements.

Specialty area Social Control Courses: Urban Sociology; Sociology of Conflict; Sociology of Deviant Behavior; Alcohol, Drugs and Society; Criminology and Criminal Justice cross-listed courses. A faculty advisor can approve other areas and courses.

10. The internal diversity of American society and its place in a global context, such that the student will be able to:
    - describe the significance of global variations by race, class, gender, and age; and
    - know how to appropriately generalize or resist generalizations across groups.

Courses: Introduction to Sociology; Gender Roles; Sociology of Wealth and Poverty; Urban Sociology; Social Problems; Gerontology.

11. To think critically, such that the student will be able to:
    - demonstrate an ability to move from recall analysis and application to synthesis and evaluation;
    - identify underlying assumptions in particular theoretical orientations or arguments;
    - identify underlying assumptions in particular methodological approaches to an issue;
    - describe how patterns of thought and knowledge are directly influenced by social structures; and
    - present opposing viewpoints and alternative hypotheses on various issues.

Courses: Sociological Theory; Research Methods; all 4000 level courses.

**Degree Requirements**

**Bachelor of Arts in Sociology**

In addition to specific baccalaureate degree requirements of the College of Arts and Sciences, candidates must complete 30 hours of sociology course credit including the following required courses:

**Core Courses (12 hours)**
SOC 1010, Introduction to Sociology
SOC 3210, Sociological Theory
SOC 3220, Sociological Statistics, or
MATH 1310, Elementary Statistical Methods, or
MATH 1102, Finite Mathematics I, or
MATH 1105, Basic Probability and Statistics
SOC 3230, Research Methods
Synthesis - Choose one (3 hours)
SOC 4040, Survey Research Practicum
SOC 4365, Sociological Writing

Note: The core requirements should be completed as early as possible, preferably by the end of the junior year. Only 45 hours of sociology can be applied to the 120 hour total required for a degree from the University of Missouri-St. Louis.

For the B.A. in sociology candidates are required to take at least 15 additional hours of sociology courses, with at least six hours at the 4000 level (no more than three hours of either SOC 4350, Special Study or SOC 4385, Internship in Sociology may be applied to this 4000 level requirement). No more than three hours in sociology below the 2000 level can count towards this 15-hour requirement. Applied training through one or more research courses may be used as part of the requirement for the major.

Bachelor of Science in Sociology
For the B.S. in Sociology, candidates must complete 36 hours of sociology course credit, including the following required courses:

Core Courses (12 hours)
SOC 1010, Introduction to Sociology
SOC 3210, Sociological Theory
SOC 3220, Sociological Statistics, (or MATH 1310, Elementary Statistical Methods, or MATH 1102, Finite Mathematics I, or MATH 1105, Basic Probability and Statistics)
SOC 3230, Research Methods

Synthesis - Choose one (3 hours)
SOC 4040, Survey Research Practicum
SOC 4365, Sociological Writing

Candidates are also required to complete 21 hours of sociology courses, including a minimum of 9 hours at the 4000 or 5000 level (no more than three hours of either SOC 4350 Special Study or SOC 4385, Internship in Sociology may be applied to the 4000 or 5000 level requirement). No more than three hours in sociology below the 2000 level can count toward this 21-hour requirement.

Related Area Requirements:
Candidates for the B.S. in sociology also must complete five courses from at least four of the following nine areas: computer science, economics, mathematics, philosophy, political science, probability and statistics, psychology, public policy administration, and international studies. Specific course selections must be approved by a faculty advisor.

Combined Degree: Bachelor of Science in Civil Engineering and Bachelor of Science in Sociology
Students pursuing the combined degree are simultaneously enrolled in the College of Arts and Sciences and the Joint Undergraduate Engineering Program. They have an engineering faculty adviser as well as a faculty adviser in Sociology.

A program of 159 semester hours is required for the B.S. in civil engineering and the B.S. in sociology. Earned alone, the B.S. in engineering requires 137 semester hours. Because of the overlap in required courses for the two curricula, the combined degree program requires only 22 additional semester hours.

For additional information, see the section in this Bulletin labeled UMSL/Washington University Joint Undergraduate Engineering Program or contact:

Associate Dean of the Joint Undergraduate Engineering Program,
228 Benton Hall,
University of Missouri-St. Louis,
one University Blvd.,
St. Louis, MO 63121.

B.A. or B.S. in Sociology with Teacher Certification
Students must complete the B.A. or B.S. in sociology requirements, as well as the requirements for teacher certification. (See the College of Education section of this Bulletin.)

B.A. or B.S. in Sociology with an Interest in Business
The following courses are suggested for students seeking careers in sales, market research, and so forth. In addition to the B.A. or B.S. in sociology requirements, the following core courses are suggested:

ECON 1001, Principles of Microeconomics
BUS AD 2400, Fundamentals of Financial Accounting SOC 4646, Demographic Techniques

Students may then choose to complete one of the following three sets of courses:
1) Marketing Management
MKTG 3700, Basic Marketing
MKTG 3740, Marketing Intelligence
MKTG 3760, Industrial Marketing

2) Financial Management
FINANCE 3500, Financial Management
FINANCE 3501, Financial Policies
FINANCE 3520, Investments

3) Accounting
ACCTNG 2410, Managerial Accounting
ACCTNG 3401, Intermediate Accounting I
ACCTNG 3411, Cost Accounting

Requirements for the Minor
Students must apply for the minor in sociology. Candidates must complete at least 15 hours of departmental course work in sociology, of which at least 9 must be completed at UMSL's department of sociology and must be beyond those applied to the candidate's major. At least 6 hours must be at the 4000 level (no more than 3 hours of either SOC 4350, Special Study, or SOC 4385, Internship may be applied to this 4000 level requirement).

Candidates who anticipate that their background in sociology may play a substantial role in their career plans are strongly encouraged to take some or all of the core requirements.

Candidates must have a cumulative grade point average of 2.0 or better in all courses pertaining to the minor. Department courses taken on a satisfactory/unsatisfactory basis may not be applied to the minor.

Department Awards
The department offers several annual awards to outstanding students on the basis of merit.

The Ray Collins Alumni Award is given annually by the Sociology Alumni Association to the top graduating senior. Faculty select the awardee on the basis of GPA, and the award consists of first-year membership dues in the Sociology Alumni Association and a cash award.

The Alumni Agent Scholarship and the Sociology Alumni Scholarship are given to deserving sociology majors annually. Faculty select the awardees on the basis of merit.

A series of undergraduate awards are given to outstanding students. The Freshman Sociology Award is given to the outstanding freshman student in lower-division sociology course work; the Outstanding Junior Sociology Major Award is given to the outstanding junior sociology major; the Outstanding Sociology Minor Award is presented to the graduating student with the most outstanding minor GPA record; and the Outstanding Sociological Statistics and Methods Award is given to the sociology major with the best overall record in SOC 3220 and 3230. This award carries a stipend for the student to serve as an undergraduate course assistant for SOC 3220, or 3230.

Department Honors
The sociology department will award department honors for those B.A. and B.S. degree candidates in sociology with an overall grade point average of 3.2 or better. They must also successfully complete an independent study through SOC 4350, Special Study.

Undergraduate Certificate on Disaster and Risk Management
The undergraduate certificate program on Disaster and Risk Management offers a multi-disciplinary course of study focusing on the key challenges of developing resilience against disaster—preventing, preparing for, and responding to disasters and catastrophes. It brings together a range of disciplines to provide students with theoretical and practical insights into managing risks posed by natural, accidental, and intentional threats confronting urban communities. The certificate program emphasizes social psychological, organizational, legal, and political relationships brought to bear on the socio-technical systems designed to prevent, prepare for, or respond to disasters and catastrophes. It provides educational and practical opportunities for students in planning careers in public safety, counterterrorism, community and research planning, public policy making, emergency management, leadership in the public sector, and the mass media. The certificate program aims to guide students in learning to manage efforts of public and private institutions to build resilience in their own socio-technical systems and in the community. Each discipline participating in the certificate program brings a distinct perspective to bear on the key issues involved in developing resilience in homeland security. Sociology offers a framework on the relationship of socio-technical systems and community organization that will prove conducive to students gaining both theoretical and practical insights into threats posed by disaster and catastrophe.

Undergraduate students earn a certificate on Disaster and Risk Management by completing 18 hours with a GPA of 2.0 or better from the following courses:
SOC 4414, Social Perspectives on Catastrophes and Homeland Security Policies (3 hrs)
SOC 4450, Disaster and the Law (3 hrs)
POL SCI 3200, Constitutional Law (3 hrs)
ECON 4160, Geospatial analysis in the Social Sciences (GIS) (3 hrs)
PSYCH/GS 2232, Psychology of Victims (3 hrs) OR
SOC 3250 Sociology of Victimization (3 hrs)
BUS AD 3798, Transportation Security, Safety, and Disaster Preparedness (3 hrs)
MEDIA ST 4040, Disaster and Media Management (3 hrs)
COMM 3150, Crisis, Disaster, and Risk Communication (3 hrs)

Special topic courses relevant to disaster and risk management may be included in the certificate program when approved in advance by the Coordinator of the Disaster and Risk Management Certificate.

Graduate Studies (Inactive)

2+3 B.A. and M.A. in Sociology
The 2+3 combined B.A./M.A. program in sociology provides an opportunity for students of recognized academic ability and educational maturity to fulfill integrated requirements of the undergraduate and master's degree programs from the beginning of their junior year. Because of its accelerated nature, the program requires the completion of some lower-division requirements of (12 hours) before entry into the three-year portion of the program. When all the requirements of the B.A. and M.A. programs have been completed, the students will be awarded both the baccalaureate and master's degrees. A carefully designed program can permit a student to earn both degrees within as few as ten semesters.

The combined program requires a minimum of 137 hours, of which 30 must be at the 4000 or 5000 levels. In qualifying for the B.A., students must meet all University and college requirements, including the requirements of the undergraduate major described previously. During the junior and senior years, students normally take a 4000 level research practicum course, SOC 5400, SOC 5402, and SOC 5404. In qualifying for the M.A., students must meet all University and Graduate School requirements, including satisfactory completion of a minimum of 30 graduate credit hours. Up to 12 graduate credit hours may be applied simultaneously to both the B.A. and M.A. programs. Any 4000 level course applied to the M.A. requirements will require additional work to qualify for graduated credit.

Students should apply to the Graduate Director of Sociology for admission to the 2 + 3 combined degree program in sociology the semester they will complete 60 undergraduate degree credit hours, but no later than the accumulation of 90 credit hours. A cumulative grade point average of 3.0 or higher, and three letters of recommendation from faculty are required for consideration. Students will be admitted to the 2 + 3 programs under provisional graduate status until they have completed 30 credit hours with a grade point average of 3.0 or higher. After completion of the provisional period, and with recommendation of the Graduate Director, students can be granted full admission into the program. Students must maintain a grade point average of 3.0 or higher throughout the combined program. Students who officially withdraw from the 2 + 3 combined degree program will be awarded the B.A. degree when they have successfully completed all the requirements for the degree.

The following requirements must be completed prior to enrolling in the 2 + 3 program:
SOC 1010, Introduction to Sociology and three additional sociology courses.

The following undergraduate courses are required for majors in the 2 + 3 program:
SOC 3210, Sociological Theory
SOC 3220, Sociological Statistics (or an approved statistics course)
SOC 3230, Research Methods

Graduate Sociology Requirements for Students in the 2 + 3 Program
The following graduate courses are required at the 4000 to 5000-level:
1. SOC 5400, Proseminar in Sociology
2. SOC 5402, Advanced Quantitative Techniques
3. SOC 5404, Advanced Methodology
4. Five additional courses (15 hours) that have been approved by the Graduate Director

Graduate Exit Requirements:
Students may choose between a thesis and non-thesis course of study.

Students choosing a non-thesis option must complete one of the following requirements: an additional 6-hour course work, a 6-hour research project, or a 6-hour internship.
Each candidate is given a final oral review of the course work completed and the student's chosen exit project or thesis by a faculty committee.

M.A. in Sociology
The department offers a flexible program of studies leading to the Master of Arts degree in sociology. Course work combines intensive examination of the core areas of sociology with acquisition of the analytical skills of sociological investigation. A variety of career options are available to the master's-level graduate, including: program evaluation and research; field or casework related to community issues; administrative roles in social agencies and planning organizations; or doctoral studies in sociology or related fields.

The curriculum is designed to serve the needs of full-time students as well as working students who are able to engage only in part-time studies. This design allows pre-career and mid-career students to prepare for employment in education, service agencies, community organizations, government agencies, or businesses. The curriculum also invites students to take advantage of the university's urban setting through integration of selected work experiences with practicum courses and academic seminars under faculty guidance. The curriculum emphasizes theoretical, analytic, and substantive approaches to urban-related problem solving.

Admission Requirements
Individuals with at least the equivalent of the department's B.A. or B.S. degree in sociology may be admitted to the Graduate School as candidates for the M.A. degree. Students with bachelor's degrees in fields other than sociology may be admitted to pursue graduate sociology studies under the condition that they make up core deficiencies prior to graduate work.

In addition to meeting the general admission requirements of the Graduate School, a student should ordinarily have:

- A baccalaureate degree with a minimum grade point average of 3.0.
- At least 15 hours in the social sciences, of which 12 should be in upper-level courses.
- Three letters of recommendation from persons qualified to judge the candidate's potential for success in the program.
- A statement describing the applicant's interest in graduate study in sociology.

Students who do not meet these requirements may be provisionally admitted upon approval of the department and the dean of the Graduate School. Admission and financial aid decisions are made on the basis of past academic record, program performance, and career commitment. Students wishing to continue regular employment outside the university may enroll on a part-time basis. Requests for further information about the program should be sent to:

Director of Graduate Studies
Sociology
University of Missouri-St. Louis
One University Blvd.
St. Louis, MO 63121-4400

Degree Requirements
Master of Arts in Sociology
Each student shall prepare an adviser-approved course of study during the first semester of enrollment. Candidates for the M.A. degree shall complete a minimum of 30 hours of approved study, at least 21 of which must be taken in courses offered by the department. Students may choose between a thesis and non-thesis course of study.

Core Curriculum
SOC 5400, Proseminar in Sociology
SOC 5402, Advanced Quantitative Techniques
SOC 5404, Advanced Methodology

The sociology department participates in a joint quantitative techniques and methodology series of courses with the other social sciences which can be substituted for the above.

Concentration The department offers opportunities for intensive work in one of the several research areas of department faculty members, which allows the flexibility for comprehensive and coherent exposure to the methods and insights of the discipline. Matriculating students are encouraged to plan, with their advisers, a coherent program of studies consistent with their career interests.

Exit Requirements A student's program must include one of the following exit projects: a 6-hour internship; SOC 5480, Individual Study or a 6-hour preparatory sequence and an approved paper SOC 5490, Supervised Research. Each candidate is given a final oral review conducted by a faculty committee and focused on the course work completed and the student's chosen exit project or thesis.
Career Outlook

The following career information is adapted from the American Sociological Association Web site.

A B.A. or B.S. in sociology is excellent preparation for graduate work in sociology for those interested in an academic or professional career as a professor, researcher, or applied sociologist.

The undergraduate degree provides a strong liberal arts preparation for entry level positions throughout the business, social service, and government worlds. Employers look for people with the skills that an undergraduate education in sociology provides. Since its subject matter is intrinsically fascinating, sociology offers valuable preparation for careers in journalism, politics, public relations, business, or public administration fields that involve investigative skills and working with diverse groups. Many students choose sociology because they see it as a broad liberal arts base for professions such as law, education, medicine, social work, and counseling. Sociology provides a rich foundation of knowledge that directly pertains to each of these fields.

Today, sociologists embark upon literally hundreds of career paths. Although teaching and conducting research remains the dominant activity among the thousands of professional sociologists today, other forms of employment are growing both in number and significance. In some sectors, sociologists work closely with economists, political scientists, anthropologists, psychologists, social workers and others reflecting a growing appreciation of sociology's contributions to interdisciplinary analysis and action.

Course Descriptions

SOC 1010 Introduction to Sociology (3) [V, SS]
An introduction to sociological approaches to human behavior, including types of social organizations, patterns of social interaction, and social influences on individual conduct.

SOC 1040 Social Problems (3) [V, SS]
Conditions defined by society as social problems, as well as potential solutions, are examined from various sociological perspectives. Emphasis is given to problem issues prevalent in metropolitan settings. Analyses focus on victims and beneficiaries of both problem conditions and alternative solutions.

SOC 1999 The City (3) [MI, V, SS]
Same as POL SCI 1990, and INTDSC 1990. Consideration of economic factors, urban institutions, historical developments in urbanization, problems of the inner city, suburbia and the metropolitan area, ethnic groups, stratification, and psychological implications of urban living. This course is for freshmen and sophomores. It is open to juniors and seniors with the consent of instructor.

SOC 2100 Women in Contemporary Society (3)
Same as GS 2100. Prerequisite: SOC 1010 or GS 2102 or consent of instructor. An introduction to the sociological analysis of the status of women in society, including their work, family, and political roles. Socialization, education, and the women's movement will also be considered, as these affect the position and participation of women in a variety of social arenas.

SOC 2102 Introduction to Women's, Studies: Gender, and Diversity (3)
Same as GS 2102, SOC WK 2102, and HIST 2102. This core class is required for all Women's and Gender Studies Certificate earners. This class introduces students to cultural, political, and historical issues that shape gender. Through a variety of disciplinary perspectives in the humanities, social sciences, and natural sciences, the course familiarizes students with diverse female and male experiences and gendered power relationships.

SOC 2160 Social Psychology (3)
Same as PSYCH 2160. Prerequisite: SOC 1010 or PSYCH 1003. This course examines the behavior, thoughts, and feelings of individuals in their social environments. The content focuses not only on how people relate to one another, but also on the processes affecting their interactions with others. Specific topics include the self, social judgments, attitudes and persuasion, helping behavior, prejudice, aggression, attraction, conformity and obedience, and group processes. All Psychology majors taking this course instead of PSYCH 2270 must complete it with a grade of C- or higher.

SOC 2170 Aging in America: Concepts and Controversies (3)
Same as SOC WK 2670, INTDSC 2170, and GERON 2170. This course examines the major theoretical and service issues connected to the study of older adults and their families, using multidisciplinary perspectives. Students are provided with an introduction to the field of aging through an examination of current social issues and controversies. This course emphasizes student involvement through class discussion, and is appropriate for students in the arts and sciences, business, communication, education, and nursing.

SOC 2180 Alcohol, Drugs, and Society (3)
Same as CRIMIN 2180 Prerequisite: SOC 1010 or PSYCH 1003. This course examines the medical, legal, and social aspects of alcohol and drug use. Medical aspects considered include treatment approaches and the role of physicians in controlling such behavior. In the legal realm, past and present alcohol and drug laws are
explored. Cultural and social influences on alcohol and drug use are discussed.

**SOC 3200 Sociology of Deviant Behavior (3)**
Prerequisite: SOC 1010 or consent of instructor. Theories of the nature, causes, and control of deviance as a social phenomenon. Application of theories to specific substantive areas, such as mental disorder, delinquency, drug abuse, suicide, unconventional sexuality, and physical disability.

**SOC 3202 Urban Sociology (3)**
Prerequisite: SOC 1010 or consent of instructor. Urbanization as a world phenomenon; urban social and ecological structures and changing life styles; the decision-making processes in urban problem-solving.

**SOC 3210 Sociological Theory (3)**
Prerequisite: SOC 1010 or consent of instructor. The nature of sociological theory. An investigation of theory from Comte through contemporary developments. Contributions made by theorists in related disciplines.

**SOC 3220 Social Statistics (3)**
Same as ANTHRO 3220. Prerequisites: SOC 1010 or ANTHRO 1011 and MATH 1020 or 1030. Issues and techniques of statistical analyses relevant to quantitative social science research, e.g. elementary probability, measures of central tendency and dispersion, measures of relationships including linear regression and correlation, inferential and nonparametric statistics. The course includes an introduction to computer-based statistical analysis.

**SOC 3224 Marriage and the Family (3)**
Same as GS 3224. Prerequisite: SOC 1010 or consent of instructor. The study of patterns of close relationships, and how these relationships are influenced by larger social forces. Topics include: love, dating, mate selection, cohabitation, alternative lifestyles, working families, parenting, single mothers, families in crisis, domestic violence, and divorce. Universal and variable aspects of family organization, family role systems, and changes in family social structure.

**SOC 3230 Research Methods (3)**
Prerequisites: SOC 1010 and SOC 3220 and satisfaction of mathematics proficiency requirement or consent of instructor. Research planning and interpretation, principles of research design, measurement, and sampling. Techniques for the collection, analysis, and presentation of data. The course also includes an introduction to the Statistical Package for the Social Sciences (SPSS) and lab exercises.

**SOC 3241 Globalization and Its Impact on Society and Culture (3)**
Prerequisite: SOC 1010 or consent of instructor. This course examines a variety of economic, cultural, and social changes that are transforming our world. It clarifies what globalization is and how it is affecting societies around the world. Topics include an overview of theories of globalism and global culture, and roles of technology and the media in shaping society and people's everyday lives.

**SOC 3250 Sociology of Victimization (3)**
Same as GS 3250. Prerequisite: SOC 1010. Examines the role of social factors in a wide range of kinds of victimization--crime, violence, natural disasters, accidents, disease, etc. The topic of social reactions to various kinds of victimization is also covered. Sociological theories of victimization are emphasized.

**SOC 3268 Sociology of Conflict (3)**
Prerequisite: SOC 1010 or consent of instructor. The conditions under which social conflicts arise, develop and are terminated (or in some cases resolved) are examined. The functions of different levels of conflict are studied to determine the potential effects and outcomes of planned intervention.

**SOC 3280 Society and Technology (3)**
Prerequisite: SOC 1010 or consent of instructor. Technology in industrial and post-industrial societies. The social shaping of technological systems. The role of technology in social change.

**SOC 3290A Undergraduate Seminar in Sociological Issues (3)**
Prerequisite: SOC 1010 and consent of instructor. Consideration of an issue or area of the instructor's choice not already covered by other undergraduate courses. May be taken up to three times for nine hours credit, provided the subject matter is different each time the seminar is taken.

**SOC 3600 Management and Organizational Behavior (3)**
Same as MGMT 3600. Prerequisites: Junior standing and a 2.0 campus GPA. This course involves the study of behavior of individuals and groups in an organizational setting. Specific topics examined include: motivation, leadership, organizational design and conflict resolution, as well as basic coverage of management principles. In covering these topics, both classic and current perspectives are provided.

**Note: Any 4000 level course taken for major elective credit requires prior completion of two of the following: SOC 3210, SOC 3220, or SOC 3230.**

**SOC 4040 Survey Research Practicum (3)**
Same as POL SCI 4040. Prerequisites: Junior standing, SOC 3220, SOC 3230, and consent of instructor.
execution of a sample survey, including establishing study objectives, sampling, questionnaire construction, interviewing, coding, data analysis, and presentation of results. May be taken more than once for credit provided the course topic is different each time.

**SOC 4150 Feminist Theory and Social Research (3)**
Same as GS 4150. Prerequisites GS 2102 and Junior standing or consent of instructor. This course provides an in-depth examination of feminist theoretical contributions to social science research. We begin by examining the 20th century roots of contemporary feminist theories. With this foundation in place, we then shift to an investigation of how feminist theory has informed sociological research by examining current feminist understandings of gender, race, class and sexual inequalities across a range of contemporary social problems. Fulfills GS feminist theory requirement.

**SOC 4300 Communities and Crime (3)**
Same as CRIM 4300. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 1130, CRIMIN 2210, CRIMIN 2220, and ENGL 3100 or consent of instructor. Analysis of the sources, consequences, and control of crime within communities. Emphasis on social and ecological theories of crime and on population instability, family structure, and the concentration of poverty as causes of crime. Community crime prevention efforts are also addressed.

**SOC 4312 Sociology of Wealth and Poverty (3)**
Prerequisites: SOC 1010 and junior standing or consent of instructor. Theory and research on social stratification and inequality in contemporary societies.

**SOC 4316 Power, Ideology, and Social Movements (3)**
Prerequisites: SOC 1010 and junior standing or consent of instructor. Effect of events and social processes on thought and action in the twentieth century. Social functions of ideologies as expressed in movements and formal and informal organizations seeking social change.

**SOC 4320 Forms of Criminal Behavior (3)**
Same as CRIM 4320. Prerequisites: CRIMIN 1110, 1120, 1130, 2210, 2220, and ENGL 3100 or consent of instructor. Examination of major types of criminal behavior including violent, property, public order, and organizational offenses. Emphasis on theories of, and responses to, these crimes.

**SOC 4325 Gender, Crime and Justice (3)**
Same as CRIM 4325. Prerequisites: CRIMIN 1110, 1120, 1130, 2210, 2220, and ENGL 3100 or consent of instructor. Analysis of the role of gender in crime and in the justice system. Emphasis on gender differences in crime commission, criminal processing, and the employment of women in criminal justice agencies. Fulfills Criminology diversity requirement.

**SOC 4331 Qualitative Methods in Social Research (3)**
Prerequisites: SOC 3220 and SOC 3230, or their equivalent, or consent of instructor. This course is devoted to such qualitative methods as participant observation, intensive interview, content analysis, and oral history, among others. The place of these kinds of techniques in social research, as well as the issues raised by them, will be considered. Students will participate in individual or group research projects using one or more of the methods discussed.

**SOC 4336 Organizations and Environments (3)**
Prerequisites: SOC 1010 and junior standing or consent of instructor. Internal and external forces that influence the structures, adaptive flexibility, and actions of public and private organizations and agencies are examined. Specific foci include: organizational responses to environmental opportunities, constraints, and contingencies; sources of conflict and impediments to organizational goal attainment; and strategies for increasing organizational effectiveness, efficiency, and chances for survival.

**SOC 4338 Sociology of Health (3)**
Prerequisites: SOC 1010 and junior standing. Exploration of social dimensions and issues related to health and illness, such as access to the health care delivery system; factors influencing prevention, utilization and compliance; changing relationships among health care providers and consumers; health care costs, trends, and cross-cultural variations.

**SOC 4340 Race, Crime, and Justice (3)**
Same as CRIM 4340. Prerequisites: CRIMIN 1110, CRIMIN 1120, CRIMIN 1130, CRIMIN 2210, CRIMIN 2220, ENGL 3100 or consent of instructor. Analysis of the involvement of racial minorities in crime and the criminal justice system. Emphasis on group differences in offending, processing, victimization, and employment in criminal justice agencies.

**SOC 4344 Problems of Urban Community (3)**
Prerequisites: SOC 1010 and junior standing, or consent of instructor. The urban community as an area of social action and problem solving with emphasis on the sociological aspects of urban problems.

**SOC 4350 Special Study (1-10)**
Prerequisite: Consent of instructor. Independent study through readings, reports, and field work.

SOC 4354 Sociology of Business and Work Settings (3)
Prerequisites: SOC 1010 and junior standing, or consent of instructor. The sociology of work and occupations in America, Europe, and Asia; organization structures and worker participation; worker attitude, behaviors, and commitment; the socialization of the worker; determinants of worker behavior; social problems of work and business; and the impact of community on work place and business behavior.

SOC 4356 Sociology of Education (3)
Prerequisites: SOC 1010 and junior standing, or consent of instructor. Education as a social institution, its role as an agent of socialization, and its effect upon the processes of social change and social mobility. The relationship between the school and its community.

SOC 4360 Sociology of Minority Groups (3)
Same as GS 4360. Prerequisites: SOC 1010 and junior standing or consent of instructor. The study of dominant-subordinate group relations. Religion, ethnicity, race, and gender as factors in the unequal distribution of power.

SOC 4361 Social Gerontology (3)
Same as GERON 4361. Prerequisites: SOC 1010 and junior standing, or consent of instructor. Topics include sociological theories of aging, technological and social change and its effects on the environment of older people, and prejudice and discrimination against the elderly.

SOC 4365 Sociological Writing (3)
Prerequisites: SOC 1010, ENGL 3100 and junior standing, or consent of instructor. This course offers directed practice in the interpretation and reporting of sociological research in a wide range of styles, including those appropriate for research reports, journal articles, policy papers, non-technical magazines, books and monographs, as well as oral reports to diverse consumers.

SOC 4378 Selected Topics in Social Psychology (1-3)
Prerequisite: PSYCH 2160 or SOC 2160, or consent of instructor. Focused examination of selected issues, concepts, and methods in the study of social interaction. May be taken twice for credit.

SOC 4380 Selected Topics in Social Policy (1-3)
Prerequisites: SOC 1010, Junior standing or consent of instructor. Examination of a specific sociological topic of current relevance in the community. May be taken more than once for credit provided the course topic is different each time.

SOC 4385 Internship in Sociology (1-6)
Prerequisites: Junior standing and consent of instructor. Students participate in supervised placements in a position related to the profession of sociology.

SOC 4414 Social Perspectives on Catastrophes and Homeland Security Policies (3)
Prerequisites: SOC 1010 and junior standing or consent of instructor. This course examines the way social and cultural processes shape our experience and understandings of catastrophe and disasters. It provides an analysis of the ways technological, organizational, cultural, and political forces affect policies dealing with catastrophe preparation and prevention in the United States.

SOC 4450 Disaster and the Law (3)
Prerequisite: Junior standing or consent of instructor. This course examines the general legal framework in the United States into which the subject of disasters and the law fits. It provides an understanding of the coordination of resources required to respond to disastrous situations including laws, rules, and regulations at state, local, and federal levels. Students will also become familiar with legal context and constraints for disaster management, administrative law, administrative discretion, and liability issues.

SOC 4600 Masculinities (3)
Same as GS 4600. Prerequisite: SOC 2102 or consent of instructor. This course examines men and masculinities through a critical lens, looking carefully at an institutionalized system of gender relations and practices that is assumed to be a natural phenomenon that is culturally universal. The course explores various masculine behaviors, myths, ideologies, and experiences so that students can consider the relationship between masculine practice and social power and delineate choices for future directions. The course is necessarily interdisciplinary and may utilize tools and methods from the social sciences and the humanities. Satisfies GS gender theory requirement.

SOC 4940 Leadership and Management in Nonprofit Organizations (3)
Same as SOC WK 4940, POL SCI 4940, and P P ADM 4940. Prerequisite: Junior standing. Addresses the role and scope of the independent sector in the United States, as well as the leadership and management of nonprofit organizations within that sector. Topics include the economic and political scope of the independent sector the role of volunteerism in a democratic society, and the role and scope of philanthropy. Topics in voluntary organization management and leadership include: the dynamics, functions and membership structure of NPOs, especially staff-board and other volunteer relations; governance and management of NPOs; resource mobilizations; and program development management and evaluation.
SOC 5361 Advanced Social Gerontology (3)
Same as GERON 5361. Prerequisite: Graduate standing. An examination of sociological theories of aging, technological and social change and its effects on the environment of older people, and prejudice and discrimination against the elderly.

SOC 5400 Proseminar in Sociology (3)
Required of all entering graduate students in the fall semester of the first year of residency. An overview of the field of contemporary sociology, with emphasis on the major theories, issues, research approaches, and ethical problems in the field today, and an introduction to theory construction, measurement, and design strategies.

SOC 5402 Advanced Quantitative Techniques (3)
Prerequisite: SOC 3220 or consent of instructor. A study of advanced quantitative analysis of sociological data, focusing on problems of multivariate analysis, sampling theory and techniques, and the use of electronic data processing in approaching these problems.

SOC 5404 Advanced Methodology (3)
Prerequisite: SOC 3230 or consent of instructor. A study of methodological problems on an advanced level, focusing on contemporary issues in the processes of inquiry with particular emphasis on the applicability of different modes of research to various types of theoretical problems. Consideration of ethical problems in social research.

SOC 5415 Foundations of Criminological Theory (3)
Same as CRIMIN 5415. Prerequisites: Graduate standing and consent of instructor. Examination of the history of criminological thought incorporating the major works of such theorists as Bentham, Beccaria, Marx, Durkheim, Lombroso, Sutherland and Merton.

SOC 5449 Issues in Retirement (3)
Same as GERON 6449. Prerequisite: Graduate standing. This course examines macro and micro issues of retirement in the United States--its processes, causes, and consequences--in relation to economic market conditions, demographic changes, and programs and policies that are targeted to support the elderly (e.g., Social Security). It also examines issues relating to older women and retirement.

SOC 5475 Introduction to Evaluation Research Methods (3)
Same as P P ADM 6750. Prerequisite: At least one course in research design and statistics at the graduate level. A comparative study of research strategies with regard to data sources, data collection, and modes of analysis that are appropriate for program evaluation research. Attention is given to observational, survey, and quasi-experimental methodologies.

SOC 5480 Individual Study (3)
Prerequisites: Consent of adviser and instructor. Designed to give the student the opportunity to pursue particular interests within the discipline and/or to study areas not currently covered by formal courses. Guided by faculty with appropriate interests. May be taken only twice.

SOC 5490 Supervised Research (1-10)
Prerequisites: Graduate standing and consent of instructor. Individual supervision of research leading to the preparation of a thesis, research paper, or publishable article, in which the student demonstrates skills in the discipline of sociology.

SOC 5495 Sociological Reporting (3)
Prerequisites: SOC 5400, 5402, and 5404. As part of the M.A. degree exit requirement, the seminar offers directed practice in the interpretation and reporting of sociological data in a wide range of styles, including those appropriate for research reports, journal articles, policy papers, nontechnical magazines, books, and monographs, as well as oral reports to diverse consumers. Ethical dimensions of interpretation and dissemination are explored.

SOC 6443 Health Care Policy (3)
Same as GERON 6443, P P ADM 6340, and POL SCI 6443. Prerequisite: Graduate standing or consent of instructor. Survey course examining current issues in health policy that face the nation. Policies are placed in a historical context to show how issues have been influenced by different political and economic conditions. Secondary consequences and limitations of current trends in health policy are explored.

SOC 6444 Seminar in Public Policy and Aging (3)
Same as GERON 6444, PP ADM 6440 and POL SCI 6444. Prerequisite: Consent of instructor. The study of specialized issues and methods related to federal, state, and local policies that affect the elderly. Potential policy areas to be covered include housing, taxation, mental health, transportation, etc. May be repeated for credit, provided the subject matter is different.

SOC 6446 Selected Topics in Health Care Policy (3)
Same as P P ADM 6460 and POL SCI 6446. Prerequisite: Consent of instructor. The study of specialized issues
and methods relating to health care policy. May be repeated for credit, provided the subject matter is different.
Faculty

Keith Womer, Professor, Dean
Ph.D. Pennsylvania State University

Hung-Gay Fung, Professor, Y. S. Tsang Professor in Chinese Studies, Finance Area Department Chair
Ph.D., Georgia State University

Ray Mundy, Professor; John W. Barriger II Professor in Transportation Studies; Director, Center for Transportation Studies
Ph.D., Pennsylvania State University

Janet Y. Murray, Professor; E. Desmond Lee Endowed Professor for Developing Women Leaders and Entrepreneurs
Ph.D. University of Missouri-Columbia

David Ricks, Curators' Professor Emeritus
Ph.D., Indiana University

John J. Anderson, C.P.A., C.M.A., Professor Emeritus, Associate Dean Emeritus
Ph.D., University of Wisconsin-Madison

Nasser Arshadi, Professor, Vice Provost for Research
Ph.D., University of Nebraska

Howard B. Baltz, Professor Emeritus
Ph.D., Oklahoma State University

James A. Breaugh, Professor, Management Area Department Chair
Ph.D., Ohio State University

David E. Durand, Professor Emeritus, Dean Emeritus
Ph.D., Washington University

Thomas H. Eyssell, Professor; Associate Dean and Director of Graduate Studies in Business
Ph.D., Texas A & M University

Marius A. Janson, Professor Emeritus
Ph.D., University of Minnesota

Kallash Joshi, Professor
Ph.D., Indiana University

Mary Lacity, Professor
Ph.D., University of Houston

Edward C. Lawrence, Professor
Ph.D., Pennsylvania State University

Joseph S. Martinich, Professor
Ph.D., Northwestern University

Robert M. Nauss, Professor, Logistics and Operations Management Department Chair
Ph.D., University of California, Los Angeles

David Ronen, Professor
Ph.D., Ohio State University

Vicki Sauter, Professor
Ph.D., Northwestern University

L. Douglas Smith, Professor; Director, Center for Business and Industrial Studies
Ph.D., University of Minnesota

Robert S. Stich, Professor Emeritus
Ph.D., New York University

Fred J. Thumin, Professor Emeritus; Diplomate, Industrial and Organizational Psychology
Ph.D., Washington University
Deborah B. Balser, Associate Professor
Ph.D., Cornell University

Donald H. Driemeier, Associate Professor Emeritus; Dean Emeritus
D.B.A., Washington University

Michael T. Elliott, Associate Professor, Associate Dean and Director of Undergraduate Studies in Business
D.B.A., Mississippi State University

Timothy A. Farmer, C.P.A., Associate Professor
Ph.D., Ohio State University

Greg Geisler, Associate Professor
Ph.D., University of North Carolina at Chapel Hill

Julius H. Johnson, Jr., Associate Professor
Ph.D., George Washington University

Charles R. Kuehl, Associate Professor Emeritus
Ph.D., University of Iowa

Donald R. Kummer, Associate Professor Emeritus
Ph.D., University of Oregon

Haim Mano, Associate Professor, ; Marketing Area Department Chair
Ph.D., University of Chicago

Natalia Mintchik, Associate Professor
Ph.D., University of North Texas, Denton

Dinesh Mirchandani, Associate Professor
Ph.D., University of Kentucky

Stephen R. Moehrle, C.P.A., Associate Professor
Ph.D., Indiana University

Mary Beth Mohrman, Associate Professor, Accounting Area Department Chair
Ph.D., Washington University

R. Frank Page, C.P.A., Associate Professor Emeritus
Ph.D., University of Illinois

Jennifer Reynolds-Moehrle, C.P.A., Associate Professor
Ph.D., Indiana University

Joseph Rottman, Associate Professor
Ph.D., Washington University

Paul S. Speck, Associate Professor
Ph.D., Texas Tech University

Pamela S. Stuerke, Associate Professor
Ph.D., Indiana University

Ashok Subramanian, Associate Professor, Information Systems Department Chair
Ph.D., University of Houston

G.D. Weise, Associate Professor
Ph.D., University of New Orleans

Gaiyan Zhang, Associate Professor
Ph.D., University of California, Irvine

Bindu Arya, Assistant Professor
Ph.D., University of Texas at Dallas

Frank Q. Fu, Assistant Professor
Ph.D., University of Houston

David R. Ganz, Assistant Professor Emeritus; Associate Dean Emeritus,
M.S. in C., Saint Louis University

Gerald Yong Gao, Assistant Professor
Ph.D., University of Hong Kong

Young-Won Her, Assistant Professor
Ph.D., University of South Carolina at Columbia

Haitao Li, Assistant Professor
Ph.D., University of Mississippi

James M. Krueger, C.P.A., (Inactive), CGFM, Assistant Professor; Vice Chancellor for Managerial &
Technological Services
D.B.A., Indiana University

Kyeungrae Oh, Assistant Professor
Ph.D., University of Texas at Dallas

Ekin K. Pellegrini, Assistant Professor
Ph.D., University of Miami

Thomas Williams, Assistant Professor
Ph.D., Texas Tech University

Robert J. Banis, Teaching Professor Emeritus
Ph.D., North Carolina State University at Raleigh

Kenneth W. Locke, Teaching Professor Emeritus
D.B.A., Indiana University-Bloomington

Donald C. Sweeney II, Teaching Professor; Associate Director, Center for Transportation Studies
Ph.D., Washington University
Wayne W. Winter, Teaching Professor Emeritus  
L.L.M., Washington University  
Alan Wheeler, Associate Teaching Professor  
Ph.D., Stanford University  
Michael J. Costello, Assistant Teaching Professor  
LLM/JD, Vrije Universiteit Brussel  
Peggy A. Lambing, Assistant Teaching Professor  
M.B.A., University of Missouri-St. Louis  
Gwen Moore, Assistant Teaching Professor  
M.B.A., Washington University  
Daniel Lee Rust, Assistant Teaching Professor  
Ph.D., University of Idaho  
Rhonda Tenkku, Assistant Teaching Professor  
M.B.A., University of Missouri-St. Louis  
James Tiburzi, Assistant Teaching Professor  
J.D., University of Illinois-Urbana  
David A. Bird, Instructor Emeritus  
M.S., Washington University  
Lindell P. Chew, Instructor  
M.B.A., University of Missouri-Columbia  
John Cox, Instructor Emeritus  
M.A., University of Missouri-Columbia  
Ottilia Voegtli, Instructor Emeritus  
M.B.A., University of Missouri-St. Louis  
Joy Dakich, Lecturer  
M.A., University of Missouri-St. Louis  
Mary Duncan, Lecturer  
MSIS, University of Missouri-St. Louis  
Emily K. Lane  
M.S., University of Missouri-St. Louis  
Johnna Murray, Lecturer  
MAcc., University of Missouri-St. Louis

History
The University of Missouri - St. Louis College of Business Administration was established in 1967, and was accredited by AASCB-International six years later, the shortest time on record for any school to receive accreditation of its business program. AASCB-International is the only internationally recognized accrediting agency for business and accounting programs. In 2006, the College of Business Administration received reaccreditation of its business and accounting programs, both undergraduate and graduate.

Vision
The UMSL College of Business Administration will become one of the top metropolitan public business schools in the country and be recognized as a leading student-centered provider of quality business education.

Mission
Our mission is to increase knowledge of business and to support St Louis in its quest to compete in the global economy. We will accomplish this by:

- Performing innovative research on relevant business issues,
- Providing quality, affordable business education to our diverse student body and the community, and
- Partnering for excellence with the St Louis business community.

Values

Opportunity: We are committed to providing students an opportunity to excel in a rigorous academic business program.

Knowledge: We value the creation, application, and communication of knowledge to advance business disciplines and improve management practices.

Access: We strive to ensure that our programs are accessible, consistent with the land-grant mission of the University of Missouri.

Integrity: We value high standards of professional and ethical conduct.

Excellence: We strive for excellence in our own endeavors and expect it of those with whom we work.

Community: We value our ties with the business and not-for-profit communities, and work to create opportunities of mutual benefits.
Respect: We endeavor to treat all people with dignity and respect, and to maintain fairness in our interactions with all students, employees and the community.

Diversity: We seek to maintain a diverse and involved community of students, faculty, and staff.

Collegiality: We seek to provide a collegial climate that fosters positive relationships among students, faculty and staff.

College of Business Administration Programs

Undergraduate Degrees
Bachelor of Science in Accounting
Bachelor of Science in Business Administration
(with emphasis areas available in)
Finance
International Business
Logistics and Operations Management
Management
Marketing
Bachelor of Science in Information Systems

Undergraduate Minors
Accounting
Finance
General Business
Information Systems
International Business
Logistics and Operations Management
Management
Marketing
Transportation Studies

Undergraduate Certificate
International Business Certificate (see International Studies)

Graduate Degrees
Master of Accounting
Master of Business Administration
Accounting
Finance
Information Systems
International Business
Logistics and Supply Chain Management
Management
Marketing
Operations Management

Master of Science in Management Information Systems

Ph.D. in Business Administration
Information Systems
Logistics and Supply Chain Management

Graduate Certificates
Graduate Certificate Program in Business Administration
Graduate Certificate in Human Resources Management
Graduate Certificate in Logistics and Supply Chain Management
Graduate Certificate in Marketing Management

Undergraduate Programs
Detailed information concerning all degree requirements can be found by visiting The College of Business Undergraduate Advising web site.

Admission Requirements
Students entering UMSL may declare themselves as business majors in the College of Business Administration (COBA). They are advised by business and may take business courses as long as they maintain "good standing" status (see General Degree Requirements listed below) and have satisfied the prerequisites for the courses they propose to take.

General Degree Requirements-all degrees-all students

Students must complete a minimum of 120 credit hours for any baccalaureate degree from the College of Business Administration.
Students must complete a minimum of 60 non-business hours.
Students must complete a minimum of 48 hours in business courses.
Students must complete a minimum of 36 hours of upper division business courses.
Students are limited to a maximum of 24 credit hours in any single business discipline beyond core courses.
Students are limited to a maximum of 78 credit hours in business and economics combined.
Students must attain a minimum campus grade point average of 2.3. Grade modification may be used in calculating this grade point average.
Students must attain a minimum business grade point average of 2.3. Grade modification cannot be used in calculating this grade point average.
Students seeking an emphasis area or major within the Bachelor of Science in Business Administration degree, Bachelor of Science in Accounting degree, and/or Bachelor of Science in Information Systems degree must attain a minimum grade point average of 2.3 in the emphasis/major. Grade modification cannot be used in calculating this grade point average.

A minimum grade of C- is required for each course in the business core (except MGMT 4219); for each course which serves as a prerequisite for another course; and for each course in an emphasis area and/or major.

Of the maximum of 18 hours which may be taken on a satisfactory/unsatisfactory graded basis, only 9 hours can be in business, and those are restricted to electives—courses beyond the required business core courses.

Business course prerequisites are enforced by the College of Business Administration and include a minimum campus grade point average of 2.0 as a condition for taking any upper division business course.

Emphasis areas may be added for up to two years following degree completion. Each additional degree from the College of Business Administration requires 15 unique hours taken at UMSL subsequent to completion of the prior business degree.

Students are allowed to take a maximum of 15 hours of upper-division business classes before a "good standing" evaluation is applied to their academic records. In order to remain in good standing and continue to enroll in upper division business courses, students must maintain a 2.3 campus and business grade point average and must have completed the following cluster of courses (with a grade of C- or higher):

- **ACCTNG 2400**, Financial Accounting
- **ACCTNG 2410**, Managerial Accounting
- **BUS AD 2900**, Legal Environment
- **ECON 1001**, Microeconomics
- **ECON 1002**, Macroeconomics
- **INF SYS 2800**, Information Systems Concepts and Applications
- **MATH 1030**, College Algebra
- **MATH 1100**, Basic Calculus
- **MATH 1105**, Basic Probability and Statistics

**Lower Division Requirements—all degrees—all students**
Each student must complete a 42-hour block of general education coursework fulfilling six goals—three skill goals and three knowledge goals. The skill goals include two courses in communicating, one course in managing information and one course in valuing. The knowledge goals include three courses in the social sciences, three courses in the humanities, and four courses in the combined areas of mathematics and science. All courses must be selected from a list approved by the Faculty Senate of the campus. In many instances courses required by the College of Business Administration for each of its degree programs will satisfy a segment of the general education requirements. A list of courses which fulfill the humanities, social science, and math/science knowledge goals can be obtained in the Office of Undergraduate Academic Advising in the College of Business Administration, 487 Social Sciences and Business (SSB) building; or by visiting our web site.

**Lower Division Non-Business Course Requirements**
Students pursuing any undergraduate business degree must complete the following non-business courses:

- **ECON 1001**, Principles of Microeconomics (valuing skill goal and social science knowledge goal)
- **ECON 1002**, Principles of Macroeconomics (social science knowledge goal)

Composition (communicating skill goal)
One additional "communicating skills goal" course
**MATH 1030**, College Algebra (math/science knowledge goal)
**MATH 1100**, Basic Calculus (math/science knowledge goal)
**MATH 1105**, Basic Probability and Statistics (math/science knowledge goal)
A science lecture course (math/science knowledge goal)
A cultural diversity course
A course required by the State of Missouri
Three humanities courses (humanities knowledge goal)
Two social science courses (in addition to those above)

**Lower Division Business Course Requirements**

**ACCTNG 2400,** Fundamentals of Financial Accounting  
**ACCTNG 2410,** Managerial Accounting  
**BUS AD 2900,** Legal Environment of Business  
**INFSYS 2800,** Information Systems Concepts and Applications

**Upper Division Requirements—all degrees—all students**

**Upper Division Non-Business Requirement**  
**ENGL 3120,** Business Writing, with a minimum grade of C-

**Upper Division Non-Business or Business Requirement**  
Two global awareness courses selected from an approved list maintained in the Office of Undergraduate Academic Advising in the College of Business Administration; also available on our [web site](http://www.umsl.edu/bulletin/ba/index.html).

**Upper Division Business Requirements**

**FINANCE 3500,** Financial Management  
**LOG OM 3300,** Business Statistics  
**LOG OM 3320,** Introduction to Operations Management  
**MGMT 3600,** Management and Organizational Behavior  
**MGMT 4219,** Strategic Management  
**MKTG 3700,** Basic Marketing  
A minimum of 18 additional hours of upper division approved business electives

**Assessment—All degrees—all students**

**MGMT 4220,** Business Assessment Testing, is administered to all graduating seniors. A "Satisfactory" grade is required for graduation.

**Transfer Issues**

Students must complete a minimum of 60 hours from four year, baccalaureate degree granting colleges/universities.

A minimum of 50% of all business course work must be completed at UMSL.

Students must complete a minimum of 21 graded hours in business courses.

Individuals must complete their last 30 hours in residence at UMSL.

A minimum of 56 graded hours at UMSL are required to qualify for consideration for Latin Honors.

Students seeking to use a lower division course to satisfy an upper division business requirement must validate the course being transferred. If successfully validated, the transfer course will waive the need to take the upper division equivalent course at UMSL, but the course transferred will be counted as lower division; it will not count toward the 36 upper division hours required in business.

Completion of a 42-hour general education block, which is certified by the sending institution as fulfilling its general education requirement, will be viewed as fulfilling UMSL's general education. However, all lower division courses required as part of a degree program at UMSL must be completed.

**Requirements Unique to Specific Degrees in the College of Business Administration**

**Bachelor of Science in Accounting Degree**

**Lower or Upper Division Non Accounting Courses Required**

One of:  
**COMM 1030,** Interpersonal Communication I  
or  
**COMM 1040,** Introduction to Public Speaking  
and one of:  
**PHIL 1130,** Approaches to Ethics or  
**PHIL 2254,** Business Ethics

**Upper Division Accounting Courses Required**

**ACCTNG 3401,** Financial Accounting and Reporting I  
**ACCTNG 3402,** Financial Accounting and Reporting II  
**ACCTNG 3411,** Cost Accounting
ACCTNG 3441, Income Taxes
and one of either
ACCTNG 3421, Accounting Information Systems and Spreadsheet Applications or
INF SYS 3810, Information Systems Analysis

The prerequisite for enrollment in ACCTNG 3402, 3411, 3441, 3451 and all 4000-level accounting courses is an upper-level accounting grade point average of 2.2. or higher.

See the Office of Undergraduate Academic Advising for alternatives to satisfy the State of Missouri's requirement of 150 hours for eligibility to take the Uniform Certified Public Accounting Examination.

Post-Baccalaureate Certificate in Accounting
Prerequisite: Bachelor's degree (in any subject)

Prerequisite courses: MATH 1030, ACCTNG 2400, ACCTNG 2410. MATH 1030 (College Algebra) is a prerequisite for the required accounting courses. It may be taken concurrently with ACCTNG 2400, but must be completed prior to enrollment in ACCTNG 2410. ACCTNG 2400 (Fundamentals of Financial Accounting) and ACCTNG 2410 (Managerial Accounting) are also prerequisites for the 3000-level accounting courses.

Required: Complete 27 hours of accounting courses at the 3000-level or above, at least 15 hours of which are completed at UMSL. The accounting courses must include the six required courses listed below and three accounting electives. Courses previously completed can be waived upon presentation of appropriate documentation. Waived courses will not count toward the 15-hour residency requirement.

Courses must be completed with a grade of C-or higher. The grade point average for all courses counting toward the Post-Baccalaureate Certificate in Accounting must be 2.3 or higher. The prerequisite for enrollment in ACCTNG 3402, 3411, 3441, 3451 and all 4000-level accounting course is an upper-level accounting grade point average of 2.3 or higher.

Required courses:
ACCTNG 3401, Financial Accounting & Reporting I
ACCTNG 3402, Financial Accounting & Reporting II
ACCTNG 3411, Cost Accounting
ACCTNG 3421, Accounting Information Systems
ACCTNG 3441, Income Taxes
ACCTNG 4435, Auditing

Electives (most of these are offered only once a year)
ACCTNG 3451, Accounting for Governmental and Not-for-profit Entities
ACCTNG 4401, Financial Accounting & Reporting III
ACCTNG 4402, Financial Accounting & Reporting IV
ACCTNG 4405, Professional Accounting Research
ACCTNG 4441, Advanced Federal Income Tax: Tax Research and Business Taxation

Notes on qualifying for the CPA exam in Missouri:
Successful completion of the Post-Baccalaureate Certificate in Accounting includes all the accounting courses needed to qualify for the CPA exam in Missouri. However, Missouri law also requires a total of 60 credit hours in business (including the accounting courses). Many students with undergraduate degrees in business have satisfied this requirement. A student who has not satisfied this requirement must take additional business classes in order to qualify for the CPA exam.

In addition, Missouri requires 150 credit hours of college level coursework in order to qualify for the CPA exam. A student who has completed a 120-hour undergraduate business degree and the Post-Baccalaureate Certificate in Accounting will need additional coursework in order to satisfy the 150-hour requirement.

Bachelor of Science in Business Administration Degree

General Business
For those undecided regarding a specific emphasis area, a general business degree option is available. Students must complete a minimum of 18 hours of upper division approved business electives (see comprehensive list of business courses in the course descriptions section of this publication)

Emphasis in Finance
Finance is a multidisciplinary field that combines various concepts from management, economics and accounting with financial techniques to make sound business decisions and solve problems.
A minimum of 15 hours of upper division finance electives must be selected from the following

FINANCE 3501, Financial Policies
FINANCE 3502, Treasury Management
FINANCE 3503, Computer Applications in Finance

FINANCE 3520, Investments
FINANCE 3521, Financial Risk Management
FINANCE 3525, Practicum in Investments
FINANCE 3540, Financial Services Industry and Instruments
FINANCE 3541, Commercial Bank Management
FINANCE 3542, Principles of Real Estate
FINANCE 3540, Practice of Personal Financial Planning
FINANCE 3561, Principles of Insurance
FINANCE 3562, Life Insurance
FINANCE 3563, Retirement Planning and Employee Benefits
FINANCE 3564, Estate Planning and Trusts
FINANCE 3580/INTBUS 3580, International Corporate Finance
FINANCE 3582/INTBUS 3582, International Investment
FINANCE 3599, Independent Study (approved)

Track Certification
Students may combine selected courses from the list above, and other specified upper division business electives, to fulfill a designated track with dual objectives of acquiring in depth knowledge, and to prepare and be eligible for various professional certification examinations. Detailed information is available in the Office of Undergraduate Academic Advising. The specific tracks available include:

Corporate Finance
Financial Institutions and Services
Investment and Portfolio Management
Financial Planning
Insurance

Emphasis in International Business
National markets are becoming increasingly integrated. The study of international business focuses on understanding the forces behind this globalization of markets and production.
Twelve (12) hours are required of all individuals seeking an emphasis in International Business:
Two of the following courses:
FINANCE 3580/INTBUS 3580, International Corporate Finance
INTBUS 3680/MTG 3680, International Management
MKTG 3780/INTBUS 3780, International Marketing

Plus two additional approved international business courses other than INTBUS 3289, the international business practicum. Lists of approved courses include:

INTBUS 3280, The Law of International Business Transaction
INTBUS 3281, Business in China
INTBUS 3282, Managing the Global workforce
INTBUS 3283, International Business and Society
INTBUS 3284, The Japanese Management System
INTBUS 3285, Role of the Global Corporation
INTBUS 3289, Practicum in International Business
INTBUS 3290, Internship for International Business
INTBUS 3299, Independent Study in International Business
INTBUS 3580/FINANCE 3580, International Business
INTBUS 3582/FINANCE 3582, International Investment
INTBUS 3680/MTG 3680, International Management
INTBUS 3780/MTG 3780, International Marketing
INTBUS 3787/MTG 3787, Marketing in the European Union
INTBUS 4281, Entrepreneurship in the Global Environment
INTBUS 4289, International Strategic Management
INTBUS 4381/LOGOM 4381, International Logistics and Operations Management

Proficiency in a foreign language of international commerce (determined by the College of Business Administration) must be demonstrated - 13 credit hours in one approved language or satisfactory performance on the UMSL foreign language placement test.

Students must complete one of the following International Experience Requirements:

INTBUS 4280, International Business Experience (Required)

1. Study abroad for three or more credits hours.*
2. Complete an international internship approved by the International Business Institute (maximum of 3 credit hours).
3. Complete a minimum of one year international experience within 5 years of entering the program in...
any of the following areas: Peace Corps, volunteer work with an organization, an international posting by a company or government agency and/or approved, significant international experience. Documentation is required for approval.

*International students in the IB Emphasis will meet their International Experience requirement through their study in the United States.

**Emphasis in Logistics and Operations Management**
This discipline has as its objective to get the appropriate goods or services to the right place, at the right time, in the right quality and quantity—that thereby making the greatest contribution to the organization.

Students must complete a minimum of 12 credit hours selected from the following:

- **LOG OM 3399**, Independent Study (approved)
- **LOG OM 4312**, Business Forecasting
- **LOG OM 4321**, Production and Operations Management
- **LOG OM 4322**, Lean Production in Manufacturing and Service Operations
- **LOG OM 4324**, Service Operations Management
- **LOG OM 4326**, Quality Assurance in Business
- **LOG OM 4330**, Business Logistics Systems
- **LOG OM 4350**, Management Science Methods
- **LOG OM 4354**, Operations Research II
- **LOG OM 4381/INTBUS 4381**, International Logistics & Operations Mgmt
- **INFSYS 3843**, Decision Support Systems

At most, one of the following courses may be counted toward the LOM emphasis area.

- **INFSYS 3806**, Managerial Applications of Object-Oriented Programming I
- **INFSYS 3844**, Developing Business Applications in .Net

**Emphasis in Management**
The study of management focuses on the behavior of individuals and groups in an organizational setting.

Students must complete MGMT 3611, Advanced Management and Organizational Behavior, plus 5 courses selected from

- **MGMT 3612**, Professional Skills Development
- **MGMT 3621**, Human Resource Management
- **MGMT 3622**, Industrial and Labor Relations
- **MGMT 3623/PSYCH 3318**, Industrial and Organizational Psychology
- **MGMT 3624**, Employee Training and Development
- **MGMT 3625**, Leadership in Organizations
- **MGMT 3680/INTBUS 3680**, International Management
- **MGMT 3690, Internship in Management** (only 1 of 3690 and 3699 can be taken for MGMT emphasis area credit)
- **MGMT 3699**, Independent Study (only 1 of 3690 and 3699 can be taken for MGMT emphasis area credit)
- **MGMT 4614**, Entrepreneurship/Small Business Management

**Emphasis in Marketing**
Marketing involves the activities needed to facilitate an exchange. This includes selling products, services, or ideas to both individual consumers and business buyers.

Students must complete 5 upper division marketing courses to include the capstone course, MKTG 4700, Marketing Management.

The four courses may be selected from:

- **MKTG 3710**, Consumer Behavior
- **MKTG 3720**, Management of Promotion
- **MKTG 3721**, Internet Marketing
- **MKTG 3740**, Marketing Research
- **MKTG 3750**, Sales Management
- **MKTG 3760**, Business to Business Marketing
- **MKTG 3770**, Introduction to Transportation
- **MKTG 3771**, Traffic and Transportation Management
- **MKTG 3780/INTBUS 3780**, International Marketing
- **MKTG 3785**, Women in International Entrepreneurship
- **MKTG 3787/INTBUS 3787**, Marketing in the European Union
- **MKTG 3790**, Internship in Marketing
- **MKTG 3798**, Business Administration Seminar – Marketing
- **MKTG 3799**, Independent Study in Marketing
- **MKTG 4700**, Marketing Management
Bachelor of Science in Information Systems Degree

Mission
The Information Systems (IS) area endeavors to prepare high-potential students of diverse backgrounds for successful careers in the IS profession. Careers in IS may include programming, systems analysis and design, database administration, end-user support, network administration, and management consulting. The goal is to provide students with the skills to deal with the challenges confronting IS through teaching, research, and service to the profession.

Students are required to complete a minimum of 7 courses beyond required business core courses

Programming – 2 courses (6 hours)

- INFSYS 3806, Managerial Applications of Object-Oriented Programming I
- INFSYS 3816, Managerial Applications of Object-Oriented Programming II

Analysis and Design—2 courses—(6 hours)

- INFSYS 3810, Information Systems Analysis
- INFSYS 4850, Information Systems Design

Database—1 course (3 hours)

- INFSYS 3845, Database Management Systems

Students must complete 2 courses (at least 1 3800-level Information Systems course) from the following list:

- ACCTNG 3421, Accounting Information Systems
- FINANCE 3503, Computer Applications in Finance
- INFSYS 3807, Legacy Systems
- INFSYS 3815, Object Oriented Applications in Business
- INFSYS 3841, Enterprise Information Systems
- INFSYS 3842, Management of Telecommunications
- INFSYS 3843, Decision Support Systems
- INFSYS 3844, Developing Business Applications in .NET
- INFSYS 3846, e-Commerce
- INFSYS 3847, Web Design
- INFSYS 3848, Security and Information Systems
- A pre-approved Computer Science Class

Seminars and Independent Studies are restricted to those offered by and approved by the Area faculty and approved by the Area Coordinator

- INFSYS 3898, Seminar in Information Systems Management
- INFSYS 3899, Independent Study in Information Systems

Minors in Business Administration

General Requirements
All minors are 15 credit hours or 5 courses, including business core courses.

Students must attain a 2.0 grade point average for all courses in the minor.

Students must attain a minimum grade of C- in each course included in the minor.

All courses in the minor must be on a graded basis.

A minimum of 9 credit hours of coursework included in the minor must be taken in residence at UMSL.

One must complete a baccalaureate degree at UMSL in order for a minor to be conferred.

A minor may be added for up to two years following completion of the baccalaureate degree

Minor in General Business
This minor is available only to students seeking a baccalaureate degree outside the College of Business Administration

Five courses selected from

- INFSYS 1800, Computers and Information Systems
- ACCTNG 2400, Fundamentals of Financial Accounting
- BUS AD 2900, Legal Environment of Business
- LOG OM 3320, Introduction to Operations Management
- FINANCE 3500, Financial Management
Minor in Accounting
Available to all students except those pursuing the Bachelor of Science in Accounting degree. Students must complete:

ACCTNG 2400, Fundamentals of Financial Accounting
ACCTNG 2410, Managerial Accounting
plus any three upper division accounting electives

Minor in Finance
Available to all students except those pursuing the Bachelor of Science in Business Administration degree. Students must complete:

FINANCE 3500, Financial Management
plus any four upper division finance electives

Minor in Information Systems
Available to all students except those pursuing the Bachelor of Science in Information Systems degree. Students must complete:

INFSYS 2800, Information Systems Concepts and Applications
Four of the following courses:
At least three of the courses must be 3800-level IS courses.

(Seminars and Independent Studies are restricted to those offered by and approved by the Area faculty and approved by the Area Coordinator.)

Minor in International Business
Available to all students except those pursuing the Bachelor of Science in Business Administration degree with an emphasis in International Business. Students must complete any 5 courses in International Business.

Minor in Logistics and Operations Management
Available to all students except those pursuing the Bachelor of Science in Business Administration degree. Students must complete:

LOG OM 3320, Introduction to Operations Management
plus any four upper division logistics/operations management electives, including no more than one programming course selected from:

INFSYS 3806, Managerial Applications of Object-Oriented Programming I
INFSYS 3844, Developing Business Applications in .Net

Minor in Management
Available to all students except those pursuing the Bachelor of Science in Business Administration degree. Students must complete:

MGMT 3600, Management and Organizational Behavior
MGMT 3611, Advanced Management and Organizational Behavior
plus any 3 upper division management and organizational behavior electives

Minor in Marketing
Available to all students except those pursuing the Bachelor of Science in Business Administration degree. Students must complete:

MKTG 3700, Basic Marketing
plus any 4 additional upper division marketing electives

Minor in Transportation Studies
Available to all students. (For those pursuing the BSBA degree, this will result in an emphasis in marketing if the marketing capstone course, MKTG 4700, Marketing Management, is taken in addition to the requirements listed below. Such individuals will have completed both LOG OM 3320, Introduction to Operations Management, and MKTG 3700, Basic Marketing.)

Students must complete five courses to include:

MKTG 3770, Introduction to Transportation
MKTG 3771, Traffic and Transportation Management
Plus three additional courses selected from:

LOG OM 3320, Introduction to Operations Management
MKTG 3790, Internship in Marketing
MKTG 3799, Independent Study in Marketing*
MKTG 3700, Basic Marketing
MKTG 3798, Business Administration Seminar: Marketing

*No more than one approved independent study course may count towards the minor.
The College of Business Administration offers four graduate degrees: the Doctor of Philosophy in Business Administration (Ph.D.), the Master of Business Administration (MBA), the Master of Science in Information Systems (MS in IS), and the Master of Accounting (MAcc). All programs carry the prestigious accreditation of AACSB-International.

**Admission Requirements**

The admissions decision is based on a combination of factors. Consideration is given to a candidate's academic record, scores on the Graduate Management Admissions Test (GMAT), work and leadership experience, a personal narrative on the application form, and recommendations.

As in most AACSB-accredited graduate business programs, the UMSL College of Business generally requires Graduate Management Admissions Test (GMAT) scores. Information on the GMAT exam can be obtained at www.mba.com. The examination tests one's ability to read, understand, and to reason logically with both verbal and quantitative material. The test is not a measure of achievement or business knowledge. Under certain conditions, the applicant may petition for waiver of the GMAT requirement, based on possession of an advanced degree and/or the ability to supply acceptable scores from an equivalent test.

**Doctor of Philosophy in Business Administration (Ph.D.)**

The Ph.D. program includes emphases in Information Systems (IS) and Logistics & Supply Chain Management (LSCM). This is the only LSCM emphasis in a doctoral business program offered in Missouri and the only IS emphasis in a doctoral business program offered at a public university in Missouri. Courses are taught by full-time, nationally known scholars who have been recognized as one of the most academically prolific faculties in America. The Ph.D. program is designed to prepare scholars who will excel in the national and international marketplace, especially in academic and research organizations, but graduates may also find opportunities in the growing private sector demand for advanced IS and LSCM expertise.

**Master of Business Administration Program (MBA)**

The MBA is available in three formats: the Evening MBA program, the Internet-based Professional MBA program and the International MBA program. All are fully accredited by AACSB International - The Association to Advance Collegiate Schools of Business, the premier accrediting body in collegiate business education. The MBA programs are designed to prepare students for administrative and professional positions. They also provide an appropriate foundation for students contemplating doctoral work and eventual careers in college teaching and research. The programs are designed for students who have bachelor's degrees from accredited institutions, including those with undergraduate backgrounds in the sciences, engineering, humanities, or arts as well as business. Graduate Business program information is available at the College of Business Administration website.

**The Evening MBA Program**

The MBA curriculum provides training in the fundamental areas of business administration. The core program is designed to generate a working knowledge of the concepts and interrelationships of four broad categories fundamental to management training:

- The external environment confronting business organizations and management's response to legal, economic, social, and political issues.
- The internal operation of various business organizations and management's role in channeling human behavior to satisfy both personal and organizational goals.
- Basic concepts, terminology, and interaction of the accounting, marketing, finance, information technology and operations management disciplines.
- Quantitative management decision-making models put to use in the context of current management information systems.
The total degree program is integrated by a course in strategy formulation and implementation in the student's last semester. There is no thesis requirement; however, students interested in undertaking an individual research project may earn elective credit by enrolling in a supervised independent study course.

**Degree Requirements**

Depending on the student's previous background, programs will range from 39 to 54 hours. Coursework must be completed within a six-year period. At least 30 hours of coursework must be taken while enrolled as an MBA candidate at UMSL.

**Learning Outcomes**

1. Develop the ability to write and deliver a professional presentation.
2. Develop the ability to form teams and work in teams.
3. Understand ethical considerations in all dimensions of business.
4. Be aware of international issues in business.
5. Have the ability to critically evaluate information.
6. Be able to independently research a topic in business.
7. Develop skill in using technology to solve business problems.
8. Understand basic management principles and practices and how they affect the success of an organization.
9. Understand basic finance principles and practices and how they affect the success of an organization.
10. Understand basic accounting principles and practices and how they affect the success of an organization.
11. Understand basic operations and logistic management principles and practices and how they affect the success of an organization.
12. Understand basic marketing principles and practices and how they affect the success of an organization.
13. Understand basic information systems principles and practices and how they affect the success of an organization.

Develop skill to think strategically about the business. Candidates must take at least one course at either the core level or from the business breadth requirements list in each of the following six areas: accounting, finance, management, marketing, information systems, and logistics and operations management. Also, no more than 15 credit hours may be taken in any one of the six areas. Students are also required to have completed the equivalent of ECON 4105, Quantitative Methods and Modeling in Economics, Business, and the Social Sciences, by the end of their first 15 hours in the program.

**Required Courses**

The following courses or their equivalents are required of all degree candidates.

**General Requirements – 18 hours**

- ECON 4105, Quantitative Methods and Modeling in Economics, Business, and the Social Sciences
- BUS AD 5000, Economics for Managers
- BUS AD 5100, Managerial Communication
- BUS AD 6990, Strategy Formulation and Implementation
- LOG OM 5300, Statistical Analysis for Management Decisions
- BUS AD 5900, Law, Ethics, and Business

**Core Requirements – 18 hours**

- ACCTNG 5400, Financial and Managerial Accounting
- FINANCE 6500, Financial Management
- MGMT 5600, Organizational Behavior and Administrative Processes
- MKTG 5700, Contemporary Marketing Concepts
- INF SYS 5800, Management Information Systems
- LOG OM 5320, Production and Operations Management

**Business Breadth Requirements – 9 hours**

A student must take a second-level course in three of the following areas:

**Accounting:** ACCTNG 5401, Financial Reporting and Analysis
**Finance:** Any approved graduate-level course beyond FINANCE 6500
**Management:** Any approved graduate-level course beyond MGMT 5600
**Marketing:** Any approved graduate-level course beyond MKTG 5700

**Information Systems:** Any approved graduate-level course beyond INF SYS 5800

**Logistics and Operations Management:** Any approved graduate-level course beyond LOG OM 5320

**Electives**

The student must take a minimum of nine hours of elective courses. A maximum of six hours of electives may be taken at the undergraduate level. Graduate students may be required to complete additional work in these courses. Nine elective hours may be taken outside the College of Business Administration if the student has
approval in advance from a graduate adviser for the specific courses desired.

**Emphasis Areas**

MBA students may obtain emphasis areas in Accounting, Finance, Information Systems, International Business, Logistics and Supply Chain Management, Management, Marketing or Operations Management. In addition to the requirements articulated above, the requirements for each emphasis area are shown below.

**Emphasis in Accounting**

MBA students seeking an Emphasis in Accounting must complete a minimum of 12 hours of accounting electives. Of these electives, six hours must be numbered ACCTNG 5401 or above, and six hours must be numbered ACCTNG 4400 or above. ACCTNG 5400 does not count toward the Emphasis in Accounting. A maximum of 15 hours in any functional area will count toward degree requirements. Only courses that are substantially different from courses taken for credit in a student's undergraduate program will be acceptable. The total number of elective courses required will depend on the number of hours waived. Students must complete at least 39 credit hours to earn the MBA.

**Emphasis in Finance**

MBA students seeking an Emphasis in Finance must complete a minimum of 12 hours of Finance electives beyond FINANCE 6500. A maximum of 15 hours in any functional area will count toward the degree requirements. One Finance course may apply toward the Business Breadth requirement, and the remainder toward the Elective requirement. The total number of elective courses required will depend on the number of hours waived. Students must complete at least 39 credit hours to earn the MBA degree.

**Emphasis in Information Systems**

**Required Course**

INFSYS 5800, Management Information Systems

**Four Courses from the following:**

INFSYS 6805, Applications of Programming for Business Solutions
INFSYS 6835, IT-Enabled Business
INFSYS 6836, Telecommunications; Design & MGMT
INFSYS 6837, IS/IT Architecture
INFSYS 6838, Business Processes: Design, Management, and Integration
INFSYS 6840, Information Systems Analysis
INFSYS 6845, Database Management Systems
INFSYS 6846, Management of Global Sourcing
INFSYS 6847, IS Financial and Project Management
INFSYS 6848, Knowledge Management & Business Intelligence
INFSYS 6850, Information Systems Design
INFSYS 6881, Management of Transnational IS
INFSYS 6891, Seminar in Management Information Systems

**Guided Internship**

A maximum of 1 course outside IS (Courses outside the College of Business must be approved by the IS department chairperson)

**Emphasis in International Business**

MBA students seeking an emphasis in International Business (IB) must complete a minimum of 12 hours by completing four courses from among the following list:

ACCTNG 5480, International Accounting
FINANCE 6580, International Financial, Investment, and Commercial Relations
FINANCE 6590, Seminar in Finance (International Banking)
FINANCE 6581, Seminar in International Investments
INFSYS 6846, Management of Global Sourcing
INFSYS 6881, Management of Transnational Information Systems
LOG OM 5381, International Logistics and Operations Management
MGMT 5689, International Business Strategies
MGMT 5695, Seminar in Management (International Management)
MKTG 5780, Seminar in International Marketing
MKTG 5795, Seminar in Marketing (International Marketing)
BUS AD 5299, Individual Research

In addition to the above list, courses approved by the director of the International Business Institute will count towards the IB concentration. A maximum of 15 hours in any functional area will count toward the degree requirements. The total number of elective courses required will depend on the number of hours waived. Students must complete at least 39 hours credit hours to earn the MBA degree.

**Emphasis in Logistics and Supply Chain Management**

MBA students seeking an Emphasis in Logistics & Supply Chain Management must complete 9 hours from
approved courses in addition to LOG OM 5300 and LOG OM 5320. Up to 3 hours may be transferred from another AACSB-accredited graduate program at the discretion of the chairperson of the LOM Department. A maximum of 15 hours in any functional area will count toward the degree requirements. The total number of elective hours required will depend on the number of hours waived. Students must complete at least 39 credit hours to earn the MBA degree.

**Emphasis in Management**
MBA students seeking an Emphasis in Management may choose one of the tracks specified below. Regardless of the track chosen, one must complete a minimum of 12 hours of Management electives beyond MGMT 5600. A maximum of 15 hours in any functional area will count toward the degree requirements. The total number of elective courses required will depend on the number of hours waived. Students must complete at least 39 credit hours to earn the MBA degree.

**General Management Track**
Any 4 MGMT courses.

**Human Resource Management Track**
MGMT 5621, Managing Human Resources + 3 courses selected from MGMT 5622, MGMT 5624, MGMT 5625

**Emphasis in Marketing**
MBA students seeking an Emphasis in Marketing must complete a minimum of 12 hours of Marketing electives beyond MKTG 5700, including MKTG 5701. A maximum of 15 hours in any functional area will count toward the degree requirements. The total number of elective courses required will depend on the number of hours waived. Students must complete at least 39 credit hours to earn the MBA degree.

**Emphasis in Operations Management**
MBA students seeking an Emphasis in Operations Management must complete 9 hours from approved courses in addition to LOG OM 5300 and LOG OM 5320. Up to 3 hours may be transferred from another AACSB-accredited graduate program at the discretion of the department chairperson. A maximum of 15 hours in any functional area will count toward the degree requirements. The total number of elective hours required will depend on the number of hours waived. Students must complete at least 39 credit hours to earn the MBA degree.

A student cannot receive an emphasis in both Operations Management and Logistics & Supply Chain Management for the same set of courses. An overlap of up to 3 credit hours out of the 9 hours required is allowed.

**Previous Education**
Based on a formal review and evaluation by the Office of Graduate Studies in Business, students may be granted waivers of certain courses from the general and core requirements. Waivers depend on the applicability of prior coursework and the student's performance in these courses. Regardless of the number of courses waived, all students must take at least 39 hours to earn the degree.

**Professional MBA Program**
A weekend-based Internet-enhanced version of the MBA program exists as an alternative to the traditional part-time evening program. This program is a 48-credit-hour program for professionals with busy work or travel schedules. Students meet on campus monthly, with the remainder of the interaction between instructor and students taking place online. Students proceed through the program as part of a cohort group and complete the requirements for the degree in two years.

The first 30 hours of the Internet-based program consist of the same core courses required in the evening program (except for the mathematics and economics requirements, which are treated as prerequisites and must be satisfied prior to starting the program). The remaining 18 hours consist of the following courses:

- ACCTNG 5401, Financial Reporting and Analysis
- FINANCE 6590, Seminar in Finance
- MGMT 5695, Seminar in Management
- MKTG 5795, Seminar in Marketing
- INF SYS 6891, Seminar in Management Information Systems
- LOG OM 6395, Seminar in Logistics and Operations Management

**International MBA Program**
An International version of the MBA program also exists as an alternative to the evening MBA program. This program is a two-year, full-time program. Students take courses the first year outside the U.S. at a partner university and then take courses the second year on the University of Missouri – St. Louis campus.

**International MBA Program Degree Requirements**
In addition to the requirements of the evening MBA program, the International MBA program requires an internship (outside the U.S. for Americans and in the U.S. for all others). The program also requires a proficiency in at least one major commercial language in addition to English as a prerequisite. (Coursework is generally in English). All participants in the International MBA program must meet the same General and Core
Requirements as those in the evening MBA program.

**Master of Science in Information Systems (MS in IS)**
The Master of Science in IS program is designed to provide the technical and managerial knowledge to operate successfully in careers associated with the design, development and management of computer-based information, telecommunications, and Internet applications. The program accommodates students with undergraduate degrees specializing in IS, business, and computer science, as well as students with undergraduate degrees outside business.

**MS in IS Program Degree Requirements**
The program may require as few as 30 hours for students with undergraduate business degrees from AACSB-accredited institutions. Because of the need to attain general business core competencies as a foundation of the MS in IS requirements, students with no academic business background will be required to take additional hours as outlined below.

**General Requirements**
All students must meet course requirements in quantitative reasoning, general business and IS. Students must complete a minimum of 30 credit hours beyond the general business core. Of the 30 hours beyond the general business core, at least 24 hours must cover topics beyond INFSYS 5800 and INFSYS 6805. Students with a B.S.B.A. with an emphasis in IS or a B.S. in IS from an AACSB-accredited institution may, at the student's discretion, substitute two electives for INFSYS 5800 and INFSYS 6805. Waivers may be granted for other courses with appropriate undergraduate course work.

**Quantitative Reasoning Requirement**
Students are required to have completed by the end of their first semester in the program the equivalent of ECON 4105, Quantitative Methods and Modeling in Economics, Business and the Social Sciences with a grade of C or better. Students are also required to complete the equivalent of LOG OM 5300 Statistical Analysis for Management Decisions with a grade of C or better. These courses do not count towards the graduate degree, but waivers may be granted with appropriate undergraduate course work.

**General Business Core**
Students must have a B.S. in IS, or a B.S.B.A. with an emphasis in MIS that requires a managerial communication course, and coursework equivalent to at least five of the following courses:

- BUS AD 5900, Law, Ethics, and Business
- ACCTNG 5400, Financial and Managerial Accounting
- FINANCE 6500, Financial Management
- MGMT 5600, Organizational Behavior and Administrative Processes
- MKTG 5700, Contemporary Marketing Concepts
- LOG OM 5320, Production and Operations Management
- BUS AD 6990, Strategy Formulation and Implementation

Students who have not met this prerequisite must complete BUS AD 5100 Managerial Communication and coursework from at least five of the courses listed above.

**Program Requirements**

**A. Basic IS courses 15 credit hours**
- INFSYS 5800, Management Information Systems
- INFSYS 6805, Applications of Programming for Business Solutions
- INFSYS 6840, Information Systems Analysis
- INFSYS 6845, Database Management Systems
- INFSYS 6850, Information Systems Design

**B. IS Electives 15 credit hours**
Students choose 5 elective courses from the following:
- INFSYS 6808, Internet Programming for Business
- INFSYS 6835, IT-Enabled Business
- INFSYS 6836, Telecommunications: Design & MGMT
- INFSYS 6837, Information Systems Architecture
- INFSYS 6838, Business Processes: Design, Management, and Integration
- INFSYS 6846, Management of Global Sourcing
- INFSYS 6847, Financial & Project Management
- INFSYS 6848, Knowledge Management & Business Intelligence
- INFSYS 6881, Management of Transnational Information Systems
- INFSYS 6891, Seminar in Management Information Systems

A maximum of 2 courses outside IS. Courses outside the College of Business must be approved by the IS department chairperson.

**Master of Accounting Program (MAcc)**

The MAcc program prepares students to enter the accounting profession or to further existing accounting careers. It is designed to accommodate both students with undergraduate accounting majors and students with other undergraduate backgrounds. It may require as few as 30 credit hours for students with undergraduate accounting degrees.

Because of the need to attain general business and professional accounting core competencies as a foundation for the MAcc requirements, students with no academic business or accounting background will be required to take additional credit hours as outlined below.

**General Requirements**
All students must meet course requirements in mathematics, general business, and accounting. Students must complete a minimum of 30 credit hours beyond the general business core and the professional accounting core. At least 15 credit hours in accounting must be completed, including at least 12 credit hours at the graduate level. At least 9 credit hours of the student's 30 credit hour program must be in graduate level non-accounting courses. Of the 30 credit hours beyond the general business and professional accounting core, 21 credit hours must be earned in courses at the graduate level.

**General Business**
These requirements may be waived with appropriate undergraduate courses. Students must complete:
- **ACCTNG 5400**, Financial & Managerial Accounting
- **ECON 4105**, Quantitative Methods and Modeling in Economics, Business and the Social Sciences

In addition, students must complete six courses from the list below.
- **BUS AD 5100**, Managerial Communication
- **BUS AD 5900**, Law, Ethics, and Business
- **BUS AD 6990**, Strategy Formulation and Implementation
- **FINANCE 6500**, Financial Management
- **INFSYS 5800**, Management Information Systems
- **LOG OM 5300**, Statistical Analysis for Management Decisions
- **LOG OM 5320**, Production and Operations Management
- **MGMT 5600**, Organizational Behavior and Administrative Processes
- **MKTG 5700**, Contemporary Marketing Concepts

**Professional Accounting Core**
These requirements may be waived with appropriate undergraduate courses.
- **ACCTNG 5404**, Professional Accountancy I
- **ACCTNG 5405**, Professional Accountancy II
- **ACCTNG 5421**, Information Systems in Accounting
- **ACCTNG 5411**, Concepts in Management Accounting
- **ACCTNG 5447**, Taxation of Individuals and Businesses

**MAcc Degree Requirements**
These requirements may be waived with appropriate undergraduate courses. If courses are waived, students may need to take additional accounting electives to meet the minimum requirement of 30 credit hours.
- **ACCTNG 4401**, Financial Accounting & Reporting III
- **ACCTNG 4402**, Financial Accounting & Reporting IV
- **ACCTNG 4435**, Auditing

**Research Course**
Students must complete one of the following:
- **ACCTNG 5402**, Professional Accounting Research
- **ACCTNG 5406**, Research and Professional Writing

**Seminar**
Students must complete one of the following:
- **ACCTNG 5403**, Seminar in Financial Accounting
- **ACCTNG 5412**, Seminar in Controllership
- **ACCTNG 5435**, Seminar in Auditing
- **ACCTNG 6441**, Seminar in Taxation

**Accounting Electives.**
Students must complete at least two additional courses from the following list. (Not all courses are offered each year.)
- **ACCTNG 5402**, Professional Accounting Research
- **ACCTNG 5403**, Seminar in Financial Accounting
- **ACCTNG 5406**, Research and Professional Writing
- **ACCTNG 5408**, Fraud Examination
- **ACCTNG 5412**, Seminar in Controllership
- **ACCTNG 5435**, Seminar in Auditing
ACCTNG 5436, Systems Auditing
ACCTNG 5446, Advanced Topics in Taxation
ACCTNG 5480, International Accounting
ACCTNG 5490, Graduate Internship in Accounting
ACCTNG 5491, Contemporary Issues in Accounting
ACCTNG 5498, Graduate Seminar in Accounting
ACCTNG 6441, Seminar in Taxation

NonAccounting Courses. Students must complete at least three courses from other business disciplines. (minimum: 9 credit hours at the graduate level)
Any BUS AD 5000 and above
Any FINANCE 6500 and above
ANY INFSYS 5800 and above
ANY LOG OM 5300 and above
ANY MGMT 5600 and above
ANY MKTG 5700 and above

Ph.D. in Business Administration

Admissions Requirements
Admission decisions are made on the basis of past academic record, intellectual ability, GMAT or GRE scores, and career commitment. Applications are accepted from students who have baccalaureate or graduate degrees. Past graduate work may be credited toward degree requirements where appropriate. Applicants must submit:

Official academic transcripts.
Official GMAT or GRE results in fields approved by the College of Business Administration.
Three letters of recommendation (at least two from individuals with earned doctorates).
A statement of objectives for the course of study.

Graduate Assistantships
Stipends for research and teaching assistantships (20 hours per week) are awarded on a competitive basis. Educational fees are waived for graduate assistants.

Degree Requirements
The Ph.D. in the College of Business Administration requires a minimum of 69 course credit hours and a minimum of 6 dissertation credit hours beyond the baccalaureate degree. To ensure sufficient background for doctoral-level courses, students must demonstrate appropriate competence in quantitative reasoning, which is evidenced through completion of ECON 4105 and BUS AD 5000 or their equivalent. Students must also demonstrate appropriate competence in managerial communication, which is evident through completion of BUS AD 5100 or equivalent to be determined by the Ph.D. Coordinator.

Course Requirements
The Ph.D. in Business Administration has a common set of requirements in three areas: Business & Research Foundation (Section I), Supporting Field (Section II), and Other Requirements (Section IV). Requirements specific to the area of emphasis are in Section III.

I. Business & Research Foundation Requirement: 27 credit hours (9 courses)
Students are required to take:
INFSYS 5800, Management Information Systems
LOG OM 5300, Statistical Analysis for Management Decisions
BUS AD 5900, Law, Ethics, and Business
ACCTNG 5400, Financial and Managerial Accounting
FINANCE 6500, Financial Management
MGMT 5600, Organizational Behavior
MKTG 5700, Contemporary Marketing Concepts
LOG OM 5320, Production and Operations Management
BUS AD 7300, Statistical Modeling

The first eight courses 5800, 5300, 5900, 5400, 6500, 5600, 5700, 5320 will normally be waived if students had the courses as part of an UMSL MBA, MS in IS, or MAcc degree, or had equivalent graduate course work at an institution approved by the Graduate Business Programs Office and the Ph.D. Coordinator.

II. Supporting Field Requirement: (9 credit hours)
Students must take 9 credit hours of graduate-level courses beyond foundation course work in a supporting field approved by the Ph.D. Coordinator. Supporting fields may include courses within or outside the College of Business Administration and are designed in consultation with the Ph.D. Coordinator.

III. Emphasis Area Requirements:
Students must complete the requirements for one of the emphasis areas.
Information Systems Emphasis
The Information Systems emphasis requirement includes 36 credit hours.
Students are required to take the following ten courses:

- INFSYS 6805, Applications of Programming for Business Solutions
- INFSYS 6836, Telecommunications: Design and Management
- INFSYS 6840, Information Systems Analysis
- INFSYS 6845, Database Management Systems
- BUS AD 7021, Qualitative Methods and Philosophical Foundations of Business Administration Research
- INFSYS 7890, IS Research Seminar
- INFSYS 7891, Quantitative Research Methods in IS
- INFSYS 7892, Doctoral Seminar in current Information Systems Topics
- INFSYS 7893, Special Topics in IS
- INFSYS 7894, Theoretical Foundations of Information Systems Research

Students are required to take 6 credit hours (2 courses) (not included elsewhere) from the list of approved elective courses for the IS emphasis.

Logistics & Supply Chain Management (LSCM) Emphasis
The Logistics & Supply Chain Management emphasis requirement includes 33 credit hours.
Students are required to take the following eight courses:

- MKTG 5770, Supply Chain Management
- LOG OM 6330, Business Logistics Systems
- LOG OM 6331, Logistics and Supply Chain Operations Modeling
- LOG OM 6332, Logistics and Supply Chain Strategic Modeling
- LOG OM 6350, Management Science Methods
- LOG OM 7381, International Supply Chain Management
- LOG OM 7390, Research Seminar in LSCM
- LOG OM 7393, Special Topics in LSCM

Students are required to take nine credit hours (three courses) (not included elsewhere) from the list of approved elective courses for the LSCM emphasis.

IV. Other Requirements:
Upon completion of coursework, students are advanced to candidacy by successfully completing a comprehensive examination in their area of emphasis and a supporting field examination in their chosen area.

Students admitted to the program with a relevant Masters degree should pass the comprehensive examination and the supporting field examination within three years of admission to the Ph.D. program.

Students admitted to the program with an undergraduate business degree should pass the comprehensive examination and the supporting field examination within four years of admission to the Ph.D. program.

Students admitted to the program with an undergraduate degree outside of business should pass the comprehensive examination and the supporting field examination within five years of admission to the Ph.D. program. In these cases, prior coursework will be evaluated for equivalency to Section I course requirements. Exceptions may be made, contingent on approval by the Ph.D. Coordinator.

Students will be evaluated annually for satisfactory progress. Students deemed not to be making adequate progress are subject to the policies of the College of Business Administration regarding continuation of their assistantship. Students deemed not to be making adequate progress are subject to the policies of the Graduate School and the College of Business Administration regarding probation and dismissal from the program.

Students are required to take a minimum of 6 dissertation credit hours and to defend a dissertation proposal within one year of advancement to candidacy.

Students are required to present one paper at a regional, national, or international conference.

Students are required to submit one paper, approved by his/her dissertation advisor, to a refereed journal.

At least two semesters of supervised teaching in the College of Business Administration are required of all doctoral students.

Students are required to demonstrate competency in teaching during the first year in which they teach in the College of Business Administration. This requirement may be met by successfully completing one or more courses.

Students must satisfy all Graduate School requirements.

The degree is awarded upon successful completion and defense of the Ph.D. dissertation. The dissertation must be defended within three years of approval of a Ph.D. dissertation proposal.
Graduate Certificate Programs in Business Studies
The College of Business Administration offers four 18-hour Graduate Certificates. To be admitted to a graduate certificate program, students must meet the same requirements as those needed for a graduate degree program in business (see Admission Requirements in the Graduate Studies in Business Administration section of this Bulletin).

Certificate programs allow qualified graduate students to pursue an intensive course of study in a specialized business topic without requiring completion of a full graduate business degree program. Certificate programs provide students with the opportunity to obtain the advanced knowledge available through a graduate course of study in a relatively brief period.

In order to successfully complete a certificate program, students must earn a 3.0 cumulative GPA in certificate classes. Unless otherwise specified, the coursework must be completed within six years. Students must also comply with all requirements related to matters such as prerequisites, academic probation, and other graduate business program policies.

Graduate Certificate Program in Business Administration
This is an 18-hour program designed to accommodate individuals with an undergraduate/graduate degree in a non-business field seeking core business knowledge. The program emphasizes coursework designed to cover the major disciplines within the field of business. Upon completion, the student will have knowledge of common business theories, practices, and procedures.

To earn the certificate, students must complete six courses as prescribed below. All course prerequisites and all course waivers are applicable. Substitute courses may be approved by the appropriate department chairperson and the director of Graduate Studies in Business. In all cases, 18 hours are needed to complete the graduate certificate.

Program Requirements: (5 courses)
- ACCTNG 5400, Financial and Managerial Accounting
- MGMT 5600, Organizational Behavior and Administrative Processes
- MKTG 5700, Contemporary Marketing Concepts
- INF SYS 5800, Management Information Systems
- One of the following:
  - FINANCE 6500, Financial Management
  - LOG OM 5320, Production and Operations Management

Elective Course (1 course):
- BUS AD 5100, Managerial Communication
- BUS AD 5900, Law, Ethics and Business
- *FINANCE 6500, Financial Management
- *LOG OM 5230, Production and Operations Management

*Cannot be used as an elective if used as a program requirement.

Graduate Certificate in Human Resources Management
The Graduate Certificate in Human Resources Management is an 18-hour course of study designed to focus on the multidimensional aspects of personnel operations within business organizations. The course of study emphasizes both formal and informal aspects of human resources management.

Requirements
Students must complete the following six courses or appropriate substitutes if course waivers are appropriate:
- MGMT 5600, Organizational Behavior and Administrative Processes
- MGMT 5621, Managing Human Resources
- MGMT 5622, Union Management Relations and Collective Bargaining
- MGMT 5623, Compensation and Benefits
- MGMT 5625, Selected Topics in Human Resource Management
- LOG OM 5300, Statistical Analysis for Management Decisions

MGMT 5600, MGMT 5621 and LOG OM 5300 may be waived with equivalent undergraduate courses. If a student is able to waive any or all of these three courses, substitute courses (approved by both the chairperson of the Management and the director of Graduate Studies in Business) will be provided. Substitute courses may include MGMT 5611, Advanced Organizational Behavior and Administrative Processes, or a course from outside the College of Business Administration. In all cases, 18 hours are needed to complete the Graduate Certificate in Human Resources Management.

Graduate Certificate in Logistics and Supply Chain Management
The Graduate Certificate in Logistics and Supply Chain Management is an 18-hour program designed to provide a focused, intensive study of important issues within logistics and, more broadly, in supply chain management. Three required courses provide thorough background in operations, logistics and supply chain management. Three elective courses allow specialization in areas such as logistics and supply chain software,
international logistics, operations research, e-commerce, and quality. Students must complete the following six courses or approved substitutes if course waivers are appropriate:

**Required Courses:**
- LOG OM 5320, Production and Operations Management
- LOG OM 6330, Business Logistics Systems
- MKTG 5770, Supply Chain Management Strategy

**Nine additional hours (generally 3 courses) from:**
- LOG OM 5326, Quality Management
- LOG OM 5312, Advanced Statistical Methods for Management Decisions
- LOG OM 5354, Simulation for Managerial Decision Making
- LOG OM 5322, Lean Production
- LOG OM 5381, International Logistics and Operations Management
- LOG OM 6331, Logistics and Supply Chain Operational Modeling
- LOG OM 6332, Logistics and Supply Chain Strategic Modeling
- LOG OM 6350, Management Science Methods
- INFSYS 6835, IT-Enabled Business
- INFSYS 6833, Decision Support System
- BUS AD 5198, Seminar in Business Administration*
- BUS AD 5299, Individual Research*

*Subject to approval of the department chairperson of the LOM Area.

Substitute courses must be approved by the chairperson of the LOM Department and the director of Graduate Studies in Business. In all cases, 18 hours are needed to complete the Graduate Certificate in Logistics and Supply Chain Management.

**Graduate Certificate in Marketing Management**

The Graduate Certificate in Marketing Management is an 18 hour program designed to provide a focused intensive study of the marketing management activity within organizations. This program is designed to serve a broad group of marketing managers, including those with an interest in sales, brand management, promotion, and consumer behavior.

**Requirements**

Students must complete the following six courses or appropriate substitutes if course waivers are appropriate:

- MKTG 5700, Contemporary Marketing Concepts
- MKTG 5710, Consumer Motivation and Behavior
- MKTG 5740, Marketing and Business Research

**Marketing Management:**
- MKTG 5701, Marketing Planning and Strategy
- MKTG 5720, Marketing Communications
- MKTG 5730, Product Planning and Pricing

All course prerequisites and all course waivers are applicable. The Marketing department chairperson and the director of Graduate Studies in Business must approve substitute courses. In all cases, 18 hours (including at least 12 hours in Marketing) are needed to complete the certificate.
All undergraduate courses are listed under the following categories: Accounting (ACCTNG), Business Administration (BUS AD), Finance (FINANCE), Information Systems (INFSYS), Logistics and Operations Management (LOG OM), Management (MGMT) and Marketing (MKTG).

The College of Business Administration uses the University course numbering system. A minimum grade of C- shall be required to meet the prerequisite requirement for any course. Prerequisites may be waived only by consent of both the instructor and the area coordinator. A minimum campus GPA of 2.0 is required for admittance to each upper division 3000 and 4000 level Business Administration course.

**Accounting Undergraduate**

**ACCTNG 2400 Fundamentals of Financial Accounting (3)**
Prerequisites: MATH 1030 and completion of 27 credit hours. MATH 1030 may be taken concurrently. This is a one-semester course in financial accounting theory and practice. The primary emphasis is on the corporate financial statements of income, financial position and cash flow—their content and interpretation; and the impact of financial transactions upon them.

**ACCTNG 2410 Managerial Accounting (3)**
Prerequisites: MATH 1030 and BUS AD 2400. This is an advanced course that goes beyond the scope of a second-semester course in fundamentals of accounting. The development, interpretation, and use of relevant cost behavior, control, and traceability concepts for management planning, controlling, and decision making are emphasized. Topics include: an introduction to product costing, the contribution concept, direct costing, performance standards and variance analysis, responsibility accounting, segment profitability, alternative choice decisions, and capital budgeting.

**ACCTNG 3401 Financial Accounting and Reporting I (3)**
Prerequisites: A minimum 2.0 campus GPA, MATH 1030, ACCTNG 2410, and 57 credit hours. Review of the foundations of financial accounting theory and of the financial statement preparation process. Accounting theory and practice related to current assets (except for investments in securities). The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

**ACCTNG 3402 Financial Accounting and Reporting II (3)**
Prerequisites: MATH 1030 and ACCTNG 3401; a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Accounting theory and practice related to topics such as, investments in securities, operational assets, current and long-term liabilities, and leases. The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

**ACCTNG 3411 Cost Accounting (3)**
Prerequisites: MATH 1030 and ACCTNG 3401; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. The study of the basic principles of cost determination for, and control of, manufacturing and distribution activities. Topics include job-order costing, process costing, cost allocations, and the development and use of standard costs within a system of absorption costing.
ACCTNG 3421 Accounting Information Systems (3)
Prerequisites: A minimum GPA of 2.0. In addition, MATH 1030, INFSYS 1800, ACCTNG 2410, and ACCTNG 3401. Examines the fundamentals of accounting information systems, including hardware and software considerations, internal controls, and transaction processing cycles. Also focuses upon the development of efficient spreadsheets as applied to financial and managerial accounting concepts.

ACCTNG 3441 Income Taxes (3)
Prerequisites: MATH 1030 and ACCTNG 3401; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Fundamentals of federal income taxation. Topics include taxable entities, income, deductions, tax accounting methods, tax basis, and property transactions at both the conceptual and operational levels.

ACCTNG 3445 I.R.S. Procedures and Federal Taxation of Estates, Gifts and Trusts (3)
Prerequisites: MATH 1030 and either ACCTNG 3401 or FINANCE 3560; also a minimum campus GPA of 2.0 and minimum GPA of 2.2 in all accounting courses at the 3000-level and above taken at UMSL. The first topic includes the federal taxation of estates, gifts and trusts as they relate to wealth management. The second topic concerns interaction with the federal tax authorities. Topics may include preparing an audit protest, a request for and I.R.S. ruling, and a petition to the U.S. Tax Court.

ACCTNG 3451 Accounting for Governmental and Not-for-Profit Entities (3)
Prerequisites: A minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; also MATH 1030 and ACCTNG 3401. Principles of fund accounting and financial reporting for governmental and not for profit entities. This course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

ACCTNG 3490 Internship in Accounting (1-3)
Prerequisites: ACCTNG 3401, a minimum campus GPA of 2.0, a minimum GPA of 2.7 in all accounting courses at the 3000 level and above taken at UMSL, consent of supervising instructor and accounting internship coordinator. Students are employed in the field of Accounting where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. An accounting faculty member will monitor the student’s program with the student providing a formal written report at the end of the project.

ACCTNG 3495 Special Administrative Problems-Accounting: Volunteer Income Tax Assistance (VITA) Program (1-3)
Prerequisites: MATH 1030 and ACCTNG 3401. minimum campus GPA of 2.0; minimum GPA of 2.2 in all accounting courses at the 2000-level and above taken at UMSL; completion of nine semester hours of accounting. Enrollment in the course is restricted to Volunteer Income Tax Assistance (VITA) program student participants. The class offers practical tax experience, and personal satisfaction derived from community service. It is taken on a satisfactory/unsatisfactory basis. The course offers one to three hours of undergraduate business elective credit and may be repeated for up to 3 hours credit.

ACCTNG 3498 Seminar in Accounting (3)
Prerequisites: To be determined each time the course is offered and to include a minimum campus GPA of 2.0 and a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. This course is a selected special topic in the field of accounting.

ACCTNG 3499 Independent Study in Accounting (1-3)
Prerequisites: Minimum campus GPA of 2.0. A minimum campus GPA of 2.0, a minimum GPA of 2.3 in all accounting courses at the 3000 level and above taken at UMSL and approval by the supervising professor and the department chair.

ACCTNG 4401 Financial Accounting and Reporting III (3)
Prerequisites: MATH 1030 and ACCTNG 3402; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Accounting theory and practice related to topics such as income taxes, pensions, owner's equity, earnings per share, and the statement of cash flows. The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

ACCTNG 4402 Financial Accounting and Reporting IV (3)
Prerequisites: MATH 1030 and ACCTNG 3402; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Accounting theory and practice related to topics such as business combinations, consolidated financial statements, multinational operations, foreign exchange transactions, and governmental and nonprofit organizations. The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

ACCTNG 4405 Professional Accounting Research (3)
Prerequisites: ACCTNG 4401; also a minimum campus GPA of 2.0 and minimum GPA of 2.2 in all accounting courses at the 3000-level and above taken at UMSL. Discussion of the research tools and methods available to resolve questions concerning accounting standards and practices. Critical analysis of topics of current
interest and importance in accounting practice is the focal point of the course.

ACCTNG 4435 Auditing (3)
Prerequisites: MATH 1105, ACCTNG 3402 and ACCTNG 3421 or INFYS 3810; also a minimum campus GPA of 2.0 and minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. An introduction to auditing practice. Includes the social role of auditing and the services offered by auditors in internal, governmental, and public accounting practice. Emphasis is on the financial auditing process, including professional ethics, audit risk assessment, study and evaluation of internal control, gathering and evaluating audit evidence, and audit reporting decisions.

ACCTNG 4441 Advanced Federal Income Tax: Tax Research and Business Taxation (3)
Prerequisites: ACCTNG 3441; with a grade of B or above a minimum campus GPA of 2.0 a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Uses internet-based tax research service to conduct research that resolves tax law questions. Also focuses on federal income taxation of corporations, S corporations, partnerships, LLCs and their owners.

Business Administration Undergraduate

BUS AD 1000 Introduction to Business (3)
Overview of the functional business disciplines, including but not limited to principles of Accounting, Finance, Information Systems, Law, Logistics and Operations Management, Management, and Marketing.

BUS AD 1900 Introduction to Personal Law (3)
This course introduces students to the American legal system and the basic issues every individual must deal with in our society. This course will be of interest to anyone seeking a job, leasing an apartment, buying a car or house, borrowing money, buying insurance, getting married or divorced/entering contracts, filing a law suit, writing a will, or accumulating wealth. May not be used for credit in any undergraduate business program.

BUS AD 2000 Topics in Business Administration (1-3)
Prerequisites: Vary with topic; contact the College of Business Administration. Study of selected special problems in business and administration. May be repeated for credit with different topics.

BUS AD 2900 Legal Environment of Business (3)
Prerequisite: Sophomore standing. An introduction to the nature and meaning of law, sources of law, legal process and institutions. The legal environment of business is defined as: the attitude of the government toward business, the historical development of this attitude; current trends of public control in taxation, regulation of commerce, and competition; freedom of contract, antitrust legislation and its relationship to marketing, mergers, and acquisitions; and labor management relations.

BUS AD 3090 Internship in Business Administration (1-3)
Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of Business Administration electives and have consent of supervising instructor and Associate Dean. A Business College GPA of at least 2.5 is also required. Students are employed in the field of Business Administration where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. A Business Administration faculty member will monitor the student's program with the student providing a formal writing report at the end of the project. BUS AD 3090 may not be counted toward the minimum credit hours for any emphasis area.

BUS AD 3099 Independent Study in Business Administration (1-3)
Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the associate dean. Special individual study in business under the supervision of a full-time faculty member.

BUS AD 3900 Business Law: Contracts, Sales, Secured Transactions, Bankruptcy (3)
Prerequisite: BUS AD 2900 or consent of instructor. Introduction to the laws of contracts, sales, secured transactions, bankruptcy, and other selected topics.

BUS AD 3901 Business Law: Negotiable Instruments, Business Organizations, Property (3)
Prerequisite: BUS AD 2900 or consent of instructor. Introduction to the laws of negotiable instruments, the principal-agent relationship, partnerships, corporations, property, and other selected topics.

BUS AD 3990 Internship in Business Law (1-3)
Prerequisites: BUS AD 2900, 3 credit hours of Business Law electives, and a Business College 2.5 GPA. Must have completed and/or be currently enrolled in at least 3 credit hours of Business Law electives and have consent of supervising instructor and Area coordinator. Students are employed in the field of Business Law where the knowledge and skills learned in the classroom are applied. Professional development and obtaining specialized work experience are primary goals. A Business Law faculty member will monitor the student's program with the student providing a formal written report at the end of the project.

BUS AD 3999 Independent Study in Legal Studies (1-3)

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator. Special individual study in legal studies under the supervision of a full-time legal studies faculty member.

BUS AD 4198 Business Administration Senior Seminar (1-10)
Prerequisites: To be determined each time the course is offered and to include a minimum 2.0 campus GPA. An intensive study of a specific area of business administration, of some specific business or economic phenomenon, or a specific problem or theory. Several different courses may be offered under this course number. May be repeated for credit as long as the topic differs.

Finance Undergraduate

FINANCE 1590 Personal Finance for Nonbusiness Majors (3)
For future professionals who want to learn more about personal finance and how to better manage their resources. The topics include purchasing/leasing cars, home acquisitions, investing in stocks and bonds, mutual funds, retirement planning and health and life insurance. Special emphasis will be on the nontechnical aspects of these issues. Cannot be used for credit in BSBA program.

FINANCE 3500 Financial Management (3)
Prerequisites: ECON 1002, MATH 1105, and ACCTNG 2400, and a 2.0 campus GPA. The study of a firm’s need for funds; the institutions, instruments, and markets concerned with raising funds; and the techniques of analysis used to determine how effectively these funds, once raised, are invested within the firm.

FINANCE 3501 Financial Policies (3)
Prerequisites: FINANCE 3500 and a 2.0 campus GPA. The intensification and application of the concepts developed in FINANCE 3500. Special emphasis is given to the development of top management policies and their application toward complex problems of finance. Techniques for identifying and dealing with these problems before they become acute will be investigated. Cases will be integrated with appropriate outside reading.

FINANCE 3502 Treasury Management (3)
Prerequisites: FINANCE 3500 and a 2.0 campus GPA. The focus of this course is on the role cash management plays in corporate finance. Topics include cash collection and payment systems, forecasting cash flows, electronic fund transfers, check processing, international cash management and managing bank relationships. Students passing the course with a grade of A or B are permitted to take the qualifying exam to become a Certified Cash Manager (CCM) under a special arrangement with the Treasury Management Association. Along with other finance courses, this class prepares students for careers in the treasury departments of major companies or with service providers like banks.

FINANCE 3503 Computer Applications in Finance (3)
Prerequisites: INFSYS 1800, FINANCE 3500, one 300-level finance course, and a 2.0 campus GPA. Financial problem solving and applications on the microcomputer. A project-oriented course with an emphasis on micro-level finance projects: present value/IRR analysis, duration, immunization, portfolio optimization, leasing, capital budgeting, financial forecasting, options, and futures.

FINANCE 3520 Investments (3)
Prerequisites: FINANCE 3500 and a 2.0 campus GPA. Financial analysis of debt and equity instruments available on organized exchanges and in less tangible over-the-counter markets. Techniques of such analysis are presented in context with economic and management circumstances within the company, industry, and the economy.

FINANCE 3521 Financial Engineering: Applying Derivatives (3)
Prerequisite: FINANCE 3500. Students engage in a comprehensive investigation of advanced risk management techniques. Futures, forwards, options and synthetic securities are explored to determine their effectiveness in generating the desired risk exposure. A comprehensive study of speculative market conditions and characteristics are assessed in conjunction with a variety of financial innovations. Valuation techniques and hedging theories are combined with mathematical models to determine their effectiveness in practical situations. Special topics are introduced as market conditions dictate. It is recommended that students take Investments (FINANCE 3520) prior to enrolling in FINANCE 3521.

FINANCE 3525 Practicum In Investments (1)
Prerequisites: FINANCE 3500 and a 2.0 campus GPA. Students will apply their knowledge of stocks and bonds by managing a real dollar portfolio of securities. This course requires that students perform technical and fundamental analysis, prepare research reports, present proposals and participate in group investment decisions. The University's Student Investment Trust provides the money for students to invest. Course may be repeated for credit up to a maximum of 3 credit hours.

FINANCE 3540 Introduction to Financial Institutions and Financial Markets (3)
Prerequisites: FINANCE 3500 and a 2.0 campus GPA. This course surveys financial institutions and financial markets and addresses the interplay between institutions and markets. State and federal regulation of
institutions and markets is explored. A portion of the course addresses current events, managerial policy issues, and regulatory issues in financial services and markets. Focus is primarily U.S. institutions and markets, but the evolving impact of globalization and importance of the Foreign Exchange Market on U.S. financial institutions are developed.

FINANCE 3541 Commercial Bank Management (3)
Prerequisites: ECON 1002, FINANCE 3500, and a 2.0 campus GPA. Corporate finance and microEconomics are applied to matters of importance to commercial bankers. Among the subjects treated are bank-asset portfolio construction, lending policies, liabilities management, bank capital structure, short-run cash management, financial market rates and flows, and quantitative models for bank management. Commercial bank management is analyzed from an internal viewpoint in terms of what bank managers should look for in asset management and why; what market conditions they should be aware of; and what techniques they can use to meet changing economic and financial conditions.

FINANCE 3542 Principles of Real Estate (3)
Prerequisites: FINANCE 3500 and a 2.0 campus GPA. As an introduction to the real estate industry, the course broadly explores all phases of acquisition, development and disposal of real property. Topics include legal requirements of contracts, property rights, valuation and appraisal techniques, marketing, brokerage operations and practices, mortgage financing, leasing and property management.

FINANCE 3560 Practice of Personal Financial Planning (3)
Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator. Professional financial planning requires broad knowledge of investments, insurance, income taxation, retirement planning, and estate planning, as well as certification requirements and legal/ethical issues. This course introduces students to the field of financial planning, and provides an integrated overview of the topics listed above. Students interested in the Financial Planning track are encouraged to complete this course prior to taking other courses in the track.

FINANCE 3561 Principles of Insurance (3)
Prerequisites: FINANCE 3500 and 2.0 campus GPA. This is a survey course intended to introduce students to the basic concepts of insurance. Topics include the nature of risks, types of insurance carriers and markets, insurance contracts and policies, property and casualty coverages, life and health insurance, and government regulations. The functions of underwriting, setting premiums, risk analysis, loss prevention, and financial administration of carriers are emphasized.

FINANCE 3562 Life Insurance (3)
Prerequisites: FINANCE 3500 or equivalent and a minimum campus GPA of 2.0. This course explores the life insurance business from the perspective of both the consumer and provider. Coverage will include an analysis of the various types of life insurance products, aspects of life insurance evaluation, reinsurance, underwriting, and uses of life insurance in financial planning. Also included is an examination of the tax, legal, and ethical requirements.

FINANCE 3563 Retirement Planning and Employee Benefits (3)
Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator. The course is designed to give students an understanding of the retirement planning process. Students will gain an appreciation of the usefulness (and shortcomings) of employee benefits and develop an ability to counsel others on important retirement and employee benefit decisions. Corporate pension and profit sharing plans, self-employed Keough plans, IRA’s, annuities, health insurance and social security will be discussed.

FINANCE 3564 Estate Planning and Trusts (3)
Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator. This course will focus on the responsibility of a financial planner in the formulation and implementation of an estate plan. Topics include wills, lifetime transfers, trusts, gifts, estate reduction techniques, tax implications in estate planning, business and inter-family transfers, dealing with incompetency, postmortem techniques, and the role of fiduciaries. Lectures, cases, and guest speakers will be used to stimulate analysis and discussion.

FINANCE 3580 International Finance (3)
Same as INTBUS 3580. Prerequisites: FINANCE 3500 and a 2.0 campus GPA. A study of international financial markets, instruments, portfolio strategies and international financial management. Topics will include international risks, foreign diversification, foreign investment, foreign exchange determination and international working capital management issues. Derivatives are explored as instruments to hedge foreign exchange risk exposure, and special markets are evaluated in the international corporate/investments setting. Cases and/or outside readings may be used to emphasize inter-related issues.

FINANCE 3581 Business in China (3)
Prerequisites: A minimum campus GPA of 2.0 and junior standing. Introduces students to the practices of doing business in China. Students will be introduced to the Chinese Economic and business environment. Issues related to trade and foreign direct investment in China will be discussed. The course adopts an innovative approach; utilizing lectures, case analysis, projects, and student presentations.
FINANCE 3582 International Investment (3)
Same as INTBUS 3582. Prerequisite: FINANCE 3500. This course explores the concepts of investing and hedging in international markets. Topics include equity and bond markets, global risk management, portfolio diversification, currency risk, asset pricing, and alternative portfolio strategies. Techniques for using derivatives are discussed in the context of hedging exchange rate risk. Reading foreign exchange quotes and understanding the functioning of global markets is central to the course. A prior course in investments is recommended but not required.

FINANCE 3590 Practicum in Finance (1-3)
Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of finance electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of at least 2.5 is also required. Students are employed in the field of finance where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience in a Track area are the primary goals. The student's program will be monitored by a finance faculty member with the student providing a formal written report at the end of the project. FINANCE 3590 may not be counted toward the minimum 15 credit hours of finance electives for a finance emphasis.

FINANCE 3598 Seminar in Finance (3)
Prerequisites: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of finance.

FINANCE 3599 Independent Study in Finance (1-3)
Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator. Special individual study in finance under the supervision of a full-time finance faculty member.

Information Systems Undergraduate

INFSYS 1800 Computers and Information Systems (3) [MI]
This course covers the basic concepts of networked computers including the basics of file management on local and remote computers, electronic mail, Internet browsers, and web page development. Students are also exposed to applications used in business for solving problems, communicating, and making informed decisions, including word processors, presentations software, and electronic spreadsheets. Students will also develop business applications using a popular programming language or database management tool. Credit cannot be granted for both CMP SCI 1010 and BUS AD 1800.

INFSYS 2800 Information Systems Concepts and Applications (3)
Prerequisite: BUS AD 1800 or satisfactory performance on proficiency exam. This course covers concepts of information systems as they relate to business functions, including web page design and e-commerce, telecommunications, system analysis and design, ethics of information system design and use, information security, foundations of database systems and integrated business information systems. Students will also gain valuable strategies for career development, contact management, and networking.

INFSYS 3806 Managerial Applications Of Object-Oriented Programming I (3)
Prerequisites: (INFSYS 1800 or CMP SCI 1220 or 1250 and a 2.0 campus GPA. The course provides a study of the UNIX operating system and the C++ programming language as they pertain to managerial applications. In addition, the course will introduce the use of object-oriented programming methodologies.

INFSYS 3807 Legacy Systems (3)
Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806. Structured COBOL programming techniques for business applications are presented. Included are report generation, control breaks, output editing, debugging tables, sort concepts, job control language, utilities, partitioned data sets, and updating files.

INFSYS 3810 Information Systems Analysis (3)
Prerequisites: A minimum campus GPA of 2.0 and (INFSYS 3806 or permission of instructor). Aspects and methods for managing the computer and information resources of organizations. Topics include: project management aligning IS plans with corporate plans, MIS organizational structures, demonstrating the values of systems, facility management, purchase decisions, software acquisition, software metrics, security issues, and Economic evaluation, as they relate to information resources. Special cases of systems, such as Enterprise Resource Planning (ERP) systems, Supply Chain systems, and BPO will be discussed.

INFSYS 3815 Object Oriented Applications in Business (3)
Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806. Object Oriented programming techniques for business applications are presented. The topics are implemented in a C++ environment.

INFSYS 3816 Managerial Applications of Object-Oriented Programming II (3)
Prerequisites: INFSYS 3806 and a minimum campus GPA of 2.0. This course expands object-oriented skills taught in INFSYS 3806. The emphasis in this course is on object-oriented development tools and development in a client-server environment. The data management tools will include the use of SQL to access server-based databases.

INFSYS 3841 Enterprise Information Systems (3)
Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. Aspects and methods for managing the computer and information resources of organizations. Topics include aligning IS plans with corporate plans, MIS organizational structures, demonstrating the value of MIS to senior management, facility management, purchase decisions, software acquisition, software metrics, project management, security issues, and economic evaluation, as they relate to information resources.

INFSYS 3842 Management of Telecommunications (3)
Prerequisites: INFSYS 1800 and a 2.0 campus GPA. The technical and managerial aspects of telecommunications as they apply to the business environment are discussed. Issues include: communications components and services, local area network architecture, managerial implementations, organizational issues, and cost/benefit analyses.

INFSYS 3843 Decision Support Systems for Business Intelligence (3)
Prerequisites: LOG OM 3300 and a minimum campus GPA of 2.0. Applications of intelligent decision support systems to support business intelligence are explored. DSS component design in response to decision making and intelligence needs are discussed.

INFSYS 3844 Developing Business Applications in NET (3)
Prerequisites: INFSYS 3805 or INFSYS 3806 and a minimum campus GPA of 2.0. Methods for end user development of applications in a business environment are presented. An end-user programming language (for example, Visual Basic) is used for development of prototypical applications. Case studies and/or programming problems are used to illustrate technology available to end-users for creating software in a windows-based system.

INFSYS 3845 Database Management Systems (3)
Prerequisites: INFSYS 2800 and a minimum campus GPA of 2.0. This course provides an introduction to the design and use of databases in meeting business information needs. Topics include database planning, conceptual design, and data administration. The concepts are studied with projects involving the use of a current database management system.

INFSYS 3846 e-Commerce (3)
Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. This course provides an understanding of strategies, managerial issues, and technologies pertaining to electronic commerce in organizations. Topics covered include: history, business models, the virtual value chain, electronic markets, impact on organizational strategy and industry, analysis of successful strategies, and other emerging issues (legal, ethical, regulatory) related to managing electronic commerce, and the technical infrastructure enabling electronic commerce.

INFSYS 3847 Web Design (3)
Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. This course focuses on web page planning, design, layout and construction. Topics covered include: setting up and maintaining a web site; understanding site structure, presentation, navigation and content management. HTML/XML, CSS, Dreamweaver, Fireworks, Flash, Photoshop, data access, scripting languages, and various other technologies and tools will be discussed.

INFSYS 3848 Security and Information Systems (3)
Prerequisites: A minimum campus GPA of 2.0 and BUS AD 2800. This course addresses the challenge of assuring security in information systems - networked, embedded, and stand alone. Topics include: security policies, models, tools, and techniques for enforcement. The course also examines flawed security policies and the consequences of penetration and disruption of information systems.

INFSYS 3890 Internship in Management Information System (1-3)
Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of management information systems electives at the 3000-level or above and have consent of supervising marketing instructor and Area Coordinator. A Business college of GPA of at least 2.5 is also required. Students are employed in the field of management information systems where they apply for the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. A management information systems faculty member will monitor the student’s program with the student providing a formal written report at the end of the project. INFSYS 3890 may not be counted toward the minimum credit hours of marketing electives required for a management information systems emphasis.

INFSYS 3898 Seminar in Information Systems Management (3)
Prerequisites: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of information systems.

INFSYS 3899 Independent Study in Information Systems (1-3)
Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator. Special individual study in information systems under the supervision of a full-time information systems faculty member.

INFSYS 4850 Information Systems Design (3)
Prerequisites: A minimum campus GPA of 2.0; INFSYS 3810, INFSYS 3816, and INFSYS 3845. System design, implementation, and methods of systems installation and operation are presented. A system development project is required.

International Business

INTBUS 3280 The Law of International Business Transactions (3)
Prerequisite: BUS AD 2900 or consent of instructor. A study of the role and function of International Law and national laws in the regulation of international business transactions. The impact of various legal regimes on import-export transactions, foreign investments, and operations of multinational enterprises will be included. The role of national government supranational governmental organizations and non-governmental organizations in forming and administering the international legal environment will be studied.

INTBUS 3281 Business in China (3)
Prerequisites: A minimum campus GPA of 2.0 and junior standing. Introduces students to the practices of doing business in China. Students will be introduced to the Chinese Economic and business environment. Issues related to trade and foreign direct investment in China will be discussed. The course adopts an innovative approach; utilizing lectures, case analysis, projects, and student presentations.

INTBUS 3282 Managing the Global Workforce (3)
Prerequisites: A minimum 2.0 campus GPA and MGMT 3600 and at least one of the following: MGMT 3611 or MGMT 3621 or enrollment in Honors College or consent of instructor. A study of the international dimensions of organization behavior and human resource management. The course provides an overview of the tools and skills that are necessary to understand and manage people in global organizations. Topics include motivation, leadership, communication, hiring, training, and compensation.

INTBUS 3283 International Business and Society (3)
Encompasses the readings, lectures, company and government agency visits, and cultural visits that comprise annual Country Study Tours, (e.g., Austria, Japan, Thailand, etc.). The program includes 45 contact hours or more of classroom lectures covering aspects of the chosen country's business and society, in-depth pre-departure cross-cultural orientation and training supplemented by briefings on the country's economy and export-import transactions, foreign investments, and operations of multinational enterprises will be included. National laws in the regulation of international business transactions. The impact of various legal regimes on import-export transactions, foreign investments, and operations of multinational enterprises will be included. The role of national government supranational governmental organizations and non-governmental organizations in forming and administering the international legal environment will be studied.

INTBUS 3284 The Japanese Management System (3)
Prerequisites: MGMT 3600 and a 2.0 minimum campus GPA. This course provides an introduction to various aspects of the contemporary Japanese business system. The emphasis is on interpretation of issues from a manager's perspective. Topics include an overview of Japan's economic growth, government policies, industrial and financial structure of Japanese business, labor-management relations, internal management practices, international competitive strategies, managing U.S. subsidiaries in Japan, penetrating the Japanese market, Japanese investment in the U.S.A., and current issues in U.S.-Japan economic relations.

INTBUS 3285 Role of the Global Corporation (3)
Prerequisites: A minimum campus GPA of 2.0 and MGMT 3600 or permission of the instructor. The purpose of this course is to create awareness of controversial issues about international business. Students will gain a better understanding of resistance to and criticism of international business and will become better prepared for dealing with these issues and problems.

INTBUS 3289 Practicum in International Business (3)
Prerequisites: At least one international business course, a 2.0 campus GPA and completion of an approval form. Students will apply both their language skills and knowledge of international business by working for a three-month period in an organization located outside the student's country of origin. This course requires students to prepare a research report summarizing the global experience and how it relates to the international business program.

INTBUS 3290 Internship for International Business (3-6)
Prerequisites: ECON 1001 and 1002, ACCTNG 2400 and ACCTNG 2410, an additional 12 hours in BA, concurrent enrollment in a UM overseas program; also a 2.0 minimum campus GPA. This internship will be a supervised field experience in a business/international organization at a foreign site. Students will work for 10 weeks on projects directed by host organization supervisors in consultation with an UMSL faculty member. Prior to the field experience students will receive training that includes familiarization with the language and practices of the country's business, the background of the host firm, and international information sources. The student will complete a written report of his/her project. Course may not be repeated for more than 5 hours credit.

INTBUS 3299 Independent Study in International Business (1-3)
Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator of the specific discipline. Special individual study in international business under the supervision of an approved faculty member.
INTBUS 3580 International Finance (3)
Same as FINANCE 3580. Prerequisites: FINANCE 3500 and a 2.0 campus GPA. A study of international financial markets, instruments, portfolio strategies and international financial management. Topics will include international risks, foreign diversification, foreign investment, foreign exchange determination and international working capital management issues. Derivatives are explored as instruments to hedge foreign exchange risk exposure, and special markets are evaluated in the international corporate/investments setting. Cases and/or outside readings may be used to emphasize inter-related issues.

INTBUS 3582 International Investment (3)
Same as FINANCE 3582. Prerequisite: FINANCE 3500. This course explores the concepts of investing and hedging in international markets. Topics include equity and bond markets, global risk management, portfolio diversification, currency risk, asset pricing, and alternative portfolio strategies. Techniques for using derivatives are discussed in the context of hedging exchange rate risk. Reading foreign exchange quotes and understanding the functioning of global markets is central to the course. A prior course in investments is recommended but not required.

INTBUS 3680 International Management (3)
Same as MGMT 3680. Prerequisites: A minimum 2.0 campus GPA. In addition, ECON 1002 and MGMT 3600; or consent of the instructor. A study of international business and management practices. Topics covered include an introduction to international management and the multinational enterprise, the cultural environment of international management, planning in an international setting, organizing for international operations, directing international operations, international staffing, preparing employees for international assignments, and the control process in an international context.

INTBUS 3780 International Marketing (3)
Same as MKTG 3780. Prerequisites: MKTG 3700 and a 2.0 campus GPA. Marketing management problems, techniques and strategies needed to apply the marketing concept to the world marketplace. Understanding a country's cultural and environmental impact on the marketing plan is emphasized, as well as competing in markets of various cultures. Worldwide consumerism, economic and social development, the spread of multinational corporations, business ethics, and current economic and marketing issues are examined.

INTBUS 3787 Marketing in the European Union (3)
Same as MKTG 3787. Prerequisites: MKTG 3780 or instructor's permission. The European Union (EU) is both a major customer and major competitor of the United States. The inclusion of many of the Eastern European Countries into the EU has added another challenge to our ability to trade in this area. The better we understand the people, institutions and policies of the EU, the better positioned we will be to conduct business effectively. This course will emphasize understanding the institutional structure that unites the European Union as well as the cultural and political diversity of its members, and provide insights into how business activity functions in the European Environment.

INTBUS 4280 International Business Experience (0)
Students with an International Business emphasis must complete one of the following international experience requirements: (a) study abroad for three or more credit hours, (b) complete a minimum of one year international experience (e.g., Peace Corps, volunteer work, missionary work, an international posting by an organization) within 5 years of entering the program, or (c) complete an international internship approved by the International Business Institute. May be taken on a satisfactory/unsatisfactory basis only.

INTBUS 4281 Entrepreneurship in the Global Environment (3)
Prerequisites: ECON 1002; ACCTNG 2410; MKTG 3700. This course explores changes in the planet's physical environment and ways of reversing, retarding or coping with those changes. Students will be required to develop proposals for new business ventures that have as a goal preservation or restoration of the natural environment.

INTBUS 4289 International Strategic Management (3)
Prerequisites: A minimum 2.0 campus GPA and MGMT 3682, MKTG 3780 and FINANCE 3580 or consent of instructor. A study of the international dimensions of strategic management. Provides an introduction to the key concepts and tools necessary for international competitive analysis. Topics include the international dimensions of strategy formulation and implementation, diversification, strategic alliances, and divestment.

INTBUS 4381 International Logistics and Operations Management (3)
Same as LOGOM 4381. Prerequisites: A minimum campus GPA of 2.0 and LOG OM 3320. A study of business logistics and supply chain strategies involving shipments across national boundaries. Topics include the effects of international agreements and regional trading blocks on supply chain strategies; the design of global logistics networks; managerial processes and systems for international production and distribution; and risk management for international logistics.

Logistics and Operations Management Undergraduate

LOG OM 3300 Business Statistics (3)
Prerequisites: MATH 1100 and 1105, INF SYS 1800 and a 2.0 campus GPA. Construction and use of statistical
models for business management. Students will learn techniques used for relational analysis and business forecasting and how to apply them in a business context. Tools include CHI-Square tests of statistical independence; analysis of variance; simple linear regression and correlation; multiple linear regression; and extrapolative techniques such as moving averages and exponential smoothing. Emphasis is placed on problem definition, construction of statistical models, analysis of data, and interpretation of results. Computers are used for extensive analyses of case data.

**LOG OM 3320 Introduction to Operations Management (3)**
Prerequisites: A 2.0 campus GPA and either (ECON 1001, ACCTNG 2410, and LOG OM 3300) or (Math 200C and MATH 1320). An examination of the concepts, processes, and institutions, which are fundamental to an understanding of manufacturing and service operations within organizations. Emphasis is on the management and organization of operations and upon the application of quantitative methods to the solution of strategic, tactical and operational problems.

**LOG OM 3390 Internship in Logistics and Operations Management (1-3)**
Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of LOM electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of at least 2.5 is also required. Students are employed in the field of Logistics and Operations Management (LOM) where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. An LOM faculty member will monitor the student's program with the student providing a formal written report at the end of the project. LOG OM 3390 may not be counted towards the minimum credit hours for the LOM emphasis.

**LOG OM 3398 Seminar in Logistics and Operations Management (3)**
Prerequisites: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of logistics and operations management.

**LOG OM 3399 Independent Study in Logistics & Operations Management (1-3)**
Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator. Special individual study in logistics and operations management under the supervision of a full-time logistics and operations management faculty member.

**LOG OM 4312 Business Forecasting (3)**
Prerequisites: A minimum campus GPA of 2.0 and either LOG OM 3220 or (MATH 3000 and MATH 1320). Further study of statistical tools for forecasting in a decision-making context. Topics include explanatory models (multiple regression), classical time series decomposition, and extrapolative techniques (exponential smoothing and Box-Jenkins procedures). In addition, methods for considering problems of intervention effects, seasonality, and collinearity will be discussed. Students will perform extensive analyses of time series data using computer packages.

**LOG OM 4321 Production and Operations Management (3)**
Prerequisites: A minimum campus GPA of 2.0 and BUS AD 3320. Application of the tools and techniques of statistical decision theory and operations research to production and operating problems. Emphasis is on the use of mathematical modeling and simulation techniques to analyze complex and ill-structured problems in large-scale systems.

**LOG OM 4322 Lean Production in Manufacturing and Service Operations (3)**
Prerequisites: A minimum campus GPA of 2.0 and LOG OM 3320. Study of Lean Production philosophy and techniques in manufacturing and service operations. Topics include process analysis and continuous improvement techniques, quick set-ups, total productive maintenance, kanban scheduling, cellular production, team organization of workers, supplier relations, quality management, and the environmental aspects of production.

**LOG OM 4324 Service Operations Management (3)**
Prerequisites: A minimum campus GPA of 2.0 and LOG OM 3320. An examination of methods for designing and operating service delivery systems, such as in the health care, financial, transportation, hospitality, and governmental service industries. Topics include process and facility design, facility layout and location, queuing, demand forecasting and management, service quality, staffing, and personnel scheduling.

**LOG OM 4326 Quality Assurance in Business (3)**
Prerequisites: A minimum campus GPA of 2.0 and LOG OM 3320. A study of statistical quality control concepts and procedures applicable to management systems, administrative activities, service industries, and nonprofit organizations. Some successful quality assurance programs will be examined.

**LOG OM 4330 Business Logistics Systems (3)**
Prerequisites: A minimum campus GPA of 2.0 and LOG OM 3320. Analysis of business logistics systems, their design and operation. Topics include network design, facility location, transportation, vehicle routing, storage and handling, capacity planning, inventory management, and customer service.

**LOG OM 4350 Management Science Methods (3)**
Prerequisites: A minimum campus GPA of 2.0 and either LOG OM 3320 or (MATH 3000 and MATH 1320)
Applications of the theories and techniques of operations research to problems of business, government, and industry, with emphasis on the construction and utilization of quantitative decision models.

LOG OM 4354 Management Science Methods II (3)
Prerequisites: A minimum campus GPA of 2.0 and LOG OM 4350. Topics of special interest including mathematical programming, stochastic decision-making, digital simulation, game theory, and other selected techniques (Formerly Mathematical Programming).

LOG OM 4381 International Logistics and Operations Management (3)
Same as INTBUS 4381. Prerequisites: A minimum campus GPA of 2.0 and LOG OM 3320. A study of business logistics and supply chain strategies involving shipments across national boundaries. Topics include the effects of international agreements and regional trading blocks on supply chain strategies; the design of global logistics networks; managerial processes and systems for international production and distribution; and risk management for international logistics.

Management Undergraduate

MGMT 3600 Management and Organizational Behavior (3)
Same as SOC 3600. Prerequisites: Junior standing and a 2.0 campus GPA. This course involves the study of the behavior of individuals and groups in an organizational setting. Specific topics examined include: motivation, leadership, organizational design, and conflict resolution, as well as basic coverage of management principles. In covering these topics, both at classic and current perspectives are provided.

MGMT 3611 Advanced Management and Organizational Behavior (3)
Prerequisites: MGMT 3600 and a 2.0 campus GPA. Building upon 3600, this course provides a more detailed examination of motivation, leadership, group process, decision-making, job design, and organizational development. In addition to providing more detail in terms of content, this course provides the student with considerable practical experience through the use of class exercises, case studies, and small group discussions.

MGMT 3612 Professional Skills Development (3)
Prerequisites: A minimum campus GPA of 2.0 and Junior Standing. This course focuses on career management. Topics include job search, interviews, resumes and cover letters, presentation skills, business etiquette, entry strategies, and career alternative.

MGMT 3621 Human Resource Management (3)
Prerequisites: MATH 1105 MGMT 3600 and a 2.0 campus GPA. In-depth examination of selected human resources management issues from a contemporary manager’s viewpoint. Topics examined include: employee selection, performance appraisal, training and development, compensation, legal issues and labor relations.

MGMT 3622 Industrial and Labor Relations (3)
Prerequisites: MGMT 3600 and a 2.0 campus GPA. Emphasis is on the dynamic relationship between management, employees, unions, and government as determinants in the efficient and effective use of human resources. Current issues and case materials are used to supplement text and lecture.

MGMT 3623 Industrial and Organizational Psychology (3)
Same as PSYCH 3318. Prerequisites: PSYCH 2201 or MATH 1105, MGMT 3600. This course introduces the student to psychological research and theories pertaining to human behavior in the work setting. Topics covered include: selection, performance, appraisal, training, leadership, motivation, job satisfaction and organizational design.

MGMT 3624 Employee Training and Development (3)
Prerequisites: A minimum 2.0 campus GPA. In addition, MGMT 3600 or permission of instructor. An intensive study of training in organizations, including needs analysis, learning theory, management development, and development of training objectives and programs. Projects and exercises are used to supplement the readings.

MGMT 3625 Leadership in Organizations (3)
Prerequisites: MGMT 3600 and a minimum 2.0 campus GPA. This course introduces classic and contemporary theories of leadership. The emphasis is on building a sound grasp of good practice and on developing the student’s ability to apply such knowledge as he/she enters today’s global workforce. The course covers key theories and models effective leadership in organizations.

MGMT 3680 International Management (3)
Same as INTBUS 3680. Prerequisites: A minimum 2.0 campus GPA and ECON 1002 and MGMT 3600; or consent of the instructor. A study of international business and management practices. Topics covered include an introduction to international management and the multinational enterprise, the cultural environment of international management, planning in an international setting, organizing for international operations, directing international operations, international staffing, preparing employees for international assignments, and the control process in an international context.

MGMT 3682 Managing the Global Workforce (3)
Prerequisites: A minimum 2.0 campus GPA and MGMT 3600 and at least one of the following: MGMT 3611 or MGMT 3621 or enrollment in Honors College or consent of instructor. A study of the international dimensions of organizational behavior and human resource management. The course provides an overview of the tools and skills that are necessary to understand and manage people in global organizations. Topics include motivation, leadership, communication, hiring, training, and compensation.

MGMT 3684 The Japanese Management System (3)
Prerequisites: MGMT 3600 and a 2.0 minimum campus GPA. This course provides an introduction to various aspects of the contemporary Japanese business system. The emphasis is on interpretation of issues from a managerial perspective. Topics include an overview of Japan's economic growth, government policies, industrial and financial structure of Japanese business, labor-management relations, internal management practices, international competitive strategies, managing U.S. subsidiaries in Japan, penetrating the Japanese market, Japanese investment in the U.S.A., and current issues in U.S.-Japan economic relations.

MGMT 3685 Role of the Global Corporation (3)
Prerequisites: A minimum campus GPA of 2.0 and MGMT 3600 or permission of the instructor. The purpose of this course is to create awareness of controversial issues about International business. Students will gain a better understanding of resistance to and criticism of international business and will become better prepared for dealing with these issues and problems.

MGMT 3689 International Business and Society (3)
Encompasses the readings, lectures, company and government agency visits, and cultural visits that comprise annual Country Study Tours, (e.g., Austria, Japan, Thailand, etc.). The program includes 45 contact hours or more of classroom lectures covering aspects of the chosen country's business and society, in-depth pre-departure cross-cultural orientation and training supplemented by briefings on the country's economy and on U.S. market penetration by the Commercial Service, U.S. Embassy; a briefing by the in-country State of Missouri representative; briefings by host country agencies; company visits and factory tours; and tours of cultural sites. Student evaluation will be based on active participation and on a research paper based on readings, lectures, interviews and field observations.

MGMT 3690 Internship in Management (1-3)
Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of Management electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of at least 2.5 is also required. Students are employed in the field of Management where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. A Management faculty member will monitor the student's program with the student providing a formal written report at the end of the project. BA 3690 may not be counted toward the minimum 12 credit hours of management electives required for a MOB emphasis.

MGMT 3698 Seminar in Management (3)
Prerequisites: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of management.

MGMT 3699 Independent Study in Management (1-3)
Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator. Special individual study in management under the supervision of a full-time management faculty member.

MGMT 4219 Strategic Management (3)
Prerequisites: Senior standing and FINANCE 3500, MKTG 3700, MGMT 3600, a minimum campus GPA of 2.0; and concurrent enrollment in BUS AD 4220. This is a capstone course drawing on the subject matter covered in prerequisite courses. Emphasis is on the formulation and implementation of corporate, business and functional strategies designed to achieve organizational objectives. Topics include the role of top management, globalization of business and ethical perspectives. Case studies and research reports may be used extensively. (It is preferred that this course be taken during the student's final semester.)

MGMT 4220 Business Assessment Testing (0)
Prerequisite: Concurrent enrollment in MGMT 4219. A one-time lab during which a major field exam in business is administered. Course graded on a Satisfactory/Unsatisfactory basis. Satisfactory grade required for graduation.

MGMT 4614 Entrepreneurship/Small Business Management (3)
Prerequisites: BUS AD 2900, FINANCE 3500, MKTG 3700, MGMT 3600, and a 2.0 campus GPA. This integrative general management course is designed to communicate the academic principles of business management applicable to solving of problems of small- and medium-size businesses and assist in their development. This course will provide a background in the forms of business, the development of business plans and systems integration, venture capital, accounting, procurement, promotion, financing, distribution and negotiations for initial organization, and operation and expansion of the firm.
Marketing Undergraduate

MKTG 3700 Basic Marketing (3)
Prerequisites: ECON 1001, junior standing, and a 2.0 campus GPA. An examination of the character and importance of the marketing process, its essential functions, and the institutions performing them. Attention is focused on the major policies (such as distribution, product, price, and promotion), which underlie the multifarious activities of marketing institutions and the managerial, economic, and societal implications of such policies.

MKTG 3710 Consumer Behavior (3)
Prerequisites: MKTG 3700 and a minimum campus GPA of 2.0. A study of such consumer functions as decision making, attitude formation and change, cognition, perception, and learning. The marketing concepts of product positioning, segmentation, brand loyalty, shopping preference and diffusion of innovations are considered in context with the environmental, ethical, multicultural and social influences on an increasingly diverse American consumer.

MKTG 3720 Management of Promotion (3)
Prerequisites: MKTG 3700 and a 2.0 campus GPA. A study of the design, organization, and implementation of the marketing communications mix. Various methods, such as advertising, personal selling, and publicity are analyzed as alternatives for use alone, or in combination, to stimulate demand, reseller support, and buyer preference. Particular topics considered include: media selection, sales promotional, packaging, and selling strategy, and their relationships in the promotion process.

MKTG 3740 Marketing Research (3)
Prerequisites: INFSYS 1800, MKTG 3700, LOG OM 3300 and a 2.0 campus GPA. An investigation of the acquisition, presentation, and application of marketing information for management. Particular problems considered are defining information requirements, evaluating research findings, and utilizing information. Statistical methods, models, and/or cases are employed to illustrate approaches to marketing intelligence problems, such as sales forecasts, market delineation, buyer motives, store location, and performance of marketing functions.

MKTG 3750 Sales Management (3)
Prerequisites: MKTG 3700 and MGMT 3600; (MGMT 3600) may be taken concurrently). Also a minimum campus GPA of 2.0. The aim of this course is to provide an understanding of how selling is critical to the success of marketing. The course will promote critical thinking skills as well as practical selling skills needed in a competitive marketplace. Course topics include, among others, selling principles and techniques, understanding of the tasks and roles of the sales manager, the management of sales professionals within an organization, developing and applying effective persuasive communications, creating a vision, developing and implementing a sales-team strategy, structuring sales-force, designing and assigning territories, recruiting, training, motivation and evaluating salespeople, methods of compensation, and forecasting sales. The emphasis will be on ways the sales-force can be molded to build long-lasting relationships with customers through the systematic analysis and solution of customers' problems.

MKTG 3760 Business-to-Business Marketing (3)
Prerequisites: Senior Standing, MATH 1105, MKTG 3700 and a 2.0 campus GPA. A study of the nature of the business-to-business organizational marketplace concentrating on those aspects that differentiate it from consumer markets. The major focus of the course is marketing strategy, starting with analysis of the market wants and segments, concepts of pricing, the distribution arrangements, and buyer/seller relations. In this last area, consideration will be given to service, personal selling, sales promotion, and advertising, as found in the organizational marketplace. At all times emphasis is given to relating business-to-business marketing strategy to basic concepts in underlying business disciplines. Lectures and case discussions are used heavily in the course.

MKTG 3770 Introduction to Transportation (3)
Prerequisites: A minimum campus GPA of 2.0; also Junior standing or instructor consent. This course provides an overview of the transportation sector, including history, providers, users, and government regulation. The importance and significance of transportation, the operational aspects of transportation modes of rail, water, motor, air and pipeline; the demand and supply of transportation, and the managerial aspects of these modes of transport will be covered in the course.

MKTG 3771 Traffic and Transportation Management (3)
Prerequisites: A minimum campus GPA of 2.0 and Junior standing or instructor's consent. This course focuses on the purchase of transportation and warehouse services and/or the operation of transportation services as a firm activity. This course is also designed to provide the student with an exposure to the managerial aspects of transportation management as a function of the firm's logistical strategy. In addition, it includes an introduction to the management of firms within the various transportation modes of rail, motor, air, water, and pipelines. This course is designed to provide the student with a basic understanding of the issues and work performed by traffic managers and the management of modern transportation firms.

MKTG 3780 International Marketing (3)
Same as INTBUS 3780. Prerequisites: MKTG 3700 and a 2.0 campus GPA. Marketing management problems, techniques and strategies needed to apply the marketing concept to the world marketplace. Understanding a country's cultural and environmental impact on the marketing plan is emphasized, as well as competing in markets of various cultures. Worldwide consumerism, economic and social development, the spread of multinational corporations, business ethics, and current economic and marketing issues are examined.

MKTG 3785 Women in International Entrepreneurship (3)  
Prerequisites: MKTG 3700; MKTG 3780 or INTL BUS 3780; and Junior standing. This course is an integration of international business and entrepreneurship, with a focus on women entrepreneurs. It is designed to help students learn how entrepreneurs create and grow their ventures internationally. We will examine how entrepreneurs search, evaluate, and exploit opportunities across national boundaries to market goods and services effectively. We will explore the unique circumstances faced by women entrepreneurs and the appropriate strategies developed in order to sustain international growth.

MKTG 3787 Marketing in the European Union (3)  
Same as INTBUS 3787. Prerequisites: MKTG 3780 or instructor's permission. The European Union (EU) is both a major customer and major competitor of the United States. The inclusion of many of the Eastern European Countries into the EU has added another challenge to our ability to trade in this area. The better we understand the people, institutions and policies of the EU, the better positioned we will be to conduct business effectively. This course will emphasize understanding the institutional structure that unites the European Union as well as the cultural and political diversity of its members, and provide insights into how business activity functions in the European Environment.

MKTG 3790 Internship in Marketing (1-3)  
Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in a: least 6 credit hours of Marketing electives and have consent of supervising marketing instructor and Area Coordinator. A Business college of GPA of at least 2.5 is also required. Students are employed in the field of Marketing where they apply for the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. A Marketing faculty member will monitor the student's program with the student providing a formal written report at the end of the project. MKTG 3790 may be counted toward the minimum credit hours of marketing electives required for a marketing emphasis.

MKTG 3798 Seminar in Marketing (3)  
Prerequisites: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of marketing.

MKTG 3799 Independent Study in Marketing (1-3)  
Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator. Special individual study in marketing under the supervision of a full-time marketing faculty member.

MKTG 4700 Marketing Management (3)  
Prerequisites: MATH 1105, MKTG 3700, three other marketing elective courses, senior standing, and a 2.0 campus GPA. An intensive analysis of major marketing decisions facing the firm, such as level, mix, allocation, and strategy of marketing efforts. Specific decision areas investigated include market determination, pricing, physical distribution, product policy, promotion, channel management, and buyer behavior. Competitive, political, legal, and social factors that may affect such areas of decisions are discussed. Cases, models, and problems are used heavily.

Accounting

ACCTNG 5400 Financial and Managerial Accounting (3)
This course provides an introduction to accounting, with emphasis on preparation of financial statements for external parties (financial accounting) and accumulation of cost information to aid internal planning and control (managerial accounting). Topics covered include measurement of assets and liabilities, revenues and expenses, the accounting cycle, financial statements, cost terminology, cost behavior, product costing, and relevant costs for decision making. This course provides the necessary background for ACCTNG 5401 (Financial Reporting Analysis).

ACCTNG 5401 Financial Reporting & Analysis (3)
Prerequisite: ACCTNG 5400 or the equivalent. This course builds on the foundations covered in ACCTNG 5400 emphasizing in-depth analysis of published financial statements. The course begins with discussion of the role of financial accounting information in capital markets and contracting, and continues with examination of a number of specific accounting issues. Students are encouraged to look behind the numbers to better understand the economics of the underlying transactions, and properly interpret what the reported numbers mean about a firm’s future prospects.

ACCTNG 5402 Professional Accounting Research (3)
Prerequisite: ACCTNG 4401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Discussion of the research tools and methods available to resolve questions concerning accounting standards and practices. Critical analysis of topics of current interest and importance in accounting practice.

ACCTNG 5403 Seminar in Financial Accounting (3)
Prerequisite: ACCTNG 4401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of current financial reporting issues. Analysis of current problems and approaches pertaining to the communication of corporate financial information to the U.S. and international investment communities.

ACCTNG 5404 Professional Accountancy I (3)
Prerequisite: MATH 1030; ACCTNG 2410; a minimum 2.0 campus GPA; graduate standing. This is the first professional-level course in financial reporting. The course includes a study of the conceptual framework underlying Generally Accepted Accounting Principles (GAAP) and issues pertaining to accounting for current assets and liabilities.

ACCTNG 5405 Professional Accountancy II (3)
Prerequisite: MATH 1030; ACCTNG 3401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; graduate standing. This is the second professional-level course in financial reporting. The course includes an in-depth study of issues pertaining to accounting for operational assets, liabilities and owners equity.

ACCTNG 5406 Research and Professional Writing in Accounting (3)
Prerequisite: Completion of ACCTNG 4401 and enrollment in Master of Accounting Program. This course
employs the professional accounting literature and authoritative databases to analyze contemporary issues in accounting. Students will refine their communication skills in preparation for leadership roles in the accounting profession.

ACCTNG 5408 Fraud Examination (3)
Prerequisite: ACCTNG 3402 or ACCTNG 5405; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. This course is designed for graduate students who are interested in fraud and its effects. Students will be introduced to theoretical concepts of fraud and practical responses to it. Course coverage includes an overview of the fraud problem; prevention and detection of fraud; elements of fraud investigation, interview techniques, fraud types, and laws governing the prosecution of fraud cases.

ACCTNG 5411 Cost Systems Analysis (3)
Prerequisites: Prerequisites: MATH 1030; ACCTNG 3401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; graduate standing. The development, interpretation, and uses of accounting reports and supplementary information for management planning, control, and decision-making. Emphasizes the application of relevant cost behavior, control, and traceability concepts in the preparation of internal accounting reports, with a secondary emphasis upon product costing techniques as appropriate to financial accounting needs. Topics include break-even analysis, operational budgeting, direct costing, absorption costing, standard costs and variance analysis, business segment analysis, responsibility accounting, distribution cost accounting, and gross profit analysis.

ACCTNG 5412 Seminar in Controllership (3)
Prerequisites: ACCTNG 3411 or ACCTNG 5411; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of advanced managerial accounting techniques useful in facilitating the planning and control process in modern organizations. Emphasis on the implementation and administration of these techniques, their integration with management information systems, and the organizational role of the corporate accountant.

ACCTNG 5421 Information Systems in Accounting (3)
Prerequisite: MATH 1030, INFSYS 1800; ACCTNG 3401; a minimum campus GPA of 2.0; graduate standing. This is a professional-level course in accounting information systems. The course includes examination of transaction cycles, structured analysis and design of accounting information systems, and internal controls.

ACCTNG 5435 Seminar in Auditing (3)
Prerequisite: ACCTNG 4435; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. A study of advanced auditing and attestation issues, with an emphasis on operational auditing. Topics include professional ethics, risk analysis, internal control, fraud detection, analytical procedures, determining and assessing operational objectives, and reporting and implementing audit findings.

ACCTNG 5436 Systems Auditing (3)
Prerequisites: ACCTNG 5400, INFSYS 5800, or consent of instructor. Study of techniques involved in the control and audit of computer-based accounting information systems. Emphasis on the review of internal controls at operational and administrative levels and on computer-assisted audit techniques.

ACCTNG 5446 Advanced Topics In Taxation (3)
Prerequisite: BUS AD 3441. Addresses advanced topics in taxation selected by the instructor.

ACCTNG 5447 Taxation of Individuals and Businesses (3)
Prerequisite: MATH 1030; ACCTNG 3401; a minimum campus GPA of 2.0; a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL; graduate standing. This is the first professional-level course in taxation. The course includes a general introduction to the concepts of taxation. It will enable students to understand the role of taxes in evaluating decisions typically confronted by individual taxpayers and businesses.

ACCTNG 5480 International Accounting (3)
Same as INTBUS 5480. Prerequisite: ACCTNG 3402. Accounting practices for multinational businesses. Discussion of comparative financial accounting practices, the development of international accounting standards, and managerial accounting practices related to multinational operations.

ACCTNG 5490 Graduate Internship in Accounting (1-3)
Prerequisites: ACCTNG 3401 or ACCTNG 5404; a minimum graduate GPA of 3.0; a minimum GPA of 3.0 in all accounting courses at the 3000-level and above taken at UMSL; consent of supervising instructor and accounting internship coordinator. The student works in an accounting internship that contains sufficient content and rigor to merit graduate credit. The student's program will be monitored by a member of the Graduate Faculty in Accounting. The course requires several meetings with the faculty advisor and a graduate-level written assignment. The course will be graded on a Satisfactory/Unsatisfactory basis. A student who has previously taken ACCTNG 3490 may not take ACCTNG 5490.

ACCTNG 5491 Contemporary Issues in Accountancy (3)
Prerequisite: ACCTNG 5405 (or ACCTNG 3402). The course includes an analysis of contemporary
developments in the practice of accountancy or theories underlying it. This seminar may address topics in accountancy in any area of specialization (financial, cost/managerial, tax, auditing, governmental/FNP) or may examine topics that affect the profession as a whole. Topics will vary. May be repeated for credit when topics are different.

**ACCTNG 5498 Graduate Seminar in Accounting (3)**
Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA and a minimum GPA of 2.3 in all accounting courses at the 3000-level and above taken at UMSL. Study of selected special problems in accounting. May be repeated for credit when topics are different.

**ACCTNG 5499 Individual Research in Accounting (1-3)**
Prerequisites: Consent of instructor, department chair and graduate director; a minimum 3.0 graduate GPA; a minimum GPA of 3.0 in all accounting courses at the 3000-level and above taken at UMSL. Special individual research topics in Accounting under the guidance of a specific professor.

**BUS AD 5000 Economics for Managers (3)**
The first portion of this course introduces microeconomic analysis of consumers, firms, and government. The concepts and tools of economic analysis are applied to the production and distribution functions of organizations. The last portion is devoted to the macroeconomic influence of capital markets, the influence of interest rates, inflation, and the business cycle.

**BUS AD 5001 Managerial Economic Analysis (3)**
Prerequisites: BUS AD 5000 or ECON 1001 and ECON 1002. Microeconomic analysis of consumers, firms, and government. The concepts and mathematical tools of economic analysis are applied to the production and distribution functions of organizations.

**BUS AD 5002 Analysis of National Economic Environment (3)**
Prerequisites: BUS AD 5000 or ECON 1001 and ECON 1002. The character and functioning of the national economic system; analyzing and forecasting fluctuations in national income and product, employment, and prices; the influence of monetary and fiscal policies. Emphasis is on the acquisition of knowledge concerning forces affecting all business firms.

**BUS AD 5100 Managerial Communication (3)**
An analysis of business writing and speaking, and the communication conventions common in organizations. Emphasis is placed on developing skills critical to career advancement and necessary for effective organizational functioning. A second goal is to prepare students for assignments in other business courses. This course must be taken within the first 12 credit hours of study, preferably in the student's first semester.

**BUS AD 5198 Seminar in Business Administration (3)**
An intensive study of a specific area of business administration of some specific business or economic phenomenon, or a specific problem or theory. Several different courses may be offered under this course number.

**BUS AD 5299 Individual Research (1-3)**
Prerequisites: Consent of instructor and graduate director. Special individual research topics under the guidance of a specific professor.

**BUS AD 5900 Law, Ethics, and Business (3)**
Analysis of the relationship between law and business with emphasis on the ability of, and extent to which, governments regulate business activities. Topics covered include the employer-employee relationship, protection of consumers, antitrust regulation, and securities law. Also discussed are ethical issues confronting management of the modern business enterprises.

**BUS AD 5450 Governmental Budgeting and Financial Control (3)**
Same as P P ADM 6180. Prerequisite: Completion of the MPPA Computer Proficiency Exam OR demonstrated proficiency with spreadsheets. A study of municipal and federal financial control and budgeting procedures with emphasis on public policy. The impact of financial control on top management decisions and the effect of budget strategies on the allocations of public funds.

**BUS AD 6990 Strategy Formulation and Implementation (3)**
Prerequisites: FINANCE 6500, MGMT 5600, MKTG 5700, LOG OM 5320 and special consent. Graduate program capstone course examining concepts and methods that integrate functional areas of business. The perspective is that of general management charged with directing the total enterprise. Interactions between the environment, organization, strategy, policies, and the implementation of plans are explored. Special emphasis
is given to globalization of business and ethical perspectives. This course should be taken during the semester prior to graduation. In no case may it be taken sooner than two semesters prior to graduation.

BUS AD 7001 Doctoral Research (1-12)
Prerequisite: Must have Ph.D. program director or department chairperson approval. Investigation of an advanced nature culminating in preparation for comprehensive examinations and/or development of dissertation proposal. The course may be repeated.

BUS AD 7002 Dissertation Research (1-12)
Prerequisite: Must have Ph.D. program director or department chairperson approval. Investigation of an advanced nature culminating in the preparation of a doctoral dissertation. The course may be repeated.

BUS AD 7021 Qualitative Methods and Philosophical Foundations of Business Administration Research (3)
Prerequisite: Admittance into the Ph.D. program. This course investigates the ontology and epistemology of business administration research, particularly as they pertain to qualitative research methods, such as case studies, action research, and ethnomethodology.

BUS AD 7300 Statistical Modeling (3)
Prerequisites: LOG OM 5300; Admittance into the Ph.D. program. Study of the multivariate analytical techniques and their application to the analysis of business systems. Topics include the construction and adaptation of statistical models and extrapolative techniques to accommodate factor interactions, nonlinearity, and periodic effects. Methodologies include multiple regression, ANOVA, the general linear model, MANOVA, structural equation modeling, and time series modeling.

Finance Graduate

FINANCE 5599 Individual Research in Finance (1-3)
Prerequisites: Consent of instructor and graduate director. Special individual research topics in Finance under the guidance of a specific professor.

FINANCE 6500 Financial Management (3)
Prerequisites: ACCTNG 5400 or ACCTNG 2400, LOG OM 5300 or LOG OM 3300, and BUS AD 5000 or ECON 1001 and ECON 1002. This course provides an in-depth analysis of corporate finance including asset pricing, risk and return, short- and long-term investment decisions, capital structure choices, dividend policy, derivatives, mergers and acquisitions, and a host of other current topics. The material is taught through lectures and problem solving.

FINANCE 6501 Advanced Financial Management (3)
Prerequisites: FINANCE 6500 and LOG OM 5300. Exposure to recent financial management theory through selected readings. Financial management problems are considered by the use of cases and simulation models. An original research project under the supervision of the instructor is required.

FINANCE 6520 Security Analysis (3)
Prerequisites: FINANCE 6500 and LOG OM 5300. An in-depth study of techniques used in evaluating various financial assets as investment opportunities. Financial assets studied include common stock, preferred stock, and fixed income securities. Other related topics such as sources of investment information and current market trends are discussed.

FINANCE 6521 Financial Forensics: The Science of Derivatives (3)
Prerequisite: FINANCE 6500. Students engage in a comprehensive investigation of advanced risk management techniques. Futures, forwards, options and synthetic securities are explored to determine their effectiveness in generating the desired risk exposure. A comprehensive study of speculative market conditions and characteristics are assessed in conjunction with a variety of financial innovations. Valuation techniques and hedging theories are combined with mathematical models to determine their effectiveness in practical situations. Special topics are introduced as market conditions dictate. It is recommended that students take Investments (FINANCE 6520) prior to enrolling in FINANCE 6521.

FINANCE 6540 Financial Institutions and Financial Markets (3)
Prerequisite: Graduate status and FINANCE 6500. By lecture and casework, the course surveys markets (Money Market, Capital Markets, Foreign Exchange) and various forms of financial institutions. Historical and evolving business models of financial institutions are explored in the context of regulation, economics, and competition. Interplay between institutions and markets is addressed. Structure and purpose of regulation is examined. A portion of the course involves current events and managerial policy issues in financial services. A major U.S. financial institution is selected and case analyzed by the class. Focus is U.S. institutions and markets, but impact of globalization is discussed.

FINANCE 6541 Commercial Bank Management (3)
Prerequisite: FINANCE 6500. This course explores the various bank management techniques required to manage a modern commercial bank in a rapidly changing environment. Topics include asset and liability management, capital adequacy, bank holding companies, profitability, and bank market structure and

FINANCE 6542 Real Estate (3)
Prerequisite: FINANCE 6500. This course provides a broad introduction to real estate with a focus on legal issues, market analysis, valuation, financing, leasing and investment decisions. Classes are conducted in a standard lecture format with discussion on current topics. No prior knowledge of the industry is required.

FINANCE 6580 International Finance, Investment, and Commercial Relations (3)
Same as INTBUS 6580. Prerequisite: FINANCE 6500. This course provides students with a working knowledge of the international environment relating to the financial and securities markets along with the impact on corporate operations. International risk and tools to control risk are studied in a practical environment that may include cases. Individual research may be required to reinforce the topics studied in the classroom. Class discussion of current issues and related readings are encouraged.

FINANCE 6581 Seminar in International Investments (3)
Same as INTBUS 6581. Prerequisite: FINANCE 6500. This course covers topics related to the determination of exchange rates, international parity relations and portfolio diversification. In addition, methods for using foreign exchange derivatives are explored in their use for hedging exchange rate risk. Learning to read foreign exchange quotes and understanding the functioning of global markets is an integral part of the course material. Each student is assigned a foreign country to study throughout the semester with the completion if a comprehensive project report. A prior investments course is recommended but not required.

FINANCE 6590 Seminar in Finance (3)
Prerequisite: FINANCE 6500. This course incorporates a wide range of advanced topics in finance including, but not limited to, an evaluation of various financial assets as investment opportunities, trends in capital markets, derivatives and management of financial and non-financial firms.

FINANCE 6591 Finance Internship (1-3)
Prerequisites: Students must have completed and/or be enrolled in at least 6 credit hours of finance electives and have consent of supervising faculty member and department chairperson. Student work in the field of Finance where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. The student's program will be monitored by a Finance faculty member with the student providing a formal report at the end of the project.

Information Systems Graduate

INFSYS 5800 Management Information Systems (3)
Same as P P ADM 6800. This course provides an overview of the established and contemporary issues related to information systems within organizations. Topics include the practices and tools associated with topics such as the management of IS-based investment projects, the design and implementation of IS, the alignment of IS strategy with organizational strategy, information security and privacy, and gaining a competitive advantage through IS.

INFSYS 5890 Internship in Information Systems (3)
The internship will be a supervised field experience in a US-based business/organization or a US-based international business/organization. Students will be employed off-campus for a 10-16 week period on projects directed by host organization supervisors in consultation with a UM-St. Louis Information Systems faculty member. The project requires students to apply IS concepts to a real-world problem. The project does not duplicate, but builds upon material in the IS curriculum. A professional written report will be required.

INFSYS 5899 Individual Research in Information Systems (1-3)
Prerequisites: Consent of instructor and graduate director. Special individual research topics in Information Systems under the guidance of a specific professor.

INFSYS 6805 Applications of Programming for Business Solutions (3)
Prerequisite: ECON 4105. This course provides a study of business-oriented programming. A programming language will be introduced and discussed in detail. Emphasis will be on program definition and the use of such programs in business-oriented applications.

INFSYS 6808 Internet Programming for Business (3)
Prerequisite: INFSYS 6805. Focus on web-based applications development for business. It will begin with the fundamentals of web-based computing, including web client and server interaction, the MIME standard, server and client data frame headers, the CGI standard, and error conditions as they pertain to business applications. In addition, JAVA will be introduced to build web-based GUI-interfaces and back-end servers. Finally, business applications issues such as firewalls, proxy servers and data encryption using secure servers will be included.

INFSYS 6832 Information Systems Strategy (3)
This course presents the management of computer-based information resources in the context of business organizations. Issues may include: management strategies and policies for improving organizational productivity, measurement, evaluation and acquisition of management information services, office
automation, end-user computing, computer use in international environments, social organizational perspectives and ethical implications. The course will be taught using cases.

**INFSYS 6833 Decision Support Systems for Business Intelligence (3)**
Prerequisite: LOG OM 5300. Applications of intelligent decision support systems to support business intelligence are explored. DSS component design in response to decision making and business intelligence needs are discussed.

**INFSYS 6835 IT-Enabled Business (3)**
Prerequisite: INFSYS 5800. IT-Enables Business focuses on business models, processes, and activities made possible by the internet. The course includes theoretic aspects of e-commerce: consumer relationship management, supply chain management, inventory management, business strategy, auctions, and portals. Issues associated with electronic commerce such as security, privacy, content selection and rating, intellectual property rights, authentication, encryption, acceptable use policies, and legal liabilities are explored. Particular attention is paid to IT-enabled entrepreneurship and business creation, and IT use in small to medium sized enterprises. Case studies drawn from actual business applications will be used to reinforce theory.

**INFSYS 6836 Telecommunications: Design and Management (3)**
Prerequisite: INFSYS 5800 (may be taken concurrently). The topic of telecommunications is addressed from both a technical and managerial viewpoint. In particular, the course will address issues such as communications components and services, local area network architecture, managerial implementations, organizational issues, and cost/benefit analyses.

**INFSYS 6837 Information Systems Architecture (3)**
Prerequisite: INFSYS 6836. This course explores a wide range of topics necessary for understanding and managing distributed computing technology. A wide range of infrastructure and "middleware" architectural components will be explored. Finally, the course will provide a framework for understanding the capabilities and shortcomings of various distributed computing architectures, technical standards and their implications for interoperability of components.

**INFSYS 6838 Business Process Design, Management & Integration (3)**
Prerequisite: INFSYS 5800. Major business processes are identified and analyzed. Issues related to characteristics, goals, benefits and costs of enterprise-wide design, and the role of information technology during the design process are discussed. Workflow automation, process modeling, analysis, automation, and redesign techniques are discussed, including the following: process inputs & entrance criteria, process outputs & exit criteria, feedback mechanisms & process correction, alternate theoretical frames for business process design, and impacts on business process design from socio-cultural forces. Case studies are used to illustrate the concepts.

**INFSYS 6840 Information Systems Analysis (3)**
Prerequisite: INFSYS 6805. The theory and practice of structured analysis are presented. Topics may include: traditional vs. structured analysis methods, requirements analysis, user/analyst interaction, investigation of existing systems, human/machine interfaces, CASE tools, and workbenches.

**INFSYS 6845 Database Management Systems (3)**
Prerequisite: INFSYS 5800. The course introduces the concepts of database management systems for business applications. Issues in database architecture, design, administration, and implementation are covered. Projects are assigned on a mainframe DBMS and a microcomputer-based DBMS to illustrate the concepts and applications.

**INFSYS 6846 Management of Global Sourcing (3)**
Same as INTBUS 6846. Prerequisite: INFSYS 5800. Largely fostered by the spread of the Internet, global software development standards, global software packages, and fewer trade restrictions, organizations now regularly source software development, software maintenance, systems upgrades, platform transitions, help desks, and other IS-related work globally. This course covers topics to help organizations manage global sourcing of IS work, including sourcing strategies, sourcing models (captive, joint venture, outsourcing), role of program management offices, supplier selection, engagement models, and special practices required to manage globally dispersed teams. Risk mitigation practices associated with cultural, legal, political, infrastructure, logistical, and human resource issues are also addressed.

**INFSYS 6847 Financial and Project Management (3)**
Prerequisite: INFSYS 5800. Effective project management ensures that a project is completed on time, within budget, and has high quality. The purpose of this class is to examine the task of project resource management with a focus on IT and services. It will cover conventional aspects of project management, such as the project evaluation, planning, roles, responsibilities, scheduling, and tracking. In addition, this class will examine risk management, change management, critical chain management, build vs. buy analysis, package vs custom solutions, vendor qualification and selection, and the roles of certification in the process. The class will also cover the management of programs or a portfolio of IT projects.

**INFSYS 6848 Knowledge Management and Business Intelligence (3)**
Prerequisite: INFSYS 5800. Knowledge management (KM) is the process of creating, and drawing value from, an organization's intellectual assets. It deals with how to best leverage the organization’s knowledge internally as well as externally. The emphasis on knowledge management within business organizations has risen dramatically in the last few years, to some extent as a result of the rapid progress in information technology capabilities. The course covers the following topics: KM tools, technologies, and systems, including knowledge repositories, knowledge portals, and expert seeker systems, creating and sustaining a knowledge-sharing culture, managing and measuring intellectual capital, managing knowledge in networked organizations, including interorganizational alliances and supply chains, aligning knowledge with business strategy, risks of knowledge loss and knowledge leakage, business intelligence, and social aspects of knowledge management.

INFSYS 6850 Information Systems Design (3)
Prerequisites: INFSYS 6840 and INFSYS 6845. This course builds upon the analysis techniques presented in INFSYS 6840. It requires the student, usually working in a group, to design and implement a system in a real-world environment. Advanced design concepts are presented to support the students in their project work.

INFSYS 6881 Management of Transnational Information Systems (3)
Same as INTBUS 6881. Prerequisite: INFSYS 5800 (may be taken concurrently). The course presents concepts of managing global information technology. Issues covered include: global information technology, systems development, electronic data interchange, cross-border data flows, and national and international information structures. Further topics may include information technology enabled economic development, global outsourcing of information systems services, and social, organizational and ethical implications.

INFSYS 6891 Seminar in Management Information Systems (3)
Prerequisite: INFSYS 5800. Topics of current interest in management information systems. Topics may include international information systems, electronic commerce, decision support systems, information systems strategy, telecommunications, and information systems management.

INFSYS 7890 IS Research Seminar (3)
Prerequisites: INFSYS 5800; Admittance into the Ph.D. program. Analysis of the research problems, approaches, and findings of Management Information Systems Research. May be repeated for credit when the subject matter is different.

INFSYS 7891 Quantitative Research Methods in IS (3)
Prerequisites: INFSYS 5800; Admittance into the Ph.D. program. Analysis of research design and validity of quantitative methods applied to the study of Management Information Systems, including laboratory experiments, sample surveys, and field experiments.

INFSYS 7892 Doctoral Seminar in Current Information Systems Topics (3)
Prerequisites: INFSYS 5800; Admittance into the Ph. D. program. Theoretical and empirical analysis of topics of long-term importance to the IS field such as systems analysis and design, systems development and implementation, and database management. A historical perspective of the technical and behavioral issues associated to IS artifacts is provided such that contemporary issues and trends can be appreciated.

INFSYS 7893 Special Topics in IS (3)
Prerequisites: Consent of instructor; Admittance into the Ph.D. program. In-depth analysis of special topics in IS research. May be repeated for credit when the subject matter is different.

INFSYS 7894 Theoretical Foundations of Information Systems Research (3)
Prerequisites: INFSYS 5800, Admittance to the Ph.D. program. The theoretical foundations of information systems are largely built upon the theories from other disciplines, including the physical sciences, computer science, sociology, psychology, and mathematics. In this course, we survey a variety of theoretical foundations from other disciplines by reading the original works, critical responses to these theories, and representative applications of these theories in the IS domain.

International Business Graduate

INTBUS 5289 International Business Strategies (3)
Prerequisites: BUS AD 5000 and ACCTNG 5400. This course focuses on those managerial issues, which follow from the definition and implementation of corporate strategy for worldwide operations, as distinguished from purely domestic firms or those only marginally involved in international activities. It aims to develop an appreciation for the unique competitive, sociocultural and political environments in which international business takes place and the skills required to deal with these changes.

INTBUS 5290 Internship in International Business (3)
Prerequisite: Consent of IMBA director. Students will apply both their language skills and knowledge of international business by working in an organization located outside the student's country of origin. This course requires students to submit regular evaluations and prepare a research report summarizing their global experience and how it relates to the international business program.

INTBUS 5480 International Accounting (3)
Same as ACCTNG 5480. Prerequisite: ACCTNG 3402. Accounting practices for multinational businesses.
Discussion of comparative financial accounting practices, the development of international accounting standards, and managerial accounting practices related to multinational operations.

**INTBUS 6580 International Finance, Investment, and Commercial Relations (3)**
Same as FINANCE 6580. Prerequisite: FINANCE 6500. This course provides students with a working knowledge of the international environment relating to the financial and securities markets along with the impact on corporate operations. International risk and tools to control risk are studied in a practical environment that may include cases. Individual research may be required to reinforce the topics studied in the classroom. Class discussion of current issues and related readings are encouraged.

**INTBUS 6581 Seminar in International Investments (3)**
Same as FINANCE 6581. Prerequisite: FINANCE 6500. This course covers topics related to the determination of exchange rates, international parity relations and portfolio diversification. In addition, methods for using foreign exchange derivatives are explored in their use for hedging exchange rate risk. Learning to read foreign exchange quotes and understanding the functioning of global markets is an integral part of the course material. Each student is assigned a foreign country to study throughout the semester with the completion of a comprehensive project report. A prior investments course is recommended but not required.

**INTBUS 6846 Management of Global Sourcing (3)**
Same as INFSYS 6846. Prerequisite: INFSYS 5800. Largely fostered by the spread of the Internet, global software development standards, global software packages, and fewer trade restrictions, organizations now regularly source software development, software maintenance, systems upgrades, platform transitions, help desks, and other IS-related work globally. This course covers topics to help organizations manage global sourcing of IS work, including sourcing strategies, sourcing models (captive, joint venture, outsourcing), role of program management offices, supplier selection, engagement models, and special practices required to manage globally dispersed teams. Risk mitigation practices associated with cultural, legal, political, infrastructure, logistical, and human resource issues are also addressed.

**INTBUS 6881 Management of Transnational Information Systems (3)**
Same as INFSYS 6881. Prerequisite: INFSYS 5800 (may be taken concurrently). The course presents concepts of managing global information technology. Issues covered include: global information technology, systems development, electronic data interchange, cross-border data flows, and national and international information structures. Further topics may include information technology enabled economic development, global outsourcing of information systems services, and social, organizational and ethical implications.

**INTBUS 5381 International Logistics and Operations Management (3)**
Same as LOGOM 5381. Prerequisite: LOGOM 5320. A study of international logistics and operations management strategy, planning and operations. Topics may include multinational logistics and supply chain strategies, global network design and sourcing, international transportation, distribution and operations, import-export, risk management, etc.

**INTBUS 5780 Seminar in International Marketing (3)**
Same as MKTG 5780. Prerequisite: MKTG 5700. An advanced seminar on topics in international or global marketing. Possible topics include the globalization of trade, export marketing, international market opportunity analysis, and negotiation for international marketers. Students who take one version of this course (e.g. globalization of trade) can take a second version of the course (e.g. negotiation for international marketers) with prior permission.

### Logistics and Operations Management Graduate

**LOG OM 5300 Statistical Analysis for Management Decisions (3)**
Prerequisites: INFSYS 5800 (may be taken concurrently) and ECON 4105 with a minimum grade of a C. The role of statistical evidence in the formation of inference and in the selection of strategies in solving business problems is developed. Probability and probability distributions are studied as a basis of statistical inference. An introduction to multivariate analysis is provided, which includes analysis of variance and regression methods.

**LOG OM 5312 Advanced Statistical Methods for Management Decisions (3)**
Prerequisite: LOG OM 5300. The application of statistical methods to managerial problems, forecasting and business research. Topics include the blending of multiple regression and analysis of variance into a general linear model, logistic models, techniques for projecting seasonal time series, and forecasting techniques (ARIMA models) which deal with serially correlated data. Through class presentations, assigned exercises and a major project, students gain experience in constructing explanatory and predictive models for problems in marketing, finance, etc. Students use commercial software (e.g., the Statistical Analysis System) for analyzing data, constructing, models and producing reports.

**LOG OM 5320 Production and Operations Management (3)**
Prerequisite: LOG OM 5300. This course discusses issues related to the creation and delivery of goods and services. Topics include the design of production processes, the layout and location of facilities, forecasting, scheduling, inventory control, queuing, materials planning, and quality control. Analytical techniques such as
linear programming are used in studying these problems.

LOG OM 5322 Lean Production (3)
Prerequisite: LOG OM 5320. Study of lean production philosophy and techniques in manufacturing and service operations. Topics include process analysis and continuous improvement, set-up reduction, total productive maintenance, kanban scheduling, cellular production, work teams, supplier relations, quality management, and the environmental aspects of production. Cases and a course project will be used to integrate and apply the course material.

LOG OM 5324 Service Operations Management (3)
Prerequisite: LOG OM 5320. An examination of methods for designing and operating service delivery systems, such as in the health care, financial transportation, hospitality, and governmental services industries. Topics include process and facility design, facility layout and location, queuing, demand forecasting and management, service quality, staffing, and personal scheduling.

LOG OM 5326 Quality Management (3)
Same as MATH 5370. Prerequisite: LOG OM 5300 or Stat 4200 or consent of instructor. An applied course on total quality management. Quality improvement approaches are presented and the managerial implications and responsibilities in implementing these approaches are discussed. Topical coverage includes the construction and interpretation of control charts, graphical methods, quality function deployment, robust experiments for product design and improvement, mistake-proofing (poke yoke), the Deming approach, Baldridge award criteria, quality cost audits, worker empowerment and reward systems. Cases involving both business processes and physical processes are used to illustrate successful quality improvement efforts.

LOG OM 5334 Internship in Logistics and Supply Chain Management (1)
Prerequisite: Consent of instructor. Students receive practical experience in the area of logistics or supply chain management. The internship is supervised by a professional in the host organization in consultation with a faculty member.

LOG OM 5354 Simulation for Managerial Decision Making (3)
Prerequisite: LOG OM 5320. Introduction to simulation as a managerial decision-making aid. Application of simulation to a number of management science-oriented problems. The course introduces and requires use of a simulation language.

LOG OM 5381 International Logistics and Operations Management (3)
Same as INTBUS 5381. Prerequisite: LOG OM 5320. A study of international logistics and operations management strategy, planning and operations. Topics may include multinational logistics and supply chain strategies, global network design and sourcing, international transportation, distribution and operations, import-export, risk management, etc.

LOG OM 5399 Individual Research in Logistics and Operations Management (1-3)
Prerequisites: Consent of instructor and graduate director. Special individual research topics in Logistics and Operations Management under the guidance of a specific professor.

LOG OM 6330 Business Logistics Systems (3)
Prerequisite: LOG OM 5320 (may be taken concurrently). Analysis of business logistics systems and their role in supply chain management. Covers both design and operation of logistics systems and their components. Topics may include network design, facility location, transportation, vehicle routing, inventory management, customer service, reverse logistics and logistics information systems.

LOG OM 6331 Logistics and Supply Chain Operational Modeling (3)
Prerequisites: LOG OM 5320 and LOG OM 6330. A study of the application of leading software packages to modeling problems and issues arising in the operational management of logistics and supply chains. This course covers the economic tradeoffs involved in such decisions, data requirements, operating parameters, and application of software packages to problems such as vehicle routing and scheduling, freight shipments consolidations, cross-docking, and other operational and tactical strategies. This "hands on" course is designed to prepare students for higher-level supply chain analyses and consulting work.

LOG OM 6332 Logistics and Supply Chain Strategic Modeling (3)
Prerequisites: LOG OM 5320 and LOG OM 6330. A study of the application of leading software packages to modeling problems and issues arising in the planning and strategic management of logistics networks and supply chains. The course identifies and explores the economic and customer service tradeoffs involved in such networks. Issues such as location of facilities, assignment of production and distribution missions to facilities, identification of sourcing relationships amongst facilities, and identification of cost and customer service consequences of alternative supply chain designs are addressed by the application of commercial software packages to support decision making. This "hands on" course is designed to prepare students for high-level supply chain analyses and consulting work.

LOG OM 6347 LOM Project management (3)
Prerequisite: LOG OM 5320. This course addresses the concepts and processes of project management as applicable to Logistics and Operations Management. Students study organizational design, project
specification, integrated project planning, risk management and project control; students will come to
understand how globalization, environmental and sustainability issues, quality control (including industry
standard initiatives such as the Continuing Integration Improvement model and the International Standards
Organization model), and cultural factors drive project management.
NOTE: Credit may not be earned for both LOG OM 6347 and INFSYS 6847.

LOG OM 6350 Management Science Methods (3)
Prerequisite: LOG OM 5320. This course provides a working knowledge of management science techniques. It
emphasizes analytical approaches to solving business problems, construction of mathematical models, and
manipulation of model variables for managerial decision-making. Topics include mathematical programming,
including integer and network models, heuristics, and simulation models.

LOG OM 6354 Advanced Operations Research Topics (3)
Prerequisite: Consent of Instructor. Advanced topics from such areas as mathematical programming,
stochastic processes, decision theory, or game theory are studied in depth.

LOG OM 6395 Seminar in Logistics and Operations Management (3)
Prerequisite: LOG OM 5320. Topics of current interest in logistics and operations management. Topics may
include just-in-time and lean production, quality management, manufacturing and service systems,
transportation and logistics, quantitative management tools, etc.

LOG OM 7381 International Supply Chain Management (3)
Prerequisites: LOG OM 5320; Admittance to Ph.D. program. A comprehensive examination of international
logistics and supply chain management strategies, planning and operations from the firm's perspective. Topics
may include multinational logistics and supply chain issues and management strategies, multinational sourcing
and network design, transportation issues in international supply chains, multinational distribution and
operations, legal and financial issues in import and export, risk identification and management to other
activities of international firms.

LOG OM 7390 Research Seminar in LSCM (3)
Prerequisites: LOG OM 6330; Admittance into the Ph.D. program. Analysis of research approaches, and
findings in Logistics and Supply Chain Management. May be repeated for credit when the subject matter is
different.

LOG OM 7393 Special Topics in LSCM (3)
Prerequisites: Consent of instructor; Admittance into the Ph.D. program. In-depth analysis of special topics in
Logistics and Supply Chain Management research. May be repeated for credit when the subject matter is
different.

Management Graduate

MGMT 5600 Organizational Behavior and Administrative Processes (3)
Same as P P ADM 6600. The theoretical and research contribution of the behavioral sciences to management
and administration are examined and applied to selected organizational situations. Areas to be considered
from the standpoint of both individual and organizational performance are communication, motivation,
conflict, decision-making, goal setting, leadership, organizational design, climate, development, and control.
Utilizing a systems perspective, the course attempts to develop in each student an ability to analyze and solve
organizational problems.

MGMT 5611 Advanced Organizational Behavior and Administrative Processes (3)
Prerequisite: MGMT 5600. An in-depth examination of selected organizational and individual theories affecting
behavior and operating performance. Organizational structure and design, formal and informal organization,
decision making, communications, and motivation are analyzed for their organizational impact. The course
seeks to develop further the ability to analyze and evaluate organizational processes and individual behavior.

MGMT 5612 Negotiating Workplace Conflict (3)
Same as P P ADM 6680. Prerequisites: P P ADM 6600/MGMT 5600 and graduate standing. Examines conflict
and cooperation between individuals, groups, and organizations over the control of work. A central theme is
how this conflict is expressed, controlled and resolved. Students will participate in exercises to learn the basics
of two-party negotiations.

MGMT 5614 Managing Organizational Change and Design (3)
Prerequisite: BUS AD 5600 (may be taken concurrently) This course examines the ways to manage
organizational change to meet the rapid pace of change in the business environment. Cases and current
research inform class discussions of different types of restructuring. Topics may include creating learning
organizations, designing for innovation, managing growth and downsizing, and building sustainable
organizations.

MGMT 5621 Managing Human Resources (3)
Prerequisite: MGMT 5600. In-depth examination of selected human resource management issues from a
contemporary manager's viewpoint. Topics examined include: personnel planning; employee selection;
performance appraisal, training, and development; compensation; legal issues; discipline; and labor relations. The course examines these topics as they relate primarily to operational activities in organizations.

**MGMT 5622 Union-Management Relations and Collective Bargaining (3)**
Prerequisites: MGMT 5600 and BUS AD 5900. Primary concern is with the setting and the dynamics of contract negotiation and administration. Emphasis is on the development of insight and understanding of the forces affecting the decisions of the parties to a labor contract within the context of the social, political, and economic environment of the organization. A dynamic approach is taken to examine difficulties that arise in attempting to administer a collectively established relationship between employer and employee.

**MGMT 5624 Organizational Training (3)**
Prerequisite: MGMT 5600 or MGMT 5621 or permission of department. An intensive study of training and developmental methods/issus in organizations. Topics include needs analysis, training techniques, management development. Other topics include memory, training objectives, and training facilities. Projects and exercises are used to supplement reading and lecture.

**MGMT 5625 Selected Topics in Human Resource Management (3)**
Prerequisites: MGMT 5621 and LOG OM 5300. This course provides an advanced treatment of selected human resource management topics. Primary focus is on topics such as job analysis, pre-employment screening devices, test validation, and civil rights laws. Other topics, such as performance appraisal, recruitment, promotions, and terminations may be covered. Various class projects may be assigned to supplement readings, lectures, and discussion.

**MGMT 5695 Seminar in Management (3)**
Prerequisite: MGMT 5600. Topics of current interest in management. Possible topics include, human resource management, international management, and entrepreneurship.

**MGMT 5699 Individual Research in Management (1-3)**
Prerequisites: Consent of instructor and graduate director. Special individual research topics in Management under the guidance of a specific professor.

**Marketing Graduate**

**MKTG 5700 Contemporary Marketing Concepts (3)**
Prerequisite: BUS AD 5000. Designed for students with no prior course work in the field of marketing. A wide spectrum of marketing institutions and activities is covered. The impact of marketing on the total firm, the economy, and society in general is assessed. The course is intended to develop and organize the fundamental marketing concepts necessary to an analytical study of consumer behavior, the economic environment, and four managerial aspects of marketing. The acquisition and utilization of marketing research data for problem solving is stressed. Relation and integration of basic marketing knowledge to the successful development of sound marketing policy, planning, and strategy is developed.

**MKTG 5701 Marketing Planning and Strategy (3)**
Prerequisite: MKTG 5700. Emphasizes the development of a total marketing program through an analytical study of the marketing-mix, the diagnosis of the business situation, along with the influence of exogenous variables and the development of an effective campus marketing strategy. Stresses importance of an integrated marketing plan and utilizes modern decision-making tools. Supplementary readings, journal articles, and current periodicals are used to place the theoretical framework of the course into the contemporary environment of the market place.

**MKTG 5710 Consumer Motivation and Behavior (3)**
Prerequisite: MKTG 5700. An analysis of the socio-psychological foundations of consumer behavior including personality differences, needs and wants, status symbols, social change and mobility, and fads and fashions. Consumer spending and saving habits, product preferences, leisure-time patterns, shopping behavior, and motivation research also are examined for their impact on advertising, selling, and marketing management.

**MKTG 5720 Marketing Communications (3)**
Prerequisite: MKTG 5700. Deals with managerial decision making by placing particular emphasis on assimilating and integrating all forms of marketing communication in the development of promotional policies, plans, and procedures. Course approach is analytical rather than descriptive in investigating the areas of advertising, public relations, sales management, packaging, and other forms of demand stimulation.

**MKTG 5740 Marketing and Business Research (3)**
Prerequisites: MKTG 5700 and LOG OM 5300. A broad approach to marketing research as a model for acquiring, retrieving, and analyzing decision-making information. Includes market measurement, evaluation of sales, and cost effectiveness, sales forecasting, and primary marketing research studies aimed at solving specific problems. Emphasis is placed also on building a theoretical and analytical framework to provide flexibility in the design of marketing experiments and in judging recent research innovations.

**MKTG 5761 Business to Business Marketing (3)**
Prerequisite: Graduate standing or consent of instructor. This course provides graduate students with an
understanding of the role of business to business marketing as it pertains to business, government, and institutional customers. The course places a heavy emphasis on buyer-seller interaction embodying business to business marketing. In addition to discussing the standard theories and covering the subject domain of business marketing, the course focuses on the finer aspects of business to business marketing negotiations using exercises and readings. Student groups enact complex industrial buyer-seller negotiations striving to achieve their respective organizational goals.

**MKTG 5770 Supply Chain Management (3)**
Prerequisite: Consent of instructor. This course addresses supply chain management and its implications, with a focus on what firms can do to maintain competitiveness in the quickly changing business landscape. Topics may include, but are not limited to, value chain analyses, marketing business-to-business, supply chain analytics, procurement, production, logistics, and inventory management within supply chains.

**MKTG 5775 Domestic Transportation (3)**
Prerequisite: Graduate standing or consent of instructor. Domestic Transportation is the study of North American transportation modes, their management and operating characteristics. This graduate course is part of the Mid-West Transportation Consortium where UMSL, along with 5 other Universities, provides guest lecturers that comment on aspects of transportation. UMSL students concentrate on the business aspects of transportation.

**MKTG 5780 Seminar in International Marketing (3)**
Same as INTBUS 5780. Prerequisite: MKTG 5700. An advanced seminar on topics in international or global marketing. Possible topics include the globalization of trade, export marketing, international market opportunity analysis, and negotiation for international marketers. Students who take one version of this course (e.g. globalization of trade) can take a second version of the course (e.g. negotiation for international marketers) with prior permission.

**MKTG 5790 Internship in Marketing (3)**
Prerequisites: Students must have completed and/or be enrolled in at least 6 credit hours of marketing electives and have consent of supervising faculty member and department chairperson. Students work in the field of Marketing where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. The student's program will be monitored by a Marketing faculty member with the student providing a formal report at the end of the project.

**MKTG 5795 Seminar in Marketing (3)**
Prerequisite: MKTG 5700. This course addresses advanced problems in contemporary marketing. Topics may include, but are not limited to, marketing strategy, marketing communications and advertising, product management, consumer behavior, channels of distribution, international marketing, and marketing research.

**MKTG 5799 Individual Research in Marketing (1-3)**
Prerequisites: Consent of instructor and graduate director. Special individual research topics in Marketing under the guidance of a specific professor.
Accreditation
The University of Missouri St. Louis, College of Education, is accredited by the National Council for Accreditation of Teacher Education (NCATE) and the Missouri Department of Elementary and Secondary Education (DESE) for the preparation of early childhood, elementary, special education, physical education, secondary educators, administrators, and counselors.

Course Designations in the College of Education
The following abbreviations are used to indicate instructional areas in the course listings and descriptions in the College of Education.

- Adult Education Courses (ADULT ED)
- Counselor Education Courses (CNS ED)
- Early Childhood Education Courses (ECH ED)
- Educational Administration Courses (ED ADM)
- Educational Foundations Courses (ED FND)
- Educational Psychology Courses (ED PSY)
- Educational Research and Evaluation Methods Courses (ED REM)
- Educational Technology Courses (ED TECH)
- Elementary Education Courses (ELE ED)
- Middle Education Courses (MID ED)
- Higher Education Courses (HIGHERED)
- Health and Physical Education Courses (HLTH PE)
- Physical Education (PHY ED)
- College Wide Education Courses (EDUC)
- Secondary Education Courses (SEC ED)
- Special Education Courses (SPEC ED)
- Teacher Education Courses (TCH ED)

Teacher Education

Degrees and Areas of Concentration
Students may earn teacher certification in the fields of elementary education, early childhood education, middle school, music education, physical education, special education (cross categorical), art education, as well as the secondary education areas of biology, chemistry, English, foreign languages (French, German, Spanish), mathematics, physics, social studies, and speech/theater. Graduate programs leading to certification are also offered in counseling, reading, school administration (elementary and secondary principal, school superintendent), and special education.

The following certification programs are designed to provide the following learning outcomes. Upon successful completion of the programs, education candidates will:

- Understand the central concepts, tools of inquiry and structures of the discipline(s) within the context of a global society and creates learning experiences that make these aspects of subject matter meaningful for students.
- Understand how students learn and develop, and provides learning opportunities that support the intellectual, social, and personal development of all students.
- Understand how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.
• Recognize the importance of long-range planning curriculum development and develops, implements and evaluates curriculum based upon student, district, and state performance standards.

• Use a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.

• Use an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.

• Model effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.

• Understand and use formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner.

• Develop skills to become a reflective practitioner who continually assesses the effects of choices and actions on others. This reflective practitioner actively seeks out opportunities to grow professionally and utilizes the assessment and professional growth to generate more learning for more students.

• Foster relationships with school colleagues, parents, and educational partners in the larger community to support student learning and well-being.

• Understand theories and applications of technology in educational settings and has adequate technological skills to create meaningful learning opportunities for all students.

General Education Requirements
Students in the College of Education must meet university and departmental general education requirements specified for their degree programs.

Academic Residence
Students must be in residence for 30 of the last 30 semester hours of credit. Courses graded on a satisfactory/unsatisfactory basis are not accepted within these last 30 semester credit hours. This residency requirement applies to students seeking a degree or teacher certification.

Education Majors
Professional education courses must be completed with a grade point average of 2.5 and no grade lower than a C (2.0).

Admission to the College of Education
Any students who designate education degree programs as their intended degree paths will have Education as their assigned academic unit. Students admitted to the College of Education and also seeking teacher certification must also be admitted to the Teacher Education Program.

Application and Admission to the Teacher Education Program
All students (pre- and post-degree) who wish to become teachers must be admitted to the Teacher Education Program. Applications to the Teacher Education Program are processed through the Teacher Certification and Advising Office (TC & A). Eligibility is based upon fulfillment of the following requirements:

• Submission of qualifying scores on C-BASE in areas of English, writing, mathematics, science and social studies. Students should consult the Teacher Certification & Advising Office – College of Education, for test descriptions, cost, required scores, dates of administration, retest policies, etc. Acceptable C BASE scores are required in addition to documented ACT or SAT scores. (Students who have an earned bachelor’s degree are not required to pass the CBASE test. Graduates of the general studies program at UMSL, however, must take the C BASE).

• Documented scores of either the ACT Composite or the SAT (verbal plus math)*.

• Completion of 60 hours of college or university courses (at UMSL or another accredited school).

• A grade point average of 2.5 or higher.

• Completion of level one courses, or the equivalent, with a grade of C or better.

• Approved results of criminal record check and child abuse/neglect screening.

General Information
It is important that students meet with an academic advisor in the Teacher Certification and Advising Office once each semester. Students should contact the office at 314-516-5937 to make an advising appointment.

Internship/Student Teaching Semesters
All teacher certification program students, except for those enrolled in music education, participate in a year long internship/student teaching experience. Students complete one electronic application two semesters prior to the student teaching experience for both the internship and student teaching semesters. The Professional Internship is a three credit hour course for all programs except Physical Education. The PE internship is a two
credit hour course. All internships are taken the semester before student teaching and involving one full day each week at the school site. During the following student teaching semester, normally located at the same internship school, students attend their site full time, five days per week. Student teaching is a 12 hour course.

Application to Internship/Student Teaching Program

Deadlines for the Formal Application may be obtained in the Teacher Certification & Advising office.

*Check 'My Gateway' and the student teaching bulletin board in Marillac Hall for exact date.

Upon receipt, formal applications for both pre- and post degree students are checked to ensure they have met the following requirements:

- Admission to the teacher education program for both pre and post degree students.
- A cumulative grade point average of 2.5 or above by the semester prior to the semester in which students plan to student teach. The 2.5 cumulative grade point average must be maintained in order to graduate with a B.S. in education degree and/or be certified to teach in the state of Missouri.
- Grade point average of 2.5 in the teaching field (secondary education students only).
- A grade of C or higher in all professional education courses so designated. Lists of these courses available in the TC & A office and from advisers.
- Documented SAT or ACT score.
- Completion of TB screening, Missouri Care Registry check.
- Undergraduate students are required to have passed all five sections of the CBase Test.
- Completion of TB screening, police, and child abuse checks.

The student teaching experience in the early childhood, music, physical education, and special education certification programs provides opportunities in a variety of settings. Students will be expected to student teach on a full-day basis for 14-weeks during an entire semester. The student teaching experience must be completed in residence. Secondary student teaching in science education, mathematics education, and foreign language education is offered during the winter semester only.

For further information regarding requirements and certification, contact the Teaching Certification and Advising Office (TC & A) at 155 Marillac Hall or the College of Education Teacher Certification and Advising Home Page.

Application for Degree and/or Certificate

Bachelor of Science in Education (B.S. Ed)
Candidates for the B.S.Ed. degree must complete degree and certificate application forms in the TC & A Office when they apply for admission to internship/student teaching or during the semester before the one in which they expect to finish degree requirements. See information below on the on PRAXIS examination.

The College of Education requires a background check, current within one year, for every UMSL student in the teacher education program. Please note that students applying for certification are responsible for a more thorough fingerprint background check as required by Missouri State Law. All background check information will be available to students upon their request.

Bachelor of Educational Studies (B.E.S.)
Candidates should consult the TC & A Office, 155 Marillac Hall or (314) 516- 5397 for more information. This degree offers two areas of study: Early Childhood and Professional Studies and does not qualify for Missouri Teacher Certification.

Certification

In cooperation with the Missouri State Department of Elementary and Secondary Education, the College of Education is responsible for recommending all qualified students for state teacher certification.

All individuals must pass the appropriate Praxis/National Teacher's Examination to meet graduation and/or certification requirements. This exam should be taken during the semester immediately prior to student teaching.

Graduate Level Certification Program

Applicants who hold a Bachelor's degree can enroll in this program to earn secondary education certification. Coursework is determined by the College of Education advisers and Arts and Sciences joint appointee faculty members. The following are education course requirements:

Coursework includes:

**TCH ED 5310:** Designing Instruction, 3 credits (includes 14 clock hours of field experience)
**TCH ED 5311:** Educational Foundations, 4 credits (includes 10 clock hours of field experience)
ED PSY 6109: Learning and Development in Secondary School Settings, 4 credits (includes 8 clock hours of field experience)
* TCH ED 5312: Differentiated Instruction, 4 credit hours (includes 12 clock hours of field experience)
SEC ED 4989: Secondary Education Professional Internship, 3 credits (includes 84 clock hours of field experience)
SEC ED 4990: Student Teaching, 12 credits (full days in a school for one semester)

Students seeking certification via this program must meet with the Teaching & Learning Post Baccalaureate Advisor and secondary education faculty members in the content (teaching) area to plan specific programs and review requirements. Students may contact the advisor at 314-516-5937.

Graduate Studies in Education

Degrees and Areas of Emphasis
The College of Education offers Master of Education (M.Ed.), Educational Specialist (Ed.S.), and doctoral degrees at the graduate level. The M.Ed. degrees and the emphasis areas are:

Adult and Higher Education
- Adult Education
- Higher Education

Counseling
- Community Counseling
- Elementary School Counseling
- Secondary School Counseling

Educational Administration
- Community Education
- Elementary Administration
- Secondary Administration

Elementary Education
- Early Childhood Education
- General emphasis
- Reading emphasis

Secondary Education
- Curriculum and Instruction
- General
- Middle Level Education
- Reading
- Teaching English to Speakers of Other Languages

Special Education
- Autism & Development Disabilities
- Cross Categorical Disabilities
- Early Childhood/Special Education

Courses are available for areas of specialization within the M.Ed. programs, including educational technology, physical education, educational psychology, and the various secondary school subject areas.

Ed.S. degree programs are available in school psychology and educational administration.

Programs leading to the Ed.D. degree are offered in four broad interdisciplinary emphasis areas: Educational Administration; Adult & Higher Education; Teaching-Learning Processes; and Counselor Education. Programs leading to the Ph.D. degree are offered in the areas of Counseling, Educational Psychology, Teaching-Learning Processes, and Educational Leadership and Policy Studies.

Master of Education Degree

The Masters of Education Degree programs are designed for graduates to attain the following learning outcomes:
- Understand the major theories in the discipline of study
- Attain a solid foundation in the overall field of education in general, including areas of social justice, educational leadership and advocacy, educational psychology and research
• Attain a depth of knowledge in the primary discipline
• Think critically
• Develop skills as a reflective practitioner to be able to create and sustain change
• Conduct teacher research

Admission and General Requirements
The College of Education follows Graduate School policies relating to admissions, academic standards, residency, transfer credit, time limitations, and thesis options (see Graduate Study in this Bulletin). In addition to meeting the general requirements of the Graduate School, applicants for school or community counseling must complete a separate application (see graduate studies in the Counseling division in this Bulletin). The minimum number of hours required for the M.Ed. degree is 32 or 33 except that the elementary, secondary, and community counseling emphases require 48 hours. The school has adopted a flexible policy on exit requirements, which are determined divisionally.

Advisement and Program Planning
Upon acceptance, each student can contact the Office of Graduate Education for an appointment with the graduate advisor for a first semester course of study (314) 516-5483 or NAshford@umsl.edu). After acceptance, each student completes an adviser form, sent by the College of Education's Office of Graduate Education, 123 SCCB. A faculty adviser is then appointed who counsels the student in registration and program planning. A program for master's degree form must be submitted for approval during the first half of the student's program. This form includes all course work in the program and the exit requirement. Once approved, the degree program may be changed only by petition.

Students working toward teacher and/or school service personnel certification as graduate students should complete state certification forms in the Teacher Certification and Advising Office, 155 Marillac Hall, one year before those requirements will be completed.

Educational Specialist Degree
The Ed.S. degree is intended for school personnel preparing for a specific role, either that of a school psychologist or that of a school building or district administrator. The programs require 60 hours of postbaccalaureate course work designed to meet the respective Missouri certification requirements. The Ed.S. in School Psychology degree program requires three years of intensive, full-time, training but students may be able to complete up to half of the curriculum as a part-time student. The Ed.S. in Educational Administration can be pursued on a part time or a full time basis and can include credits taken in an M.Ed. in Educational Administration program.

The Educational Specialist Degree program is designed for graduates to attain the following learning outcomes:
• Expand their knowledge of the major theories in their area of specialty
• Attain a solid foundation in the field of education in general and a depth of knowledge in the specialty
• Think critically
• Develop skills to become a reflective practitioner
• Mentor teachers and other practitioners as a specialist in a specific area
• Understand research methods in education
• Conduct research
• Demonstrate leadership skills and attributes

Admission and General Requirements
The College of Education follows Graduate School policies relating to admissions, academic standards, residency, transfer credit, time limitations, and exit requirements. Specific materials required for application vary by program, but generally applicants should submit an application to The Graduate School, transcripts of previous college work, GRE scores, and letters of recommendation.

Advisement and Program Planning
For advising and program planning, school psychology students should contact the Division of Educational Psychology, Research and Evaluation, 402 Marillac Hall, 314-516-5783. Educational administration students should contact the Division of Educational Leadership and Policy Studies, 269 Marillac Hall, 314-516-5944.

Doctor of Education Degree
The Ed.D. degree is a research degree for practitioners and prepares professional leaders who are competent in identifying and solving complex problems in education. Four emphasis areas embrace general categories of professional activities: Educational Administration; Adult & Higher Education; Teaching-Learning Processes; and Counselor Education. The Educational Administration emphasis permits students with Ed.S. degrees in Educational Administration to complete the research course and dissertation requirements for a doctorate.

The Ed.D. program is designed for graduates to attain the following learning outcomes:
• Understand the major theories in their primary and secondary disciplines
• Attain a solid foundation in the field of education in general and a depth of knowledge in the primary discipline
• Think critically
• Locate literature in the primary and secondary disciplines
• Understand research methods in education
• Conduct research
• Demonstrate leadership skills and attributes

Students seeking the Ed.D. degree are expected to meet the Graduate School's doctoral degree requirements and procedures.

Admission and General Requirements
In addition to meeting the application and admissions requirements of the Graduate School, students must submit three letters of recommendation (two letters must be from individuals with an earned doctorate, preferably prior instructors), along with a professional resume. Because enrollment is competitive, admission standards are comparatively high. Successful candidates must exhibit significantly above-average academic records and GRE scores. In exceptional cases, other criteria may outweigh these customary indicators of probable academic success. Applicants to the Counselor Education option are considered once per calendar year with an application deadline of December 1st. Applicants for the other options are considered twice per year with application deadlines of October 1st and March 1st.

At least two years of teaching or other school service experiences are required for admission. Exceptions may be made by substituting a supervised internship during the first year of the program.

Admission Application
To ensure time for review and decision, applicants must complete the Graduate School's and program applications and submit accompanying materials in a timely manner. In addition, applicants are urged to request transcripts and letters or recommendation two weeks before completing the online application. Consideration of applications cannot be undertaken until all materials are available.

Degree Requirements
1. Foundations, 12 hours from: philosophical, historical, psychological, sociological, anthropological, and comparative foundations of education, as well as curriculum, instruction and supervision.

2. Research Methods, 12 hours:
Students in the Educational Administration, Adult and Higher Education, and Teaching-Learning Processes options should complete the following or equivalent in order:

ED REM 6735: Statistical Analysis for Educational Research (pre-requisite)
ED REM 6750: Advanced Research Design in Education

Plus any two methods courses from the following:

ED REM 7771: Quantitative Research Methods I
ED REM 7772: Quantitative Research methods II
ED REM 7781: Qualitative Methods in Educational Research I
ED REM 7782: Qualitative Methods in Educational Research II
This sequence totals 12 hours of methods courses. Any remaining required hours could be completed with other ED REM courses numbered 6000 or higher or research courses in another curriculum.

Students in the Counselor Education option should complete the following sequence:

ED REM 6718: Psycho-Education Assessment II
ED REM 7771: Quantitative Research Methods I
ED REM 7781: Qualitative Research Methods I

One of the following:

ED REM 7772: Quantitative Research Methods II
ED REM 7782: Qualitative Methods in Educational Research II

3. Common doctoral seminars, 6 hours

EDUC 7050, The Research Process I: Framing Research Questions with the Education Literature (or for student in Counselor Education, CNS ED 7020, Seminar in Counseling Research may be taken in the place of EDUC 7050)
EDUC 7950, The Research Process II: Developing and Refining Education Research Proposals

4. Major Specialization, 21-39 hours:

Educational Administration Option
Educational Administration (ED ADM) or other courses selected in consultation with the advisory committee, including internship (3-9 hours)

**Adult and Higher Education Option**
Adult Education (ADULT ED) or Higher Education (HIGHERED) or other courses selected in consultation with the advisory committee, including internship (3-9 hours)

**Teaching-Learning Processes Option**
Teacher Education (TCH ED) courses or courses in education in a teaching field, including courses on curriculum construction and the design and improvement of instruction, all selected in consultation with the advisory committee, including internship (3-9 hours)

**Counselor Education Option** (30 hours)
CNS ED 6410, Advanced Career Development
CNS ED 6600, Theories and Techniques of Counseling Children and Adolescents
CNS ED 7000, Advanced Theories and Foundations of Counseling and Family Therapy
CNS ED 7010, Advanced Multicultural Counseling
CNS ED 7030, Counselor Education and Supervision
CNS ED 7035, Counselor Education & Supervision Practicum
CNS ED 7400, Advanced Topics in School Counseling Leadership
CNS ED 7770, Doctoral Practicum
CNS ED 7780, Doctoral Internship (6 hours)

5. Minor Specialization, 12-18 hours
A secondary area of expertise identified in consultation with the advisory committee

6. Dissertation, 12 hours
Total: minimum 90 hours, postbaccalaureate

**Doctor of Philosophy Degree**
The Ph.D. degree in education, offered in cooperation with the School of Education at the University of Missouri-Kansas City and the College of Education at the University of Missouri-Columbia, is designed for educators who desire directed research experience promoting scholarly inquiry in education. Four emphases are available:

- Teaching-learning processes
- Educational leadership and policy studies
- Educational psychology
- Counseling

The Ph.D. program is designed for graduates to attain the following learning outcomes:

- Understand the major theories in their primary and secondary disciplines
- Attain a breadth of knowledge in education in general and a depth of knowledge in the primary discipline
- Think critically
- Locate literature in the primary and secondary disciplines
- Understand research methods in education
- Conduct research
- Demonstrate leadership skills and attributes

**Admission and General Requirements**
In addition to meeting the application and admissions requirements of the Graduate School, students must submit:

- Three letters of recommendation (at least two from individuals with earned doctorates, preferably prior instructors).
- An original essay.
- A professional resume.
- Evidence of above-average academic records.
- GRE scores

Admission is competitive, and a favorable vote of an admission interview committee, composed of faculty in the emphasis area, is required.

**Admission Application**
To ensure time for review and decision, applicants must complete the Graduate School's and program applications and submit accompanying materials in a timely manner. In addition, applicants are urged to request transcripts and letters or recommendation two weeks before completing the online application.
Consideration of applications cannot be undertaken until all materials are available. The deadline for applying to the Counseling emphasis is December 1st. Applicants for the other options are considered twice per year with application deadlines of October 1st and March 1st.

**Degree Requirements**

1. **Foundations, 9-12 hours:**
   Philosophical, historical, psychological, sociological, anthropological, and comparative foundations of education, as well as curriculum, instruction, and supervision.

2. **Research Methods 15-18 hours:**
   Students in the Teaching-Learning Processes, Educational Leadership and Policy Studies, and Educational Psychology emphasis areas should complete the following or equivalent in order:
   - ED REM 6735: Statistical Analysis for Educational Research (Pre-requisite)
   - ED REM 6750: Advanced Research Design in Education

   **Plus any three methods courses from the following:**
   - ED REM 7771: Quantitative Research Methods I
   - ED REM 7772: Quantitative Research Methods II
   - ED REM 7781: Qualitative Methods in Educational Research I
   - ED REM 7782: Qualitative Methods in Educational Research II
   
   This sequence totals 15 hours of methods courses. Remaining hours can be completed with other ED REM courses numbered 6000 or higher or research courses in another curriculum.

   For Ph.D. students in the Counseling emphasis area, the recommended sequence is:
   - ED REM 6710: Educational Research Methods and Design
   - ED REM 7771: Quantitative Research Methods I
   - ED REM 7772: Quantitative Research Methods II
   - ED REM 7781: Qualitative Methods in Educational Research I
   - ED REM 7782: Qualitative methods Educational Research II

3. **Emphasis Area (Primary Discipline) courses, 27-33 hours,** with at least 16 in residence, in one of the following areas:

   **A. Teaching-Learning Processes**
   - Minimum 15 hours in cognate area
   - Minimum 3 hours in curriculum or instruction
   - Minimum 3 hours in educational psychology

   **B. Educational Leadership and Policy Studies**
   - Minimum 21 hours in educational leadership, either in K-12, higher education, work, adult, or community education settings, selected in consultation with the faculty advisor and advisory committee.

   **C. Educational Psychology**
   - Minimum of 21 hour in educational psychology. Program may include courses in research and evaluation methods, school psychology, developmental psychology, cognition and learning, character education, and socio-cultural theory. Courses in the primary discipline will be selected in consultation with the faculty adviser and advisory committee.

   **D. Counseling**
   - CNS ED 6030, Foundations for Multicultural Counseling
   - CNS ED 6040, Group Procedures in Counseling
   - CNS ED 6050, Individual Inventory
   - CNS ED 6370, Community Counseling Practicum (or CNS ED 6270, School Counseling Practicum)
   - CNS ED 6380, Community Counseling Field Experience (6 hours) (or CNS ED 6280, School Counseling Field Experience I and CNS ED 6285 School Counseling Field Experience II)
   - CNS ED 6400, Career Information and Development
   - CNS ED 6410, Advanced Career Development
   - CNS ED 7000, Advanced Theories of Counseling and Family Therapy
   - CNS ED 7010, Advanced Multicultural Counseling
   - CNS ED 7020, Seminar in Counseling Research
   - CNS ED 7030, Counselor Education and Supervision
   - CNS ED 7770, Doctoral Practicum (3 hours)

   Additionally, all students should complete CNS ED 7780, Doctoral Internship (6 hrs) as a research internship; and a secondary discipline in ED PSY consisting of at least ED PSY 6310,
Psychology of Learning Processes, ED PSY 6113, Personality Development and Adjustment, and ED REM 6718, Psycho-Educational Assessment II

4. Related (Secondary Discipline) Courses, 12-15 hours, in education or another department.

5. Required Exit course, 3 hours
EDUC 7950, The Research Process II: Developing and Refining Education Research Proposals

6. Research Internship, 6-9 hours

7. Dissertation, 12 hours

Total: Minimum 90 hours, postbaccalaureate

Support Services
The College of Education maintains a number of offices and centers to directly assist students, faculty, and people in the metropolitan area and to support its instructional, research, and service activities.

Teacher Certification & Advising Office - 155 Marillac
This office provides advising services for teacher education undergraduate and certification students. The office co-ordinates the teacher education clinical experiences, directs the student teacher program and submits documents for state teacher certification.

Office of Graduate Education - 123 SCCB
Information about admission to, and requirements of, graduate programs in education may be obtained in this office. The office also assists students with advisement, registration, graduation and related topics, and maintains student records.

School and Family Counseling Center, Suite 9, Regional Center for Education and Work
The School and Family Counseling Center is a training facility for graduate students supervised by faculty in the Division of Counseling and Family Therapy. Counseling assistance with individual, couples, and family problems as well as adults, adolescents, or children's developmental concerns are available to individuals in the community. Phone (314)-516-5782 for more information.

Reading Clinic - B9 ED UB
The reading clinic provides a laboratory setting for graduate level elementary and secondary teachers who are seeking certification as reading specialists. The clinic has been providing services to the surrounding community in diagnosing and treating severe reading problems in children and adults since 1966. The clinic also serves as a demonstration and materials center for preservice and inservice teacher education, as well as a clinical research facility for the faculty.

University Child Development Center - 130 SCB
The center provides university students with observation, participation, research, and similar educational and clinical opportunities; it also offers quality child care programs for children of student, faculty, staff, and community families.

E. Desmond Lee Technology and Learning Center - 100 Marillac
The center provides education students and faculty a model environment for managing new methods of teaching through the newest technologies; a place to research and develop technology-enhanced teaching methods to engage K-12 students; and programs that connect school classrooms to the workplace.
Division of Counseling and Family Therapy

Faculty

Mark Pope, Professor and Chair
Ed.D., University of San Francisco

R. Rocco Cottone, Professor
Ph.D., Saint Louis University

Susan Kashubeck-West, Professor
Ph.D., Ohio State University

Charles D. Schmitz, Professor Emeritus and Dean Emeritus
Ph.D., University of Missouri - Columbia

Angela D. Coker, Associate Professor
Ph.D., Union Institute and University

Therese S. Cristiani, Associate Professor Emeritus
Ed.D., Indiana University

Brian R. Hutchison, Assistant Professor
Ph.D., The Pennsylvania State University

Kelly Yu Hsin Liao, Assistant Professor
Ph.D., Iowa State University

Jennifer McAfee Maag, Clinical Assistant Professor
Ph.D., University of Missouri – Saint Louis

M. Lee Nelson, Visiting Professor
Ph.D., University of Oregon

General Information

The Division of Counseling and Family Therapy is housed on the fourth floor of Marillac Hall on the South Campus. Information about offerings and related matters may be obtained in the Division office, 469 Marillac Hall or at the College of Education's Counseling and Family Therapy’s page. The Division of Counseling and Family Therapy offers course work leading to three degrees: the Ph.D. in Education with an Emphasis in Counseling; the Ed.D. in Counselor Education and Supervision; and M.Ed. in Counseling with an emphasis in elementary school counseling, secondary school counseling, and community counseling. General information on the doctoral degrees is presented here. Specific information on the doctoral degrees is presented in this Bulletin in the general College of Education listing.

The following Division of Counseling and Family Therapy areas have been accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP)

- Master of Education (M.Ed.) in School Counseling
- Master of Education (M.Ed.) in Community Counseling
- Master of Education (M.Ed.) in Community Counseling with a Specialization in Career Counseling
- Doctor of Education (Ed.D.) in Counselor Education and Supervision/Doctor of Philosophy (Ph.D.) in Education with an Emphasis in Counseling

CACREP, a specialized accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation, grants accredited status to graduate-level programs in the professional counseling field.

Students wishing to receive Missouri certification in elementary school counseling or secondary school counseling must complete all required courses for the M.Ed. in School Counseling in addition to holding teaching certificates valid in Missouri or taking the equivalent course work. (Consult your advisor if you have questions on these matters.) The M.Ed. in Community Counseling is appropriate for students planning to practice counseling in non school settings, and graduates may pursue the Missouri state license as a
professional counselor (in order to practice independently).

The M.Ed. degree programs have an exit requirement of a comprehensive examination. Students may sit for the exam after completing 36 units of the degree program. There is a service charge for taking the exam. The exam will be given at least twice a year. All degree students should consult with their advisers about this requirement.

**Vision**
The Division of Counseling and Family Therapy, as one of the preeminent counselor preparation programs in the United States, strives to develop the highest quality, culturally competent human service providers through superior teaching, scholarly activity, and service.

**Mission**
The Division of Counseling and Family Therapy prepares both master’s and doctoral level professional counselors and counselor educators, marriage and family therapists, and counseling psychologists to serve the mental health needs of culturally diverse individuals, groups, couples, and families in need. The Division’s outreach extends to schools, colleges and universities, community based organizations, business and industry, as well as independent practice. The Division strives to develop a culturally diverse student population and to draw students from local, regional, national, and international locations.

**Values**
The Division of Counseling and Family Therapy is committed to the full integration of practice, research, and advocacy in the training of counselors for our society. Major emphases in all aspects of such training offered in the Division is the faculty’s commitment to social justice, multicultural training, issues of diversity, and the value of work in people’s lives. Counselors play a direct role in facilitating the development of active, productive, and healthy members of society, and counselors must be trained to be fair and non-discriminatory, while building on strengths and acknowledging areas for improvement in their clients. Training must be based on empirically and theoretically sound practice, not unfounded or prejudicial opinion. Counseling professionals are guided by the well-established ethical principles in the mental health professions: beneficence, non-maleficence, justice, autonomy, and fidelity. Beneficence, as a guiding principle, means that counselors act in the best interests of their clients. Non-maleficence means counselors avoid doing harm to clients. Justice means that counselors are fair and non-discriminatory. Autonomy means that counselors view clients as self-directing, as much as possible, and free to make decisions without undue influence. And finally, counselors are guided by the principle of fidelity, meaning they are loyal to their clients and maintain the confidentiality and privacy of the counseling relationship. These general principles guide counseling practice, and they are at the foundation of how the Division of Counseling and Family Therapy trains future counselors for work in our society.

**Graduate Studies**

**Admission**
In addition to meeting the general admission requirements of the Graduate School, applicants to the M.Ed. must complete the divisional application in addition to the application to Graduate School, have three completed references on file, must have an undergraduate GPA of 3.0, and must take CNS ED 6000, Personal and Professional Development in Counseling, in their first semester. Admissions will be conducted twice a year. The deadlines for application are April 1 for the fall semester and October 1 for the spring semester.

Since it is the objective of the counseling faculty to identify students with low potential for competent practice as early as possible and to initiate the necessary procedures for dealing with such students, faculty of the counseling program reserves the right to review students at any stage of their coursework. Any grade less than a B in any core counseling course or a U (Unsatisfactory) in any clinical course (CNS ED 6000, Personal and Professional Development in Counseling; CNS ED 6010, Theories of Counseling; CNS ED 6370, Community Counseling Practicum or CNS ED 6270 School Counseling Practicum; CNS ED 6380 Community Counseling Field Experience or CNS ED 6280 School Counseling Field Experience I or CNS ED 6285, School Counseling Field Experience II) will automatically trigger a review process. The Counseling Review Board process, however initiated, may result in the termination of the student’s degree program or other required or recommended remedies to address deficiencies judged by the Counseling Review Board as related to the skills that are essential to the development of competent and ethical practices as a professional counselor.

Students admitted to the M.Ed. degree programs in counseling as “restricted graduate students” (see the “graduate study” rules in this Bulletin) must attain a 3.0 GPA for the first 12 hours of graduate course work at UMSL with no grade less than a B or a U (Unsatisfactory) in any clinical course. Restricted students must include the following courses in the first 12 hours of coursework: CNS ED 6000, Personal and Professional Development in Counseling; CNS ED 6010, Theories of Counseling; CNS ED 6370 Community Counseling Practicum or CNS ED 6270 School Counseling Practicum. A student earning any grade less than a B in any of these courses or a U (Unsatisfactory) in any clinical course, but still maintaining a 3.0 GPA, will be allowed to repeat the course one time and must earn a grade of B or better or an S (Satisfactory) in any clinical course to be admitted.

**Master of Education in School Counseling – Overview**
Mission
The School Counseling Program of the Division of Counseling and Family Therapy prepares professional school counselors to serve the academic, career, and personal/social needs of culturally diverse students in the elementary, middle, and secondary schools. The Division strives to develop a culturally diverse student population and to draw students from local, regional, national, and international locations.

Purpose and Objectives
The M.Ed. in School Counseling program prepares school counselors for positions in public or private elementary, middle, or secondary schools. The program is designed to fulfill entry-level program standards of preparation. It also is intended to enable program graduates to obtain Missouri Department of Elementary and Secondary Education Certification in School Counseling.

Emphasized in the program is the use of developmental perspectives by school counseling and guidance practitioners as outlined by the Missouri Department of Elementary and Secondary Education, the Council for Accreditation of Counseling and Related Educational Programs (CACREP), and the most innovative school counselor training standards as described by the professional literature. That is, guidance and counseling services are considered appropriate and necessary for all students in schools, not just those with problems or in crisis. Remedial and crisis intervention theories and strategies are covered in the curriculum; however, facilitation of "developmental" conditions needed for students' learning, re-learning, and effective coping are viewed as most important.

The objectives of the school counseling program are to prepare graduates who can conceptualize and organize a school-based program around the eight goals which characterize developmental guidance and counseling programs. The objectives of the program are to prepare graduates who:

1. understand school environments;
2. understand self and others;
3. understand students' attitudes and behaviors;
4. understand students' decision-making and problem-solving skills;
5. have effective interpersonal and communication skills;
6. understand students' school success skills;
7. understand students' career awareness and educational planning; and
8. understand community pride and involvement.

Each of these objectives is further delineated by a set of general objectives, described through expected observable outcomes. While each of these objectives are applicable to all grade levels, particular attention is given to objectives related to developmental stages and tasks for appropriate age groups. Program graduates are expected to be competent in and be able to:

1. provide individual counseling;
2. provide small group counseling;
3. present large group/classroom guidance;
4. organize and manage peer facilitator programs;
5. develop a series of counseling and guidance activities for dysfunctioning (i.e. target) students;
6. provide leadership in organizing guidance experiences for all students within a school;
7. lead parent education groups;
8. consult individually and in groups with teachers, parents, and administrators;
9. consult with child study teams; and
10. demonstrate counselor effectiveness through accountability studies.

Master of Education: Emphasis in Elementary School Counseling
The courses listed below meet the coursework requirements for the M.Ed. degree, state certification, and licensing as a professional counselor:

Counselor Education (CNS ED)
CNS ED 6000, Personal and Professional Development in Counseling
CNS ED 6010, Theories of Counseling
CNS ED 6020, Ethical and Professional Issues in Individual and Relationship Counseling
CNS ED 6030, Foundations for Multicultural Counseling
CNS ED 6040, Group Procedures in Counseling
CNS ED 6050, Individual Inventory
CNS ED 6200, Foundations of School Guidance
CNS ED 6270, School Counseling Practicum
CNS ED 6280, School Counseling Field Experience I
CNS ED 6285, School Counseling Field Experience II
CNS ED 6400, Career Information and Development

Psychological Foundations and Human Development (ED PSY)
ED PSY 6210, Lifespan: Individual & Family Development
ED PSY 6532, Psycho-Educational Differences in Childhood

http://www.umsl.edu/bulletin/cd/counseling.html
Educational Research and Evaluation Methods (ED REM)
ED REM 6710, Educational Research Methods and Design

Six credit hours from CNS ED or related courses

Total 48 hours.

Individuals seeking certification as a professional school counselor in the State of Missouri who are non-teacher certificated must take the following courses in addition to their counseling degree: ED PSY 6111, SPEC ED 6412, SPEC ED 6325, and ELE ED 6411 or SEC ED 6415. Students seeking K-12 certification must take both ELE ED 6411 and SEC ED 6415.

Master of Education: Emphasis in Secondary School Counseling
The courses listed below meet the course work requirements for the M.Ed. degree, state certification, and licensing as a professional counselor:

Counselor Education (CNS ED)
CNS ED 6000, Personal and Professional Development in Counseling
CNS ED 6010, Theories of Counseling
CNS ED 6020, Ethical and Professional Issues in Individual and Relationship Counseling
CNS ED 6030, Foundations for Multicultural Counseling
CNS ED 6040, Group Procedures in Counseling
CNS ED 6050, Individual Inventor
CNS ED 6200, Foundations of School Guidance
CNS ED 6270, School Counseling Practicum
CNS ED 6280, School Counseling Field Experience I
CNS ED 6285, School Counseling Field Experience II
CNS ED 6400, Career Information and Development

Psychological Foundations and Human Development (ED PSY)
ED PSY 6210, Lifespan: Individual & Family Development
ED PSY 6532, Psychoeducational Differences in Childhood

Educational Research and Evaluation Methods (ED REM)
ED REM 6710, Educational Research Methods and Design

Six credit hours from CNS ED or related courses

Total 48 hours.

Individuals seeking certification as a professional school counselor in the State of Missouri who are non-teacher certificated must take the following courses in addition to their counseling degree: ED PSY 6111, SPEC ED 6412, SPEC ED 6325, and ELE ED 6411 or SEC ED 6415. Students seeking K-12 certification must take both ELE ED 6411 and SEC ED 6415.

Master of Education in Community Counseling – Overview

M. Ed. Community Counseling Program Mission Statement
The Community Counseling Program of the Division of Counseling and Family Therapy prepares professional counselors, including community, career, addictions, couples/family, and child and adolescent counselors, to serve the mental health needs of culturally diverse individuals, groups, couples, and families in need. The Division’s outreach extends to schools, colleges and universities, community-based organizations, business and industry, as well as independent practice. The Division strives to develop a culturally diverse student population and to draw students from local, regional, national, and international locations.

Purpose and Objectives
The M.Ed. in Community Counseling program prepares community counselors for positions in community colleges, universities, employment agencies, vocational rehabilitation agencies, probation and parole work, juvenile detention, alcoholism and drug abuse clinics, career planning and placement centers, community mental health agencies, family and children services, and various federally funded public service projects. Additionally, graduates are employed in career development, and business and industry positions, especially in training and personnel areas. Others have moved into roles calling for research and evaluation skills. The program is designed to fulfill entry-level program standards of preparation. It also is intended to enable program graduates to apply for the Missouri License for Professional Counselors.

The objectives of this program are to prepare graduates:

1. to function effectively and ethically as professional counselors in the community, within a mental health setting;
2. to be self-aware and sensitive to their clients as people who exist in the context of different cultures and races and people who are potentially at risk;
3. to flexibly and skillfully construct and apply theory and techniques to fit unique and changing needs of clients both individually and in groups, within a community mental health setting; 
4. to be proficient with the understanding and human relations skills necessary to consult as part of a team effort, within a mental health setting; 
5. to help individuals meet developmental concerns and needs both individually and in a variety of developmental group programs, within a mental health setting; 
6. to be knowledgeable about career development and the use of appraisal instruments and test interpretation and their impact on individual planning; 
7. to be knowledgeable about research methods and research literature; and 
8. to value developing professional expertise as a lifelong process.

Master of Education: Emphasis in Community Counseling
The community counseling emphasis allows flexibility for developing programs appropriate to particular nonschool settings. Students must have their adviser's approval before taking other than required courses.

Core Curriculum (CNS ED)
The courses listed below meet the course work requirements for the M. Ed. Degree and the license to practice as a professional counselor:

The courses listed below meet the course work requirements for the M. Ed. degree and the license to practice as a professional counselor:
CNS ED 6000, Personal and Professional Development in Counseling
CNS ED 6010, Theories of Counseling
CNS ED 6020, Ethical and Professional Issues in Individual and Relationship Counseling
CNS ED 6030, Foundations for Multicultural Counseling
CNS ED 6040, Group Procedures in Counseling
CNS ED 6050, Individual Inventory
CNS ED 6300, Foundation of Community Counseling
CNS ED 6370, Community Counseling Practicum
CNS ED 6380, Community Counseling Field Experience (6)
CNS ED 6400, Career Information and Development

Psychological Foundations and Human Development (ED PSY)
The following course is required:
ED PSY 6113, Psychopathology and Diagnosis

Educational Research and Evaluation Methods (ED REM)
The following course is required:
ED REM 6710, Educational Research Methods and Design

Area of Specialization (9 hours)
Course work in the area of specialization is to be selected in consultation with the adviser and may include career counseling, mental health counseling, rehabilitation counseling, addictions/substance abuse counseling, child and adolescent counseling, couples and family counseling, and others.

Doctoral Program (Ed.D./Ph.D.) in Counselor Education and Supervision - Overview

Admission
Admissions will be conducted once per year. The deadline for applications is December 1, for a Fall Semester admission.

Mission
The Doctoral Program in Counselor Education and Supervision of the Division of Counseling and Family Therapy prepares doctoral level counselor educators and supervisors to train professional counselors who will provide services to meet the mental health needs of culturally diverse individuals, groups, couples, and families in need. The Division's goal is to train practitioner-scholar-advocates who can contribute to the professional counseling field in academic, research, and practice contexts. The Division's outreach extends to individuals who practice counseling in schools, colleges and universities, community based organizations, business and industry, as well as independent practice. The Division strives to develop a culturally diverse student population and to draw students from local, regional, national, and international locations.

Ed.D. in Counselor Education and Supervision

Mission
The mission of the Ed.D. in Counselor Education and Supervision (School Counseling) is to produce individuals who can serve as: (a) advanced level school counselors; (b) school counselor coordinators; (c) school district counseling program coordinators; and (d) counselor educators.

Purpose and Objectives
The objectives of the Ed.D. in Counselor Education and Supervision Program are:
The larger program intent is to produce researcher practitioners who can provide and assess services designed to enhance the lives of individuals facing extraordinary challenges throughout the lifespan. This requires academic training and supervised practice (both as a student and as a potential supervisor-in-training) addressing the concerns of clients from varied cultural backgrounds, including individuals in protected or minority statuses.

The objectives of the Ph.D. in Education in Counseling Program are:

1. to build upon and enhance the knowledge base in core counseling areas through successful completion of advanced doctoral coursework in research and counseling practice;
2. to refine counseling practice skills and enhance the supervised experience base through successful completion of an advanced doctoral practicum and doctoral internship;
3. to teach and to require the ethical practice of counseling, counseling research, and counselor education through course work and supervision of practice;
4. to enhance the student's ability to identify and to solve complex problems in education and counseling;
5. to train counselor educators and supervisors of counselors-in-training;
6. to prepare professional counselors to provide a full-range of counseling services to individuals from differing cultural backgrounds facing extraordinary challenges throughout the life span. This requires academic training and supervised practice (both as a student and as a potential supervisor-in-training) addressing the concerns of clients from varied cultural backgrounds, including individuals in protected or minority statuses;
7. to prepare professionals adept at (a) theory development; (b) qualitative and quantitative research methods; and (c) integration of research with practice in school and non-school counseling settings through advanced coursework in qualitative and quantitative research methodology and an advanced counseling research seminar;
8. to provide a firm theoretical foundation in personal and social development and assessment through the foundational area coursework;
9. to provide a context for skill development and practice in individual and group assessment (including intelligence, aptitude, achievement, interest, and personality assessment) through a supervised advanced doctoral practicum and doctoral internship;
10. to provide practitioners with a research foundation for directed enquiry and interpretation of research findings, through advanced coursework in research methods and a counseling research seminar; and
11. to encourage and facilitate linkage to the counseling professional community and academy through organizational involvement and efforts to present scholarly findings at professional conferences or in professional journals. Students in doctoral seminar and advanced courses will be encouraged to submit their work for publication or presentation through professional and academic outlets.

Ph.D. in Education in Counseling

Mission
Students completing the Ph.D. in counseling will be knowledgeable about counseling's knowledge base; will be competent in research, measurement, and statistical methods; and will possess a high level of applied research and clinical skills. The goal of the program is to prepare professionals adept at theory development, qualitative and quantitative research methods, and integration of research with practice in counseling settings. The larger program intent is to produce researcher practitioners who can provide and assess services designed to enhance the lives of individuals facing extraordinary challenges throughout the lifespan.

Purpose and Objectives
The objectives of the Ph.D. in Education in Counseling Program are:

1. to build upon and enhance the knowledge base in core counseling areas through successful completion of advanced doctoral coursework in research and counseling practice;
2. to refine counseling practice skills and enhance the supervised experience base through successful completion of an advanced doctoral practicum and a doctoral internship;
3. to teach and to require the ethical practice of counseling, counseling research, and counselor education through course work and supervision of practice;
4. to enhance the student's ability to identify and to solve complex problems in education and counseling;
5. to train counselor educators and supervisors of counselors-in-training;
6. to prepare professional counselors to provide a full-range of counseling services to individuals from differing cultural backgrounds facing extraordinary challenges throughout the life span. This requires academic training and supervised practice (both as a student and as a potential supervisor-in-training) addressing the concerns of clients from varied cultural backgrounds, including individuals in protected or minority statuses;
7. to prepare professionals adept at (a) theory development; (b) qualitative and quantitative research methods; and (c) integration of research with practice in school and non-school counseling settings through advanced coursework and a research seminar;
8. to apply counseling theory to the process and practice of consultation in various counseling and educational contexts, learned primarily through the doctoral practicum and doctoral internship, but proceeded by classroom instruction on organizational climate, ethical climate, and problem solving;
9. to provide a firm theoretical foundation in the educational psychology "related area discipline," focusing on personal and social development and assessment;
10. to provide a context for skill development and practice in individual, career, and group assessment (including intelligence, aptitude, achievement, interest, and personality assessment) through a
supervised advanced doctoral practicum and doctoral internship;

11. to train researchers, scholars, and academicians (counselor educators) and to develop and to refine scholarship skills for anticipated entry into the academy through advanced coursework including research methodology and counseling research; and

12. to encourage and facilitate linkage to the counseling professional community and academy through organizational involvement and efforts to present scholarly findings at professional conferences or in professional journals. Students will be encouraged to submit their work for publication or presentation through professional and academic outlets.

Career Outlook

Elementary and Secondary School Counselors
The demand for school counselors throughout the state is quite high. There is a shortage of school counseling personnel at all levels. Additionally, many teachers who do not intend to leave the classroom pursue this program to be better able to meet the needs of their students. Some graduates of the program have left the field of education and have obtained positions such as those cited under Community Counseling.

Note: It should be noted that in Missouri, persons who engage in "professional counseling" in many of these settings are required by law to be licensed as professional counselors.

Community Counselors
Graduates have been employed in a wide variety of settings: as counselors in community colleges, universities, employment agencies, vocational rehabilitation agencies, probation and parole work, juvenile detention, alcoholism and substance abuse clinics, career planning and placement centers, community mental health agencies, family and children services, and various federally funded public service projects. Additionally, graduates are employed in career development, and business and industry positions, especially in training and personnel areas. Others have moved into roles calling for research and evaluation skills.

Course Descriptions

Prerequisites may be waived by consent of the department. For information about certification and licensure, an adviser should be consulted. Course descriptions in this section are Counseling (CNS ED) courses.

CNS ED 1400 Making a Career Choice (1)
Introduces students to career development theories (Holland, Super, Bolles, etc.) and the career decision-making process. Students receive an overview of career development theory and learn how these theories pertain to the formulation of career plans. Self-assessment and decision-making techniques learned in this class can be revisited throughout the life span. The seminar format allows for small group discussion of career-related issues and personal application of career development principles.

CNS ED 3000 Introduction to the Counseling Profession (3)
Prerequisite: Junior or senior level standing. This survey course will provide undergraduates and noncounselors with a broad overview of the counseling profession. Topics include a history of the profession, foundations of counseling, ethical, and legal considerations and the role of the counselor in various settings.

CNS ED 3220 Counseling Individuals with Special Needs (3)
Prerequisite: SPEC ED 3313, or equivalent. A course emphasizing counseling skills for individuals who plan to work with the handicapped. Emphasis is placed on using counseling strategies with school age handicapped children.

CNS ED 4310 Human Relations Skills (3)
Prerequisite: Junior or senior level standing or consent of the instructor. A course emphasizing the development of specific skills in human relationships to help facilitate effective interaction among individuals and groups in the helping professions. Readings, discussion, and skillbuilding exercises will be used to develop various human relations skills.

CNS ED 4320 Occupational and Educational Information (3)
Prerequisite: Junior or senior level standing or consent of instructor. This course is a basic introduction to the nature and use of occupational and educational information, including the characteristics and educational requirements of occupations as well as the history of and current occupation organizing systems.

CNS ED 6000 Personal and Professional Development in Counseling (3)
Prerequisite: Provisional acceptance to the Counseling Program or consent of instructor. This course provides an in-depth view of the professional counseling field. Attention is focused on the development of the helping relationship, including a review of research on factors which influence helping processes and rapport building, a development of skills used in the counseling process, and increased awareness of how students' values, beliefs, and behaviors are related to counselor effectiveness.

CNS ED 6010 Theories of Counseling (3)
Prerequisite: CNS ED 6000. This course will explore the philosophical foundations of counseling theory.
major constructs of contemporary counseling approaches will be discussed, and the practical applications of these theories will be analyzed.

CNS ED 6020 Ethical and Professional Issues in Individual and Relationship Counseling (3)
Prerequisite: CNS ED 6000. Ethical, legal, and professional issues related to counseling are addressed. Ethical dilemmas in the provision of counseling services to individuals, couples, families, and groups are defined. Specific ethical codes of professional organizations are examined.

CNS ED 6030 Foundations for Multicultural Counseling (3)
Prerequisites: CNS ED 6000 with a grade of B or better and CNS ED 6010. This course will focus on: (1) reviewing knowledge and research in the area of multicultural counseling, (2) developing and/or enhancing skills useful in counseling with individuals from minority populations, and (3) developing levels of personal awareness about stereotypes, and learning how feelings and attitudes about these may impact counseling with individuals from minority populations.

CNS ED 6040 Group Procedures in Counseling (3)
Prerequisites: CNS ED 6000 with a grade of B or better and CNS ED 6010 and CNS ED 6270 or 6370. This course examines the process dynamics of groups including group development, leadership, norms and therapeutic factors. Group counseling theories and approaches used for other group work including skills, personal growth, support, vocational, and developmental guidance groups are included. Knowledge and skills of how to facilitate therapeutic groups are included. Students will be required to be participant observers or facilitators of a group outside of class time.

CNS ED 6050 Individual Inventory (3)
Prerequisite: An introductory statistics course or consent of instructor. Uses of educational and psychological appraisal techniques in counseling. Develops counselors' abilities in assisting clients toward self awareness through the use of test and nontest data. Ethical practices in the use of tests and the maintenance of personnel records are stressed.

CNS ED 6060 Enhancing Counseling Skills (3)
Prerequisite: CNS ED 6000. Focuses on mastery of basic counseling skills for students who possess an understanding of the counseling process.

CNS ED 6200 Foundations of School Guidance (3)
Prerequisite: CNS ED 6000 with a grade of B or better. The purpose of this course is to give students a foundation for understanding the history, philosophy, and development of school guidance programs. The role functions of the school counselor within a developmental, comprehensive program are examined, along with communication skills necessary for consultation with students, parents, school support staff, and resource people in the community nonacademic needs.

CNS ED 6220 Current Issues In Counseling Special Needs Populations (3)
Prerequisite: Graduate Standing. Designed to analyze relevant literature and to provide communication skills training for those professionals in school settings who work with individuals with special needs. The characteristics and social and emotional needs of this special population will be discussed as well as the impact of special needs on the family system.

CNS ED 6270 School Counseling Practicum (3)
Prerequisites: CNS ED 6000 and CNS ED 6010 (both courses with a grade of B or better) or consent of the instructor. Supervised practice in counseling with children and adolescents and the opportunity for students to learn to facilitate personal change and problem solutions using a defined systematic framework, theoretical orientation, or research base.

CNS ED 6280 School Counseling Field Experience I (3)
Prerequisites: CNS ED 6270 with a grade of B or better and consent of instructor. A 300-hour closely supervised field experience under the direction of a graduate faculty member. Designed to move the student to an appropriate level of competence and evidence of growth in the professional school counselor role. Students will receive 1.5 hours of group and 1 hour of individual supervision weekly by field experience site supervisor.

CNS ED 6285 School Counseling Field Experience II (3)
Prerequisites: CNS ED 6280 with a grade of B or better and consent of instructor. A 300-hour closely supervised field experience under the direction of a graduate faculty member. The course will build on and extend the School Counseling Field Experience I. The student will acquire counseling competencies and ethical practice in keeping with the Missouri state guidelines for school counselors. Students will receive 1.5 hours of group and 1 hour of individual supervision weekly by field experience site supervisor.

CNS ED 6300 Foundation of Community Counseling (3)
Prerequisites: CNS ED 6000 with a grade of B or better and CNS ED 6010. A study of counseling profession applicable to a variety of human service settings. Introduction to the basic philosophic, historical, and psychological foundations of community and agency counseling. Designed to acquaint the student with the

foundations and roles of the counselor in various community and agency settings.

**CNS ED 6370 Community Counseling Practicum (1-6)**
Prerequisites: CNS ED 6000 and CNS ED 6010 and consent of instructor. One hundred clock hours of supervised practice in counseling to provide the opportunity for students to pragmatically integrate and process materials, theories, techniques, and methodologies as they are applied in the counseling profession.

**CNS ED 6380 Community Counseling Field Experience (1-6)**
Prerequisites: CNS ED 6370 and consent of instructor. A 100-hour field experience for each semester-credit-hour of enrollment. Students will be closely supervised under the direction of a graduate faculty member. Students must demonstrate counseling competencies and skillful ethical practice. Students will receive 1.5 hours of group supervision weekly by a graduate faculty member and 1 hour of individual supervision weekly by field experience site supervisor during terms of enrollment.

**CNS ED 6400 Career Information and Development (3)**
Prerequisites: CNS ED 6000 with a grade of B or better and graduate standing. Emphasis is on the nature of the changing labor market and the impact on personal, social, economic, career and educational aspects of individuals and society. Use of occupational and educational information systems and resources to assist with career decisions are examined. The needs of culturally diverse populations are discussed. Use of career and labor market information and programs such as computer technology to access up to date career and labor market information is explored. Techniques and methods of career counseling are discussed. Various theories of career development and career choice will be examined.

**CNS ED 6404 Seminars (1-10)**
Prerequisite: Graduate Standing

**CNS ED 6410 Advanced Career Development (3)**
Prerequisite: CNS ED 6400 or consent of instructor. Emphasis is on current theories of career development, career choice, and techniques and methods of career counseling. Issues concerning education and training, work, leisure, the family, life roles, and culturally diverse populations are studied. The role of career theor in planning, development, and delivery of a career development program is explored.

**CNS ED 6420 Career Assessment in Counseling and Rehabilitation (3)**
Prerequisites: CNS ED 6050 and CNS ED 6400 or consent of instructor. This course provides an in-depth and specialized look at the educational and psychological assessment techniques used in career counseling, especially the assessment of career interests, work values, work environment, work skills, work samples, career development stages, career maturity, career decision making, and career beliefs. Issues of using computers in the delivery of career development services will be discussed.

**CNS ED 6497 Problems (1-10)**

**CNS ED 6500 Introduction to Systems Theory for Couples and Family Counseling (3)**
Prerequisite: CNS ED 6010 or consent of instructor. This course is an introduction to relationship theory as applied to couples and family counseling. General systems theory, social systems theory, and social constructivism theory are reviewed. Students learn relationship interventions and beginning couple and family counseling techniques. Ethical, professional, and legal issues related to couples and family counseling are addressed.

**CNS ED 6510 Couple Counseling and Enrichment (3)**
Prerequisite: CNS ED 6500 or consent of instructor. This course focuses on the theory and technique of marital or couples counseling and enrichment. Models and methods for prevention and treatment of relationship dysfunction are explored. Relationship developmental issues are addressed. Students are challenged to develop the critical skills necessary to be effective marriage counselors and marital life educators.  

**CNS ED 6520 Family Counseling (3)**
Prerequisites: CNS ED 6500 and CNS ED 6260 or CNS ED 6370, or consent of instructor. This course offers an in-depth analysis of strategic, structural, experiential, communications, behavioral, and psychodynamic approaches to systems change and family counseling. The range of techniques and applied practices evolving from each orientation are explored as are normal and dysfunctional family processes. Various counseling modalities, such as individual, concurrent, collaborative, conjoint, group, intergenerational, and networking are also considered.

**CNS ED 6600 Theories and Techniques of Counseling Children and Adolescents (3)**
Prerequisite: CNS ED 6000, CNS ED 6010 (with a grade of B or better in both courses) or consent of the instructor. Focus is on counseling theories and their applicability to the developmental special concerns of children and adolescents including child-at-risk issues such as: abuse, suicide, divorce, and death and dying. Individual, group, and family intervention techniques and consultation skills will be emphasized, as well as legal and ethical considerations for counselors. Strategies presented can be utilized in a variety of settings. Multicultural considerations are also addressed.

CNS ED 6700 Introduction to Addictive Behaviors and Addiction Counseling (3)
Prerequisite: CNS ED 6010 consent of instructor. Exploration of the theoretical foundations of contemporary approaches to such addictive behaviors as alcohol and drug abuse, smoking, compulsive gambling, and sexual addiction. The nature, etiology, prevention, and treatment of addictions are discussed and analyzed from a variety of theoretical perspectives. The applications of these specific theoretical models to various treatment settings are examined. Multicultural considerations are also addressed.

CNS ED 6710 Advanced Strategies in Addictions Counseling (3)
Prerequisite: CNS ED 6700 or consent of instructor. Study of advanced empirically supported counseling approaches and techniques for the treatment of addictive behaviors. An emphasis is placed on screening and assessment procedures and on matching interventions to individual client and community needs.

CNS ED 6720 Counseling Individuals with Co-Occurring Disorders (3)
Prerequisite: CNS ED 6700 or consent of instructor. This course introduces the student to the special needs, concerns, and problems encountered when counseling clients who have co-occurring substance use and mental health problems. Subject areas include an overview of screening and assessment, evidence-based practices, counseling approaches, and psychopharmacology for co-occurring disorders.

CNS ED 6800 Rehabilitation Counseling (3)
Prerequisites: CNS ED 6000; 6010, and either CNS ED 6270; or CNS ED 6370, or consent of instructor. This course addresses: a) the history of vocational rehabilitation; b) specialty issues in rehabilitation counseling; c) medical aspects of disability; d) the rehabilitation process; e) theories of rehabilitation; f) the assessment process of individuals with disabilities; g) the job placement and work adjustment process of individuals with disabilities; h) ethical issues in rehabilitation counseling.

CNS ED 6810 Integrating Religion and Spirituality in Counseling (3)
This course is for counselors and students wishing to develop the methods to integrate religion and spirituality in counseling and learn about counseling strategies for persons of various religious backgrounds, the link between health and religion, and ethics involved in the assessment and integration of religion and spirituality in practice.

CNS ED 6820 Counseling Women Toward Empowerment (3)
Prerequisites: CNS ED 6000, CNS ED 6010, and CNS ED 6270 or CNS ED 6370, or consent of instructor. An introduction to Women’s issues in counseling. Relational theory, healthy female development, and an overview of clinical issues most common to females will be presented.

CNS ED 7000 Advanced Theories and Foundations of Counseling Psychology (3)
Prerequisite: Doctoral standing or instructor consent. A seminar on the discipline of counseling psychology, including its history, development, and current status. An important focus will be contemporary and emergent theories in the field.

CNS ED 7010 Advanced Multicultural Counseling (3)
Prerequisites: CNS ED 6030 and doctoral standing or consent of instructor. This advanced course addresses theories and research in multicultural counseling

CNS ED 7020 Seminar in Counseling Research (3)
Prerequisite: ED REM 6710, doctoral standing or consent of instructor. The purpose of this course is to review and analyze current counseling research literature. Ethical issues will be addressed.

CNS ED 7030 Counselor Education and Supervision (3)
An introduction to clinical supervision in counseling. Theories, models, and research in supervision will be presented. Students will supervise master’s level students in practicum and internship courses in counseling.

CNS ED 7035 Counselor Education & Supervision Practicum (3)
Prerequisite: Admission to the Counseling Option in the Ed.D. or Ph.D. Program. Offers advanced training in counseling supervision. Students will supervise master’s level students in practicum and internship courses in counseling. Students will be expected to maintain an assigned caseload of supervisees and attend three hours of weekly doctoral-level supervision.

CNS ED 7070 Psychopathology and Diagnosis in Counseling Psychology (3)
Prerequisite: Doctoral standing or consent of instructor. This advanced course provides an in-depth look at adult psychopathology based upon the diagnostic categories of the Diagnostic and Statistical Manual of Mental Disorders (DSM). Contemporary theoretical, clinical, and research issues will be covered, with an emphasis on differential diagnosis.

CNS ED 7200 History and Systems of Counseling and Psychology (3)
Prerequisite: Doctoral standing or instructor consent. A review of the major theoretical systems and schools of psychology in terms of historical assumptions, methodologies, and developments.

CNS ED 7600 Advocacy, Consulting, and Community Intervention in Counseling Psychology (3)
Prerequisite: Doctoral standing or instructor consent. This course provides students with knowledge and
experience in the application of psychological theories and methods to community concerns and problems.

CNS ED 7770 Doctoral Practicum (3)
Prerequisite: Doctoral standing. 100 hours of on-campus doctoral-level supervised counseling practice. Students will counsel clients and will be introduced to teaching and supervising beginning counseling trainees in a clinical context. As a prerequisite to the doctoral internship, students will be expected to demonstrate competence in skills required of counselor educators and clinical supervisors. Students will receive 1.5 hours of group and 1 hour of individual supervision by a graduate faculty member.

CNS ED 7780 Doctoral Internship (1-6)
Prerequisites: CNS ED 7770; ED REM 7804 and ED REM 7781. A 100-hour field experience for each semester-credit hour of enrollment under the direction of a graduate faculty member. Students provide counseling services to clients at field sites, teach and supervise beginning counseling trainees, and conduct clinical research projects. Students are supervised by a graduate faculty member in two hours per week of group supervision, and they receive one hour per week of individual supervision by the field site supervisor.
Division of Educational Leadership and Policy Studies

Faculty

E. Paulette Isaac-Savage, Associate Professor, Chairperson  
Ed.D., University of Georgia

Lynn Beckwith, Jr., E. Desmond Lee Professor in Urban Education  
Ed.D., St. Louis University

Judith A. Cochran, E. Desmond Lee Professor in Tutorial Education  
Ph.D., Arizona State University

Carole A. Murphy, Professor  
Ed.D., Texas A&M University

Lloyd I. Richardson Jr., Professor  
Ph.D., George Peabody College of Vanderbilt University

Charles J. Fazzaro, Professor  
Ed.D., West Virginia University

Charles D. Schmitz, Professor, Dean Emeritus  
Ph.D., University of Missouri-Columbia

Joy E. Whitener, Professor Emeritus, Dean Emeritus  
Ed.D., Washington University

Patricia Boyer, Associate Professor  
Ph.D., University of Missouri-Columbia

Kathleen Sullivan Brown, Associate Professor  
Ph.D., Washington University

Matthew D. Davis, Associate Professor  
Ph.D., University of Texas, Austin

Thomas R. Schnell, Associate Professor  
Ph.D., Southern Illinois University, Carbondale

Shawn Woodhouse, Associate Professor  
Ph.D., University of Missouri-Columbia

Wendell L. Smith, Assistant Professor and Dean Emeritus  
Ph.D., Ohio State University

Pi-Chi Han, Assistant Professor  
Ed.D., University of Arkansas-Fayetteville

Ken Owen, Teaching Professor  
Ed.D., Saint Louis University

Margaret R. Dolan, Associate Teaching Professor  
Ph.D., St. Louis University

Lowe S. (Sandy) MacLean, Vice Chancellor Emeritus  
Ed.D., Indiana University-Bloomington

General Information

The Division of Educational Leadership and Policy Studies (ELAPS) faculty is housed on the second floor of Marillac Hall. Questions about the division and its offerings may be directed to the division office, 269 Marillac Hall (314) 516-5944.

Graduate Studies
The ELAPS Division offers graduate programs in:

- K-12 Administration: including Missouri State School Administrator Certifications
- Higher Education: including Community College
- Adult and Community Education

**K-12 School Administration:**
Includes academic degree programs at the master's (M.Ed.), specialist (Ed.S.), and doctoral (Ed.D. and Ph.D.) levels. These programs are consistent with the academic requirements for Missouri State certification for elementary, middle, and secondary school administration as well as school superintendent and special education administration. The programs are accredited by the National Council for Accreditation of Teacher Education (NCATE) and the Missouri Department of Elementary and Secondary Education (DESE).

The programs in K-12 school administration are not merely a list of courses. The M.Ed. and Ed.S. degree programs are organized into a continuous two-phase academic/practice experience. In the first phase the students earn the M.Ed. degree and meet the academic requirements for the initial Missouri State elementary and secondary school administrator's certificates. The second phase leads to the Ed.S., concentrating more on the relationship of academics to practical schooling experiences and solution to school-based problems. With proper selection of courses in the Ed.S. phase, students can meet most of the academic requirements for the Missouri school superintendent's certificate. Please see your advisor for specifics regarding the superintendent certification.

**Education Specialist (Ed.S.) in Education Administration**
The Education Specialist Degree (Ed.S.) in Education Administration is a logical extension of the UMSL M.Ed. in Education Administration and is designed to prepare administrators to serve in school settings from Kindergarten to grade twelve and central office administration. The Ed.S. in Education Administration requires at least sixty (60) graduate credit hours of a planned program and may include no more than thirty-six (36) credit hours of an approved NCATE accredited master's degree. One-half (15 credit hours) must be completed within the COE after being admitted to the Ed.S. program. As constituted, the minimum course requirements for the Ed.S. in Education Administration collaterally meets the academic standards for both Elementary and Secondary career continuous school administrator certification in Missouri. To be recommended for the Missouri School Superintendent certificate, students must complete at least a minimum of six (6) additional hours, depending on the courses taken for the Ed.S., for a total of sixty-six (66) hours above the baccalaureate.

**Admission Standards**
To be admitted to the Ed.S. in Education Administration program students must meet the following criteria:

1. Be admitted without qualification to the UMSL Graduate School;
2. Have scores on the Verbal, Quantitative, and Analytical Writing sections of the Graduate Record Examination that is at least the mean for the applicant's major field.
3. Have a graduate grade point average of at least 3.25 on a scale of 4.00.
4. Have on file at least three (3) recommendations including the following: one (1) from an educator presently occupying a position equal or similar to that which the applicant aspires upon completing the Ed.S., one (1) from a university professors with direct knowledge of the applicant's graduate degree work, and one (1) from someone other than a member of the applicant's family who can comment on the applicant's character.
5. Students already possessing a master's degree from an NCATE accredited institution may transfer those credit hours into the Ed.S. degree program; however, at least twenty-four (24) credit hours must be completed after acceptance into the program.

**Degree Program**
There are three (3) phases to this degree program. **Phase 1.00** must be completed by students not possessing a UMSL M.Ed. in Education Administration and those wanting to transfer appropriate grade courses from other NCATE institutions. **Phase 2.00** applies to those students meeting all of the requirements in Phase 1.00. There are two (2) sections to **Phase 2.00**— Section 2.10 **Technical Aspects of Education Administration** and Section 2.20 Human Aspects of Education Administration. Courses in these two sections may be taken simultaneously. There are two (2) sections to **Phase 3.00**— Section 3.10 **Writing Exit Requirements** and Section 3.20 **Examination Exit Requirements**. Both sections must be completed no sooner than one (1) semester before completing all degree requirements. Students seeking the superintendent certification must complete ten (10 specifically required courses.

**Phase 1.00**

1.00 Elementary and Secondary School Education Emphases

1.10 Contexts Core
- ED ADM 6201, Knowledge Contexts of Education Administration Policy (3)
- ED ADM 6202, Social Contexts of Education (3)
- ED ADM 6203, Political Contexts of Education (3)
ED ADM 6204, Economic Contexts of Education (3)
ED ADM 6205, Legal Contexts of Education (3)
Required Semester Hours Section 1.10...... 15

1.20 Research/Change Core (6-9 semester hours)
*ED REM 6707, Classroom Measurement and Evaluation (3)
** ED ADM 6301, Education Administration and Policy Research(3)
ED ADM 6503, Organizational Change in Education (3)
Required Semester Hours Section 1.20.....6-9

1.30 School Specialization Core

1.31 Elementary School Administration
ED ADM 6302, Elementary School Administration (3)
ED ADM 6401, School Staff Development and Supervision (3)
ELE ED 6411, Curricular Issues in Elementary Schools
** ED ADM (6900) Internship (3)
Required Semester Hours Section 1.31.......12 OR

1.32 Secondary School Administration
ED ADM 6304, Secondary School Administration (3)
ED ADM 6401, School Staff Development and Supervision (3)
SEC ED 6415, Secondary School Curriculum
** ED ADM 6900 Internship (3)
Required Semester Hours Section 1.32.......12

TOTAL Phase I................33-36

* Required if student had no equivalent course at the undergraduate level
** This course must be taken within the last nine (9) semester hours of completion of Phase 1.00

Phase 2.00

Section 2.10

Technical Aspects of Education Administration
(12 Semester hours required)

At least 12 graduate semester hours are required from the following list of recommended courses. Other courses must be approved by the student's advisor and ELAPS division chairperson.

ED ADM 6303, Middle School Administration (3)
ED ADM 6305, School District Administration (3)
ED ADM 6407, School Staff Development & Supervision for Special Ed Administrators (3)
ED ADM 6501, Principles of Public School Finance in Missouri (3)
ED ADM 6502, School Buildings and Sites (3)
ELE ED 6411, Curricular Issues in the Elementary School (3)
ED ADM 6315, Middle School Educational Philosophy (3)
SEC ED 6415, Secondary School Curriculum (3)
SEC ED 6420, Improvement of Secondary School Teaching (3)
ED ADM 6306, Special Education Administration (3)
ED TECH 5340, Selection and Utilization of Educational Media (3)
ED TECH 6433, Educational Technology Systems Management (3)
ED TECH 6449, Using Technology in Administrative Processes (3)
ED REM 6708, Education and Psychological Measurement

Section 2.20

Human Aspects of Education Administration
(12 semester hours required)

At least 12 graduate semester hours are required from the following list of recommended courses. Other courses must be approved by the student's advisor and ELAPS division chairperson.

ED ADM 6307, Integrated Curriculum for Special Ed Administrators (3)
ED ADM 6317, Supervision and the Middle School Child (3)
ED ADM 6402, School Personnel Administration (3)
ED ADM 6403, Problems in School Public Relations (3)
ED ADM 6404, Collective Negotiations in Education Organizations (3)
ED ADM 6602, Programming in Adult and Community Education (3)
ED FND 6422, Analysis of Education Issues (3)  
ED FND 6435, History of Western Education (3)  
ED PSY 6225, Psychology of Adolescence (3)  
POL SCI 6462, Political Theory and Public Policy (3)  
ED ADM 6900, Internship (School District Level) (3)  
ED ADM 6900, Internship (Special Education Setting) (3)  

Total Section 5.32.............................................. 12  

**TOTAL Education Specialist Degree in Education Administration............... 60** (inclusive of a maximum of 36 credit hours from an M.Ed. in education administration.)  

**Phase 3.00**  

**Writing Exit Requirements**  

Section 3.10 - Writing Requirements  
At least two (2) months before the completion of all course work for the degree, each student must present to the ELAPS Division K-12 Regular faculty Ed.S. Writing Committee a scholarly paper on a topic approved by the student's academic advisor. The paper submitted may be original in that it has been written especially for this requirement or it may be a more comprehensive version of a paper written for a class taken after being admitted to the Ed.S. program. The paper must conform to the writing standards found in the booklet PS K-12 Writing Requirements-Form and Style.  

Master of Education (M.Ed.) and Initial Missouri School Administration Certification:  
The program of study for the M.Ed. in Education Administration is thirty-three (33) graduate credit hours. All courses in the program are required and must be taken in a particular sequence. The program meets the academic requirements for either the Missouri elementary or secondary school administrator certificate.  

**Degree Requirements**  

1.00 Contexts Core (15 semester hours)  
ED ADM 6201, Knowledge Context of Education  
ED ADM 6202, Social Contexts of Education  
ED ADM 6203, Political Contexts of Education  
ED ADM 6204, Economic Contexts of Education  
ED ADM 6205, Legal Contexts of Education  

1.20 Research/Change Core (6-9 semester hours)  
*ED REM 6707, Classroom Measurement and Evaluation  
** ED ADM 6301, Education Administration and Policy Research (3)  
ED ADM 6503, Organizational Change in Education  

1.30 School Specialization Core (12 semester hours)  

1.31 Elementary School Administration  
ED ADM 6302, Elementary School Administration  
ED ADM 6401, School Staff Development and Supervision  
ELE ED 6411, Curricular Issues in Elementary Schools  
*** ED ADM 6900, Internship  

1.32 Secondary School Administration  
ED ADM 6304, Secondary School Administration  
ED ADM 6401, School Staff Development and Supervision  
SEC ED 6415, Secondary School Curriculum  
*** ED ADM 6900, Internship  

* Required if student had no equivalent course at the undergraduate level.  
** Exit course--must be taken during last semester of M.Ed. program.  
*** Must be taken within the last 9 semester hours before completion of M.Ed. program.  

Master of Education: Educational Administration with Emphasis in Community Education  
This is a 32-credit hour program for students interested in Community Education.  

Competencies/Expectations/Outcomes that all students must demonstrate to complete the program successfully:  
School Administrator candidates in the College of Education are held to the Interstate School Leaders  

Licensure Consortium’s Standards for School Leaders (ISLLC)

A school administrator is an educational leader who promotes the success of all students by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by the school community.

A school administrator is an educational leader who promotes the success of all students by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth.

A school administrator is an educational leader who promotes the success of all students by ensuring management of the organization, operations, and resources for a safe, efficient, and effective learning environment.

A school administrator is an educational leader who promotes the success of all students by collaborating with families and community members, responding to diverse community interests and needs, and mobilizing community resources.

A school administrator is an educational leader who promotes the success of all students by acting with integrity, fairness and in an ethical manner.

A school administrator is an educational leader who promotes the success of all students by understanding, responding to, and influencing the larger political, social, economic, legal and cultural context.

A school administrator is an educational leader who promotes the effective use of technology to maximize student learning and efficiently manage school operations.

The ISLLC standards pertain to Elementary and Secondary Administration and Community Education.

Degree Requirements

2.10

ED FND 6421, Philosophy of Education
ED FND 6435, History of Western Education

OR

ED FND 4330, History of American Education
ED ADM 6202, Social Contexts of Education
ED ADM 6203, Political Contexts of Education
Total Required Sem. Hrs. Section 2.10 = 12

2.20 Research Core

ED ADM 6301, Educational Administration Policy Research
ED REM 5730, Educational Statistics
Total Required Sem. Hrs. Section 2.20 = 6

2.30 Community Education

ED ADM 6602, Programming in Community and Adult Education
ED ADM 6900, Internship: Community Education
Total Required Sem. Hrs. Section 2.30 = 9

2.40 School Specialization **

2.41 Elementary School Administration

ED ADM 6302, Elementary School Administration
ELE ED 6411, Curricular Issues in the Elementary School
Total Required Sem. Hrs. Section 2.41 = 6

2.42 Secondary School Administration

ED ADM 6304, Secondary School Administration
SEC ED 6415, The Secondary School Curriculum OR
Total Required Sem. Hrs. Section 2.42 = 6

TOTAL Master of Education-Community Educ = 33
*Exit Requirement--Taken within the last 9 semester hours of the M.Ed. program.

**Students take either section 2.41 or section 2.42, not both sections.

Master of Education in Adult & Higher Education

The M.Ed. in Adult & Higher Education is intended for 1) faculty and other educators who want to improve their adult teaching skills; 2) persons who occupy and seek to advance into administrative or management positions in a variety of educational settings; and 3) others who work with adults in a variety of agencies. The degree program includes courses in foundations, curriculum and teaching (including distance learning), organization and administration, research, and electives so that students can create an emphasis area to fit their career goals. To help address student interests, special topic seminars are offered from time to time. An internship in the student's emphasis area is a required exit experience. Students elect either the adult education or higher education emphasis area.

Admission Requirements:

This degree program follows the policies of The College of Education and the Graduate School relating to admissions, academic standards, residency, transfer credit, time limitations, and thesis options (see Graduate Study in the Bulletin). The minimum number of hours required for the M.Ed. degree is 32 credit hours.

Education Requirements

Foundation Courses (12 hours required)

A course focusing on the learner

ADULT ED 6410, The Adult Learner (3) OR
HIGHERED 6474, The College Student (3)

A course in historical foundations

ADULT ED 6411, History of Adult Education (3) OR
HIGHERED 6477, History and Philosophy (3)

A course on the improvement of instruction

ADULT ED 6413, Improvement of Instruction in Adult Education
HIGHERED 6473, Curriculum in Higher Education (3) OR
ED PSY 7647, Teaching for Learning in the University (3)

One of the following:

ADULT ED 6412, Philosophical Foundations of Adult Education (3)* AND
ADULT ED 6414, Curriculum Theory & Development in Adult Education (3)*
HIGHERED 6476, Organization and Administration (3)

(* Both classes are required for Adult Ed program)

Adult and Higher Education Electives (12 hours minimum)

ADULT ED 6230, Adult Learning and Development (3)
ADULT ED 6416, Survey of Adult Distance Education (3)
ADULT ED 6417, Multicultural Issues in Adult Education (3)
ADULT ED 6418, Assessment in the Adult Classroom (3)
ADULT ED 6419, Developing Intercultural Competence (3)
ADULT ED 6420, Survey of Human Resource Development & Adult Ed (3)
ADULT ED 6432, Teaching in the Community College (3)
ADULT ED 6494, Directed Readings in Adult Learning (3)
ADULT ED 6497, Problems in Adult Education (3)
ADULT ED 6404, Seminar in Adult Education Research (3)
ADULT ED 6540, Comparative International Adult and Higher Education (3)
HIGHERED 5401, Current Issues in Higher Education (3)
HIGHERED 5402, Student Affairs Administration (3)
HIGHERED 6404, Seminar (3)
HIGHERED 6405, Economics and Finance (3)
HIGHERED 6406, Governance of Higher Education (3)
HIGHERED 6410, Ethics in Higher Education Administration (3)
HIGHERED 6420, Legal Aspects of Higher Education (3)
HIGHERED 6421, Legal Aspects of Postsecondary Teaching (3)
HIGHERED 6422, Policy Analysis of Higher Education (3)
HIGHERED 6430, The Community College (3)
ED ADM 6601, Administration of Adult and Community Education (3)
ED ADM 6602, Programming in Adult and Community Education (3)
ED PSY 6111, Psychology of Education (3)
ED TECH 5340, Selection and Utilization of Educational Multimedia (3)
ED TECH 6415, Teaching and Learning with Technology: Authoring Tools (3)
ED TECH 6416, Teaching and Learning with Technology: Data Rep. Tools
ED TECH 6436, Computer-Mediated Communication in Education (3)
ED TECH 6437, Distance Learning via Networks and Telecommunications (3)
ED TECH 6452, Educational Multimedia Design (3)
ED TECH 6454, Instructional Video Production (3)

Research Course(s) (3-6 hours required)
ED REM 6707, Classroom Measurement and Evaluation (3)
ED REM 6709, Educational & Psychological Measurement (3)
ED REM 6710, Research Methods* (3)

*Required for Higher Education

Exit Requirement (3 hours required)
One of the following taken during the last 9 semester hours of the program
HIGHERED 6900, Internship (3)
ADULT ED 6990, Internship in Adult Education (3)

Adult Education and Literacy Certification
Career Adult Education and Literacy Certificate – Career Continuous

Career Continuous AEL classification will be issued by DESE to an applicant upon completion and verification of the following:

- Four years of state-approved teaching experience;
- Participation in a two-year mentoring program;
- Beginning Teacher Assistance Program (currently called ITW);
- 60 hours* of professional development (currently ETW)
- Successful participation in an annual performance-based teacher evaluation.

*Suggested courses include the following:
ADULT ED 4411, Teaching Basic Reading to the Adult Learner
ADULT ED 6230, Adult Learning & Development
ADULT ED 6404, Seminar in Adult Education Research-Adult Literacy
ADULT ED 6410, The Adult Learner
ADULT ED 6411, History of Adult Education
ADULT ED 6412, Philosophical Foundations of Adult Education
ADULT ED 6413, Improvement of Instruction in Adult Education
ADULT ED 6414, Curriculum Theory and Development in Adult Education
ADULT ED 6417, Multicultural Issues in Adult Education
ADULT ED 6418, Assessment in the Adult Classroom

Learning Outcomes
The Adult & HE student should demonstrate and/or have an understanding of:

1. Integrating teaching, learning, and technology.
2. Awareness of education and educational research as a lifelong process.
3. The unique role of shared governance in postsecondary institutions.
4. The legal, social, and political contexts as it relates to organization and postsecondary institutions.
5. Student learning and development, including learning communities and curricular issues.
7. Critical inquiry, including research courses and internships.
8. Historical periods and historical adult and higher education educators.
9. Characteristic issues associated with different historical periods; Role of adult education during various historical periods.
10. Knowledge of the vast array of methods, techniques, devices, and research findings available for helping adults learn.
11. Application of the various techniques for helping adult learners in their adult education programs.
12. Philosophical perspectives informing the field of adult education or higher education.

Graduate Certificate in Institutional Research
The Post-Master's Certificate in Institutional Research (CPIR) is for academics who want training in Institutional Research in preparation for working in an IR Office at a postsecondary institution, a government agency, or a private education organization. The program consists of 18 hours and may be taken as part of a doctoral program. Of the 18 hours, 12 are in the required core (6 hours are in research methods and 6 hours
Course Descriptions

Adult Education (ADULT ED)

ADULT 4311 Teaching Basic Reading Skills to Adults (3)
A study of the reading process and of the characteristics of adult learners with a focus on instructional techniques and materials useful in upgrading the performance of adults with deficient reading skills.

ADULT ED 6230 Adult Learning and Development (3)
Same as ED PSY 6230. Prerequisite: ED PSY 6210 or ED PSY 6111, or ADULT ED 6410. Study of how life stage theories and theories of learning pertain to adult learner. Research bases of these theories explored in relationship to instructional practice with adult learners.

ADULT ED 6404 Seminar in Adult Education Research (1-10)
Prerequisite: ADULT ED 6410 or consent of instructor. A review of current research on various topics in the field of adult education. An in depth study of these research topics will be conducted. Application to the field of adult education will be considered. Special focus will be placed on assessing and improving competency in educational, corporate and community settings.

ADULT ED 6410 The Adult Learner (3)
This course is designed for those who help adults learn in a variety of settings. A study will be made of the characteristics of adult learners and various theories of how they learn, as well as the implications of these characteristics and theories for adult education research, programming, curriculum, planning, and instructional practice.

ADULT ED 6411 History of Adult Education (3)
Prerequisite: ADULT ED 6410. A study of the historical foundation of adult education in America will be studied. This includes the major theorists and their contributions; together with the continuing education of the adult in a progressive social context.

ADULT ED 6412 Philosophical Foundations of Adult Education (3)
Prerequisite: ADULT ED 6410 or consent of instructor. A comprehensive, systematic philosophical foundation for adult education. Exploration of philosophical underpinnings of various approaches to education of adults--role of learner, teacher, and objectives within each philosophy.

ADULT ED 6413 Improvement of Instruction in Adult Education (3)
Prerequisite: ADULT ED 6410 or consent of instructor. A study of selected methods and instructional techniques appropriate for the teaching of adults. An examination of current research will be made as it relates to the problems of instructing adults.

ADULT ED 6414 Curriculum Theory and Development in Adult Education (3)
Prerequisite: ADULT ED 6410 or consent of instructor. A study of curriculum theory and its application to adult education. Particular emphasis will be placed on the development of model curricula for various programs in adult education.

ADULT ED 6415 Adult Literacy Perspectives (3)
Prerequisite: ADULT ED 6410. Students will draw upon a variety of disciplines in considering the ideological, political, economic, moral, and pedagogical dimensions of literacy education. This is significant since popular, as well as scholarly, views of literacy assert its importance to a variety of personal and societal goals. In addition to a theoretical perspective, students will explore practical applications of literacy.

ADULT ED 6416 Survey of Adult Distance Education (3)
Prerequisite: ADULT ED 6410. Survey of distance education covers concept, theories, history, present practice, delivery systems, major issues and future directions of distance learning. Emphasis on research and practice in U.S.; however, since much of the literature in the field has been written by educators in other countries, the course will explore topics and issues in distance education from international perspective, identifying similarities and differences among countries as they relate to adult learning.

ADULT ED 6417 Multicultural Issues in Adult Education (3)
Prerequisites: ADULT ED 6410. Discussion of cultural diversity from an adult education perspective. Topics include cultural self-awareness, challenges/issues in intercultural educational settings, theoretical perspectives of multicultural education, and practitioner concerns and strategies for implementing multiculturalism in adult education settings.

ADULT ED 6418 Assessment in the Adult Classroom (3)
Prerequisites: ADULT ED 6410 & ED REM 6707 or consent of instructor. This course addresses assessing how effectively adult educators are facilitating adult learning. Emphasis will be on knowledge and skills, learner
characteristics, and learner reactions to instruction through use of formative assessment of both student learning and instructional effectiveness in the adult classroom. Special attention will focus this assessment in the adult classroom within educational, corporate, community, and non-formal settings.

ADULT ED 6419 Developing Intercultural Competence (3)
Prerequisite: ADULT ED 6410. The focus of this course is on intercultural competence theories and concepts designed to build personal, academic and professional skills. It is intended to enable the individual to function more successfully in a global environment.

ADULT ED 6420 Survey of Human Resource Development and Adult (3)
Prerequisites: Graduate standing and permission of instructor. Overview of fields of human resource development and adult education. Examines societal contexts within which training of adults and organization development occur. Explores systems theory that frames a discussion of adult education, training, and organization development. Represents unique characteristics of each field will be represented as well as ways in which two fields come together, along with general concepts: definitions, philosophies, goals, sponsoring agencies, professional roles, processes, participants, and resources.

ADULT ED 6424 Intervention Determination in Adult Learning and Human Resource Development (3)
Prerequisite: ADULT ED 6410. A variety of strategies will be studied with a view to examining systemic problems in workforce and adult learning situations. The determination of interventions for program planning and development is the major focus. As key outcomes for this course, learners will be able to design and develop plans and distinguish among workplace, community and educational needs that can be met with educational interventions and those that require other, and more appropriate, non-training solutions. While specifically focused on HRD applications, the content of this course will apply to any educational setting for adults.

ADULT ED 6432 Teaching in the Community College (3)
This course is designed for students considering a teaching career in the community college. The main emphasis of the course will be to expose students to the unique features of the community college with respect to the special goals of the institution, variety of degree and non-degree programs, and diversity of community college students. A second objective will be to offer a brief review of teaching techniques that will be useful in the community college classroom.

ADULT ED 6494 Directed Readings in Adult Learning (1-6)
Prerequisites: Graduate Standing, ADULT ED 6410 and consent of instructor. Self-directed learning, as a key concept in adult education, is encouraged as a means of understanding the adult experience, both personally and professionally, and is a recognized core competency in the field of adult education. This course consists of supervised, independent study into the current research, literature, and issues in the area of adult learning. Learners are given the opportunity to meet with other learners and the instructor on a regular basis to share resources, ideas, and to gain feedback.

ADULT ED 6497 Problems in Adult Education (1-10)
Prerequisite: ADULT ED 6410 or consent of instructor. Independent study on topics in adult education.

ADULT ED 6540 Comparative International Adult & Higher Education (3)
Prerequisite: ADULT ED 6410 or HIGHERED 6476. A study of lifelong learning as well as adult and higher education with a view to a more global understanding of educational systems. Selected western and non-western educational themes and issues will be viewed from the context of their respective cultures.

ADULT ED 6990 Internship (1-10)
Prerequisite: ADULT ED 6410 or consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

ADULT ED 7820 Policy Issues in Adult Education (3)
Prerequisite: Doctoral Standing. This course should be taken immediately after admittance into the doctoral program. In this course, students will engage in a systematic examination of issues related to adult education. This will include, but not limited to, legislative policies, delivery systems, and occupational issues. Students will be expected to examine trends in adult education practice and/or related fields.

ADULT ED 7822 Advanced Research in Adult Education (3)
Prerequisite: ADULT ED 7820. This course will build on ADU ED 7820 in which students will engage in a systematic and critical examination and discussion of research related to adult education and related area topics.

ADULT ED 7824 Communicating Theory and Practice in Adult Education (3)
Prerequisite: ADULT ED 7822. Students will learn the processes involved in writing for publication. In conjunction with instructor, students will engage in a project that merges theory and practice. Course should be taken the semester before a student enrolls in EDUC 7950.

Educational Administration (ED ADM)

Prerequisites may be waived by consent of the department.

ED ADM 6201 Knowledge Contexts of Education Administration and Policy (3)
Prerequisite: Admission to masters, doctoral, and/or certification programs in Education Administration or consent of instructor. This course is a survey of the various views of knowledge that have influenced the nature of the organizational structures and policies of American educational institutions. The course is framed both by the purposes of American education and the scientific management movement of the first quarter of the 20th Century.

ED ADM 6202 Social Contexts of Education (3)
Prerequisite: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor. This course is a critical examination of different perspectives on the social structures within which education policies are constituted and their concomitant practices implemented.

ED ADM 6203 Political Contexts of Education (3)
Prerequisite: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor. This course is a critical examination of those aspects of local, state, and federal politics which significantly influence the political contexts within which education policies are constituted and their concomitant practices implemented.

ED ADM 6204 Economic Contexts of Education (3)
Prerequisite: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor. This course is a critical examination of those aspects of local, state, and national economic structures which influence the nature of education policies and their concomitant practices.

ED ADM 6205 Legal Contexts of Education (3)
Prerequisite: ED ADM 6201, concurrent with ED ADM 6201 or consent of instructor. This course is a critical examination of both (1) local, state, and federal laws and (2) Western notions of justice within which education policies are constituted and their concomitant practices implemented.

ED ADM 6301 Education Administration Policy Research (3)
Prerequisite: Completion of at least twenty-four (24) credit hours towards the M.Ed. in Education Administration or consent of instructor. A study of issues and trends in basic, applied, and action research in educational policy making.

ED ADM 6302 Elementary School Administration (3)
Prerequisite: Completion of at least (15) credit hours of the M.Ed. in Education Administration or consent of instructor. This course is a comprehensive, systematic study of the elementary school principalship. Emphasis is placed on relating theories of learning, teaching, and organization to effective administration of elementary schools.

ED ADM 6303 Middle School Administration (3)
Prerequisite: Completion of at least (15) credit hours of the M.Ed. in Education Administration or consent of instructor. This course is a comprehensive, systematic study of the middle school principalship. Emphasis is placed on relating theories of learning, teaching, and organization to effective administration of middle schools.

ED ADM 6304 Secondary School Administration (3)
Prerequisite: Completion of at least (15) credit hours of the M.Ed. in Education Administration or consent of instructor. This course is a comprehensive, systematic study of the secondary school principalship. Emphasis is placed on relating theories of learning, teaching, and organization to effective administration of secondary schools.

ED ADM 6305 School District Administration (3)
Prerequisites: Enrolled in Ed.S. Certification program and/or consent of instructor. Course focuses on current research about school district administration; also deals with major central office issues including: board/superintendent relations, central office organization, the function and authority of assistant superintendents and program directors, and the administrative team approach to school district administration.

ED ADM 6306 Special Education Administration (3)
Prerequisite: Completion of graduate degree in Special Education, Education Administration, or consent of instructor. A study of organizational issues in special education and implications for practices and procedures. Specific attention will be given to special education delivery systems, compliance standards, funding sources, and regulatory standards.

ED ADM 6307 Integrated Curricula for Special Education Administrators (3)
Prerequisite: Graduate Standing. Development of skills to understand, supervise and evaluate the integration and differentiation of curriculum. Intended for special education administrators.
ED ADM 6315 Middle School Educational Philosophy (3)
Prerequisite: Graduate standing. An in-depth examination of the educational philosophy and historical basis of middle level schools, and the relationship between philosophy and middle school organizational practices. Includes a review of the research, organizational structures and current trends and practices.

ED ADM 6317 Supervision and the Middle School Child (3)
Prerequisite: Graduate standing. The unique developmental characteristics and needs of early adolescents are explored through a variety of supervisory activities involving middle level students, teachers, and administrators. The implications of economic and ethnic diversity for middle level schools will also be addressed.

ED ADM 6401 School Staff Development and Supervision (3)
Prerequisite: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor. This course provides an examination of the conceptual bases and practical applications of staff development and supervision in Educational settings. It explores relevant conceptual models presented as heuristic devices to consider a variety of administrative techniques to assess needs, plan, deliver, and evaluate staff development and supervision programs in schooling.

ED ADM 6402 School Personnel Administration (3)
Prerequisite: Advanced graduate standing and/or consent of instructor. This course is a comprehensive, systematic study of problems in planning, recruitment, selection, induction, and retention relative to school personnel.

ED ADM 6403 Problems in School Public Relations (3)
Prerequisites: Advanced graduate standing and/or consent of instructor. This course is an examination of a range of both traditional and critical perspectives relevant to home-school-community relations.

ED ADM 6404 Collective Negotiations in Educational Organizations (3)
Prerequisites: Advanced graduate standing and/or consent of instructor. This course focuses on the concepts, issues, and processes involved with collective negotiations (bargaining) in American Educational organizations. The major issues addressed in the course include recognition procedures, bargaining unit determination, the scope of negotiations, the proposal and counterproposal, compromise, impasse procedures, and master contract management.

ED ADM 6407 School Staff Development & Supervision for Special Education Administration (3)
Prerequisite: Completion of graduate degree in Special Education, Education Administration or consent of instructor. This course provides an examination of the conceptual bases and practical application of staff development and supervision for special Education settings for staffs serving special Education students. It explores relevant conceptual models presented as heuristic devices to consider a variety of administrative techniques to assess needs, plan, deliver, and evaluate staff development and supervision programs serving students with special education needs.

ED ADM 6449 Using Technology in Administration Processes (3)
Same as ED TECH 6449. Prerequisite: A course in measurement, statistics or evaluation, or consent of instructor. This course will explore how the use of data analysis with technology can be applied in the administration of schools or other work settings. Administrators will explore software tools and their implications for making decisions. A case study will be completed on the implementation of a technology in a school or other appropriate setting.

ED ADM 6497 Problems (1-10)

ED ADM 6501 Principles of Public School Finance in Missouri (3)
Prerequisites: Advanced graduate standing and/or consent of instructor. Course is designed to analyze and study critical areas of public school finance at the local and state levels, highlighting the role of such factors as legislative procedures, principles of local and state support, budgeting and accounting procedures, assessment of property, etc.

ED ADM 6502 School Buildings and Sites (3)
Prerequisites: Advanced graduate standing and/or consent of instructor. This course deals with methods and procedures for (1) projecting the future building and facility needs of a public school district, (2) supervising actual planning and construction of educational facilities, (3) optimizing the use of current facilities, and (4) maintenance of buildings, grounds, and equipment.

ED ADM 6503 Organizational Change in Education (3)
Prerequisites: Graduate standing and/or consent of instructor. This course deals with (1) developing strategies for assessing educational needs, (2) methods of assessing the school's organizational health, (3) the designing of educational change strategies involving theory based models, (4) using systems analysis techniques to implement educational change, and (5) methods of involving students and staff in incorporating meaningful organizational change strategies in educational institutions.

ED ADM 6601 Administration of Adult and Community Education (3)
Prerequisites: Graduate standing and/or consent of instructor. A course designed to familiarize the student with the structure, purpose, and processes of community education with particular emphasis being placed on the administrative theories and functions of adult education.

ED ADM 6602 Programming in Community and Adult Education (3)
Prerequisites: ED ADM 6601 and/or consent of instructor. Study and analysis of basic situations in which community and adult educational programming take place. Within this framework, application will be made of a fundamental series of steps essential to sound educational programming.

ED ADM 6900 Internship (1-10)
Prerequisite: Consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

ED ADM 7050 The Research Process I: Framing Research Questions within the Education Literature (3)
Same as EDUC 7050. Prerequisite: Admission to the Ed.D. or Ph.D. in Education Programs. An overview of the essential elements of research proposals and familiarization with the techniques and tools used to identify important research questions within the education literature. Emphasis is placed on exploring the research literature and both framing and justifying research questions within that literature.

ED ADM 7150 Educational Inquiry (3)
Prerequisite: ED ADM 7050. This course is required for doctoral students in the Educational Administration program. The course supports the development of the student's individual research topic and explores options for methodological approaches to education policy and administration issues.

ED ADM 7250 The Change Process in Schools and School Districts (3)
Prerequisites: ED ADM 7050 and ED ADM 7150. Advanced study of the literature pertaining to the theories of action and strategies for leading and sustaining change in schools and school districts. Emphasis is on the framing of research questions through the perspective of the literature on the change process in the schools.

ED ADM 7800 Education Administration Doctoral Seminar (1-6)
Prerequisites: Admission to doctoral program and consent of instructor. Intensive directed study of selected issues related to the administration of educational institutions.

Higher Education (HIGHERED)

HIGHERED 5401 Current Issues in Higher Education (3)
Prerequisite: Graduate admission. Familiarizes student with nature and characteristics of American higher education--structure of higher education, roles played by various constituencies, and current issues.

HIGHERED 5402 Student Affairs Administration (3)
Prerequisite: Graduate admission. Survey course in student personnel administration with emphasis on understanding college student and on learning ways to meet his/her academic and nonacademic needs.

HIGHERED 6404 The Seminar (1-10)
Prerequisite: Graduate standing.

HIGHERED 6405 Financial Issues in Higher Education (3)
Prerequisite: Graduate standing. Provides an overview of the state/federal funding mechanisms for higher education in the U.S. Addresses practices in budgeting at various types of postsecondary institutions.

HIGHERED 6406 Governance of Higher Education (3)
Prerequisite: Graduate admission. Concentrates on study of unique system of governance in higher education, including faculty, institutional, system, and state governing mechanisms.

HIGHERED 6408 Legal Issues in Student Affairs (3)
Prerequisite: Graduate Standing. Provides an exploration of the legal and philosophical principles that guide decision-making in higher education institutions and the courts. It also includes a detailed, in-depth analysis of legal cases that have an impact on students in private and public two- and four-year colleges and universities in the United States.

HIGHERED 6409 Critical Issues in Student Affairs (3)
Prerequisite: Graduate standing. Explores the historical development and foundational theories of the student affairs profession. This course also explores the organization and management of programs and services: the formulation of policies that guide student personnel service programs, and the integration of program elements, research, current problems and trends.

HIGHERED 6410 Ethics in Higher Education Administration (3)
Prerequisite: Graduate standing. Students will examine the historical and philosophical foundations of ethics
and their implications for faculty, staff and students in the academic workplace.

**HIGHRED 6420 Legal Aspects of Higher Education (3)**
Prerequisite: Graduate admission. Examines legal rights and responsibilities of faculty, students, staff, and administrators. Includes fair employment, due process, affirmative action, and liability.

**HIGHRED 6421 Legal Aspects of Postsecondary Teaching (3)**
Prerequisite: Graduate admission. Examines legal issues of interest to faculty. Areas include faculty (contracts, grievances/appeals/affirmative action, free speech, tenure) and student (disability, sexual harassment, academic integrity, free speech, classroom incivility, student behavioral standards, grades) issues.

**HIGHRED 6422 Policy Analysis of Higher Education (3)**
Prerequisite: Graduate admission. Introduces students to the analysis of higher education public policy. Includes state and local policy analysis and examination of legislative history of major federal higher education laws.

**HIGHRED 6430 The Community College (3)**
Prerequisite: Graduate admission. Develops an understanding of the two-year college--its past, present, and future. Examines history, operations, funding, internal constituents, curricular mission, societal role, and current issues.

**HIGHRED 6431 Community College Leadership (3)**
Prerequisite: Graduate admission. Introduces students to leadership theory and practice and the literature of leadership development. Applies theory and practice to the unique role of the leader in community colleges, including the community college presidency. Particular emphasis is given to the diverse roles expected of the successful leader in today's community college.

**HIGHRED 6432 Current Issues in Community College Education (3)**
Prerequisite: Graduate admission. A review and analysis of current issues affecting community college students, instruction, administration, policy and community relations. HIGHRED 6430, The Community College, is recommended before taking this course for those not currently working in community college settings.

**HIGHRED 6435 The International Community College (3)**
Prerequisite: HIGHRED 6430. Exploration of the development of systems of post secondary education throughout the world that mirror all or parts of the mission of the community college system in the United States. The course takes a comparative approach to examining the history, philosophy, structure, curriculum and student characteristics of these international systems, using the American system as a point of reference.

**HIGHRED 6440 Issues in Institutional Research I (3)**
Prerequisite: Graduate standing. Provides a history and overview of institutional research in postsecondary education. Other areas of interest include student issues, student outcomes, higher education funding, productivity funding, and legal issues.

**HIGHRED 6441 Issues in Institutional Research II (3)**
This course provides the study of key issues in institutional research, including faculty workload and salary, program assessment, fact books, peer institutions, national databases, and strategic planning.

**HIGHRED 6473 Curriculum in Higher Education (3)**
Prerequisites: Graduate standing and/or consent of instructor. The development, implementation, and assessment of curriculum in higher education as well as historical and philosophical perspectives; major figures and emerging trends are included.

**HIGHRED 6474 The College Student (3)**
Prerequisites: Graduate standing and/or consent of instructor. A comprehensive overview of the theories and research related to college and university student development. Particular attention is given to student demographics, patterns of growth and development, and attitudinal changes.

**HIGHRED 6476 Organization and Administration of Higher Education (3)**
Prerequisites: Graduate standing and/or consent of instructor. This course includes the study of the missions, governance, and organizational structures of American higher education institutions. Within this context, particular attention is given to administrative roles, responsibilities, and issues of leadership.

**HIGHRED 6477 History and Philosophy of American Higher Education (3)**
Prerequisites: Graduate standing and/or consent of instructor. This course is a systematic study of the historical and philosophical contexts that have conditioned the evolution of American higher education. Particular attention is given to significant events, trends, and movements within American higher education.

**HIGHRED 6497 Problems (1-10)**
Prerequisites: Graduate standing and/or consent of the instructor.
HIGHERED 6900 Internship (1-10)
Prerequisites: Graduate standing and/or consent of the instructor. Closely supervised experience in a field under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

HIGHERED 6930 International Community College Internship (3)
Prerequisites: HIGHERED 6430 and consent of instructor. Supervised experience in an international community college setting under the direction of a graduate faculty member will include planning, research evaluation, and related professional activities. Participants will be expected to both provide administrative or instructional assistance to the host college, and complete research related to the setting and experience.

HIGHERED 7800 Higher Education Doctoral Seminar (1-6)
Prerequisites: Doctoral standing and/or consent of instructor. Intensive directed study of selected issues related to the administration of higher education institutions.
Faculty

Matthew W. Keefer, Associate Professor and Chair
Ph.D., University of Toronto

Wolfgang Althof, Theresa Fischer Endowed Professor of Citizenship Education, Dr. Phil., University of Fribourg and Dr. Phil. Habil, Carl-Von-Ossietzky

Marvin W. Berkowitz, Sanford N. McDonnell Professor of Character Education Ph.D., Wayne State University

Thomas E. Jordan, Curator’s Professor of Child Development, Professor Emeritus Ed.D., Indiana University

William L. Franzen, Professor, Dean Emeritus Ph.D., University of Wisconsin

Michael W. Bahr, Associate Professor Ph.D., Indiana University

Margaret W. Cohen, Associate Professor, Associate Provost Academic Affairs, Director, Center Teaching and Learning Ph.D., Washington University

Cody S. Ding, Associate Professor Ph.D., University of Minnesota

Lisa M. Dorner, Assistant Professor Ph.D., Northwestern University

Natalie Bolton, Assistant Professor Ph.D., University of Louisville

Clark J. Hickman, Associate Research Professor and Associate Dean for Continuing Education Ed.D., University of Missouri-St. Louis

Donald A. Gouwens, Associate Clinical Professor Psy.D., Central Michigan University

General Information

Faculty in the Division of Educational Psychology, Research, and are housed on the fourth floor of Marillac Hall. Information about course offerings may be obtained in the division office, 402 Marillac Hall.

At the undergraduate level, the division coordinates Educational psychology and measurement courses required in the various B.S. in Education degree programs.

At the graduate level, the division offers courses in Educational psychology and in Educational research and evaluation methods required in the various M.Ed. degree programs and in the doctoral programs. Students choosing to pursue a Ph.D. in Education may elect an emphasis in Educational psychology. The Missouri certificate in school psychology is coordinated through this division.

Educational Specialist in School Psychology

The Educational Specialist in School Psychology (Ed.S.) degree program at the University of Missouri-St. Louis is a National Association of School Psychologists- approved training program that prepares future school psychologists as data-based problem solvers. Particular attention throughout the program is placed upon...
interventions and educational outcomes within a cognitive-behavioral theoretical perspective. The program promotes a unique set of professional values through its emphasis on:

- Data-based decision making
- Educational and psychological treatment outcomes
- Multicultural diversity
- Program development and evaluation
- Facilitation of organization change

The UMSL Ed.S. in School Psychology degree is designed to prepare future school psychologists practitioners to work in school settings. Graduates of the program are immediately eligible for School Psychologist Certification from the Missouri Department of Elementary and Secondary Education and the Nationally Certified School Psychologist credential from the National Association of School Psychologists.

Student Learning Outcomes

The following outcomes guide the training and preparation of our Ed.S. in School Psychology degree candidates.

1. **Data-Based Decision Making**
   Ed S. candidates will acquire knowledge of a variety of assessment models and methods that enable them to develop expertise in collecting, analyzing, and interpreting data for the purpose of making recommendations to improve the academic performance and/or social-emotional development of children and adolescents with whom they work.

2. **Educational and Psychological Treatment Outcomes**
   Ed S. candidates will gain knowledge of and develop skills associated with a wide-range of educational and psychological interventions treatments to promote academic performance and social-emotional behavior.

3. **Program Development and Evaluation**
   Ed S. candidates will gain knowledge and skills of a variety of interventions and research methodologies that enable them to develop, implement, and evaluate school-based programs designed for children and adolescents.

4. **Multicultural Diversity**
   Ed S. candidates will acquire knowledge of identity development that facilitates the development of skills to work with a students and families from diverse groups, thereby engaging in culturally-competent practice.

5. **Facilitation of Organizational Change**
   Ed S. candidates will acquire an understanding of the complexity of educational systems and the role school psychologists can play to promote systemic changes and improve services for children and adolescents.

The Ed. S. in School Psychology degree program consists of 60 hours of graduate coursework that includes coursework in psychological and educational foundations, psychoeducational assessment, and direct and indirect service delivery. Prevention and early intervention of academic, behavioral, and social-emotional problems through consultation, interdisciplinary collaboration, and systems-level interventions are highlighted throughout the program. The Ed.S. degree is a small cohort program that utilizes close relationships with faculty and field-based practitioners to develop professional skills.

Admission requirements include a 3.0 undergraduate GPA, current GRE scores Verbal, Quantitative and Analytical Writing scores at or above the 50th percentile, three letters of recommendation, a personal statement describing personal goals (not to exceed five double-spaced typed pages. Following initial screening the finalist will be invited for an on campus interview with the school psychology program faculty and Ed.S. candidates. Prerequisite coursework in developmental psychology and statistics is required for admission. All required application materials will be considered equally when making admission decisions. Applications are reviewed with a February 15 deadline.

Transfer credit may be granted for graduate coursework completed prior to entering the program, but strict limitations apply. The Ed.S. in School Psychology degree program involves a minimum of three years of intensive study. Although it is possible to complete the first year of the curriculum on a part-time basis, please note that practicum during the second year involves two days per week working in a school with a school psychologist, and internship is a yearlong fulltime supervised experience. Consequently, fulltime study is recommended and preferred.

**Educational Specialist in School Psychology (Ed.S.)**

**Curriculum:**

**Fall I**

**ED PSY 6530**, Foundations of School Psychology
**ED PSY 6532**, Psychoeducational Differences
**ED PSY 6545**, Consultation In Schools and Related Settings
ED REM 6750, Advanced Research Design in Education

Spring I
ED PSY 6310, Psychology of Learning Processes
ED PSY 6550, Professional Issues in School Psychology
ED REM 6718, Psychoeducational Assessment and Intervention
ED REM 7771, Quantitative Research Methods I

Summer I
CNS ED 6010, Theories of Counseling
ED PSY 6210, Life Span: Individual and Family Development

Fall II
ED PSY 6536, Biological Bases of Behavior
ED PSY 6540, Psychoeducational Interventions
ED PSY 6590, School Psychology Practicum I
ED REM 6719, Advanced Psychoeducational Assessment and Intervention

Spring II
CNS ED 6030, Foundations for Multicultural Counseling
ED PSY 6542, Psychotherapeutic Interventions in School Psychology
ED PSY 6591, School Psychology Practicum II
ED REM 6730, Educational Program Evaluation

Fall III
ED PSY 6598, School Psychology Internship I

Spring III
ED PSY 6599, School Psychology Internship II

In addition to completion of the 60-hour curriculum listed above, candidates for the Ed.S. in School Psychology degree must receive passing scores on the following programmatic assessments: Praxis II School Psychologist Examination, Problem-Solving Case Study, and School Psychology Portfolio.

Graduate Certificate in Program Evaluation and Assessment in Education

The graduate Certificate in Program Evaluation and Assessment in Education provides specialized study in the theory and practice of program evaluation and assessment. The program will build on the content area knowledge base of the individual's bachelors and masters degree. The focus of the Program Evaluation and Assessment in Education certificate will be on the skills delineated in the standards and guidelines of the American Evaluation Association and the Joint Committee on Standards in Educational Evaluation. The certificate will consist of 30 hours of core courses and internship experiences. Graduate credits earned in equivalent courses in Education or related Social Science disciplines may meet some of these requirements. ED REM 6710 Educational Research Methods and Design or its equivalent is prerequisite to all the courses in the Research Methods and Statistics focus area.

Courses:
Program Evaluation (12 credit hours)
ED REM 6730 Educational Program Evaluation (3)
ED REM 6732 Advanced Theory and Practice in Program Evaluation (3)
ED REM 6990 Internship (6)

Testing and Measurement (9 credit hours)
ED REM 6707 Classroom Measurement and Evaluation (3)
ED REM 6709 Educational and Psychological Testing (3)
ED REM 7711 Advanced Test Theory in Education (3)

Research Methods and Statistics (9 credit hours)
ED REM 6712 Survey Research Methods in Education (3)
ED REM 7771 Quantitative Research Methods I (3)
ED REM 7781 Qualitative Methods in Educational Research I (3)

Course Descriptions

Courses in this section are grouped as follows: Educational Psychology (ED PSY) and Educational Research and Evaluation Methods (ED REM)

Educational Psychology (ED PSY)
ED PSY 2212 Introduction to Learners and Learning (3)
Same as TCH ED 2212. Prerequisite: PSYCH 1003. This course examines, discusses and applies theories on infant, child, and adolescent development; examines student growth in various domains, including cognitive, linguistic, physical, and socio-emotional; and analyzes how different cultural contexts affect learning. Through readings, in-class activities, and field assignments outside of class time, students will consider how to apply these theories to create appropriate learning environments.

ED PSY 3312 Psychology of Teaching and Learning (3)
Same as TCH ED 3312. Prerequisites: TCH ED 2209, TCH ED PSY 2212 or equivalents and admission to Teacher Education program. Application of educational psychology principles and research to the study of teaching and how learning occurs. Students will study and apply cognitive approaches to student learning, and will design and conduct assessments based on these approaches as part of a case study. Field assignments outside of class hours required.

ED PSY 6030 Instruction, Learning and Assessment (3)
Same as TCH ED 6030. Prerequisite: Admission into Graduate School. Uses learning as the basis for the design of classroom instruction. By applying learning theories, teachers can improve their own unit development, lessons plans, assessment strategies, and the use of technology for effective teaching. Deals with the impact of cognitive Educational research on the subject content and what is known about how people learn. Teachers will learn to critically evaluate and improve their own Educational practices, design principled and appropriate assessments based on their instructional goals, and to assess their own professional development.

ED PSY 6109 Learning Development in Secondary School Settings (4)
Prerequisites: Graduate standing and admission to the secondary teacher Education program. Investigation of teaching and learning theories and research on the developmental needs of pre-adolescent and adolescent students. Issues of cognition, moral and social development, motivation, and assessment will be analyzed and debated. Emphasis will be on theoretical and practical approaches to constructing and analyzing a learning system. Includes field experiences.

ED PSY 6111 Psychology of Education (3)
Current psychological theories and research that guide inquiry and decision making in Education. Topics surveyed include behavior, development, learning, instruction.

ED PSY 6113 Psychopathology and Diagnosis (3)
Prerequisite: Graduate standing. Covers etiology, assessment and diagnosis of mental disorders using contemporary diagnostic systems. Course materials and assignment address the dynamics of adjustment and treatment implications for counselors, school psychologists, and others in the helping professions.

ED PSY 6115 Personality and Social Development (3)
A foundational course integrating major theoretical perspectives on personality and social development. Emphasis is on the dynamic interplay of social influences on personality development and personality influences on social processes. Particular consideration is given to the impact of social contexts, including the school, on development.

ED PSY 6210 Life-Span: Individual and Family Development (3)
Prerequisite: Graduate standing. Critical analysis of theories of human development including readings from empirical research and cross-cultural comparisons focusing on strategies to enhance developmental outcomes through relationship and environmental opportunity.

ED PSY 6215 Psychology of Early Childhood Development (3)
Prerequisite: ED PSY 6111 or consent of instructor. A survey of the theories, concepts, and research which inform the field of early childhood development to help caregivers and teachers understand the cognitive, social, and emotional changes that take place from birth through the primary years of schooling.

ED PSY 6217 Foundations of Citizenship Education (3)
Prerequisite: Graduate standing. Introduction to citizenship Education providing a range of knowledge of civic participation, concepts of democracy, the democratic purposes of Education, and the developmental of civic identity and political thinking, attitudes, and engagement. Comparison of historical and contemporary approaches to democratic citizenship.

ED PSY 6218 Coaching Sports for Character (3)
Prerequisite: Graduate Standing. Interdisciplinary examination of relevant theory, research and pedagogical practices related to character development through sports. Drawing from both academic and professional.

ED PSY 6220 Psychology of the Elementary School Child (3)
Prerequisite: ED PSY 6111 or consent of instructor. Current research on the psychological changes which occur during the school age years of childhood. Includes attention to how development proceeds and to the processes that may alter its progress.

ED PSY 6225 The Psychology of Adolescence (3)
Prerequisite: ED PSY 6111 or consent of instructor. Current research on the psychological changes which occur during adolescence. Attention is paid to the family, school, peer groups, and contemporary settings that practitioners must understand to help young people meet the psychosocial challenges of adolescence.

ED PSY 6310 Psychology of Learning Processes (3)
Prerequisite: ED PSY 6111. Advanced study of learning and instructional theories. The historical and theoretical bases of instructional practice are examined.

ED PSY 6404 Seminar (1-10)

ED PSY 6417 Current Perspectives on Citizenship Education (3)
Prerequisite: ED PSY 6217. Seminar extends students’ understanding of theory and research in citizenship Education by applying it to practical programs in the US and abroad. Analysis of assumptions underlying methods of citizenship Education and its goals. Exploration of research on methods that promote, facilitate, or inhibit civic participation and citizenship competence.

ED PSY 6440 Moral Development and Education (3)
Prerequisites: ED PSY 6210 or ED PSY 6220 or ED PSY 6225 or consent of the instructor. An introduction and overview of moral psychology and its implications for creating learning environments. Questions of human morality are by nature cross-disciplinary, and readings and discussions will involve questions of epistemology, human nature, conceptions of “the good life,” evidence for the malleability of human development, and research regarding the foundation, nature, and complexity of moral development.

ED PSY 6444 Cognition and Technology (3)
Same as ED TECH 6444. Prerequisite: ED PSY 6111 or consent of instructor. Examines cognitive theories and computer-based tools for learning. Students will gain a critical understanding of the relationship between the design of technological tools, the use of those tools in educational settings, and their implications for learning.

ED PSY 6445 Character Education and Development (3)
Prerequisites: ED PSY 6111 and ED PSY 6220 or ED PSY 6225. Critical survey of theories of character development and models for character education in childhood and adolescence. Includes empirical and conceptual study of the nature of moral character, how it develops, and how it can be fostered in schools.

ED PSY 6448 Technology-Supported Inquiry Learning (3)
Same as ED TECH 6448. Prerequisites: ED TECH 5340 & ED PSY 6310, or consent of instructor. Educational technology such as networked computers and software can play a supportive role in inquiry-based learning. Students will explore the theoretical background, design issues, and pragmatic realities of technology-supported inquiry learning environments. Such learning environments are best understood as systems involving social, cultural, material and psychological aspects. Consideration will be given to the important properties of settings, activities and technologies, as well as to the role of instructors.

ED PSY 6450 Advanced Methods in Character Education (3)
Prerequisite: ED PSY 6445. Advanced exploration of methods for promoting character development in schools: class meetings, democratic processes, cross-age learning and character curriculum development. Methods will be critically examined for their empirical and theoretical justifications.

ED PSY 6497 Problems (1-10)

ED PSY 6530 Foundations of School Psychology (3)
Prerequisite: Admission to the School of Psychology Program or consent of instructor. Examines the professional roles, responsibilities, and functions of psychologists in schools. Focuses on educational foundations of school psychology including the history of the profession, organization and operation of schools, and emergent technologies.

ED PSY 6532 Psychoeducational Differences (3)
Prerequisite: Graduate standing. Examination of classification systems used with children and adolescents in the diagnosis and treatment of educational and physical disabilities, mental disorders, and other developmental challenges.

ED PSY 6536 Biological Bases of Behavior (3)
Prerequisite: Admission to the School of Psychology Program or consent of instructor. Examination of biological factors affecting human behavior. Includes an overview of neuroscience, developmental psychophysiology, and basic psychopharmacology. Implications for psychological and educational interventions are considered.

ED PSY 6540 Psychoeducational Interventions (3)
Prerequisite: Grade of B or better in ED REM 6718 or consent of instructor. Examines academic and instructional interventions, both preventive and remedial, that are delivered in schools and related settings with children and adolescents. Emphasizes linking assessment and intervention via use of direct and indirect service delivery.

ED PSY 6542 Psychotherapeutic Interventions in School Psychology (3)
Prerequisites: Grade of B or better in ED PSY 6540 and ED REM 6719 or consent of instructor. Instruction and practice developing and implementing intervention plans for common social, emotional, and behavior problems found in schools and related settings. Special emphasis on prevention and early intervention within a systems perspective.

ED PSY 6545 Consultation in Schools and Related Settings (3)
Prerequisite: Admission to the School Psychology or Special Education Program, or consent of instructor. Examines the theories, research, and legal/ethical issues related to consultation in schools and related settings. Emphasis on understanding the process of consultation using a problem-solving approach. Includes instruction in interviewing, observation, and development and evaluation of interventions.

ED PSY 6550 Professional Issues in School Psychology (3)
Prerequisite: Grade of B or better in ED PSY 6530 or consent of instructor. Advanced examination of professional issues facing school psychologists including legal and ethical considerations, standards of practice, models of service delivery, and emergent technologies.

ED PSY 6590 School Psychology Practicum I (3)
Prerequisites: Grade of B or better in ED PSY 6550 and ED REM 6718. Introductory supervised experience in psychoeducational assessment and interventions for academic and behavior problems in schools and related settings. Settings and responsibilities determined in consultation with program faculty and site supervisor.

ED PSY 6591 School Psychology Practicum II (3)
Prerequisite: Grade of B or better in ED PSY 6590. Advanced supervised experience in consultation, problem solving, psychoeducational assessment and interventions for academic and behavior problems in schools and related settings. Settings and responsibilities determined in consultation with program faculty and site supervisor.

ED PSY 6598 School Psychology Internship I (3)
Prerequisite: Grade of B or better in ED PSY 6591. Supervised field-based placement in an approved school or educational setting under the supervision of an appropriately credential school psychologist. Course is eligible for grade equivalency credit.

ED PSY 6599 School Psychology Internship II (3)
Prerequisite: Grade of B or better in ED PSY 6598. Advanced supervised field-based placement in an approved school or educational setting under the supervision of an appropriately credentialed school psychologist. Course is eligible for graduate equivalency credit.

ED PSY 6990 Internship (1-10)
Prerequisite: Consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

ED PSY 7640 Changing Perspectives in Educational Psychology (3)
Prerequisites: ED PSY 6111 and doctoral standing or consent of instructor. The advanced exploration of foundational issues in Educational psychology. Topics include theoretical perspectives of modes analysis used in the investigation of psychological theories and concepts in Education.

ED PSY 7647 Teaching for Learning in the Univ. (3)
Prerequisites: Graduate standing and consent of the instructor. An examination of current research in learning, motivation, and assessment as it pertains to teaching and learning in post-secondary settings. Designed to guide graduate students to promote active and meaningful learning in college classrooms to develop college students’ critical thinking skills. Graduate students across the disciplines may enroll.

Educational Research and Evaluation Methods (ED REM)

ED REM 3721 Psychoeducational Assessment and Evaluation (3)
Review of measurement concepts and use of psychoeducational assessment data gathered via interview, observation, norm-referenced, and curriculum-based assessment methods. Special emphasis on progress monitoring and data-based decision making.

ED REM 6040 Educational Research for Teachers (3)
Prerequisites: TCH ED 6010 and TCH ED 6020. This course provides the knowledge, skills, and practice for experienced practitioners to engage reflectively in a process of systematic study of their own practice with educational systems and situated contexts. Educators will learn both analytic and practical tools to document multiple factors that can impact student learning and become more sophisticated consumers of research in order to engage in student advocacy and influence policy decision-making.

ED REM 6497 Problems (1-10)
Prerequisites: At least one previous ED REM course and consent of course supervisor. Individual study on
topics pertaining to Educational measurement, evaluation, statistics, and research design.

**ED REM 6707 Classroom Measurement and Evaluation (3)**
Prerequisite: Graduate admission or consent of instructor. An introductory graduate course to classroom testing and evaluation. Topic areas include comparison of criterion-and norm-referenced tests; derived referenced theory and technique; classical test theory, reliability and transformed scores; preparation of instructional objectives for use in developing the classroom test; performance evaluations, and portfolio rubrics.

**ED REM 6709 Educational and Psychological Measurement (3)**
Prerequisite: Graduate admission or consent of instructor. An introductory graduate course in testing and measurement theory: reliability, validity, and associated descriptive statistics; correlation and simple regression; derived and transformed scores; interpretation of test scores; measurement of aptitude, vocational interests, and personal social adjustment.

**ED REM 6710 Educational Research Methods and Design (3)**
Prerequisite: An introductory statistics course or ED REM 6707, 6709, or consent of instructor. An introductory course in Educational research methodology: comparison of various types of qualitative and quantitative Educational research, threats to internal/external validity, sampling methods, data analysis, and components of research reports.

**ED REM 6714 Action Research in Education (3)**
Prerequisite: ED REM 6710 or consent of instructor. A course that engages the participants in systematic qualitative inquiry into their own practice: framing appropriate questions; gathering and interpreting data; analyzing culture, subjectivity and multiple perspectives; and reporting the results ("telling the story"). Readings will address the methods, politics, and ethics of action research. Enrollment requires access to a field setting.

**ED REM 6716 Academic Assessment and Intervention (3)**
Prerequisite: Graduate standing. Provides instruction in measurement concepts, interpretation of cognitive ability tests, and use of norm-referenced and curriculum-based assessment techniques in developing academic interventions. Special attention is given to data-based decision making and the links among instruction, assessment, and intervention.

**ED REM 6718 Psychoeducational Assessment and Intervention (3)**
Prerequisites: Grade of B or better in ED PSY 6530 or CNS ED 6050, or consent of instructor. Reviews measurement concepts and covers administration, scoring, interpretation, and reporting of individually administered tests of academic and cognitive abilities. Special attention is given to the link between assessment and intervention.

**ED REM 6719 Advanced Psychoeducational Assessment and Intervention (3)**
Prerequisite: Grade of B or better in ED REM 6718 or consent of instructor. Instruction is provided in advanced and specialized assessment, diagnostic, and intervention techniques for individuals with intellectual disabilities, emotional or behavior disorders, and other low incidence disabilities experienced by children and youth.

**ED REM 6730 Educational Program Evaluation (3)**
Prerequisite: ED REM 6750 or consent of instructor. A course on the principles and procedures for assessing the quality and effectiveness of programs, projects, and materials related to planned interventions and system changes in Educational settings.

**ED REM 6732 Advanced Theory and Practice in Educational Program Evaluation (3)**
Prerequisite: ED REM 6730 or consent of the instructor. Extension of the principles, attributes, and practices of program evaluation to contemporary problems and settings. Study will include the comparison of examples of the program evaluation process. Focus will be on adherence to the Program Evaluation Standards endorsed by leading professional research and evaluation associations.

**ED REM 6735 Statistical Analysis for Education Research (3)**
Prerequisite: Graduate standing. Provides students with a fundamental and intermediate understanding of quantitative methods and their relationship to social science research in Education. This course is designed to provide statistical background to students who will pursue advanced degrees in Education. Students will conduct lab data analysis based on the topics covered in the class and learn how to generate specific research questions and conduct basic statistical analyses.

**ED REM 6750 Advanced Research Design in Education (3)**
Prerequisite: ED REM 6735 or consent of instructor. This course is designed to provide students with a thorough background in the fundamental principles of research design in Education, and the knowledge and skills necessary to design and carry out studies appropriate to a wide variety of research problems. It focuses on tailoring the research design and methodology to most effectively address the problem or issue of concern, including qualitative, quantitative, and mixed-method designs. This is an experiential course designed around active discussion by students each week, and requires each student to develop a detailed research proposal.
for conducting a study to examine an appropriate Educational research problem.

**ED REM 6990 Internship (1-10)**
Prerequisite: Consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

**ED REM 7711 Advanced Test Theory in Education (3)**
Prerequisite: ED REM 6750. An advanced course in measurement theory and practice: issues of reliability, validity, and item analysis for both criterion and norm referenced tests; introduction to factor analysis in the development and analysis of test structure and validity; introduction to item response theory for the improvement of Educational testing and research.

**ED REM 7712 Discourse Analysis in Education (3)**
Prerequisite: Admission to a Doctoral Program or Consent of Instructor. The role of language in social life is a paramount concern to educational researchers. The purpose of this course is to introduce students to theories and methods of discourse analysis. Students will become familiar with the methods used in conversation analysis, critical discourse analysis and mediated or multimodal discourse analysis. Topics include transcription theory and practice, the role of context in discourse analysis, the ethics of representation and the place of action in discourse analysis. Students will engage with the theories and methods for analyzing educational interactions such as small-group discussions, education documents, classroom scenes, in-depth interviews, and naturally occurring conversations.

**ED REM 7771 Quantitative Research Methods I (3)**
Prerequisite: ED REM 6735. A second course in advanced Educational research methods sequence, with focus on multiple regression analysis and its applications to educational and psychological research.

**ED REM 7772 Quantitative Research Methods II (3)**
Prerequisite: ED REM 7771 or consent of instructor. An advanced Educational research methods course; multivariate analysis of variance; canonical correlation, discriminant function analysis, factor analysis; cluster analysis, advanced topics in multiple linear regression; and associated research design issues.

**ED REM 7773 Quantitative Research Methods III (3)**
Prerequisite: ED REM 7772. An advanced Educational research methods course using multiple linear regression models, path analysis, and structural equation modeling. Focus is on the theory, issues, and application of these advanced data analysis techniques.

**ED REM 7781 Qualitative Methods in Educational Research I (3)**
Prerequisite: ED REM 6750 or consent of instructor. An introductory qualitative research methods course in Education to develop skill in forming research questions, writing field notes, and collecting, organizing, and analyzing a variety of data. Philosophical and ethical issues in qualitative research are presented.

**ED REM 7782 Qualitative Methods in Educational Research II (3)**
Prerequisite: ED REM 7781 or consent of instructor. An advanced qualitative Educational research methods course to address the issues of sampling strategies, observational and interview techniques, and data analysis. Requires access to a field setting to conduct a qualitative research study.
Division of Teaching and Learning

Faculty

Joseph L. Polman, Associate Professor, Chair
Ph.D., Northwestern University
Charles Granger, Professor; Curators' Teaching Professor
Ph.D., University of Iowa
Carl Hoagland, Emerson Electric Company Professor in Technology and Learning
Ed.D., University of Massachusetts
William C. Kyle, E. Desmond Lee Family Professor of Science Education
Ph.D., University of Iowa
Patricia B. Kopetz, E. Desmond Lee Endowed Professor of Education for Children with Disabilities; Ed.D., St. Louis University
Louis Lankford, Des Lee Foundation Endowed Professor in Art Education
Ph.D., Florida State University
Robert Nordman, E. Desmond Lee and Family Fund Endowed Professor
M.M. Saint Louis Conservatory of Music Education
Wendy Saul, Dr. Allen B. and Mrs. Helen S. Shopmaker Endowed Professor for Education in collaboration with Springboard to Learning
Ph.D., University Wisconsin-Madison
James Shymansky, E. Desmond Lee Family Professor of Science Education
Ph.D., Florida State University
Fred Willman, Professor; Curators’ Teaching Professor
Ph.D., University of North Dakota
James Wilson, E. Desmond Lee Endowed Professor in Experiential and Family Education
Ph.D., Iowa State University
Richard W. Burnett, Professor Emeritus
Ed.D., Indiana University
Richard J. Friedlander, Professor
Ph.D., University of California-Los Angeles
Kathleen M. Haywood, Professor; Associate Dean for Graduate Education
Ph.D., University of Illinois-Urbana-Champaign
Wallace Z. Ramsey, Professor Emeritus
Ed.D., University of Missouri Columbia
Helene J. Sherman, Professor, Associate Dean
Ed.D., University of Missouri St. Louis
Blanche M. Touhill, Professor; Chancellor Emerita
Ph.D., Saint Louis University
Paul D. Travers, Professor Emeritus
Ed.D., George Peabody College
Doris A. Trojcar, Professor Emerita
Ed.D., Indiana University
Harold E. Turner, Professor Emeritus
Ed.D., George Peabody College
Douglas Turpin, Professor Emeritus in Music Education
Ed.D., Washington University
Judith Walker de Felix, Professor, Associate Provost Academic Affairs; Dean of Graduate School
Ph.D., University of Florida
Huber M. Walsh, Professor Emeritus
Ed.D., University of California Los Angeles
Jane Zeni, Professor Emerita
Ed.D., University of Missouri-St. Louis
Bruce A. Clark, Associate Professor Emeritus
Ph.D., University of Illinois
Kevin Fernlund, Professor
Ph.D., University of New Mexico
Harold Harris, Associate Professor
Ph.D., Michigan State University
Thomas J. Loughrey, Associate Professor
Ph.D., University of Iowa
Virginia L. Navarro, Associate Professor
Ph.D., Washington University
Rebecca Rogers, Associate Professor
Ph.D., University of Albany-SUNY
Charles G. Smith, Associate Professor; Athletic Director Emeritus, M.S., Washington University
Kim Song, Associate Professor
Ed.D. Southern Illinois University-Edwardsville
Gwendolyn Turner, Associate Professor
Ed.D. University of Arkansas
Cathy Vatterott, Associate Professor
Ph.D., Saint Louis University
Laura Westhoff, Associate Professor
Ph.D., Washington University
Gayle Wilkinson, Associate Professor
Ed.D., University of Illinois
George J. Yard, Associate Professor Emeritus
Ph.D., Saint Louis University
Alina Sliapac, Assistant Professor
Ph.D., University of Northern Iowa
Karen Cummings, Assistant Professor
Ed.D., University of Illinois at Urbana-Champaign
Jacquelyn A. Lewis-Harris, Associate Professor
Ph.D., Washington University
Nancy Robb Singer, Associate Professor
Ph.D., University of Missouri-St. Louis
Deborah A. Moberly, Associate Professor
Ph.D., Southern Illinois University at Carbondale
Lynn Navin, Lecturer: Director, University Child Development center
M.Ed., Michigan State University
Margaret Ann Niederberger, Lecturer
M.Ed., Lindenwood University
Diane Scollay, Lecturer; Director, Gateway Writing Project
M.Ed., MA English, University of Missouri-St. Louis
Carol Weber, Lecturer
M.Ed., University of Missouri-St. Louis

General Information

The Division of Teaching and Learning faculty is located in offices on the 2nd and 3rd floors in Marillac Hall and in the Mark Twain Building. Information about course offerings and related matters on all programs except physical education may be obtained in 369 Marillac Hall. The physical education offices are located in 234 Mark Twain Building.

The division offers five programs leading to a Bachelor of Science (B.S.) in Education degree in:

**Early Childhood Education**
**Elementary Education**
**Physical Education**
**Secondary Education**
**Special Education**

Middle School Education is offered as an endorsement to the Elementary Education degree program.

The division offers a non teacher certification degree program leading to the Bachelor of Educational Studies.
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(B.E.S.) in the emphasis areas of:

**Early Childhood Education**
**Professional Education**

Programs leading to the M.Ed. in elementary education, secondary education, and special education also are coordinated in the Division of Teaching and Learning.

Learning outcomes for students in the B.S., B.E.S., and M.Ed. degrees are listed under the general College of Education section of the Bulletin.

The *early childhood* undergraduate program is designed for students wishing to teach children from birth through grade three. Students electing this program will work directly with young children as a part of their professional courses.

The graduate program is designed to develop master-level educators through a common core of essential knowledge and experiences drawn from current research and practice in the field of early childhood education. Through this program, candidates are able to further their competencies as educators, directors, program planners, and curriculum developers in various early childhood settings. Students can complete additional course work to receive certification.

The *elementary education* program prepares students to teach in grades one through six. Students earn an endorsement a program leading to a middle school/junior high teaching certificate.

The graduate program strives to develop and refine the concept of the "teacher as researcher" or the "teacher as reflective decision maker or problem solver." It is based on the premise that as professionals, teachers must understand both the products and findings of research and the underlying processes that influence their professional practice.

Students may choose a program leading to the M.Ed. in education, generalized or specialized elementary education or elementary education with Missouri certification in reading.

The *physical education* program coordinates work in physical education, which leads to a B.S. in education degree with certification to teach either K-9 or K-12. The elementary education and secondary education graduate programs provide courses for graduate students who choose physical education as their teaching field.

The *secondary education* program prepares students for teaching these subjects in secondary schools (grade 9-12): biology, chemistry, English, French, history, mathematics, physics, social studies, speech/theater (grade K-12) Spanish, French, German, music and art. A special feature of these programs is the close interdisciplinary cooperation between the College of Education and other university departments.

Students may also choose to pursue the Bachelor of Arts (B.A.) degree in the College of Arts and Sciences and additional coursework leading to teacher certification.

At the graduate level, the division provides a program leading to an M.Ed in secondary education with emphasis in: general secondary education; curriculum and instruction; secondary education with emphasis in reading.

The *special education* program prepares students to teach learners with developmental disabilities, emotional/behavioral disorders, learning disabilities, or in early childhood special education settings. Missouri certification standards require a student teaching experience the area of special education.

At the graduate level, requisite course work for Missouri certification in special education is available, as is the M.Ed. Degree.

**Minor in Literacy**
A Minor in Literacy can be earned by successfully completing 18 hours of the following:

- ECH ED 3332, Literacy Learning and Instruction for the Young Child
- ELE ED 4989, Elementary Education Professional Internship
- ELE ED 3330, Literacy, Literature and the Learner
- ELE ED 3336, Communication Arts Learning and Instruction
- ELE ED 3389, Classroom Based Assessment to Guide Literacy Instruction
- TCH ED 3315, Literacy Learning and Instruction
- TCH ED 4391, Teaching and Reading in Secondary School Content Area

**Minor in Mathematics Education K-5**
A Minor in Mathematics Education can be earned by successfully completing 18 hours in the mathematics Education field. The following mathematics Education courses may be applied to Mathematics Education Minor.

ECH ED 4348, The Acquisition of Mathematical and Science Concepts  
ED TECH 5301, Introduction to Computers and the Internet in Education  
ELE ED 4246, Teaching Mathematics in the Elementary School  
ELE ED 4342, Addressing Needs in Mathematics Teaching and Learning  
ELE ED 4346, Advanced Methods in Elementary School Mathematics  
MID ED 4246, Teaching Mathematics in the Middle School  

Mathematics courses (except 1030, 1150 & 2510) with consent of advisor.

**Note** The State Board of Education developed standards for renewable professional certificates, based on specific requirements for training and experience. Details regarding these standards are available in the Teacher Certification & Advising Office in Marillac Hall.

### Minor in Urban Education P-5

A minor in Urban Education P-5 can be earned by successfully completing the following 18 hours of Teacher Education, Early Childhood, and Elementary Education courses. Students must register for the special sections of these courses that are offered in urban settings to meet the requirements of this minor.

ECH ED 4989, Early Childhood Primary Internship  
ELE ED 4989, Elementary Education Professional Internship  
ELE ED 3330, Literacy, Literature and the Learner  
ELE ED 3336, Communication Arts Learning and Instruction  
ELE ED or ECH ED 4320, Classroom Management  
ELE ED 4989, Elementary Education Professional Internship  
TCH ED 2311, Foundations in Urban Education and Social Justice  
TCH ED 4988, Teaching and Learning in Urban Schools

**Note** The State Board of education developed standards for renewable professional certificates, based on specific requirements for training and experience. Details regarding these standards are available in the Teacher Certification & Advising Office in Marillac Hall.

### Minor in Teaching English to Speakers of Other Languages P-12

A Minor in Teaching English to Speakers of Other Languages (TESOL) can be earned by successfully completing 18 hours of coursework that is identified to prepare the student to earn a TESOL teaching endorsement as an additional area of teaching certification by the Missouri Department of Elementary and Secondary Education.

TCH ED 3210, General Linguistics in Teaching English to Speakers of Other Languages (TESOL)  
TCH ED 3211, Basic Principles of Second and Foreign Language Acquisition  
TCH ED 3212, Sociolinguistics and Communication in the Classroom  
TCH ED 3213, Performance-based Assessment for TESOL  
TCH ED 3214, Material Development and Methods for TESOL  
TCH ED 3215, Field Experiences in TESOL

### Bachelor of Educational Studies

The B.E.S. is a professional degree designed for individuals who wish to study Education as a scholarly discipline but who do not wish to prepare for the professional practice for Education in the K-12 schools of this state or nation. Available emphasis areas include Early Childhood Education and Professional Education Studies.

### General Education Requirements

Students follow the university's General Education Requirements.

#### Communicative Skills

COMM 1040, Intro to Public Speaking  
ENG 1100, English Composition  
ENG 3100, Advanced Expository Writing

See requirements under specific emphasis area.

Breadth of Study (minimum 42 hours in the following three areas with at least three courses in each area)

- Humanities (9 hours)
- Sciences
- BIOL 1012, Intro to General Biology
- Physical Science

Social Sciences

**HIST 1001**, American Civ to 1865 or
**HIST 1002**, American Civ 1865 to Present
**POL SCI 1100**, Intro to American Politics
**PSY 1003**, General Psychology
Cultural Diversity Course (see General Education section of the Bulletin)

Other Requirements

**Degree Requirements - Early Childhood**

**Mathematical Skills**

Math **1030**, College Algebra
Math **1150**, Math Structures I

**Level I: Exploring Education as a Profession**

**CMP SCI 1010**, Introduction to Computers
**ED PSY 2212**, Intro to Learners and Learning
**PSYCH 2270**, Develop Psych: Infancy, Childhood, & Adolescence
**TCH ED 2211**, Introduction to Schools
**TCH ED 2209**, Foundations of Teaching in American Schools

**Level II: Analyzing the Nature and Processes of Education**

**ED PSY 3312**, Psychology Of Teaching & Learning
**TCH ED 3310**, Intro to Instructional Methods
**TCH ED 3313**, Psychology of the Exceptional Child

**Level III: Synthesizing Theory and Practice in Education**

**ECH ED 3300**, Introduction to Early Childhood Education
**ECH ED 3303**, C&P: Infant/Toddler Lab
**ECH ED 3304**, C&P: Preschool Lab
**ECH ED 3313**, C&P: Infant/Toddler
**ECH ED 3314**, C&P: Preschool
**ECH ED 3332**, Literacy, Learning & Instruction of Young Children
**ECH ED 4317**, Assessing Individual Needs Early Child
**ECH ED 4320**, Classroom Management
**ECH ED 4348**, The Acquisition of Mathematical and Science Concepts
**EDUC 2290**, Internship
**EDUC 2291**, Internship
**PHY ED 3282**, Physical Growth and Motor
**SEC ED 4880**, Writing for Teachers

Second Concentration: Electives to total 12 hours to be chosen from ECH ED, ELE ED, SPEC ED, ED TECH, ED REM, or an area chosen in consultation with the adviser.

**Emphasis in Professional Education Studies**

**Mathematical Skills**

MATH 1020, Contemporary Math or
MATH 1030, College Algebra

**Managing Information Skills - Goal 2** (One Course), see General Education requirements section of the Bulletin

**Level I, Exploring Education as a Profession**

**CMP SCI 1010**, Introduction to Computers
**ED PSY 2212**, Intro to Learners & Learning
**TCH ED 2209**, Foundations of Teaching in American Schools

**Level II, Analyzing the Nature and Process of Education**

**COMM 2231**, Communication in the Organization
**ED PSY 3312**, Psychology of Teaching & Learning
**TCH ED 3313**, Psychology of the Exceptional Child

**Level III, Synthesizing Theory and Practice in Education**

Entrance into Level III is based on successful completion of all course work in Levels I and II.

30 Hours in the following, numbered 2000 or above: Elementary Education, Special Education, Secondary Education

A second series of courses in education or as approved by the advisor including a minimum of 15 hours of
Minor in Literacy
A minor in literacy can be earned by successfully completing 18 hours of the following:
ECH ED 3332, Literacy, Learning and Instruction for the Young Child
ELE ED 3330, Literacy, Literature and the Learner
ELE ED 3336, Communication Arts, Learning and Instruction
ELE ED 3389, Classroom Based Assessment to Guide Literacy Instruction
ELE ED 4387, Promoting the Language and Literacy Development of Children Living in Poverty
ELE ED 4989, Elementary Education Professional Internship
TCH ED 3315, Literacy, Learning and Instruction
TCH ED 4391, Teaching Reading in the Secondary School Content Areas

Minor in Mathematics Education K-5
A minor in Mathematics Education can be earned by successfully completing 18 hours of the mathematics education field. The following mathematics education courses may be applied to the Mathematics Education Minor.
ECH ED 4348, The Acquisition of Mathematical and Science Concepts
ED TECH 5301, Introduction to Computers and the Internet in Education
ELE ED 4246, Teaching Mathematics in the Elementary School
ELE ED 4342, Addressing Needs in Mathematics Teaching and Learning
MID ED 4246, Teaching Mathematics in the Middle School

Minor in Teaching English to Speakers of Other Languages K-12
A minor in Teaching English to Speakers of Other Languages (TESOL) can be earned by successfully completing 18 hours of coursework that is identified to prepare the student to earn a TESOL teaching endorsement as an additional area of teaching certification by the Missouri Department of Elementary and Secondary Education (DESE).
TCH ED 3210, General Linguistics in Teaching English to Speakers of Other Languages (TESOL)
TCH ED 3211, Basic principles of Second and Foreign Language Acquisition
TCH ED 3212, Sociolinguistics and Communication in the Classroom
TCH ED 3213, Performance-based Assessment for TESOL
TCH ED 3214, Material Development and methods for TESOL
TCH ED 3215, Field Experiences in TESOL
EDUC 2204 Special Topics in Education (1-3)
Prerequisites: Completion of 75 hours and consent of instructor. Examination of a special area or topic within the field of education. Topics to be considered will be announced prior to registration and may vary. For elective credit only. This course may be repeated for different topics. Not to exceed a total of six hours credit.

EDUC 2290 Internship I (6)
Prerequisites: Senior standing and consent of instructor. Field experience in educational setting under university supervision. Includes planning, research, evaluation, and other professional activities in the student's area of concentration.

EDUC 2291 Internship II (6)
Prerequisite: Completion of or concurrent enrollment in EDUC 2290. Continuation of EDUC 2290.

EDUC 2297 Independent Study (1-3)
Prerequisites: Completion of 75 hours and consent of instructor. Independent study through readings, research, reports, and conferences designed to provide depth in areas of study previously introduced in education courses. For elective credit only. May be repeated. Not to exceed a total of three hours credit.

EDUC 5006 Graduate Workshop (1-10)
Prerequisite: Consent of instructor.

EDUC 5993 Practicum in Individualized Instruction (3-6)
Prerequisites: Completion of the course(s) to which assigned for instruction and consent of instructor. Supervised instruction in individualized programs. Seminar accompanies instructional experience. May be repeated.

EDUC 6308 Graduate Institute (1-10)
Prerequisite: Consent of instructor.

EDUC 6408 Graduate Seminar (1-10)
Prerequisite: Consent of instructor. Intensive study of selected issues in education.

EDUC 6491 Staff Development and Professional Growth (1-10)
Designed in conjunction with an individual school district or educational agency and related to problems of education confronting that specific district or agency.

EDUC 6998 Thesis Research (1-10)
Prerequisite: Consent of instructor.

EDUC 7050 The Research Process I: Framing Research Questions within the Education Literature (3)
Same as ED ADM 7050. Prerequisite: Admission to the EdD. or PhD. in Education Programs. An overview of the essential elements of research proposals and familiarization with the techniques and tools used to identify important research questions within the education literature. Emphasis is placed on exploring the research literature and both framing and justifying research questions within that literature.

EDUC 7415 Topics in Education (3)
Prerequisite: Admission to the doctoral program. Intensive study of a topic in education.

EDUC 7490 Directed Readings in the Education Research Literature (1-6)
Prerequisite: Doctoral Standing. Independent study of the education research literature in an area defined in consultation with an advisor.
EDUC 7495 Doctoral Research Tools (1-6)
Prerequisite: ED REM 6710. Structured individual or small group instructional or supervised investigative experience in and with a specific research skill and/or procedure that will be needed in the production of a doctoral dissertation. May not substitute for any existing graduate courses that cover same research tool skills.

EDUC 7642 Sociocultural Perspectives in Education (3)
Prerequisite: Doctoral standing or consent of instructor. Investigation of sociocultural theory with a focus on educational applications. Topics include the social formation of mind, language as a cultural tool, methodological issues in social science research, and dialogic inquiry as pedagogy.

EDUC 7880 Research Internship I (3)
Prerequisite: Nine hours of research methods or statistics and consent of instructor. Supervised experience in the conduct of research studies or scholarly inquiry.

EDUC 7881 Research Internship II (3)
Prerequisites: EDUC 7880 and consent of instructor. Supervised experience in the conduct of research studies or scholarly inquiry.

EDUC 7882 Research Internship III (3)
Prerequisites: EDUC 7881 and consent of instructor. Supervised experience in the conduct of research studies or scholarly inquiry.

EDUC 7950 The Research Process II: Developing and Refining Education Research Proposals (3)
Prerequisites: Completion of 6 hours of ED REM courses numbered 7771 or higher. An in depth examination of the essential elements of a research proposal. Particular emphasis is placed on examining the validity and reliability or the trustworthiness of the design of the proposed research. Tools for identifying research strengths and weaknesses are applied to proposals. Presentation of a written proposal and oral defense of that proposal are required.

EDUC 7999 Dissertation Research (1-12)
Prerequisite: Admission to the doctoral program. Credit awarded only upon successful defense of the dissertation.
General Information

The College of Fine Arts and Communication at the University of Missouri-St. Louis includes the Departments of Art and Art History, Communication, Music, and Theatre Dance and Media Studies. The faculty and alumni of this college have distinguished themselves as scholars, visual artists, teachers, and performers. Students of the college pursue their activities in a variety of campus locations, including the Fine Arts Building, Lucas Hall, the Music Building and the General Services Building. The Touhill Performing Arts Center, affords two world-class venues for performances by individual university students and faculty, campus ensembles, and visiting artists. In addition, Gallery 210, Gallery FAB, and Gallery VISIO in the Millennium Student Center offer space for the display of student and faculty artwork, as well as visiting exhibitions.

The College of Fine Arts and Communication is distinguished by its collaboration with the community. Six endowed professorships link the University to the Saint Louis Symphony, the Saint Louis Art Museum, Opera Theatre of Saint Louis, the Laumeier Sculpture Park, and other local cultural institutions. The Des Lee Fine Arts Education Collaborative connects the University and a variety of partner cultural institutions to local school districts.

The College of Fine Arts and Communication consists of some 50 full-time faculty members in the following departments, each offering work in specific undergraduate degree programs: art and art history, communication, music, and theatre dance and media studies.

Graduate study degree programs, administered through the Graduate School, are also offered in the communication and music departments.

Requirements for Undergraduate Study

In addition to the university general education requirements, all majors in the College of Fine Arts and Communication must meet the following requirements:

Requirements of their chosen baccalaureate degree (i.e., B.A., B.F.A., B.M., etc) in accordance with the policies of the College of Fine Arts and Communication. Requirements of the department for their selected major or interdisciplinary program.

Cultural Diversity Requirement

To expand cultural awareness, students in some academic units may be required to complete a course that emphasizes Asian, African, Middle Eastern, Latin American, Pacific aboriginal, Native American, or a comparable culture. Courses that satisfy this requirement involve substantial material independent of the cultures' interactions with European cultures. If a course focuses on one facet of a culture, it must treat the topic within the context of the culture as a whole. These courses are also coded with the initials [CD] for Cultural Diversity A list of courses which fulfill the Cultural Diversity requirement may be found elsewhere in this bulletin.

Academic Policies

Grade Requirements
To graduate, all majors in the college must satisfy one of the following grade point options:

- Earn 120 hours with a C grade or better, which constitutes a complete degree program. Neither a grade of C- nor a satisfactory grade may be counted.
- Have a minimum UMSL grade point average of 2.0 and have met all other Grade Point restrictions that are required for the degree program and the major.

Residency Requirements
Transfer students must complete at least 30 of the last 36 hours of their degree program in residence at the University of Missouri-St. Louis.

Unless otherwise specified, a transfer student must complete 12 hours of graded work at UMSL at the 2000 level or above within the minimum number of hours required for each major.

Unless otherwise specified, a transfer student must complete at least six hours of graded work at UMSL at the 2000 level or above within the minimum number of hours required for each minor. Students should consult the minor department for specific residency and grade requirements.

Specific Baccalaureate Degree Requirements

Course Requirements
After fulfilling the general education and specific major degree requirements, students are to take the remaining hours required to complete the bachelor's degree from courses from one or more of the following areas at UMSL or university-quality equivalents at other institutions: anthropology/archaeology, art (appreciation, history, studio), astronomy, biology, chemistry, communication, criminology and criminal justice, economics, English, foreign languages/literatures, geology, history, mathematics/computer science, music (appreciation, history, performance), philosophy, physics, political science, psychology, social work, sociology, business, education, engineering, or interdisciplinary. Other areas or courses not listed require approval by the chair of the student's department.

Bachelor of Arts (B.A.)
All B.A. degree candidates must successfully complete a curriculum that includes a departmental major or an approved interdisciplinary field. A major must include at least 30 credit hours but no more than 45 hours. The college offers the B.A. degree in art history, communication, music and theatre and dance.

Foreign Language Requirement
Candidates for the B.A. degree are required to complete 13 credit hours or the equivalent in proficiency in one foreign language. Foreign language guidelines are as follows:

Students entering with no high school language units must enroll in Language 1001 or may enroll in the 2115 series. Students with the degree of proficiency equivalent to 13 hours of college-level work may obtain exemption by passing the department's placement exam. The specific dates for the exam are announced in the Schedule of Courses or may be obtained from the admissions office or the Department of Foreign Languages and Literatures. Native speakers of language other than English may meet the foreign language requirement by presenting a transcript from a university or secondary school of their native country to the Department of foreign languages and literature. The department will certify native speakers of those languages that are taught at the university. Those who are proficient in other languages must submit certification of competence to the college. Language 2115 a, b, and c (Intensive) will satisfy the foreign language requirement. 2115 and co-requisites must be completed with a grade of C-or better, to satisfy the foreign language requirement. Students may not repeat, for credit an elementary course if they have already completed a higher-level course for which the elementary course, or its equivalent, is a prerequisite.

Applied Music and Studio Art
Students not majoring in music may count no more than eight hours in music-performing organizations (Music 1400, 1410, 1500, 1520, etc.) Students in the college majoring in music may count any number of hours of applied music (private lessons). Students not majoring in studio art may count any studio art course toward any degree in the college. This also includes transferred credit.

Bachelor of Music (B.M.)
The requirements are the same as for the B.A. degree with the addition of music education courses for music majors seeking state teacher certification. Although foreign language proficiency is not required, foreign language study is required for applied voice students.

Bachelor of Science (B.S.)
All majors must complete a minimum of 51 hours in Media Studies courses and at least 24 of these hours must be taken at UMSL. A minimum of 39 credit hours in Media Studies and a minimum of 12 credit hours in Theatre and Dance, totaling 51 credit hours, are required. At least 18 hours of coursework must be taken at the 2000 level or above at UMSL. There is no foreign language requirement, but foreign language proficiency is recommended.

Certificate Programs
An undergraduate certificate program is offered in Photographic Studies and Arts Management. The certificate in Non-Profit Arts Organization Management & Leadership is currently inactive.

Evening Program
All the departments of the College of Fine Arts and Communication offer coursework in the evening or in other non-traditional modes (i.e. on-line and/or video). The Department of Communication offers sufficient coursework to complete its degree program in the evening. Consult the website of the department in which you are interested for specific information.
you are interested for details on degree requirements and 3-year schedule of planned course offerings.

Department Honors
Majors in the following department may pursue departmental honors.

Minors
A number of minors are available at UMSL. Some are offered by individual departments, while others, such as Classical Studies and Africana Studies, are interdisciplinary in nature and involve a number of departments. The requirements for the various minors are listed the undergraduate certificates or interdisciplinary sections of this Bulletin.
The Department of Art and Art History has a diverse faculty actively engaged in the production of art, its historical and critical evaluation, and the training of art educators. The department prides itself on its commitments to high standards of teaching and sound research achievements. Individual faculty have been cited for their teaching excellence. Art history faculty members have written books, articles, and critical reviews and regularly participate in national and international conferences. Studio art faculty exhibit nationally and internationally in group and solo juried and invited exhibitions.

**General Information**

**Degrees and Areas of Concentration**

The department offers course work leading toward the Bachelor of Arts in Art History and the Bachelor of Fine Arts in Studio Art. The major requirements include courses in art history, studio art, and general education courses. The department also offers minors in art history and art appreciation.
Arts in Studio Art.

Courses included in the B.A. in art history cover the arts of Asia, Africa, Europe, and North America, including Native American arts, from ancient times to the present. Courses examine the entire range of human visual expression from painting, sculpture, architecture, and photography to performance and festival arts. In each case the arts are examined within their historical, aesthetic, and cultural contexts.

The B.A. in Art History has the following learning outcomes:
- to write clearly and coherently about works of art and art historical literature;
- to possess the ability to conduct independent research on works of art and visual culture;
- to recognize and be able to apply different methodologies, recognizing that each incorporates a specific valuing system;
- to demonstrate understanding of the ethical issues surrounding cultural property;
- to analyze critically and interpret works of visual art and art historical texts;
- to demonstrate familiarity with and basic knowledge of diverse historical artworks.

The B.F.A. in studio art consists of a foundation art program and an emphasis area in the following: art education, drawing, graphic design, painting, photography, printmaking, and general fine arts. UMSL has a transfer agreement with the St. Louis Community College District, which offers a direct credit transfer to upper division BFA courses for students who graduate with an AFA degree from the SLCC.

The Bachelor of Fine Arts Degree in Studio Art, with emphasis in Art Education, Drawing, Graphic Design, Painting, Photography, Printmaking, and General Fine Arts, has the following learning outcomes:
- to develop visual and verbal responses to visual phenomena, and organize perceptions and conceptualizations both rationally and intuitively;
- to become familiar with the major achievements in the history of art and design, including the works and intentions of leading artists and designers in the past and present;
- to develop the capacity to identify and/or solve problems within a variety of physical, technological, social, and cultural contexts;
- to understand and evaluate contemporary thinking about art or design;
- to become familiar with and develop competence in a number of art or design techniques;
- to make valid assessments of quality and effectiveness in design projects and works of art, especially their own.

To support its teaching and research objectives, the department maintains a slide collection of over 110,000 slides and an expanding database of digital images. The collection, which includes examples of painting, sculpture, architecture, photography and decorative arts, is under the supervision of a professional visual resource curator, who is available for special assistance to staff and students.

Gallery 210
Gallery 210, located in Building 7, 44 East Drive, offers visual arts programming of regional, national, and international importance. The gallery’s exhibitions and related arts programming have enjoyed a long and distinguished history of service to the university and to the St. Louis community. Gallery activities are supervised by a professional gallery director.

Gallery FAB
Located in the Fine Arts Building, Gallery FAB exhibits a range of work by artists of regional and national significance. The exhibitions are coordinated by members of the Studio Art Faculty and complement the teaching emphases of the Fine Arts program.

Gallery Visio
Gallery Visio is located in room 170 Millennium Student Center. It showcases work by students and faculty, and hosts exhibitions that address cultural and contemporary issues.

Scholarships/Internships
Several scholarships are available on a competitive basis within the department, including the Art Department/Barbara St Cyr Scholarship, the William T. Isbell Jr. Scholarship, the Aronson Scholarship, the Marie Larkin Scholarship in Art Education, and the Hilda and Roy Bergmann Scholarship for Art. The department also sponsors a variety of internships with local arts institutions, including the Saint Louis Art Museum, Contemporary Art Museum St. Louis, and Laumelier Sculpture Park.

Undergraduate Studies

General Education Requirements
Majors in art history must meet the college and university general education requirements. A foreign language is required; French or German is recommended. Art history courses required for the degree may not be taken on a satisfactory/ unsatisfactory (S/U) basis.

Art history courses can be applied toward minors in Anthropology, American Studies, Classical Studies, Philosophy, and Urban Studies, or certificates in Studies in Religions, Women's and Gender Studies, Photographic Studies and African Studies.
Majors in studio art must meet the college and university general education requirements. A foreign language is not required. Studio art courses required for the degree may not be taken on a satisfactory/unsatisfactory (S/U) basis. A minimum of 120 hours is required for graduation. Studio art courses do not fulfill the humanities general education requirement.

**Degree Requirements**

**Bachelor of Arts in Art History**

Art history majors must complete a minimum of 36, but no more than 45, hours in art history with no grace below C. The following **four core courses** are required:

- **ART HS 1100**, Introduction to Western Art
- One course in non-Western art, chosen from 1104, 1105, or 1108 (may be taken concurrently with 1100):
  - **ART HS 1104**, Indigenous Arts of North America
  - **ART HS 1105**, The Arts of Africa
  - **ART HS 1108**, Introduction to the Arts of Asia
- **ART HS 3395**, Sophomore/Junior Seminar: Research in Art History
- **ART HS 4495**, Senior Seminar: Methods of Art History

Students must take a minimum of **three lower-division courses**, one from each of the following categories:

**Ancient and Medieval**

- **ART HS 2211**, Art and Archaeology of the Ancient World
- **ART HS 2212**, Greek Art and Archaeology
- **ART HS 2213**, Roman Art and Archaeology
- **ART HS 2214**, Early Christian and Byzantine Art
- **ART HS 2225**, Medieval Art

**Early Modern**

- **ART HS 2235**, Italian and Northern European Renaissance Art
- **ART HS 2238**, Italian Renaissance Art
- **ART HS 2240**, French Art and Architecture 1500-1715
- **ART HS 2245**, Baroque Art and Architecture

**Modern and American**

- **ART HS 2250**, Nineteenth Century European Art
- **ART HS 2255**, Modern Art
- **ART HS 2265**, History of Photography
- **ART HS 2270**, American Art to 1876
- **ART HS 2272**, American Art since 1876
- **ART HS 2279**, American Architecture
- **ART HS 2281**, Art Since 1960

Students must take a minimum of **three upper division courses**. One course must be a 4000-level Topics course. The other two courses must be chosen from two different categories in the following list.

**Media in Art History**

- **ART HS 3303**, Media and Technique in Art History
- **ART HS 3350**, Studies in Design
- **ART HS 3360**, Photography and Society
- **ART HS 3385**, Studies in Architectural History

**Themes in Art History**

- **ART HS 3365**, The Artist and the City
- **ART HS 3374**, Philosophy of Art
- **ART HS 3376**, Women and the Visual Arts
- **ART HS 3391**, Selected Themes in Art History
- **ART HS 3396**, The Nude in Art
- **ART HS 3397**, Landscapes Perspectives in Art
- **ART HS 3398**, The Portrait

**Topics in Art History**

Courses listed as "Topics" at the 4000 level, including but not limited to:

- **ART HS 4411**, Topics in Ancient Art
- **ART HS 4425**, Topics in Medieval Art
- **ART HS 4435**, Topics in Renaissance Art
- **ART HS 4445**, Topics in Seventeenth and Eighteenth-Century European Art
- **ART HS 4455**, Topics in Modern Art
ART HS 4475, Topics in American Art  
ART HS 4481, Topics in Contemporary Art  
ART HS 4490, Special Study

**Professional Studies**  
ART HS 3387, Professional Internship  
ART HS 3388, Saint Louis Art Museum Internship  
ART HS 3389, Visual Resources Management  
ART HS 3394, Art Criticism  
ART HS 4393, Art Museum and Gallery Management  
ART HS 4492, Museum Studies

Students must also take one course in studio art. Up to nine hours in studio art may be applied toward the B.A. in art history.

Additional hours in art history, up to the maximum of 45, may be completed with electives at the 2000 level or above.

**Bachelor of Fine Arts in Studio Art**
Candidates for the B.F.A. degree must complete a Foundation Art Program (which is largely satisfied by the A.F.A. degree) and an emphasis area in one of the following: art education, drawing, graphic design, painting, photography, printmaking or general fine arts. Studio art majors are required to take 75 hours in studio art (this includes 30 hours in the foundation art program) and 15 hours in Art History. The final 30 hours must be completed in residence at UMSL. Graduating students must also pass a faculty portfolio review.

Advanced Placement in Studio Art Classes: Studio Art Majors who have professional Graphic Design or Photographic experience may wish to submit a portfolio to a committee of studio art faculty. Depending on the nature and the quality of the student's portfolio, they may be able to obtain exemptions from selected lower level studio art courses. Students applying for these exemptions must submit their portfolios prior to the first day of class of their first semester in the BFA Program. Students will be notified in writing if an exemption is granted. Students informed of these waivers will be advised of their requirements in the studio art major. All decisions of the portfolio reviews are final.

**Foundation Art Program**
The following courses are required for the Foundation Art Program:

**Drawing**
ST ART 1140, Drawing I  
ST ART 1141, Drawing II  
ST ART 1142, Figure Drawing I  
ST ART 1150, Design I  
ST ART 1151, Design II  
ST ART 2240, Drawing III or 1143, Figure Drawing II*  
ST ART 1030, Ceramics I, or 1132, Sculpture 1 or 2251, Design III  
9 hours of Studio Art Electives

*Those planning an emphasis in drawing or painting must take ST ART 1142.

Students must complete 45 hours in one of the following emphasis areas:

**Drawing**
ST ART 2240, Drawing III  
ST ART 2241, Drawing IV  
ST ART 2242, Figure Drawing III  
ST ART 2243, Figure Drawing IV  
ST ART 2250, Composition or Studio Elective  
ST ART 3340, Advanced Problems in Drawing I  
ST ART 3341, Advanced Problems in Drawing II  
ST ART 4495/4496, Senior Studio Seminar (6 hours)  
6 hours of Painting or Printmaking  
12 hours of Studio Art Electives

**Graphic Design**
ST ART 1210, Graphic Design I  
ST ART 1220, Graphic Design II  
ST ART 2210, Typography  
ST ART 2212, Image Making for Graphic Design  
ST ART 2220, Computer Design I  
ST ART 2221, Computer Design II  
ST ART 3310, Graphic Design III  
ST ART 3311, Graphic Design IV  
ST ART 3383, Advanced Problems in Graphic Design I
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- **ST ART 3384**, Advanced Problems in Graphic Design II
- **ST ART 4497**, Senior Seminar in Graphic Design I
- **ST ART 4498**, Senior Seminar in Graphic Design II

9 hours of Graphic Design Electives

**Painting**
- **ST ART 1180**, Painting I
- **ST ART 1181**, Painting II
- **ST ART 2250**, Composition or Studio Art Elective
- **ST ART 2280**, Painting III
- **ST ART 2281**, Painting IV
- **ST ART 3380**, Advanced Problems in Painting I
- **ST ART 3381**, Advanced Problems in Painting II
- **ST ART 4495/4496**, Senior Studio Seminar (6 hours)

6 hours from the following list:
- **ST ART 2240**, Drawing III
- **ST ART 2241**, Drawing IV
- **ST ART 2242**, Figure Drawing III
- **ST ART 2243**, Figure Drawing IV

12 hours of Studio Art Electives

**Photography**
- **ST ART 1060**, Photography I
- **ST ART 2160**, Photography II
- **ST ART 2250**, Composition or Photography Elective
- **ST ART 2263**, Digital Color Process
- **ST ART 2265**, Commercial Applications in Photography I
- **ST ART 2267**, The Constructed Photograph
- **ST ART 3260**, Photography III
- **ST ART 3391**, Advanced Problems in Photography I
- **ST ART 3392**, Advanced Problems in Photography II
- **ST ART 4490/4491**, Senior Studio Seminar (6 hours)

6 hours of Studio Art Electives

6 hours of Photography electives

**Printmaking**
- **ST ART 1170**, Printmaking I
- **ST ART 2241**, Drawing IV
- **ST ART 2243**, Figure Drawing IV
- **ST ART 2250**, Composition or Studio Art Elective
- **ST ART 2271**, Printmaking II
- **ST ART 2274**, Printmaking and Relief
- **ST ART 3370**, Advanced Problems in Printmaking I
- **ST ART 3371**, Advanced Problems in Printmaking II
- **ST ART 4495/4496**, Senior Studio Seminar (6 hours)

6 hours from the following list:
- **ST ART 1173**, Printmaking: Screen Printing I
- **ST ART 2272**, Printmaking: Lithography I
- **ST ART 2273**, Printmaking: Etching
- **ST ART 2277**, Printmaking: Photolithography
- **ST ART 3372**, Advanced Lithography

9 hours of Studio Art Electives, including one course in photography

**General Fine Arts**

30 hours of studio art electives must be taken at the 2000 level or above.

The following courses are required:
- **ST ART 2250**, Composition or Studio Art Elective
- **ST ART 4495/4496**, Senior Studio Seminar (6 hours)

Select 6 hours from the following:
- **ST ART 3340**, Advanced Problems in Drawing I and
- **ST ART 3341**, Advanced Problems in Drawing II or
- **ST ART 3370**, Advanced Problems in Printmaking I and
- **ST ART 3371**, Advanced Problems in Printmaking II or
- **ST ART 3380**, Advanced Problems in Painting I and
- **ST ART 3381**, Advanced Problems in Painting II or
- **ST ART 3391**, Advanced Problems in Photography I and
- **ST ART 3392**, Advanced Problems in Photography II

Students must complete 15 hours of Art History, with at least 9 hours taken in residence at UMSL.

http://www.umsl.edu/bulletin/fine_arts/art.html[4/12/2012 3:28:00 PM]
Students choosing a double major in two studio art emphasis areas must complete all the requirements for each emphasis area. If the double major includes Graphic Design, students must take four semesters of Senior Studio Seminar. This includes ST ART 4490, ST ART 4491, ST ART 4495, ST ART 4496, ST ART 4497, and ST ART 4498.

Art Education
An art education emphasis leading toward K-12 Art teacher certification is available. Students choosing this option must complete degree requirements for the B.F.A. The General Education Requirements (G.E.R.) of the College of Education as well as the College of Fine Arts and Communication must be fulfilled. A foreign language is not required.

Students will take a specialized program of Foundation Art (30 hours) that includes courses required for certification to teach art. They will also take studio art electives, including a minimum of three courses in one of the studio emphasis areas: drawing, graphic design, painting, photography, or printmaking. A minimum of 50 credit hours must be completed in studio art. Students must also complete 15 hours of art history. Major area courses, including studio art, art history, art education, teacher education, and secondary education, must be completed with a minimum grade point average of 2.5; no grade lower than a C is acceptable.

I. Foundation Art for Art Education
(10 courses; 30 hours if taken at UMSL):
ST ART 1030, Ceramics I
ST ART 1133, Introduction to Fibers and Textiles
ST ART 1140, Drawing
ST ART 1141, Drawing II
ST ART 1142, Figure Drawing I
ST ART 2240, Drawing III
OR
ST ART 1143, Figure Drawing II
ST ART 1150, Design I
ST ART 1151, Design II
ST ART 1170, Printmaking I
OR
ST ART 1173, Printmaking: Screen Printing I
ST ART 1180, Painting I

II. Studio Art for Art Education (7 courses; 21 hours if taken at UMSL):
ST ART 1061, Intro to Digital Photography
OR
ST ART 2220, Computer Design I
ST ART 1132, Sculpture I
6 hours of Studio Art Electives

In addition, students must complete at least three courses in one of the following areas: drawing, graphic design, painting, photography, or printmaking.

III. Professional Preparation for Art Education
Required art education, Level II and III teacher education, and secondary education courses must be taken in residence at UMSL. Students must be admitted to the Teacher Education program of the College of Education. Students should check with the Office of Teacher Education for the most complete and current admission information.

Art Education certification candidates must complete the following courses:

Level I: Exploring Education as a Profession
TCH ED 2209, Foundations of Teaching and American Schools
TCH ED 2212, Introduction to Learners and Learning

Level II: Analyzing the Nature and Process of Education
TCH ED 3310, Introduction to Instructional Methods
TCH ED 3312, Psychology of Teaching and Learning
TCH ED 3313, Psychology of the Exceptional Child
TCH ED 4391, Teaching Reading in Secondary School Content Areas
OR
TCH ED 3315, Literacy, Learning, and Instruction
ART ED 3328, Art Education: Theory to Practice (same as SEC ED 3328)
ART ED 4260, Art Museum as Teaching Resource

Level III: Synthesizing Theory and Practice in Education
ART ED 4273, Curriculum and Methods of Teaching Art (same as SEC ED 4273)
SEC ED 4496, Student Teaching in Elementary Art
SEC ED 4497, Student Teaching in Secondary Art
SEC ED 4989, Secondary Education Professional Internship

Minors

Minor in Art History
A minor in art history requires the completion of at least 18 hours in art history courses. Students must take ART HS 1100 and at least one course in non-Western art. They must also take at least 2 courses at the 3000 level or above. A maximum of 3 hours of internship can be applied toward a minor in art history. The GPA for the courses for the minor must be 2.0 or better. Nine of the 18 hours must be taken in residence at UMSL. All courses in the minor must receive a grade of C or above.

Minor in Studio Art
Students who wish to minor in studio art must take a minimum of 18 hours with a grade point average of 2.0 or better. Six hours must be taken at the 2000 level or above, in residence at UMSL. The requirements for the minor are as follows:

ST ART 1140, Drawing I
ST ART 1141, Drawing II
ST ART 1150, Design I
and two consecutive courses (6 hours) in any single area to be selected from the following (students should be aware that courses are not always available in all areas):

- Painting
- Printmaking (any one subfield)
- Photography
- Graphic Design
- Advanced Drawing

plus a studio art elective: one three-hour course.

Photographic Studies Certificate
UMSL students, graduates, and post-baccalaureate candidates may obtain a certificate in photographic studies by coordinating courses in and related to photography. To be eligible for the certificate, undergraduates must complete a degree in a chosen major field. A faculty member of the Interdisciplinary Photographic Studies Committee will act as adviser to all students and will consult with the faculty adviser in the student's major to plan appropriate credits.

Requirements
The following courses are required:
ST ART 1060, Photography I
ST ART 2160, Photography II
ART HS 2265, History of Photography
ST ART 3260, Photography III, or INTDSC 3390, Independent Studies in Photographic Studies
ART HS 3360, Photography and Society

Students must also take at least one 3-hour course selected from the following departmental offerings.

ART HS 1100, Introduction to Western Art
ST ART 2262, Color Photography I
ST ART 2263, Digital Photography
ST ART 2264, Non-Silver Photography
ST ART 2268, Video Art I
ST ART 2277, Printmaking: Photolithography
ST ART 3260, Photography III
ST ART 3263, Digital Color Portfolio
ST ART 3363, Color Photography
ST ART 3364, Video Art II
ART HS 3374, Philosophy of Art
ST ART 3390, Special Studies
ST ART 3391, Advanced Problems in Photography I
ST ART 3392, Advanced Problems in Photography II
BIOL 4784, Techniques in Electron Microscopy
COMM 1050, Introduction to Mass Media
COMM 1070, Introduction to Cinema
COMM 2210, Television Production
ENGL 3140/COMM 3214, News Writing
ENGL 3150, Feature Writing
**Career Outlook**

Study in art history broadens and enriches a general education, offering insight into the visual, architectural, and cultural artifacts left by earlier, as well as modern, civilizations. Art history graduates have found career opportunities in teaching, museums, galleries, libraries, historical societies, sales and auction houses, historic preservation, and arts administration.

Students with degrees in studio art find careers in teaching, advertising, public relations, graphic design, illustration, film and video production, arts administration, art restoration, product and industrial design, framing, and commercial photography.

Art education has been identified by the Missouri Department of Elementary and Secondary Education as an area of critical need. With over 300 art teachers in the greater St. Louis region alone, there is a demand for art teachers statewide each year.
The faculty represents many fields within the discipline of communication including interpersonal communication, organizational communication, mass communication, public relations, and rhetoric. Most faculty members contribute to a growing body of knowledge by conducting research, publishing their results in scholarly journals, and presenting papers at national and international communication conferences. By integrating theory, research, and practice, faculty members are able to offer a comprehensive approach to contemporary communication problems.

General Information

The Bachelor of Arts in Communication
The B.A. in communication is a flexible degree program that allows the student to tailor their curriculum to meet specific interests and needs while simultaneously providing a strong foundation in the major specializations of the discipline. The faculty encourages all students to meet early and often with their faculty adviser to select a meaningful group of courses for a coherent, career-oriented academic program. Students who seek this degree will, upon completion, understand how to communicate competently and effectively in a variety of contexts and mediums. In addition, students will develop a strong foundation in the theory and research underlying effective communication. Finally, students will have demonstrated their competence through the internship and practicum requirements.

Minors in Communication
The Department of Communication offers a minor in Communication that can provide many benefits to students majoring in other programs (for more information, see the requirements for minors in the undergraduate studies section. The Minor in Communication can complement a variety of other degrees.
Students who complete the minor will be able to understand and apply the theories underlying competent and effective communication.

Certificate in Public Relations
The Department of Communication offers a sequence of courses that can prepare students for a successful career in public relations. This writing intensive certificate program includes a selection of required and elective courses that integrate practical knowledge of the PR industry with the communication theory and research that undergird it. The certificate will be valuable both to those already in the workplace, and to undergraduates pursuing a public relations career. Closely aligned with the latest recommendations from the Public Relations Society of America and the National Communication Association, the curriculum will provide students with both the public relations theoretical base and practical hands-on skills necessary to succeed in public relations.

Other Certificate Programs
In addition to offering the Certificate in Public Relations, the department supports a number of certificate programs (including Disaster and Risk Management and Secondary Education). For more information, see Certificate Programs and Interdisciplinary Studies in this Bulletin.

Master of Arts in Communication
The Master of Arts degree program provides the opportunity for an advanced degree program in communication with a strong theory and research emphasis. Students can select courses that emphasize broad categories of communication such as organizational communication and/or mass communication. The program will help students develop a strong background in communication theory and research which would allow for the pursuit of a doctorate in communication, opportunities for professional positions, and the potential for a vertical or lateral move within an organization. Students who complete the M.A. in Communication will have a detailed understanding of the academic discipline. They will have developed critical skills for evaluating communication related theories and research, and the ability to apply that knowledge in their own research or professional settings. For further details, please see the Graduate Studies section of the Communication Department listings.

Undergraduate Studies

General Education Requirements
Majors must satisfy the university and college general education requirements. The college's foreign language requirement may be taken in any language. Communication courses may not be taken on a satisfactory/unsatisfactory basis.

Degree Requirements

Bachelor of Arts in Communication:
Majors must complete a minimum of 36 semester hours in Communication courses. At least 18 of these must be taken at UMSL. Furthermore, at least 12 semester hours of the Communication courses completed must be numbered 3000-4999. All students must complete the required courses and earn a C or better in all communication courses applied to the degree.

Required courses for the major:
COMM 1030, Interpersonal Communication I
COMM 1050, Introduction to Mass Communication
COMM 2231, Communication in the Organization
COMM 3330, Research Methods in Communication I
COMM 3332, Intercultural Communication

At least 3 hours from either the practicum (1193) or internship (3393) courses.

Department Activities and Internships
Co-curricular projects and activities relevant to the personal, professional, and academic goals of each student are sponsored and advised by the department. Along with the traditional academic experience, students can network and develop valuable experiences through their completion of required internship or practicum courses. Students may choose from a wide-range of for-profit, nonprofit, and not-for-profit organizations. Students should visit the Department of Communication for more information regarding existing opportunities, and/or consult with the Internship and Practicum Coordinator to approve a new internship site. By tailoring the internship site to the interests of each student, the internship and practicum augment the academic experience and provide valuable opportunities for majors to apply their communication studies.

Minors in Communication
Coursework for a minor in Communication consists of 15 semester hours of the core requirements for the major. Credit hours in COMM 1195 and/or COMM 3395, may be substituted for credit hours listed below with written consent of the communication department chairperson.
Core Requirements:
COMM 1030, Interpersonal Communication I
COMM 1050, Introduction to Mass Communication
COMM 2231, Communication in the Organization
COMM 3330, Research Methods in Communications I
COMM 3332, Intercultural Communication

At least 9 of the 15 hours required for the minor must be taken at UMSL.

Students must earn at least a C for all communication courses applied to the minor. A minimum GPA of 2.5 is required in the minor.

Certificate in Public Relations
The Certificate in Public Relations integrates essential professional skills with contemporary communication theory and research to provide a grounded sequence based on the recommendations of the Public Relations Society of America and the National Communication Association. To earn the certificate, students must complete a minimum of 24 credit hours in the designated courses.

Required Coursework (18 credit hours):
COMM 1150, Introduction to Public Relations (3)
COMM 3358, Communication in Public Relations (3)
COMM 3360, Health Communication in Mass Mediated Contexts (3)
COMM 4035, Integrated Approaches to Public Relations, Advertising, and Promotion (3)
COMM 4100, Communication Campaigns (3)
COMM 4199, Applied Public Relations (3) or COMM 4393, Internship in Applied Communication (3)

Elective Coursework (minimum of 6 credit hours required):
COMM 1050, Introduction to Mass Communication (3)
COMM 1135, Communication Theory (3)
COMM 2231, Organizational Communication (3)
COMM 2232, Communication in Organizations: Tools for Leadership (3)
COMM 2240, Persuasive Communication (3)
COMM 3330, Research Methods in Communication I (3)
COMM 3395, Special Topics in Communication (3)

For more information on this certificate, please contact the Department of Communication’s Public Relations Sequence Coordinator.

Bachelor of Arts in Communication with Certification in Secondary Education
In addition to the requirements for the B.A. in communication and general requirements set by the College of Education, students must meet the state requirements for certification.

The B.A. and certification for grades 7-12 can be completed by taking a minimum of 39 hours in communication, selected according to departmental recommendations. The B.A. and certification for grades 7-9 can be obtained by taking 36 hours in communication, selected according to departmental recommendations. Requirements of the College of Education include courses in professional education and ENGL 3600, The Curriculum and Methods of Teaching English (same as SEC ED 3600).

Graduate Studies
The department offers a Master of Arts degree in Communication.

Admission requirements:
Applicants must have a baccalaureate in communication or a related discipline by the end of the semester in which they apply. The minimum cumulative GPA required for regular admission to the graduate program in communication is 3.25 on a 4-point scale. In addition three letters of recommendation, at least two of which address the applicant's potential to succeed in graduate studies in communication, are also required. Finally, International students who are non-native speakers of English must obtain a TOEFL score of 600 on the paper-based test (or the equivalent score on other versions of the test) to be considered for admission. Applicants with GPAs that do not meet the admission criterion may elect to take the Graduate Record Exam (GRE) to offset these deficiencies. Contact the Graduate Program Coordinator for more information.

Degree Requirements:
The MA in Communication requires either 30 or 36 credit hours of coursework, depending on the exit project. Candidates approved for a thesis or internship will complete at least 30 semester hours of approved study, at least 21 of which must be taken in courses offered by the department. Candidates completing the non-thesis, non-internship option must complete 36 semester hours of approved study, 27 of which must be taken in courses offered by the department.
Communication
COMM 6400, Seminar in Communication Theory
COMM 6405, Introduction to Communication Research Methods
COMM 6411, Seminar in Mass Communication
COMM 6431, Seminar in Organizational Communication
COMM 6435, Seminar in Advanced Applied Communication Research

After consultation with the graduate coordinator the student selects either a 36 hour or 30 hour program and, in the latter case, develops an appropriate exit project with input from prospective committee members. The expectation for each internship varies by project and committee, but submission of an essay in which the coursework and internship experiences are integrated is typically required. Internship exit projects and theses must be approved by the student's committee and assigned a grade by the advisor. The candidate must pass an oral examination conducted by student's committee regardless of exit option selected.

Students who complete a thesis or internship must complete no less than a 3 hour internship or 6 credit hour thesis.

Graduate Certificate: ACP Instructional Communication (Pending Coordinating Board of Higher Education Approval)
The ACP Instructional Communication Certificate is designed for secondary educators interested in teaching public speaking and related courses to high school students for college credit through programs such as UMSL's Advanced Credit Program. The certificate combines practical application with theory and research to provide teachers with a grounded approach to delivering college appropriate courses with empirical research in communication at the foundation.

Through a combination of online courses and independent studies, students can complete the ACP Communication graduate certificate without visiting campus.

Students who earn the ACP Instructional Communication graduate certificate will be eligible to teach college level courses in public speaking at the secondary level.

Requirements: Graduate Standing. To earn the ACP Communication certificate, students must complete a minimum of 18 hours. Typically, students will earn the certificate by completing the following courses in sequence:

COMM 5000: ACP-Elements of Public Speaking (3 credit hours) [R]
COMM 5010: ACP-Elements of Debate (3 credit hours) [R]
COMM 5020: ACP- Persuasion and Influence (3 credit hours) [R]
COMM 5050: ACP-Special Topics in Communication (3-6 credit hours, may be repeated).* [E]
COMM 5099: ACP-Implementation and Observation (3 credit hours).* [R]

*Pre-requisites: Students must have completed or currently be enrolled in each of the following courses: COMM 5000, COMM 5010, COMM 5020

[R] Required for the certificate  [E] Elective

+ Other 5000+ electives may be substituted based on approval and availability. Contact the Graduate Coordinator in the Department of Communication for more information.

Career Outlook
The B.A. in communication prepares students for careers in numerous fields. Past graduates are working in the following positions: promotion and public relations, administration, advertising, marketing, web page design, market research, corporate media, sales, training, speech writing, teaching, and research. Other students have pursued graduate education in communication programs offering the M.A. and Ph.D. degrees.

Course Descriptions
Prerequisites may be waived by consent of the instructor.

COMM 1000 Effective Communication for College (3)
A communication by objective approach is used to introduce students to effective communication in a college environment. Emphasis is placed on preparing and delivering effective messages whether written or spoken, formal or informal, digital or hardcopy.

COMM 1030 Interpersonal Communication I (3) [C]
Introduction to the theories of interpersonal communication. Emphasis on basic principles involved in one-to-one interactions.

COMM 1040 Introduction to Public Speaking (3) [C]
Theories and techniques of organization, evidence, argumentation, persuasion, and delivery in public
COMM 1041 Presentational Speaking (3)
Theories and techniques of presenting information in various contexts, formats, and settings. Emphasis is placed on strategic coordination for message effectiveness in a team-based environment.

COMM 1050 Introduction to Mass Communication (3) [C] [P]
Introduction to oral, print, and electronic media of communication, including emerging digital formats. The course covers the major theories of mass communication effects as well as the social, organizational, economic, political and technological factors that shape the creation and reception of mass media messages.

COMM 1108 Advertising Copywriting (3)
Same as ENGL 2080. To give students a hands-on approach for writing advertising material for print and broadcast against tight deadlines in a professional setting.

COMM 1135 Communication Theory (3) [P]
Survey of elements and processes critical to human communication behavior. Comparison of influential communication theories.

COMM 1150 Introduction to Public Relations (3) [PR]
Prerequisite: COMM 1040 or 1050. Publicity methods and public relations representation of profit and nonprofit institutions to the public; use of communication research and media, as applied to the public relations profession.

COMM 1193 Practicum in Applied Communication (1-3)
Prerequisite: Consent of instructor. Practicum work at any of the UMSL public relations offices, sports and school newspapers, Office of Research or Photography Services. Work must be done on campus, under supervision of a working professional in the field, in consultation with a faculty member.

COMM 2230 Small Group Communication (3)
Prerequisite COMM, 1040. Development of communication skills needed in small group decision making. Application of these skills to contemporary problems.

COMM 2231 Communication in the Organization (3) [C] [P]
Course integrates communication theories applicable to the structure and function of organizations. The effect of communication variables on departmental interface, member satisfaction and motivation, leadership and subordinate styles, and perception of the organization by the external environment.

COMM 2232 Effective Communication in the Organization: Tool for Leadership (3) [P]
Telecourse designed to equip students with communication skills applicable to the organizational context. The course will present effective strategies for the articulation of ideas, with particular emphasis on the development of leadership skills.

COMM 2240 Persuasive Communication (3) [P]
Prerequisite: COMM, 1040. A study of persuasive communication, including theories, techniques, forms, functions, applications, potential, and limitations for the individual and organizations. Insights from both classical rhetoric and contemporary communication theory.

COMM 2243 Communication in American Politics (3)
Prerequisite: COMM, 1040. Analysis of audience response and media preferences in political campaigns, campaign speeches, candidates' uses of television and other mass media, and measuring effectiveness of campaign communications.

COMM 2250 Strategic Communication (3)
Prerequisite: COMM 1135 or consent of instructor. Principles of message construction in oral, written, and/or mediated communication. Emphasis is placed on logical reasoning, audience analysis, message structure, and attainment of communication goals.

COMM 3130 Advanced Interpersonal Communication (3)
Prerequisite: COMM 1030. Continuation of COMM 1030, focusing on contemporary theories and research regarding interpersonal relationships.

COMM 3150 Crisis, Disaster, and Risk Communication (3)
Course will focus on three specialized areas within public relations: communication methods and infrastructure in relation to large-scale disaster management; organizational crisis communication; and public communication regarding environmental, chemical and other public risk issues.

COMM 3330 Research Methods in Communication I (3) [C] [P]
Prerequisite: COMM 1135. Introduction to the fundamental tools of quantitative research in communication. Focus of the course is on reading and comprehending communication research reports rather than conducting quantitative research.
COMM 3331 Research Methods in Communication II (3)
Prerequisite: COMM 3330. Extends the study of research methods covered in COMM 3330 to the planning and executing of research projects. Students acquire data analysis, research design, and basic measurement skills. Problems of quantitative study unique to the study of communication are explored.

COMM 3332 Intercultural Communication (3) [C]
Prerequisite: Junior standing or consent of the instructor. Study of culture as a variable in both interpersonal and collective communicative situations. Emphasis upon opportunities and problems arising from similarities or differences in communication patterns, processes, and codes among various cultural groups.

COMM 3336 Communication in Advertising (3)
Prerequisites: COMM 1050 and Junior standing or consent of instructor. Overview of components in persuasive messages and how advertising messages and campaigns use various media to reach target audiences.

COMM 3337 Male/Female Communication (3)
Prerequisite: Junior standing or consent of instructor. This course explores the influence of gender upon contemporary American communication behavior. Topics include semantic and syntactic variations in male and female speech, gender-role development as process and product of communication, analysis of communication patterns and barriers within gender groups. Mass, public, interpersonal, and dyadic communication contexts are considered.

COMM 3342 Modern Rhetoric and Public Address (3)
Prerequisite: COMM 1040 or consent of instructor. A survey of the history and theories of persuasion and public address from the post-Renaissance era to the present.

COMM 3350 Physiological Measurement in Communication (3)
Prerequisites: COMM 1135, COMM 3330, Junior standing, or consent of instructor. Overview of physiological measurement techniques found in classic and contemporary communication research. Conceptual and practical elements are emphasized.

COMM 3352 Mass Media in Society (3)
Prerequisite: COMM 1050. Examination and evaluation of theories and literature concerning media content and its effect on society. Topics include the evidence relating to the effect of entertainment and information media on audiences' behavior and attitudes, the factors that contribute to individual differences in responses to media content, and the ways the organizational structure of the media industries shape the type of content that is produced.

COMM 3358 Communication in Public Relations I (3) [PR]
Prerequisite: COMM 1150. An overview of communication within the area of public relations. Emphasis on ethics, law, professional standards, and written communication. Case study approach.

COMM 3359 Communication in Public Relations II (3)
Prerequisites: COMM 3358. A continuation of COMM 3358 with special attention given to communication theories and strategies that underlie public relations initiatives.

COMM 3360 Health Communication in Mass Mediated Contexts (3) [PR]
Prerequisite: COMM 1050 or consent of instructor. Examination of the theories and literature dealing with the role of mass media in health behavior. Topics include health promotion and prevention campaigns and the effect of news and entertainment media on health behaviors.

COMM 3361 Health Communication in Interpersonal and Organizational Contexts (3)
Prerequisites: COMM 1030 and COMM 2231, or consent of instructor. Examination of the theories and literature dealing with the role of interpersonal organizational communication in health behavior and health care organizations.

COMM 3362 Storytelling (1-3)
Prerequisite: Junior standing or consent of instructor. This course gives an overview of the history of storytelling, types of tales, and appropriate uses for storytelling. The primary emphasis of the course is in developing storytelling skills through preparation, performances, and evaluation.

COMM 3392 Administration of Cocurricular Activities (3)
Prerequisite: COMM 1040 or Consent of Instructor. A survey of skills required to administer the various cocurricular activities associated with teachers who teach speech and communication courses in the secondary schools. Practical experience in skills such as: operation of debate tournaments, public speaking competitions, and mock trial competitions.

COMM 3395 Special Topics in Communication (3) [P]
Prerequisite: Senior or graduate standing. In-depth study of topics pertaining to current research in the department. May be repeated up to six credit hours if topic is different.
COMM 3400 Language and Behavior (3)
Prerequisite: COMM 1030, junior standing or consent of the instructor. Examination of language and behavior which includes etiological considerations, functions, meanings, perceptions, and process-interaction rules.

COMM 3410 Nonverbal Communication (3)
Prerequisite: COMM 1030, junior standing or consent of the instructor. An examination of the paralinguistic cues that accompany normal communication such as facial expression, eye behavior, gestures and body movements, accents and dialects, and the impact of touch, among others. The implications for message construction, delivery, and perception are discussed.

COMM 3500 Dysfunctional Communication (3)
Prerequisite: COMM 1030, junior standing or consent of the instructor. An examination of some of the factors that impede effective communication. Emphasis is placed both on individual attributes such as verbal aggression and communication apprehension, as well as context-based factors found in family and romantic relationships, among others.

COMM 3510 Communication and Conflict (3)
Prerequisite: COMM 1030, junior standing or consent of the instructor. An examination of the features that contribute to effective and ineffective communication during conflicts. The course integrates communication research and theory with practical applications in negotiation and conflict resolution.

COMM 3520 Communication Problems in Children (3)
Prerequisite: COMM 1030, junior standing or consent of the instructor. A review of communication research on developmental difficulties in children. Theories of communication, language development, acquisition, correction, and implementation are discussed.

COMM 3600 Communication and Families (3)
Prerequisite: COMM 1030, junior standing or consent of the instructor. An analysis of research and theory involving communicative attributes and phenomena unique to the family context. Communication between parent-child, siblings, and extended family members, as well as more complex family structures are addressed. Functional and effective communication techniques are also discussed.

COMM 3610 Communication and Relationships (3)
Prerequisite: COMM 1030, junior standing or consent of the instructor. An examination of the contributions of communication researchers to the study of developing and maintaining human relationships with particular focus on communication in friendships and romantic relationships.

COMM 3700 Computer Mediated Communication (3)
Prerequisite: COMM 1030, COMM 1050, junior standing or consent of the instructor. A comparison of the similarities and differences between face-to-face communication and computer-mediated communication. Synchronous and Asynchronous methods of interaction are examined, as well as other characteristics unique to the digital environment.

COMM 3800 Trends in Mass Communication (3)
Prerequisite: COMM 1050, junior standing, or consent of the instructor. A theoretical and research-based examination of popular trends in Mass Communication. May be repeated once if topics are different.

COMM 4035 Integrated Approaches to Public Relations, Advertising, and Promotion (3) [PR]
Prerequisite: COMM 3358, junior standing, or consent of the instructor. Overview of how publicity, advertising and other promotional activities can be integrated into a single cohesive communication initiative or program.

COMM 4100 Communication Campaigns (3) [PR]
Prerequisites: COMM 1030, COMM 1050, COMM 1150, and junior standing or consent of the instructor. This course focuses on the design, analysis, and implementation of mass communication-based information campaigns by integrating research and theory from interpersonal, mass communication, and public relations.

COMM 4199 Applied Public Relations (3) [P]
Prerequisites: COMM 1150, COMM 3358, COMM 4035, junior standing, or consent of the instructor. This course provides students with an applied experience in public relations. The course may require on-site visits to private firms and/or the development of multi-year strategic plans.

COMM 4390 Directed Readings (3)
Prerequisite: Consent of instructor; not open to students who have any Y or delayed grades outstanding. Supervised independent study involving readings, conferences, papers, etc., in one of the department's disciplines: communication theory and rhetoric, or mass communication.

COMM 4391 Supervised Research (1-5)
Prerequisites: Junior/senior standing and consent of instructor; not open to students who have any Y or delayed grades outstanding. Supervised field or laboratory research, data collection, literature searches, qualitative or quantitative data analysis, report writing and other techniques used by communication researchers. Repeatable, but no more than 5 credit hours may be earned in supervised research courses.
COMM 4393 Internship in Applied Communication (3-6) [C] [P]
Prerequisites: Senior standing, with at least 12 hours of course work in Communication, consent of instructor; open to communication majors only. Advanced practical work in business and organizational communication, public relations, or campaign communication. Work must be done under the supervision of a working professional in consultation with a faculty member. Repeatable, but no more than six hours total credit may be earned in internship courses toward the 36-hour minimum required for the degree.

COMM 5000 ACP- Elements of Public Speaking (3)
Prerequisites: Graduate Standing, Special consent. This course focuses on the delivery of theory and research-based public speaking content for teachers seeking certification to teach communication courses for the Advanced Credit Program.

COMM 5010 ACP-Elements of Debate (3)
Prerequisites: Graduate Standing, Special consent. This course focuses on developing a comprehensive understanding of the theory and research typically taught in college level forensics and debate courses. Designed for teachers seeking certification to teach communication courses for the Advanced Credit Program.

COMM 5020 ACP- Persuasion and Influence (3)
Prerequisites: Graduate Standing, Special consent. This course focuses on developing a strong background in the research and theory that underlies attempts to persuade and influence others through the use of effective communication. Designed for teachers seeking certification to teach communication courses for the Advanced Credit Program.

COMM 5050 ACP-Special Topics (3-6)
Prerequisites: COMM 5000, 5010, and 5020, Special Consent. This rotating topics course focuses on developing knowledge of communication theory and research applicable to the context of teaching public speaking and debate. Topics may include such issues as nonverbal communication, conflict communication, and argumentation, among others. Designed for teachers seeking certification to teach in the Advanced Credit Program. May be repeated for a maximum of 6 credit hours.

COMM 5099 ACP-Observation and Implementation (3)
Prerequisites: COMM 5000, 5010, 5020 and 5050, Special Consent
Provides a capstone experience for teachers seeking to teach communication courses in the Advanced Credit Program. While enrolled, participants will implement an ACP course in their school under the supervision of the Communication Department's Advanced Credit Program Liaison.

COMM 6406 Introduction to Communication Education Research (3)
Prerequisite: Graduate Standing. The development of educational communication research as a social scientific field. Critical evaluation of techniques and problem selection. Emphasis on the function of communication education concept formation and theory.

COMM 6454 Seminar in Communication Systems and Technologies (3)
Prerequisite: Graduate Standing. Examines innovation in modern communications technologies, their impact on society, and their contribution to the information revolution.

COMM 6492 Practicum in Computer-Mediated Communication (1-3)
Prerequisite: Graduate Standing, Special Consent Collaborative research with a faculty member on a communication topic of mutual interest. May be repeated up to 6 hours.

COMM 6495 Seminar in Special Topics in Communication (3-9)
Prerequisite: Graduate Standing. Selected topics in the study of communication. Review of the communication theory and methods appropriate to the topic. The course includes a research project. May be repeated if the topic is different.

COMM 6498 Thesis Research and Preparation (1-10)
Prerequisite: Graduate standing. Individual research for and preparation of the graduate thesis.

COMM 6499 Graduate Internship (3-6)
Prerequisites: Graduate standing and approval of graduate coordinator. Individual on-site internship in organizational or mass communication setting.

COMM 6500 Seminar in Communication Theory (3)
Prerequisite: Graduate Standing. Examination of the theoretical, methodological, and philosophy of science issues in the discipline of communication. Examines general micro, contextual, and interdisciplinary (symbiotic) communication theories. Required of all graduate communication students.

COMM 6510 Advanced Communication Research Methods I (3)
Prerequisite: Graduate Standing. Concerns the logic and forms of communication inquiry including an examination of various communication research and evaluation methods and their theoretical frameworks. Topics include communication research strategy and methodology, scientific process, derivation and test of
hypotheses, methods of research design. Provides an orientation to graduate research including proposal development for thesis, internship and paper requirements, and includes a theory-based research project of the student’s choice. Required of all graduate communication students.

COMM 6515 Advanced Communication Research Methods II (3)
Prerequisite: COMM 6510 or permission of instructor. Overview of the most commonly utilized methods in quantitative data analysis statistical methods in communication with an emphasis on understanding how the statistic is reported in scholarly articles and when to use that method, rather than in the mathematical computation of the method. Topics include: descriptive statistics, single and multi-factor analysis of variance, simple and multiple linear regression, basics of nonlinear regression, analysis of categorical data, meta-analysis, and non-parametric statistical methods. Required of all graduate communication students.

COMM 6600 Seminar in Organizational Communication (3)
Prerequisite: Graduate Standing. Explores communication theories and topics related to organizational, institutional, and social system contexts and reviews the communication literature on behavior in organizations. Emphasizes a case study approach to the communication strategies used by agencies and corporations. Required of all graduate communication students.

COMM 6700 Seminar in Mass Communication (3)
Prerequisite: Graduate Standing. Examines the communication research literature pertaining to media industries, content, and effects. A broad range of media forms and possible effects are considered.

COMM 6900 Directed Readings in Communication (1-10)
Prerequisites: Graduate standing and consent of instructor. Independent study of published research and reports relating to a specific topic in communication. May be repeated for credit with permission of advisor.

COMM 6910 Supervised Research in Communication (1-3)
Prerequisites: Graduate standing and consent of instructor. Primary research on specific topic in communication. May involve collaborative research with a faculty member on a topic of mutual interest or data collection/analysis for a project developed by the student under the guidance of a faculty member. May be repeated for credit with permission of advisor.

[C] = Core course required for major or minor in Communication
[P] = Course fulfills elective requirement for Certificate in Public Relations
[PR] = Course is required for Certificate in Public Relations
[GC] = Graduate core course required for the Master of Arts in Communication degree

The following courses have been moved to Media Studies:

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<td>COMM 1070</td>
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<td>COMM 1108</td>
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<td>COMM 2118</td>
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<td>COMM 2119</td>
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<td>COMM 2256</td>
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<td>COMM 3214</td>
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<td>COMM 3350</td>
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<td>COMM 3394</td>
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Department of Music

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| Art and Art History | Communication | Fine Arts and Communication | Theatre, Dance, & Media Studies |

UMSL Home

Department of Music Home Page

Faculty

Robert Nordman, Chair, E. Desmond Lee, Professor of Music Education
M.M., Saint Louis Conservatory of Music
Diane Touliatos, Curators’ Professor
Ph.D., The Ohio State University
Douglas Turpin, E. Desmond Lee, Professor Emeritus of Music Education
D.Ed., Washington University
Fred Willman, Curators’ Teaching Professor
Ph.D., University of North Dakota
Barbara Harbach, Professor
D.M.A., University of Rochester, Eastman School of Music
John Hylton, Professor,
D.Ed., Penn State University
Kenneth E. Miller, Professor Emeritus,
Ph.D., Northwestern University
Evelyn Mitchell, Professor Emerita
Arnold Perris, Professor Emeritus
Ph.D., Northwestern University
Robert J. Ray, Professor Emeritus
B.M., Northwestern University
James Richards, Interim Dean, College of Fine Arts and Communication, Professor,
Ph.D., University of Rochester, Eastman School of Music
Kurt S. Baldwin, Associate Professor, Arianna String Quartet
M.M., New England Conservatory of Music
David Gillham, Associate Professor, Arianna String Quartet
M.M., Peabody Conservatory
James E. Henry, Associate Professor
Ph.D., Washington University
John McGrosso, Associate Professor, Arianna String Quartet
M.M., Juilliard School of Music
Joanna Mendoza, Associate Professor, Arianna String Quartet
M.M., Juilliard School of Music
Wm. Thomas Walker, Associate Professor, Dean, Continuing Education and Outreach
D.A., University of Northern Colorado
Zachary Cairns, Assistant Professor
Ph.D., University of Rochester, Eastman School of Music
Stella Markou, Assistant Professor
M.M., Cleveland Institute of Music
James Widner, Teaching Professor, (Jazz Studies)
M.A., Memphis State University
Gary Brandes, Associate Teaching Professor
M.M., University of Missouri-Columbia
Alla Voskoboynikova, Associate Teaching Professor (Piano)
M.M., Gnnessins Academy of Music-Moscow, Russia
Matthew Henry, Assistant Teaching Professor, (Percussion)
M.M., Webster University
Kathryn Haggans, Associate Adjunct Professor (Voice)
Ph.D., University of Arizona
Aurelia Hartenberger, Associate Adjunct Professor (Music Education)
Music faculty members have received recognition for distinguished achievements in conducting, composition, and performance. The faculty is also recognized for research in musicology, music theory, and music education. Part-time applied music lecturers are professional musicians.

The Department of Music is accredited by the National Association of Schools of Music.

Performing Ensembles

Membership in Music Department performing ensembles (choral, orchestral, concert and pep band, jazz, chamber, etc.) is open to UMSL students in all majors and minors. Admission to most ensembles is by audition (consent of the instructor). Music 1400, University Chorus, is open to all university students without audition.

General Information

Degrees and Areas of Concentration

The Department of Music offers programs of study leading to the B.M. degree in music education (and state teaching certification in grades K-12); the B.M. degree with an emphasis in performance; the B.M. degree
with elective studies in business; and the B.A. degree in music.

Instruction in piano, organ, voice, and all band and orchestral instruments is given by full-time faculty and part-time professional musicians, some of whom are members of the St. Louis Symphony Orchestra. Faculty recitals are regularly scheduled.

Music Minors
A minor in music is available.

Facilities
The Department's facilities, classrooms, studios, practice rooms, and listening labs are located in the Music Building. Rehearsal rooms are in the Villa. Performance spaces are in the Touhill Performing Arts Center.

Ensembles
Fourteen performing ensembles are open to all by audition with credit optional:
EN PER 1400, University Chorus
EN PER 1410, The University Singers
EN PER 1420, University Concert Band
EN PER 1500, University Orchestra
EN PER 1520, University Band
EN PER 1530, University Wind Ensemble
EN PER 1541, Chamber Ensemble Brass
EN PER 1542, Jazz Combo
EN PER 1543, Chamber Ensemble Percussion
EN PER 1544, Chamber Ensemble Strings
EN PER 1545, Chamber Ensemble Voice
EN PER 1546, Chamber Ensemble Woodwind
EN PER 1550, Jazz Ensemble
EN PER 1560, Opera Workshop

Each year more than 100 recitals and concerts are presented.

Additional information may be obtained by contacting the Department of Music: (314) 516-5980.

Undergraduate Studies

General Education Requirements
General education requirements apply to all majors, except that students in the B.M. with elective studies in business and B.M. in music education degree programs are not required to take a foreign language. Courses required for degree programs may not be taken on a satisfactory/unsatisfactory basis. Students must receive at least a C- in each music course and maintain an overall GPA of 2.5 in all music courses to meet degree requirements.

Students may complete any number of hours of applied music (private lesson) toward a degree. Non-music majors may complete no more than 8 hours in music-performing organizations (EN PER 1400, University Chorus; EN PER 1410, University Singers; EN PER 1420, University Concert Band; EN PER 1500, University Orchestra; EN PER 1520, University Band, et seq.) toward graduation, including credit transferred. Courses in applied music (private lessons and performing organizations) do not fulfill the humanities general education requirement. MHT 1090, Non-Western Music I meets the non-Euro-American study requirement.

General Education Learning Outcomes for Music Students

- Students will demonstrate enhanced aesthetic appreciation and discrimination.
- Students will demonstrate knowledge of a wide range of world music.
- Students will demonstrate knowledge of relationships among the arts, societal influences on music and musical influences on society.

Degree Requirements
Admission to all music degree programs is by audition and interview to demonstrate musical aptitude and potential, moderate technical proficiency, and seriousness in selecting music as a four-year course of study. In addition to the applied music audition, placement examinations in music theory and music history may be required to confirm students' prior experience in these areas. Auditions are scheduled from January to May for the fall semester; a limited number are held in December for the spring/winter semester. Students in applied music must pass a junior-standing examination to confirm their level of performance skills for enrollment in AP MUS 3440 - 3459 or AP MUS 4440 - 4459. This examination is usually taken at the same time as the applied music jury for the fourth semester of enrollment in AP MUS 1440 - 1459.

Evidence of sound musicianship, a close acquaintance with an appropriate portion of musical literature, and the ability to bring it to actual performance are required for graduation in all music degree programs. Students in the bachelor of music-performance emphasis fulfill this requirement with junior and senior recitals. Those in all other degree programs must satisfy the requirement by participating in three regularly
scheduled student recitals during the last two semesters of applied music study, or by performing for a special
jury of faculty members. The faculty may invite students who are not in the bachelor of music-performance
emphasis program to give public senior recitals with the recommendation of the applied music instructor.

Music majors are required to enroll in an approved ensemble (University Band, University Singers, University
Chorus, or University Orchestra), to study one applied area progressively each semester, and to enroll in the
appropriate pedagogy and literature seminar each semester of the degree program. Music education majors
are exempt from these requirements during the student teaching semester. The following specific ensemble
enrollments, depending upon the applied music area, are required:

Wind and percussion students—University Band; string students—University Orchestra; voice students
—University Singers (or by special permission, University Chorus); keyboard and guitar students—any
approved ensemble, but those in the bachelor of music in music education program must enroll in an
ensemble compatible with the teaching certification they are pursuing. Instrumental students may be required
to participate in additional ensembles to enhance their musical development.

Majors are required to appear in performance at the department’s discretion and to attend a prescribed
number of departmental recitals. Non-keyboard players are required to pass an exam in piano proficiency:
PRACTM 2180, Piano Proficiency IV, or equivalent for instrumentalists, or PRACTM 3290, Piano Proficiency IV,

The music department may require students to pass a placement test to enroll in the next level course,
provided this or an equivalent test is administered to all students seeking to enroll in that course.

Core Curriculum
The following core courses are required for all music majors:

Music Theory
THYR COM 1301, Theory of Music I
THYR COM 1302, Aural Training I
THYR COM 1311, Theory of Music II
THYR COM 1312, Aural Training II
THYR COM 2301, Theory of Music III
THYR COM 2302, Aural Training III
THYR COM 2311, Theory of Music IV
THYR COM 2312, Aural Training IV
THYR COM 3410, Orchestration

Piano Proficiency
PRACTM 1140, Piano Proficiency I
PRACTM 1150, Piano Proficiency II
PRACTM 2160, Piano Proficiency III
PRACTM 2180, Piano Proficiency IV

Music History and Literature
MHLT 1010, History of Western Music I
MHLT 1020, History of Western Music II
and at least one upper level history course 4000 – 4280.

Applied Music
AP MUS 1460, AP MUS 3460, AP MUS 4460, Seminar in Pedagogy and Literature

In addition to the core curriculum, students must fulfill the requirements for the specific degree program or
emphasis area as listed below:

Learning Outcomes for All Music Degrees
- Students will demonstrate the solo and ensemble performance skills to become a professional musician.
- Students will demonstrate knowledge in music theory, music history, music literature, to become a
  professional musician.
- Students will demonstrate the ability to speak and write clearly and effectively about music.

Bachelor of Arts in Music
In addition to the required core curriculum, candidates must complete the following:
MHLT 1090, Non-Western Music I,
PRACTM 2510, Conducting I
PRACTM 3920, Senior Research

Applied Area
8 credit hours of private lessons
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Ensemble
4 hours maximum credit

Foreign Language
Candidates for the B.A. degree in Music are required to complete 13 credit hours or the equivalent in proficiency in one foreign language. Please see the College of Fine Arts and Communication’s Baccalaureate Degree Requirements for additional information about the foreign language requirement.

Bachelor of Music in Music Education

In addition to the required music core curriculum, candidates must complete the following:

General Education Requirements
At least one course from two of the following fields: music (excluding applied music), art, foreign language, Western and non-Western cultures, philosophy, literature, classical studies, and theatre and drama. All of the courses in the General Education Requirement Area must be a minimum of two semester hours. Other General Education requirements include the following:

Communication Skills
At least two courses in English composition and one in oral communications.

Social Studies
Courses in American history, American government and general psychology.

Natural Science
One course in physical or earth science; one course in a biological science. At least one of these courses must have a laboratory component.

Mathematics
One college-level mathematics course.

Applied Area
7 credit hours of private lessons

Practicum
PRACTM 2510, Conducting I

Instrumental Certification
PDGOGY 1250, 1260, 1270, 1280, Instrumental Techniques
PRACTM 2610, Instrumental Literature Laboratory
PRACTM 3521, Conducting II - Instrumental

Vocal Certification
PRACTM 1250, Singer's Diction: English, Italian and German
PRACTM 1260, Singer's Diction: Latin, French, and Spanish
PRACTM 2611, Elementary School Choral Literature Laboratory
PRACTM 3190, Piano Proficiency V
PRACTM 3290, Piano Proficiency VI
PRACTM 3522, Conducting II - Choral
PRACTM 3621, Junior - Senior High School Choral Literature Laboratory
THRY COM 3420, Choral Arranging

Vocal certification students whose applied area is not voice must consult an advisor for additional courses.

Ensemble
4 hours maximum credit

Curriculum and Methods of Teaching
*MUS ED 3570, Curriculum and Methods of Teaching Elementary School Music
*MUS ED 3670, Philosophic and Practical Foundations of the Secondary Music Education Curriculum

Instrumental Certification
*MUS ED 3680, Curriculum and Methods of Teaching Instrumental Music I
*MUS ED 3700, Curriculum and Methods of Teaching Instrumental Music II

Vocal Certification
*MUS ED 3710, Curriculum and Methods of Teaching Secondary Choral Music

*Must be taken in residence before enrolling in SEC ED 3293 and SEC ED 3294.

Proficiency Exam
Students working toward certification in choral/vocal or instrumental music K-12 are required to pass a
proficiency examination before admission to student teaching in music, usually before or during the sixth semester of their program.

**Professional Education and Student Teaching**

**Level I Courses:**  
TCH ED 2209, Foundations of Teaching and American Schools  
TCH ED 2212, Introduction to Learners

**Level II Courses:**  
TCH ED 3312, Psychology of Teaching and Learning  
TCH ED 3313, Psychology of the Exceptional Child  
TCH ED 4320, Classroom Management  
TCH ED 4391, Teaching Reading in Secondary School Content Area

**Level III Courses:**  
SEC ED 3293, Student Teaching in Music, K-6  
SEC ED 3294, Student Teaching in Music 7-12

**Learning Outcomes for Music Education Students**

- Students will demonstrate the solo and ensemble performance skills to become a professional music educator.
- Students will demonstrate knowledge in music theory, music history, music literature, to become a professional music educator.
- Students will demonstrate pedagogical skills and knowledge of resources to become a professional music educator.
- Students will demonstrate the ability to speak and write clearly and effectively about music.

**Bachelor of Music with an Emphasis in Performance**

In addition to the required music core curriculum, candidates must complete the following:  
M H L T 1090, Non-Western Music I  
PDGOGY 1560, Piano Pedagogy (Keyboard students only)  
PRACTM 2510, Conducting I  
THRY COM 3110, Analysis of Twentieth-Century Techniques  
THRY COM 3120, Tonal Counterpoint  
PRACTM 3190, Piano Proficiency V (voice majors only)  
PRACTM 3290, Piano Proficiency VI (voice majors only)  
PRACTM 3521 or PRACTM 3522, Conducting II  
PRACTM 3920, Senior Research

**Music History and Literature**  
An additional upper level course M H L T 4000-4280, is required.

**Applied Area**  
12 credit hours of Applied Music, including 8 credit hours of AP MUS 4440-4459 level, including required junior and senior recitals.

Students in Applied Music must pass a junior-standing exam to confirm their level of performance skills for enrollment in AP MUS 4440-4459.

**Ensemble**  
Participation is required as follows:  
Large Ensemble---4 hours maximum credit  
Chamber Ensemble/Accompanying---6 hours

**Foreign Language**  
Candidates pursuing this emphasis area with an applied area in voice must complete two semesters of one foreign language selected from French, German, or Italian.

**Bachelor of Music with Elective Studies in Business**

In addition to the required music core curriculum, candidates must complete the following:

Additional general education requirements, prerequisites to the required business administration courses:  
PSYCH 1003, General Psychology, or SOC 1010, Introduction to Sociology  
ECON 1001, Principles of Microeconomics

**Applied Area**  
8 credit hours of applied music
Music History and Literature:
M H L T 1090, Non-Western Music I
One additional course from MHLT 4000 - 4459 is required.

Practicum
PRACTM 2510, Conducting I

Ensemble
4 hours maximum credit

Internship
PRACTM 4920, Internship (replaces PRACTM 3920 Senior Research in Core Curriculum)

English
One of the following English courses is required:
ENGL 3100, Advanced Expository Writing
ENGL 3120, Business Writing
ENGL 3130, Technical Writing

Business Administration
The following courses in business administration are required:
ACCTNG 2400, Fundamentals of Financial Accounting
ACCTNG 2410, Managerial Accounting
MGMT 3600, Management as a Behavioral Science I
MKTG 3700, Basic Marketing

Two courses selected from the following list must also be taken:
ACCTNG 3441, Income Taxes
BUS AD 3900, Business Law: Contracts, Sales, Secured Transactions, Bankruptcy
BUS AD 2900, Legal Environment of Business
FINANCE 3500, Financial Management
INFSYS 1800, Computers and Information Systems
MGMT 3611, Advanced Management and Organizational Behavior
MGMT 3621, Human Resource Management
MGMT 3622, Industrial and Labor Relations
MKTG 3710, Consumer Behavior

Curricula for Minors

Minor in Music
Candidates must complete the following courses (26 hours):

Music Theory
THRY COM 1301, Theory of Music I
THRY COM 1302, Aural Training I
THRY COM 1311, Theory of Music II
THRY COM 1312, Aural Training II

Music History and Literature
M H L T 1010, History of Western Music I or
M H L T 1020, History of Western Music II
Any M H L T course 4220-4280

Applied Area
4 credit hours of private lessons

Ensemble
2 credit hours (4 hours maximum credit)

Six additional credit hours to be chosen from courses such as the following:
PRACTM 2160, Piano Proficiency III (Prerequisite: PRACTM 1150)
PRACTM 2180, Piano Proficiency IV
THRY COM 2301, Theory of Music III
THRY COM 2302, Aural Training III
THRY COM 2311, Theory of Music IV
THRY COM 2312, Aural Training IV
THRY COM 3410, Orchestration

Music education methods courses and instrumental techniques courses may not be taken to complete this minor.
Non-keyboard players are required to pass an exam of piano proficiency PRACTM 1150 or equivalent.

A GPA of 2.5 for all music hours is required to complete this minor.

**Minor in Music Education**
The minor in music education is designed to provide a second classification area in choral/vocal, grades K-9 for students enrolled in other education programs that lead to initial teaching certification.

Candidates must complete the following courses (41 hours):

**Music Theory**
- THRY COM 1301, Theory of Music I
- THRY COM 1311, Theory of Music II
- THRY COM 1302, Aural Training I
- THRY COM 1312, Aural Training II

**Music History and Literature**
- M H L T 1010, History of Western Music I
- M H L T 1020, History of Western Music II

**Music Education**
- MUS ED 3570, Curriculum and Methods of Teaching Elementary School Music*
- MUS ED 3670, Philosophic and Practical Foundations of the Secondary Music Education Curriculum*

*Elementary education majors will omit Music 3770 from their regular elementary program to take these courses. Also required, as applicable, is SEC ED 4399, Student Teaching.

**Practicum**
- PRACTM 1140/1150, Piano Proficiency
- PRACTM 2160/2180, Piano Proficiency IV
- PRACTM 2510, Conducting I
- PRACTM 2611, Elementary School Choral Literature Laboratory
- PRACTM 3621, Junior-Senior High School Choral Literature Laboratory

**Ensemble**
- EN PER 1400/1410, Chorus or University Singers

**Applied Music**, voice (at least 2 hours must be private rather than class voice)

Students must receive at least a C- in each music course and maintain a 2.5 GPA in all music courses except that Chorus/Singers is not included in the GPA.

**Minor in Jazz Studies**
Candidates must complete 31 credit hours from the following:

**Music Theory**
- THRY COM 1301, Theory of Music I
- THRY COM 1302, Aural Training I
- THRY COM 1311, Theory of Music II
- THRY COM 1312, Aural Training II

**Music History and Literature**
- M H L T 1020, History of Western Music II
- M H L T 1070, Introduction to Jazz

**Applied Area**
- 4 credit hours of private lessons

**Piano Proficiency**
- PRACTM 1140/1150, Piano Proficiency
- PRACTM 2160, Piano Proficiency III
- PRACTM 2170, Jazz Keyboard Harmony

**Ensemble**
- 2 credit hours minimum, to be selected from:
  - EN PER 1542, Jazz Combo
  - EN PER 1545, Chamber Ensemble Voice
  - EN PER 1550, Jazz Ensemble

**Graduate Study**

**Master of Music Education**

http://www.umsl.edu/bulletin/fine_arts/music.html[4/12/2012 3:28:02 PM]
The master of music education degree is designed to enable music specialists in grades K-12 to pursue continued professional growth in an emphasis area of their choice: choral, general music, instrumental, or music technology.

**Admission Requirements**
Admission to the program requires a bachelor of music in music education (or equivalent) degree, admission to the Graduate School, and three letters of recommendation.

A written examination in music education (including applications of music history and music theory/ear-training) will be taken during the first semester or term of enrollment in the program for advising purposes and to identify the possible need for review in the areas of music theory and history.

The program requires completion of 32 hours of graduate credit, 22 of which must be earned in residence.

**Required Courses and Options:**
Each candidate will choose one of the following emphasis areas:

- Choral music education
- Instrumental music education
- General music education
- Music education and technology

The minimum 32-hour program includes the following requirements.

**Major Area (9 credit hours)**
- MUS ED 5810, Foundations of Music Education (3)
- MUS ED 5910, Music Education Research (3)
- MUS ED 5990, Master's Project in Music Education (3)

**Advanced Methods (3 credits from the following)**
- MUS ED 5510, Graduate Instrumental Methods (3)
- MUS ED 5610, Graduate Choral Methods (3)
- MUS ED 5710, General Music: A Model for Multi-Faceted Musical Learning (3)

Choose 9 credits from the following:
- MUS ED 5620, Guitar in the Classroom (3)
- MUS ED 5750, Microcomputer Applications in Music Education (3)
- MUS ED 5770, Graduate Microcomputer Applications in Music (3)
- MUS ED 5920, Psychology of Music (3)
- PRACTM 5020, Choral Literature (3)
- PRACTM 5210, Graduate Conducting (3)
- THRY COM 5110, Scoring and Arranging (3)

**Cognate in Education**

Choose one 3-credit curriculum course such as:
- SEC ED 6415, The Secondary School Curriculum (3)
- ELE ED 6422, Curriculum Construction in Elementary Schools (3)

Choose one other 3-credit education course such as:
- ED REM 5730, Educational Statistics (3)
- ED REM 6707, Classroom Testing and Measurement (3)
- ED REM 6710, Educational Research Methods (3)

**Electives**

Choose 5 credits from elective courses such as:
- AP MUS 5430, Special Applied Studies (1)
- AP MUS 5440, Graduate Applied Studies (1)
- EN PER 5310, Graduate Chamber Ensemble (0)
- EN PER 5490, Graduate Ensemble (1)
- ED REM 6710, Educational Research Methods (3)
- ED TECH 5340, Selection and Utilization Education Media (3)
- MUS ED 4010, Marching Band Techniques (3)
- MUS ED 5060, Graduate Workshop in Music Education (1-3)
- MUS ED 5130, Teaching Music Theory in the High School (3)
- MUS ED 5510, Graduate Instrumental Methods (3)
- MUS ED 5610, Graduate Choral Methods (3)
- MUS ED 5620, Guitar in the Classroom (3)
- MUS ED 5710, General Music: A Model for Multi-Faceted Musical Learning (3)
MUS ED 5750, Microcomputer Applications in Music Education (3)
MUS ED 5760, Microcomputer Assisted Instruction: Curriculum Development in Music
MUS ED 5770, Graduate Microcomputer Applications in Music (3)
MUS ED 5800, Musical Acoustics (3)
MUS ED 5820, School Music Administration and Supervision (3)
MUS ED 5830, Contemporary Music Education (3)
MUS ED 5840, Problems of Urban Music Education (3)
MUS ED 5920, Psychology of Music (3)
MUS ED 5950, Special Problems in Music Education (3)
PDGOGY 5740, Techniques of Group Keyboard Instruction (3)
PRACTM 5020, Choral Literature (3)
PRACTM 5030, Band Literature (3)
PRACTM 5210, Graduate Conducting (3)
SPEC ED 6412, Psychology of Exceptional Children (3)
THRY COM 5110, Scoring and Arranging (3)

Career Outlook

Undergraduate

A music degree builds the foundation for a career in professional performance, for teaching in a school or private studio or for serving as a church music director. A music degree may also prepare one for positions in the music industry (recording, publishing, radio programming, manufacturing, or music retail). A trained artistic mind can also be valuable in the fields of advertising, public relations, and consumer services.

A number of UMSL music graduates have been readily accepted into outstanding graduate programs, including our own Master of Music Education degree program. Many are pursuing successful careers in music education, business, and industry, or as professional performers.

Graduate

Many graduate students in music education will already hold full-time music teaching positions. A graduate degree in music education allows for continued professional growth. Music specialists may refine their teaching expertise, add to their understanding and knowledge about music and educational processes, become more specialized in a specific emphasis area of music education (choral, instrumental, general music or music technology), or any combination of these professional growth areas.

Graduate-level work in music education is often required to renew a teacher’s certificate or to satisfy professional growth requirements specified by an employing school or school district or to advance to new positions within the field of music education.
Faculty

Thomas McPhail, Professor (Media Studies) and Chair
Ph.D., Purdue University

Adeniyi (Niyi) Coker, E. Desmond Lee Professor in African Studies; Fellow, Center for International Studies
(Theatre & Dance)
Ph.D., Temple University

Michael Murray, Professor, Curators’ Teaching Professor (Media Studies)
Ph.D., University of Missouri-Columbia

Rita Csapo-Sweet, Associate Professor (Media Studies)
Ed.D., Harvard University

James Fay, Associate Professor (Media Studies)
M.F.A., Tulane University

Fella Davenport, Assistant Professor (Theatre & Dance)
M.F.A., University of Tennessee, Knoxville

Robert Scoggins, Assistant Professor (Theatre & Dance)
M.F.A., in Dance, Lindenwood University

Tlaloc Rivas, Assistant Professor (Theater & Dance)
MFA, Washington University

Krista Tucciarone, Assistant Teaching Professor (Media Studies)
Ph.D., University of Missouri - St. Louis

The Department of Theatre, Dance, and Media Studies offers the BA degree program in Theatre and Dance, as well as the BS degree in Media Studies. The department also offers minor and certificate programs. The Media Studies concentration areas are advertising, film, production and television. Some radio courses are offered.

The Theatre and Dance area offers four main stage productions each academic year. The University Players, a recognized student organization, is open to any University of Missouri-St. Louis student, as is The Group Formerly Known as Jeté, the student Dance organization.

Media Studies students are active in the Media Production Society, Ad Corps, – A Student Chapter of American Advertising Federation, SEMPA, the student radio organization, and community internships. Students are also actively involved in media production for both internal and external organizations and agencies.

For further information concerning the theatre, dance and/or media studies, curriculum, or other matters, contact the Department of Theatre, Dance, and Media Studies at 314-516-4572.

Undergraduate Studies

General Education Requirements

- All Theatre and Dance majors must satisfy the University and College of Fine Arts and Communication’s 42-hour General Education core requirements, which include English 1100 and the Math proficiency requirement.
- Junior-level writing class is required.
- The Cultural Diversity requirements may be satisfied by General Education courses or lower-or upper-level courses in various departments.
- State Government/History graduation requirements may be satisfied by General Education courses or by other lower-or upper-level courses in various departments.
- 13 hours of a foreign language.
Degree Requirements

Bachelor of Arts in Theatre and Dance
Theatre and Dance majors must complete a minimum of 36, but not more than 52 hours in Theatre and Dance courses. A core of 26 hours is required for all majors and 10-26 additional hours in Theatre and Dance are required. At least 24 hours in the major must be taken at UMSL and must include 6 hours at the 2000 or higher level and 9 hours at the 3000 or higher level. All courses required for the major must be completed with a minimum grade of C- to be accepted, and the overall total grade point average must be at least 2.0 to graduate. To be eligible to participate in Internship classes, each student must have an overall grade point average of 3.0.

In addition to the major’s required core and elective Theatre & Dance courses, students will choose elective courses to bring their total credit hours to 120. Practicum courses may be repeated for credit; an overall limit of 20 hours in Practicum courses will be accepted towards the 120 hour degree.

Required Core Courses for all Theatre and Dance Majors

TH DAN 1210 Fundamentals of Acting I (3 hours)
TH DAN 1900 Introduction to Theatre Technology (3 hours)
TH DAN 1910 Introduction to Theatrical Design (3 hours)
TH DAN 1023 Fundamentals of Dance (3 hours)
TH DAN 2810 History of World Theatre & Drama I; or
TH DAN 2820, History of World Theatre & Drama II; or
TH DAN 2840, History of Dance I (3 hours)

2 hours chosen from these Production related courses:
TH DAN 1060 Theatre Workshop
TH DAN 2260 Introduction to Costume Design & Production
TH DAN 3060 Advanced Theatre Workshop
TH DAN 3254 Costume Production & Construction Techniques

6 hours chosen from these Practicum courses (3 hours of which need to be above the 3000 level)
TH DAN 2195 Practicum in Performance Studies
TH DAN 2196 Theatre Practicum: Scenery/Lighting/Sound in Theatre Production
TH DAN 2197 Practicum in Costume
TH DAN 2198 Practicum in Dance
TH DAN 3195 Advanced Practicum in Performance Studies
TH DAN 3196 Advanced Theatre Practicum: Scenery/Lighting/Sound in Theatre Production
TH DAN 3197 Advanced Practicum in Costume
TH DAN 3198 Advanced Practicum in Dance

26 hours total - Additional hours in Theatre and Dance electives are to be selected based on individual students’ areas of interest. The core courses of 26 hours plus the Theatre and Dance electives must equal a minimum of 36 hours, but not more than 52 hours, for Theatre and Dance majors.

Minor in Theatre and Dance
Students with other majors may choose to minor in Theatre and Dance to complement their academic and career goals. The minor requires 18 hours of Theatre and Dance courses, nine of which must be taken at UMSL. A minimum GPA of 2.0 is required in the minor.

A. Minor in Theatre and Dance Consists of the following:

a. 3 hours chosen from these Performance related courses:
TH DAN 2211 Acting Styles
TH DAN 3210 Ensemble Acting
TH DAN 3305 Writing for Performance
TH DAN 4220 Directing for the Theatre

b. 3 hours chosen from these Design/Technology related courses:
TH DAN 2260 Introduction to Theatrical Costume Design & Production
TH DAN 2280 Lighting and Sound Technology
TH DAN 3252 Costume Design
TH DAN 3254 Costume Production & Construction Techniques
TH DAN 3260 Scenic Design
TH DAN 3261 Lighting Design

c. 2-3 hours chosen from these Dance related courses:
TH DAN 1006 Beginning Ballet Technique
TH DAN 1007 Beginning Jazz Dance Technique
TH DAN 1008 Beginning Modern Dance Technique
TH DAN 2006 Intermediate Ballet Technique*
TH DAN 2007 Intermediate Jazz Dance Technique*
TH DAN 2008 Intermediate Modern Dance Technique*
TH DAN 3006 Advanced Ballet Technique*
TH DAN 3007 Advanced Jazz Dance Technique*
TH DAN 3008 Advanced Modern Dance Technique*
TH DAN 3009 Dance Choreography for the Stage, Television, and Video

d. 2 hours chosen from these Production related courses:
TH DAN 1060 Theatre Workshop
TH DAN 2260 Introduction to Costume Design & Production
TH DAN 3060 Advanced theatre Workshop

e. 1 hour chosen from these Practicum courses:
TH DAN 2195 Practicum in Performance Studies
TH DAN 2196 Theatre Practicum: Scenery/Lighting/Sound in Theatre Production
TH DAN 2197 Practicum in Costume
TH DAN 2198 Practicum in Dance
TH DAN 3195 Advanced Practicum in Performance Studies
TH DAN 3196 Advanced Theatre Practicum: Scenery/Lighting/Sound in Theatre Production
TH DAN 3197 Advanced Practicum in Costume
TH DAN 3198 Advanced Practicum in Dance

f. 6-7 hours chosen from any additional Theatre and Dance courses
*Enrollment in Intermediate- and Advanced-level Dance Technique courses is by audition only. Beginning-level courses may be repeated for credit until sufficient proficiency has been achieved to advance to higher-level courses.

Bachelor of Science in Media Studies

General Education Requirements

- All Media Studies majors must satisfy the University and the College of Fine Arts and Communication's 42-hour General Education core requirements, which include ENGL 1100 and the Math proficiency requirement.
- A Junior-level writing class is required.
- The Cultural Diversity requirements may be satisfied by General Education courses or other lower-or-upper level courses in various departments.
- State Government/History graduation requirements may be satisfied by General Education courses or by other lower-or-upper level courses in various departments.
- There is no foreign language requirement, but foreign language proficiency is recommended.

Degree Requirements

Bachelor of Science in Media Studies
Media Studies majors must complete a minimum of 51 hours in the Department of Theatre, Dance, and Media Studies courses. A core of 21 hours is required of all majors. An additional 27 hours, 9 hours in Theatre and Dance classes, 9 hours in Media Studies classes at the 2000 level and 9 hours in Media Studies classes at the 3000 level, must be completed with a minimum grade of C-. At least 24 of these hours must be taken at UMSL. Of the 24 hour minimum, at least 18 hours of classes must be taken at the 2000 level or above at UMSL.

In addition to the major core and required courses, students will choose elective courses to bring their total credit hours to 120. Practicum and Internship courses may be repeated for credit, but an overall limit of 20 hours in Practicum and Internship will be accepted towards the 120 hours degree.

Required Core Courses for all Media Studies majors:
3 hours MEDIA ST 1050 Introduction to Media Studies
3 hours MEDIA ST 1065 Introduction to Information Technology
3 hours TH DAN 1900 Introduction to Theatre Technology
3 hours TH DAN 1070 Introduction to Cinema OR
MEDIA ST 1100 Introduction to Advertising OR
MEDIA ST 1110 Introduction to Radio/TV Broadcasting
3 hours MEDIA ST 2235 Media Theory
6 hours MEDIA ST 1194-8 Practicum and/or
MEDIA ST 3194-8 Internship (Students must have a 3.0 G.P.A. in the major or Consent of Instructor to take an internship)
21 hours total

Additional hours in Theatre, Dance and Media Studies electives are to be selected on individual students' areas

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of interest. The core courses of 21 hours plus the Theatre, Dance, and Media Studies electives must equal 48 hours in total for Media Studies majors.

Any other Theatre and Dance class (9 hours)
Any other Media Studies class at the 2000 level or above (9 hours)
Any other Media Studies class at the 3000 level or above (9 hours)

27 hours total

Minor in Media Studies

A minor in Media Studies consists of the following:

1. 3 hours 2235, Media Theory
2. 6 hours chosen from the following:
   - MEDIA ST 1050, Introduction to Media Studies
   - MEDIA ST 1060, Introduction to World Cinema
   - MEDIA ST 1065, Introduction to Information Technology
   - MEDIA ST 1070, Introduction to Cinema
   - MEDIA ST 1100, Introduction to Advertising
   - MEDIA ST 1110, Introduction to Radio/TV Broadcasting
   - MEDIA ST 1113, Basic Television Studio Production
   - MEDIA ST 1114, Radio Production I
   - MEDIA ST 1118, Radio and Television Announcing
   - MEDIA ST 2080, Advertising Copywriting
3. 3 hours chosen from the following:
   - MEDIA ST 1775, Introduction to Non-Western Cinema
   - MEDIA ST 2210, Television Production I
   - MEDIA ST 2211, Introduction to Digital Multimedia Productions
   - MEDIA ST 2212, Broadcast Writing and Reporting
   - MEDIA ST 2218, Public Policy in Telecommunication
   - MEDIA ST 2275, Introduction to International Cinema
   - MEDIA ST 2500, Introduction to Comparative International Media Systems
   - MEDIA ST 3370, Documentary Film
4. 6 hours chosen from the following:
   - MEDIA ST 2228, Public Relations Writing
   - MEDIA ST 2271, History of American Film
   - MEDIA ST 2272, Contemporary Cinema
   - MEDIA ST 3035, Advanced Media Theory
   - MEDIA ST 3070, International Cinema
   - MEDIA ST 3150, Feature Writing
   - MEDIA ST 3180, Reporting
   - MEDIA ST 3214, News Writing
   - MEDIA ST 3310, Television Production II
   - MEDIA ST 3313, Advanced Video Editing
   - MEDIA ST 3316, Television News
   - MEDIA ST 3317, Radio and Recording Industry
   - MEDIA ST 3334, Advertising Media Planning
   - MEDIA ST 3338, Advertising Techniques
   - MEDIA ST 3350, Mass Media History
   - MEDIA ST 3354, Comparative Telecommunication Systems
   - MEDIA ST 3355, Media Law and Regulation
   - MEDIA ST 3356, Global Media Systems and Trends
   - MEDIA ST 4335, Seminar in Applied Media Studies Research

Theatre, Dance & Media Studies
Prerequisites may be waived by consent of the department.

Certificate Program in Advertising:
A student may receive the Certificate in Advertising by completing 15 hours of selected course work and 3 hours of a practicum or an internship from the following list of courses. A GPA in courses for the certificate must be 2.0 or better, and nine of the 18 hours must be taken at UMSL. Courses may not be taken on a satisfactory/unsatisfactory basis.

- MEDIA ST 1100, Introduction to Advertising (3)
- MEDIA ST 2080, Advertising Copywriting (3)
- MEDIA ST 2090, Creative Advertising (3)
- COMM ST 1150, Introduction to Public Relations (3)
- MEDIA ST 2211, Introduction to Digital Multimedia Production (3)
- MEDIA ST 2220, Promotion Essentials (3)
MEDIA ST 3025, Current Issues in Advertising (3)
MEDIA ST 3334, Media Planning (3)
MEDIA ST 3338, Advertising Techniques (3)
MEDIA ST 3355, Media Law and Regulation
COMM ST 4035, Integrated Approaches – Public Relations, Advertising, and Promotion (3)
MEDIA ST 1195, 150-hour Practicum* (Equals a minimum of 3 cr. hrs.) OR
MEDIA ST 3395, 150-hour Internship* (Equals a minimum of 3 cr. hrs.)

*NOTE: Students may take MEDIA 1195 OR MEDIA 3395, but they must take either 150 hours of Practicum or 150 hours of Internship. Practicums or Internships must be arranged in advance and are required for all students.

The On-line Certificate Program in Film Studies (Pending CBHE Approval)
The On-line Certificate Program in Film Studies is open to all St. Louis campus undergraduate and graduate students, as well as to graduates of UM-St. Louis and other colleges and universities.

To receive a Film Studies Certificate, a student must complete the required courses (18 credit hours) with an average grade of C or better. None of the courses may be taken on a satisfactory/unsatisfactory basis. Up to six credit hours of course work may be transferred from other institutions.

Required: (9 credits)
MEDIA ST 1060, Introduction to World Cinema (3)
MEDIA ST 2271, History of American Film (3)
MEDIA ST 2273, Survey of Film Genres (3)
Electives: (Choose 9 credits from the following options)
MEDIA ST 1070, Introduction to Cinema (3)
MEDIA ST 2214, Screenwriting (3)
MEDIA ST 2272, Contemporary Cinema (3)
MEDIA ST 2275, Introduction to International Cinema (3)
MEDIA ST 3070, International Cinema (3)
MEDIA ST 3370, Documentary Film 3370 (3)

Course Descriptions

Prerequisites may be waived by consent of the department.

Theatre and Dance

TH DAN 1006 Beginning Ballet Techniques (2)
An introduction to the art of ballet emphasizing basic movement, technique and terminology. Course study will include basic barre exercises, center work, and across the floor progressions for proper alignment, strength, flexibility, and coordination. Prior dance experience is not required. Dance attire and ballet slippers will be required. Course may be repeated for up to 10 credit hours.

TH DAN 1007 Beginning Jazz Dance Technique (2)
An introduction to the art of jazz dance emphasizing basic principles of traditional and contemporary forms of jazz dance movement, technique, terminology, and style. Course will focus on increasing strength, flexibility, coordination, and creative expression. Prior dance experience is not required. Dance attire and jazz shoes will be required. Course may be repeated for up to 10 credit hours.

TH DAN 1008 Beginning Modern Dance Technique (2)
An introduction to the art of modern dance movement, technique, and terminology. Course of study will introduce the elements of time, space, and energy through basic structured exercises and improvisation. Emphasis will be focused on alignment, strength, flexibility, coordination, and creative expression. Prior dance experience is not required. Dance attire is required. Shoes are not required. Course may be repeated for up to 10 credit hours.

TH DAN 1023 Fundamentals of Dance (3)
The course provides an introductory exploration of movement through various styles of dance, emphasizing movement vocabulary, stretching, strengthening, body alignment, and creative expression. Prior dance experience is not required. Dance attire and shoes will be required.

TH DAN 1060 Theatre Workshop (1-2)
Course provides practical application of technical theatre practices through 45 hours of lab work within the areas of scenery, lighting, properties, and sound in conjunction with departmental productions. Personal safety equipment and basic tools will be required. Course may be repeated for up to 8 credit hours.

TH DAN 1105 Dance Repertory (1-3)
Prerequisites: Audition or Consent of instructor. Dancers are selected through audition or consent of instructor to participate in the dance repertory. Students will learn and rehearse original choreography created by faculty and guest artists. At the end of the semester, students will perform original works at a dance concert.
Dance attire and appropriate dance shoes are required. Course may be repeated for credit up to 6 hours.

**TH DAN 1175 Arts and Ideas (3) [H]**
Same as ST ART 1175, ENGL 1175, HIST 1175, M H L T 1175, PHIL 1175. An interdisciplinary course tied to the semester's offerings at the Blanche Touhill Performing Arts Center as well as other events on campus featuring the visual arts, literature, music and film. Each semester the course will provide background on the arts in general and will critically examine particular performances and offerings. Special themes for each semester will be selected once the Touhill schedule is in place. Students will be expected to attend 6-8 performances or exhibitions. Can be repeated once for credit.

**TH DAN 1210 Fundamentals of Acting (3) (H)**
Course develops personal communication and presentational skills through vocal, physical, and emotional exercises designed for the beginning actor. Course emphasizes relaxation, concentration, improvisation, script analysis, characterization, and scene work exercises to develop elementary performance skills.

**TH DAN 1600 Voice and Diction/Vocal Performance (3)**
Course promotes development of clear distinct enunciation and correct pronunciation for mass media communication, public address, theatre, and oral interpretation. Course includes development of oral presentational and self promotional skills for voice acting/voice-over in contemporary theatre and media.

**TH DAN 1800 Introduction to Theatre (3) (H)**
A study of Theatre as an art form, emphasizing the audience's appreciation of the art of the playwright, actor, director, designers, and technicians. Major periods, genres, dramatic forms from classical to modern to the avant garde as well as performance art will be covered. Students will attend performances and learn about how theatre functions as an art and an industry in today's world. Attendance at several live theatrical (theatre, play, musical, opera and dance) performances will be required.

**TH DAN 1850 Introduction to Non-Western Theatre (3) (C), (H), (CD)**
Survey of theatre forms of the non-European world in which primary attention is concentrated on analysis of traditional dance drama and puppet theatres of East Asia, South Asia, the Middle East and Africa. Similar forms of European theatre will be included for comparative purposes. Focus on the development of world theatre from a visual point of view, from earliest storytelling rituals through international stage development to contemporary theatrical forms, with a view to understanding the global perspective. Course will survey visual media and writings on dance and theatre traditions found around the non-Western World.

**TH DAN 1900 Introduction to Theatre Technology (3)**
Introductory course covering the basic theories and techniques of Theatre Technology including stage equipment and safety, scenery, lighting, costuming, properties, sound and box office. Course includes practical application through a minimum of 25 hours of lab work in conjunction with a departmental production.

**TH DAN 1910 Introduction to Theatrical Design (3)**
Prerequisite: TH DAN 1900 or Consent of instructor. Introductory course covering the elements and principles of design as they relate to theatrical design in the areas of scenery, lighting, and costumes. Course will include various creative projects in two and three dimensions. Some graphic materials will be required.

**TH DAN 2006 Intermediate Ballet Technique (2)**
Prerequisite: 2.0 Credit Hours of TH DAN 1006 or Consent of instructor. Ballet movement, technique, vocabulary, and aesthetics with particular focus on precision and performance. Course of study will be a continuation of Beginning Ballet Technique barre exercises, center work, and across the floor progressions. Dance attire and Ballet slippers will be required. Course may be repeated for up to 10 credit hours.

**TH DAN 2007 Intermediate Jazz Dance Technique (2)**
Prerequisite: 2.0 Credit Hours of TH DAN 1007 or Consent of instructor. Jazz dance movement, technique, vocabulary, and aesthetics with particular focus on personal movement style and expression. Course will also study unique dance styles and artists that have influenced the stage video, film, and commercial media industry. Dance attire and jazz shoes will be required. Course may be repeated for up to 10 credit hours.

**TH DAN 2008 Intermediate Modern Dance Technique (2)**
Prerequisite: 2.0 credit hours of TH DAN 1008 or Consent of instructor. Modern dance movement, technique, vocabulary, and aesthetics. Course of study will be continuation of Beginning Modern Dance Technique through incorporation of more complex movement and patterns. Emphasis on accuracy and performance will be explored. Dance attire is required. Dance shoes are not required. Course may be repeated for up to 10 credit hours.

**TH DAN 2020 Acting for the Camera (3)**
An acting course that prepares the actor for work in front of a camera. Working with broadcast quality cameras, students will learn the art of language and expression. Students will learn the art and skill of communicating to an audience. Students also acquire the skills for working with other actors on camera, close-ups, working with props, continuity and hitting your mark.
TH DAN 2105 Script Analysis (3)
This course introduces students to elementary script analysis. Students learn basic structural and interpretative strategies for analyzing play scripts and other forms of performance texts.

TH DAN 2195 Practicum in Performance Studies (1-3)
Prerequisite: Consent of instructor. Provides practical experience in acting, directing, or dramaturgy through rehearsal and performance in conjunction with department productions, or other approved independent study projects. Laboratory time will be scheduled and may include evening and weekend rehearsals and performances. Course may be repeated for up to 8 credit hours.

TH DAN 2196 Practicum in Scenery/Lighting/Sound in Theatre Production (1-3)
Course provides practical experience in scenery, lighting, sound, and properties implementation and/or running crew work in conjunction with departmental productions, or other approved independent study projects. Running crew work will involve evening and weekend assigned times. Additional daytime hours will vary according to assignment. Credit hours are determined based on the scope of the project. Course may be repeated for up to 6 credit hours.

TH DAN 2197 Practicum in Costume (1-3)
This course provides practical experience in costume construction, cutting, draping, millinery, fabric dyeing/painting, distressing, crafts including wardrobe and makeup running crews, in conjunction with the theatre and dance department productions, or other approved independent study projects. In addition to daytime lab hours, occasional weekend and/or evening laboratory time will be required. Personal sewing equipment will be required. Course may be repeated for up to 8 credit hours.

TH DAN 2198 Practicum in Dance (1-3)
Prerequisite: Consent of Instructor. Course provides practical experience in dance, stage movement, stage combat, choreography and/or running crew work in conjunction with departmental productions, or other approved independent study projects. Running crew work will involve evening and weekend assigned times. Additional daytime hours will vary according to assignment. Credit hours are determined based on the scope of the project. Course may be repeated for up to 6 credit hours.

TH DAN 2211 Acting Styles (3) (C), (H)
Prerequisite: TH DAN 1210 or Consent of instructor. This course explores diverse acting styles; including historical and cultural distinctions in manners, movement, and vocal practice. Course includes additional emphases on non-realistic acting, non-Western theatrical performance, plus style distinctions between stage acting, vocal acting, television acting, and acting for cinema.

TH DAN 2240 Movement for Actors, Dancers & Performers (2)
Prerequisite: TH DAN 1023. A study of movement techniques and theories for actors, dancers, performance artists and musical theatre performers. Training in movement techniques for the stage, theatrical combat, non-verbal theatre including mime, impersonation and dramatic dance forms. This course will look at the body as an expressive tool of the performer and as a narrative to the playwright/director.

TH DAN 2241 Argumentation and Debate (3)
Prerequisite: COMM 1040 or COMM 1041, or consent of instructor. Principles of argumentation and debate with practice in preparing briefs and in delivering spoken arguments in formal debate. Emphasis on analysis of issues, logical reasoning, and audience analysis.

TH DAN 2250 Stagecraft (3)
Prerequisite: TH DAN 1900 or Consent of Instructor. A survey of the theories, terminology, and practices of methods and equipment of scenic and properties construction, painting, and rigging. Course includes practical application through 45 hours of lab work in conjunction with departmental productions. Personal safety equipment will be required.

TH DAN 2260 Introduction to Theatrical Costume Design & Production (3)
A survey of the theory, practices and vocabulary of theatrical costuming; the visualization and realization of the costume through the arts of pattern cutting; construction techniques; draping; dyeing, painting, and distressing. Course includes practical application of techniques through required 45 hours of lab work in conjunction with current department productions.

TH DAN 2280 Lighting & Sound Technology (3)
Prerequisite: TH DAN 1900 or Consent of instructor. A survey of the theories, terminology, and practices of methods, equipment, and control systems of lighting and sound technology for the stage. Course includes practical application through 45 hours of lab work in conjunction with departmental productions. Basic personal tools will be required.

TH DAN 2290 Drafting for the Theatre (3)
Prerequisite: TH DAN 1900 or Consent of instructor. Survey course covering the fundamental techniques of two dimensional drafting. Drafting equipment will be required.
TH DAN 2300 Stage Management (3)
Prerequisite: Consent of instructor. Course develops fundamental stage management skills needed to supervise all operative aspects of play production from auditions through performance. These skills include: interpersonal and leadership skills, conflict resolution techniques, venue and staff management/scheduling, and technical script analysis. Course includes production experience.

TH DAN 2810 History of World Theatre and Drama Through the Restoration (3) (C) (H)
Prerequisite: TH DAN 1800 or Consent of instructor. Survey of the history of influence of different cultures, traditions, and technologies on development of theatre as a social institution. History of Theatre and drama from ancient cultures to the Restoration period. Ritual and religious drama. Study of the origins of theatre and drama from oral tradition, myth, storytelling, Shamanism and collective ritual, Greek festival drama, and cloister drama of different cultures. Rise of secular drama, the traditions of classical Greek theatre. Study of the Renaissance, and drama in Europe, Asia, Africa and the New World.

TH DAN 2820 History of World Theatre and Drama from 18th Century to Contemporary Times (3) (H) (C)
Prerequisite: TH DAN 1800 or Consent of instructor. History of theatre from the 18th century to contemporary times. Survey of history of influence of different cultures, traditions, and technologies on the development of theatre as a social institution. Study of realism and subsequent departures from realism in theatre, drama and performance.

TH DAN 2840 History of Dance to the 19th Century (3)
Prerequisite: TH DAN 1800 or Consent of instructor. Survey of western dance from pre-history through the middle ages and renaissance to 19th century. Study of dance in historical and cultural context, its function in society and its relationship to contemporary artistic expression.

TH DAN 2841 History of Dance from the 19th Century to Contemporary Times (3) (H) (C)
Prerequisite: TH DAN 1800 or Consent of instructor. Survey of western dance practice from 1850 to the present. History of modern dance: art dance from Isadora Duncan to Martha Graham.

TH DAN 3006 Advanced Ballet Technique (2)
Prerequisites: 4.0 credit hours of TH DAN 1006 and/or TH DAN 2006 or Consent of instructor. Advanced ballet movement, technique, vocabulary, and aesthetics with particular focus on precision and performance. Course of study will include advanced barre exercises, center work, and across the floor progressions. Variations, partnering, and pointe work may be incorporated at the discretion of the instructor. Dance attire and ballet slippers will be required. Course may be repeated for up to 6 credit hours.

TH DAN 3007 Advanced Jazz Dance Technique (2)
Prerequisites: 4.0 credit hours of TH DAN 1007 and/or TH DAN 2007 or Consent of instructor. Advanced jazz dance movement, technique, vocabulary, and aesthetics with particular focus on personal movement style and performance. Study of unique dance styles and artists that have influenced the stage, video, film, and commercial and media industry. Dance attire and jazz shoes will be required. Course may be repeated for up to 6 credit hours.

TH DAN 3008 Advanced Modern Dance Technique (2)
Prerequisites: 4.0 credit hours of TH DAN 1008 and/or TH DAN 2008 or Consent of instructor. Advanced level of modern dance movement, technique, vocabulary, and aesthetics. Incorporation of more complex movement and patterns. Emphasis on accuracy and performance will be explored. Dance attire is required. Dance shoes are not required. Course may be repeated for up to 6 credit hours.

TH DAN 3009 Dance Choreography for the Stage, Television, and Film (3)
Prerequisites: 4 Credit hours of any level and combination of TH DAN 1006, TH DAN 1007, TH DAN 1008, TH DAN 2006, TH DAN 2007, TH DAN 2008, TH DAN 3006, TH DAN 3007 & TH DAN 3008. Course will focus on directed movement studies and composition techniques for the stage, television, and film. Personal creativity and original movement inventions will be explored, as well as the creation, development, and transformation of original movement studies into completed works. Dance attire and dance shoes are required. Course may be repeated for up to 6 credit hours.

TH DAN 3060 Advanced Theatre Workshop (1-2)
Prerequisite: TH DAN 1060 or Consent of instructor. Practical application of technical theatre practices through 45 hours of lab work within the areas of scenery, lighting, properties, and sound in conjunction with departmental productions. Personal safety equipment and basic tools will be required. Course may be repeated for up to 8 credit hours.

TH DAN 3195 Advanced Practicum in Performance Studies (1-3)
Prerequisite: Consent of instructor. Course provides advanced practical experience in acting, directing, or dramaturgy through rehearsal and performance in conjunction with department productions, or other approved independent study projects. Laboratory time will be scheduled and may include evening and weekend rehearsals and performances. Course may be repeated for up to 8 credit hours.

TH DAN 3196 Advanced Theatre Practicum: Scenery/Lighting/Sound in Theatre Production (1-3)

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Prerequisite: Consent of instructor. Course provides advanced practical experience in scenery, lighting, sound, and properties implementation and/or running crew work in conjunction with departmental productions, or other approved independent study projects. Running crew work may involve evening and weekend assigned times. Additional daytime hours will vary according to assignment. Credit hours are determined based on the scope of the project. Course may be repeated for up to 6 credit hours.

**TH DAN 3197 Advanced Practicum in Costume (1-3)**
Prerequisite: Consent of instructor. This course provides advanced practical experience in costume construction, cutting, draping, millinery, fabric dyeing/painting, distressing, crafts including wardrobe and makeup running crews, in conjunction with the theatre and dance department productions, or other approved independent study projects. In addition to daytime Lab hours, occasional weekend and/or evening laboratory time may be required. Appropriate clothing and personal safety equipment will be required. Personal equipment will be required. Course may be repeated for up to 8 credit hours.

**TH DAN 3198 Advanced Practicum in Dance (1-3)**
Prerequisite: Consent of instructor. Course provides practical experience in dance, stage movement, stage combat, choreography and/or running crew work in conjunction with departmental productions, or other approved independent study projects. May involve additional hours including evening and weekend assigned times. Credit will be based on the scope of the project. Course may be repeated for up to 6 credit hours.

**TH DAN 3210 Ensemble Acting (3)**
Prerequisite: TH DAN 1210. Laboratory acting course emphasizing group dramatic analysis and collaborative play development and rehearsals culminating in an ensemble performance. Course emphasizes collaboration, cooperation, and team-building skills for performers in the theatre. Special attention is paid to the creation of dramatic works through collaborative means.

**TH DAN 3252 Costume Design (3)**
Prerequisites: TH DAN 1910, TH DAN 2260 or consent of instructor. Content of course includes study of theories, styles, visualization of ideas, and techniques of costume design; discussion of principles of design, script analysis, the collaborative roles of designers in the theatrical production; research, and exploration of character representation; study of the human figure, drawing, and rendering techniques. Course may be repeated for up to 6 credit hours.

**TH DAN 3254 Costume Production and Construction Techniques (3)**
Prerequisites: TH DAN 1900, TH DAN 2260 or Consent of Instructor. Study of theory and application of pattern making, fitting, construction techniques for costumes and undergarments to achieve authentic appearing costumes using contemporary methods. Provides practical experience in costume construction, as well as wardrobe and makeup. Participation in running crews, in conjunction with the theatre and dance department productions, or other approved independent study projects may be required. Personal equipment will be required. Weekend and evenings may be required. Appropriate clothing and personal safety equipment required. Course may be repeated for up to 8 credit hours.

**TH DAN 3257 Makeup for Theatrical Productions (3)**
Prerequisites: TH DAN 1800, TH DAN 1910, or Consent of instructor. The art of makeup and its relation to production. Overview of European history and tradition of makeup. Theory, history and the practice of makeup traditions for theatre, dance and performance will be included.

**TH DAN 3260 Scenic Design (3)**
Prerequisites: TH DAN 1900, TH DAN 1910, TH DAN 2250, TH DAN 2290, or Consent of instructor. Survey of the theories and practices of scenery design for the theatre. This course will emphasize the creative process from conceptual script analysis through final design projects, sketching, drafting, rendering, and model making. Personal graphics and drafting materials will be required.

**TH DAN 3261 Lighting Design (3)**
Prerequisites: TH DAN 1900, TH DAN 1910, TH DAN 2280, or Consent of instructor. Survey of the theories and techniques of lighting design for theatre and dance. This course will emphasize the creative process from script and choreographic concepts through final design projects, sketching, drafting, rendering, and related paperwork. Personal graphics and drafting materials will be required.

**TH DAN 3262 Theatrical Rendering and Model Making (3)**
Prerequisites: TH DAN 1900, TH DAN 1910, or Consent of instructor. Course provides opportunities to further explore techniques in scenery, lighting, and costume design. This course will include 2-D and 3-D projects designed to strengthen skills in drawing, rendering, model making, and publicity materials.

**TH DAN 3263 Scene Painting (3)**
Prerequisite: TH DAN 1900, TH DAN 1920 or Consent of Instructor. Survey of theories, materials, and techniques of scene painting for the stage. Course includes 45 lab or studio hours for application and practice of painting projects, and possible evening and/or weekend studio hours.

**TH DAN 3305 Writing for Performance (3)**
Prerequisite: Consent of instructor. An introduction to writing for performance, including playwriting and...
dramatic adaptation. Students' particular interests will determine course content; ranging from sketch comedy or adaptation of literature for the stage, to full-length comic or dramatic plays. This course is writing intensive and may require additional laboratory hours.

TH DAN 3399 Stage Combat (3)
Prerequisite: Junior or Senior standing, or consent of instructor. This is a movement course designed to expand the acting student's awareness of the body as a vehicle for the communication of emotion, action, and drama on the stage. It will introduce the skills and techniques necessary for the creation of safe and effective illusions of violence for the stage.

TH DAN 4020 Directing for the Camera (3)
Prerequisite: TH DAN 2020. This directing course prepares the student director to work with both the actors and the cinematographer to achieve the directorial concept. The director will work with actors and a cinematographer to produce a short-length film/video from a prepared script. The creation of shooting scripts, story boards and a shooting schedule are covered in the course.

TH DAN 4040 Special Topics in Theatre (1-6)
Prerequisites: Junior, Senior, or consent of instructor. Special topics with subject matter dealing with current issues (theoretical or applied) in the discipline of Theatre. Course may be repeated for up to 12 credit hours, provided that the topic is different.

TH DAN 4041 Special Topics in Dance (1-6)
Prerequisites: Junior, Senior, or consent of Instructor. Special topics with subject matter dealing with current issues (theoretical or applied) in the discipline of Dance. Course may be repeated for up to 12 credit hours, provided that the topic is different.

TH DAN 4220 Directing for the Theatre (3)
Prerequisite: TH DAN 1210 or consent of Instructor. A survey of the theories and practices of theatrical directing, beginning with the theories and techniques of accomplished directors. The stage director's role in performance development will be studied through script analysis, production planning, and the rehearsal process, culminating with a live performance. Final projects are laboratory scenes or a short one-act play.

TH DAN 4221 Advanced Directing for the Stage (3)
Prerequisite: TH DAN 4220 or Consent of instructor. A survey of period styles and abstract theories and practices of theatrical directing. Explores the stage director's expanded role in performance development, through script analysis, adaptation, and production planning through the rehearsal process. Final project is a one-act play.

TH DAN 4230 Theatre Management (3)
Comprehensive study and practice of theatre production and management techniques, including season selection, fundraising, budget control, venue analysis and acquisition, box office, facility management, production scheduling, interpersonal skills, conflict resolution, and promotional techniques for theatre.

TH DAN 4261 Advanced Projects in Design and Technology (1-3)
Prerequisites: Junior level with Consent of Instructor. Provides opportunities for supervised advanced projects in theatre design or technology in conjunction with departmental productions, or other independent study projects. Credit assigned based on scope of project. Course may be repeated for up to 6 credit hours.

TH DAN 4262 Advanced Problems in Costume (1-3)
Prerequisite: TH DAN 2260 or TH DAN 3252 or consent of Instructor. Provides opportunities in supervised special projects in costume design and technology in conjunction with actual productions or other advances independent projects. Includes design research process, script and character analysis, study of history context and social environment, development of conceptual designs, study of current costume design and wardrobe practices. Personal equipment will be required. Credit based on scope of project. Course may be repeated for up to 6 credit hours.

TH DAN 4390 Theatre Internship (1-3)
Prerequisites: Junior level with Consent of instructor. Provides opportunities for supervised projects in conjunction with off-campus professional theatre and/or dance companies in performance, management, design or technology. Credit based on scope of assignment. Course may be repeated for up to 6 credit hours.

TH DAN 4391 Dance Internship (1-3)
Prerequisites: Junior level with Consent of instructor. Provides credit for approved supervised projects in conjunction with off-campus professional theatre and/or dance companies. Credit based on scope of assignment. Course may be repeated for up to 6 credit hours.

TH DAN 4886 The Curriculum and Methods of Teaching Speech and Theatre (3)
Prerequisite: TCH ED 3310 or TCH ED 5310; students must be within three hours of completing a major in either Communication or Theatre, with 15-18 hours completed in other subject area. Same as Sec Ed 4886. A study in the scope and sequence of the Speech and Theatre courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. The course prepares

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students for reflective teaching by relating course readings to field experience and theory to practice. To be taken prior to student teaching and concurrently with SEC ED 4989: Secondary Professional Internship. This course must be completed in residence. Not available for graduate credit.

**Media Studies**

**MEDIA ST 1050 Introduction to Media Studies (3)**
Introduction to print and electronic media, as well as the Internet. Emphasis on history, theory, and role of the mass media as cultural institutions. The course also examines the Federal Communications Commission (FCC) and issues of ownership and media conglomeration.

**MEDIA ST 1060 Introduction to World Cinema (3)**
An introduction to the history, rhetoric, and aesthetics of world cinema. International film theory and criticism will be studied as well as major genres, authors, and artists.

**MEDIA ST 1065 Introduction to Information Technology (3)**
The production and consumption of information by individuals, the work place and society. Emphasis on the changing nature of communication processes as a result of the expansion of communication technologies.

**MEDIA ST 1070 Introduction to Cinema (3)**
An overview of American cinema from the early beginnings of D. W. Griffith and his contemporaries to the present day. Course will discuss both the Hollywood studio system and today's independent movement. Also covered: genre, film theory, criticism, and aesthetics.

**MEDIA ST 1100 Introduction to Advertising (3)**
An introduction to the history, rhetoric, and aesthetics of Advertising. A basic understanding of industry issues and key areas such as account management, research, strategy, creative, media, and production.

**MEDIA ST 1110 Introduction to Radio and Television Broadcasting (3)**
An introduction to broadcasting, including the areas of history, government regulations, station operation and program development.

**MEDIA ST 1113 Basic Television Studio Production (3)**
Study of basic television studio production techniques and practices. The class will provide the student with practical experience in studio camera operating, directing, producing, switching, audio mixing and lighting, as well as basic straight cut editing. Lab arranged.

**MEDIA ST 1114 Radio Production I (3)**
Prerequisite: MEDIA ST 1110. Theory and practice in the creation of radio programs. Laboratory experience included.

**MEDIA ST 1118 Radio and Television Announcing (3)**
Prerequisites: MEDIA ST 1113, or MEDIA ST 1114, or Consent of Instructor. Training in radio and television studio procedures. Production and criticism of lab programs, including news, continuity, interviews, and oral improvisation. Classroom meetings at the radio lab and the television lab, plus lab hours to be arranged.

**MEDIA ST 1135 Media Theory (3)**
Theory based explanation of the relationship between mass media and society. Topics will include agenda-setting, violence and television, and other current issues from a critical perspective.

**MEDIA ST 1160 Fundamentals of Oral Interpretation (3)**
Prerequisite: TH DAN 1210 or consent of instructor. An introduction to the analysis of literature and to the principles of its oral presentation by the interpreter.

**MEDIA ST 1194 Practicum in Journalism (1-3)**
Prerequisite: Consent of Instructor. Open to Theatre, Dance, and Media Studies majors or minors only. Not open to students who have any delayed grades outstanding. Practical work in the journalism program or the student newspaper, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 1195 Practicum in Advertising (1-3)**
Prerequisite: MEDIA ST 1108 or Consent of Instructor. Open to Theatre, Dance, and Media Studies majors or minors only. Not open to students who have any delayed grades outstanding. Practical work in the advertising program, the student newspaper, or an on-campus agency, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

**MEDIA ST 1196 Practicum in Radio (1-3)**
Prerequisite: MEDIA ST 1114 or Consent of Instructor. Open to Theatre, Dance, and Media Studies majors or minors only. Not open to students who have any delayed grades outstanding. Practical work at the campus radio station, supervised by a faculty member. This course may be repeated for up to 6 credit hours.
MEDIA ST 1197 Practicum in Television/Film (1-3)
Prerequisite: MEDIA ST 1113 or Consent of Instructor. Open to Theatre, Dance and Media Studies majors only; not open to students who have delayed grades outstanding. Practical work at one of the campus television studios or for the UMSL Television/Film Club, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

MEDIA ST 1198 Practicum in Media Studies (1-3)
Prerequisite: Consent of Instructor. Open to Theatre, Dance and Media Studies majors or minors only; not open to students who have any delayed grades outstanding. Practical work in media studies, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

MEDIA ST 1500 Entertainment Economics: The Movie Industry (3)
Same as ECON 1500. This survey course examines the interrelationships between economics and the movie industry. It explores the impact of economic factors on the production, distribution, and exhibition of movies, focusing on the rise and fall of the studio system, role of technological change in the evolution of cinematography and the movie marketplace, financing and market segmentation, globalization and changing industrial structure within which films are produced. To the extent that movies reflect and contribute to popular economic perspectives, this course also evaluates the soundness of the movie industry’s depiction of a variety of economic doctrines. Classes will consist of lecture, discussion, and brief film screenings.

MEDIA ST 1775 Introduction to Non-Western Cinema (3)
Prerequisite: MEDIA ST 1070 with a grade of C or better. This course examines the art and history of non-western cinema. Significant films from Asia and Africa will be examined. The artistic, technical, historical, and social significance of these films will also be examined. This course will satisfy the University’s cultural diversity requirement.

MEDIA ST 2080 Advertising Copywriting (3)
Same as ENGL 2080. To give students a hands-on approach for writing advertising material for print and broadcast against tight deadlines in a professional setting.

MEDIA ST 2090 Creative Advertising (3)
Prerequisite: MEDIA ST 1100 or consent of instructor. Explores the fundamentals of the creative process by discussing selling messages, marketplace diversity, research, strategy, layouts, and the creative brief. Emphasis on creative campaigns for radio, television, direct marketing, and the Internet.

MEDIA ST 2210 Television Production I (3)
Prerequisite: MEDIA ST 1113 or Consent of Instructor. A study of the basic theories and practices of remote television production. The areas of producing and directing in the field will be studied. The class will provide the student with practical experience in remote camera operation and basic non-linear editing techniques. Lab arranged.

MEDIA ST 2211 Introduction to Digital Multimedia Production (3)
Students will explore different state-of-the-art digital multimedia applications, including audio, video, and computer generated graphics, that are presently used in television, radio, CD, DVD, and online presentation. Current media related software such as Quick Time, Window Media, and Flash multimedia creation will be demonstrated and utilized to develop skill sets in those areas.

MEDIA ST 2212 Broadcast Writing and Reporting (3)
Prerequisite: MEDIA ST 1110 or Consent of Instructor. Elementary principles and practice of writing for radio and television in varied program formats, emphasis on preparation of written materials for news and public affairs presentation. Lecture and lab.

MEDIA ST 2214 Screenwriting (3)
Prerequisite: MEDIA ST 1070 or Consent of Instructor. The course explores the writing of fiction film narrative with particular emphasis on plot structure, theme, and character development.

MEDIA ST 2218 Public Policy in Telecommunication (3)
Prerequisites: MEDIA ST 1065, or MEDIA ST 1110, or Consent of Instructor. An examination of the structure and operation of domestic, international, commercial and public telecommunication. Regulatory agencies, both private and public, will be considered in terms of their effect on programming and ownership.

MEDIA ST 2220 Promotion Essentials (3)
Prerequisite: MEDIA ST 1100 or consent of instructor. Explains the difference between advertising and sales promotion and why companies use sales promotion. Understand how companies utilize the different sales promotion techniques in each medium. Emphasis on the key sales promotion tools used by companies.

MEDIA ST 2222 Convergence & Digital Media (3)
This course deals with the production of various digital media platforms. The course is designed for beginners with an interest in learning how to shoot and edit content/stories for the Web, including social networking sites. Students will use flip cameras and learn how to use Final Cut Express software for editing.
MEDIA ST 2228 Public Relations Writing (3)
Prerequisite: ENGL 3140 or equivalent. An introduction to the process of planning, producing, and evaluating written public relations messages. Writing assignments include media releases, letters, memos, position papers, background papers, brochures, and reports and proposals.

MEDIA ST 2235 Media Theory (3)
Prerequisite: MEDIA ST 1050. Theory based explanation of the relationship between mass media and society. Topics will include agenda-setting, violence and television, and other current issues from a critical perspective.

MEDIA ST 2271 History of American Film (3)
Prerequisite: MEDIA ST 1070 or Consent of Instructor. History of American Film from the late nineteenth century to the present.

MEDIA ST 2272 Contemporary Cinema (3)
Prerequisite: MEDIA ST 1070 or Consent of Instructor. History of World Cinema from the 1940s to the present day.

MEDIA ST 2273 Survey of Film Genres (3)
Prerequisite: MEDIA ST 1060 or MEDIA ST 1070, or Consent of Instructor. The course explores the historical and aesthetic significance of film varieties. Analysis of genres may include the western, horror, science fiction, musical, detective, war, romantic comedy, and other films by type.

MEDIA ST 2275 Introduction to International Cinema (3)
Prerequisites: MEDIA ST 1070 with a grade of C or better. This course provides an understanding of the art and history of international cinema; and helps to better understand film and filmmakers' intentions as well as the culture in which the film was produced. Films from Europe, Asia, South America, Africa and Australia will be examined. The artistic, technical, historical and social significance of these films, as well as their impact upon American cinema, will also be studied.

MEDIA ST 2500 Introduction to Comparative International Media Systems (3) [CD]
This course introduces students to various media systems and theories around the world. It examines similarities and differences in media history, structures, and regulatory processes of developing countries, focusing on the dominant culture(s) of non-Western regions. It also provides a framework for understanding and analyzing the cultural differences among global media systems in Africa, the Middle East, and Asia. In addition, the course examines aboriginal and other development media. The course fulfills the cultural diversity requirement.

MEDIA ST 3025 Current Issues in Advertising (3)
Prerequisite: MEDIA ST 1100, junior standing or consent of instructor. Using recent topics in advertising, students will analyze, evaluate, and critique current topics as well as prepare current campaigns for open discussion and presentation.

MEDIA ST 3030 Advertising and Social Media (3)
Prerequisite: MEDIA ST 2090. Examination of advertising online with such topics as social communities, friendvertising, virtual worlds, brand building, media democracy, on-line opinions, gaming, and how companies can leverage their brands using two-way interaction.

MEDIA ST 3035 Advanced Media Theory (3)
Prerequisite: MEDIA ST 1135 or Consent of Instructor. This course examines major schools, ownership and theorists in mass media fields. The writings of the Frankfurt School, Marshall McLuhan, Ben Bagdikian, and others will be examined.

MEDIA ST 3070 International Cinema (3)
Prerequisites: MEDIA ST 1070 & MEDIA ST 2275. Understanding international film, its properties, methoc, aesthetics, and its impact on culture and society.

MEDIA ST 3150 Feature Writing (3)
Same as ENGL 3150. Prerequisite: ENGL 1100 or equivalent. Study of freelance and staff-written magazine or newspaper feature articles. Emphasis on relationship between types of publication and article content, research methods, and writing style. Frequent short assignments - journal entries, interviews, library projects, article critiques, and market reports - lead to production of full-length feature articles. May not be taken on the satisfactory/unsatisfactory option. The course counts toward the English Certificate in Writing.

MEDIA ST 3180 Reporting (3)
Same as ENGL 3180. Prerequisite: ENGL 3140 or equivalent. Theory and practice of reporting news for publication in the print media. Includes one classroom session and one field assignment weekly. Stories must be filed within deadline limits. Writing emphasis is on clarity, conciseness and accuracy. The course counts toward the English Certificate in Writing.

MEDIA ST 3214 News Writing (3)
Same as ENGL 3140. Prerequisite: ENGL 1100 or equivalent. An introduction to news writing and reporting. Course covers basic components of news reporting principles, and news writing style and structure. Daily writing assignments include coverage of speeches, meetings and interviews, accidents, deaths, courts, sports, consumer affairs, and government. Emphasis on clarity, accuracy, and speed. The course counts toward the English Certificate in Writing.

**MEDIA ST 3310 Television Production II (3)**
Prerequisite: MEDIA ST 2210. Study of advanced theories of television production. Refinement of studio television principles learned in MEDIA ST 2210. Exploration of complex program formats, and advanced non-linear editing techniques. Lab arranged.

**MEDIA ST 3313 Advanced Video Editing (3)**
Prerequisite: Six (6) hours of television production. Study of advanced non-linear editing techniques, animation, and advanced graphics development. Exploration of state of the art editing formats. Lab arranged.

**MEDIA ST 3316 Television News (3)**
Prerequisite: MEDIA ST 1113 or 2110. Theory and laboratory practice in the gathering, writing, and delivery of news through television. Lab arranged.

**MEDIA ST 3317 Radio and the Recording Industry (3)**
Historical development and current status of the recording industry, particularly as it interacts with the broadcast industry. Impact of radio and recording technology on the development of rock and other popular music.

**MEDIA ST 3330 Research Methods in Media Studies (3)**
Prerequisite: MEDIA ST 1135. Introduction to the fundamental tools of qualitative and quantitative research in Media Studies. Focus of the course is on reading and comprehending media research reports.

**MEDIA ST 3334 Advertising Media Planning**
Prerequisite: MEDIA ST 1050. A hands-on study of how to determine an advertising budget, select media and develop a strategic plan.

**MEDIA ST 3338 Advertising Techniques (3)**
Prerequisite: MEDIA ST 1100. Techniques for creating advertising messages and campaigns to reach target audiences. Practical applications of messages and campaigns will be stressed.

**MEDIA ST 3350 Mass Media History (3)**
Prerequisite: MEDIA ST 1050 or MEDIA ST 1110. Examination of the social, economic, and political factors contributing to the development of American mass media. Emphasis on significant personalities who helped shape its course; analysis of select critical works.

**MEDIA ST 3354 Comparative Telecommunication Systems (3)**
Prerequisite: MEDIA ST 1065 or Consent of Instructor. Historical aspects of various systems of telecommunication throughout the world. Examination of American, Canadian, European Community (EC), and other telecommunication systems.

**MEDIA ST 3355 Media Law and Regulation (3)**
Prerequisite: MEDIA ST 1050 or MEDIA ST 1110. Discussion of laws affecting the mass media. Exploration of problems and issues in legal regulation of media content, ownership, access, and accountability. Discussion of industry self-regulation and the influence of citizens' organizations.

**MEDIA ST 3356 Global Media Systems and Trends (3)**
Prerequisite: MEDIA ST 1050 or MEDIA ST 1110. This course will survey major theories, global trends, and key stakeholders in the field of mass and multi-media. Designed to foster substantive comprehension of issues raised by transnational media corporations and their impact on other cultures and languages. Details about the BBC, CNN, MTV, Euro Disney, and the internet will be major components of the class.

**MEDIA ST 3357 Media Convergence (3)**
This course will provide students with an overview of how computer technologies, telecommunication networks, and digital media are transforming contemporary culture and everyday life. Through hands-on projects on topics of social relevance, students will explore multiple platforms for reaching a variety of audiences. The course will also deal with policy issues such as regulation and competition.

**MEDIA ST 3362 Storytelling (1-3)**
Prerequisite: Junior standing or consent of instructor. This course gives an overview of the history of storytelling, types of tales, and appropriate uses for storytelling. The primary emphasis of the course is in developing storytelling skills through preparation, performances, and evaluation.

**MEDIA ST 3370 Documentary Film (3)**
Prerequisite: MEDIA ST 1070. Consideration of the history, theory, and criticism of nonfiction film. Screening of representative documentary films.
MEDIA ST 3394 Internship in Journalism (3-6)
Prerequisites: Senior standing, with at least 12 hours of course work in journalism, mass communication; an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades. Practical work with an off-campus newspaper, magazine, or other news organization, supervised by a journalism professional in consultation with a faculty member. This course may be repeated for up to 6 credit hours.

MEDIA ST 3395 Internship in Advertising (3-6)
Prerequisites: Senior standing, with at least 12 hours of course work in advertising an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades.

MEDIA ST 3396 Internship in Radio (3-6)
Prerequisites: Senior standing, with at least 12 hours of course work in radio, broadcasting; an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades. Practical work at an off-campus radio station, supervised by a professional in consultation with a faculty member. This course may be repeated for up to 6 credit hours.

MEDIA ST 3397 Internship in Television/Film (3-6)
Prerequisites: Senior standing, with at least 12 hours of course work in television, film, video; and overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades. Practical work at an off-campus television, film or video organization, supervised by a television, film or video professional in consultation with a faculty member. This course may be repeated for up to 6 credit hours.

MEDIA ST 3398 Internship in Media Studies (3-6)
Prerequisites: Senior standing, with at least 12 hours of course work in television, film, video, journalism, broadcasting, mass communication; an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades. Practical work at an off-campus agency, supervised by a professional consultation with a faculty member. This course can be repeated for up to 6 credit hours.

MEDIA ST 3500 Advanced Advertising Seminar (3)
Prerequisites: MEDIA ST 2080, MEDIA ST 2090, and MEDIA ST 3334 or Consent of Instructor. Students utilize skills learned in copywriting, creative advertising, and media buying and planning. Students are graded on research and customer insights, strategy, messaging and creative media plan, and advertising partnerships, and measures of effectiveness. The course final includes preparing a Plan Book for a specific client and presenting at a national competition.

MEDIA ST 3990 Directed Readings in Media Studies (3)
Prerequisite: Consent of Instructor; not open to students who have any delayed grades. Supervised independent study involving readings, conferences, papers, in one of the department’s disciplines: advertising, radio, television, film, or journalism.

MEDIA ST 4040 Special Topics in Media Studies (1-6)
Prerequisites: Junior, Senior, or graduate standing and consent of instructor. Special topics with subject matter dealing with current issues (theoretical or applied) in the discipline of media studies. Since the topics of Media Studies 4040 may change from semester to semester, the course may be repeated for up to 12 credit hours.

MEDIA ST 4270 Feature Film Writing (3)
Prerequisite: MEDIA ST 1070 or consent of instructor. This course will include story conceptualization, development, and drafting a feature film script ready for production. Characterization, dramatic structure, thematic subtext, and visual storytelling will be emphasized.

MEDIA ST 4271 Feature Film Production (3)
Prerequisite: MEDIA ST 2210 or consent of instructor. This course will emphasize production techniques applicable to a wide variety of audio, film and video-based media. Students will be involved in feature film production assignments on location in addition to regularly scheduled classes.

MEDIA ST 4272 Feature Film Post Production (3)
Prerequisite: MEDIA ST 2210 or consent of instructor. This course will provide instruction in editing techniques and motivation, as well as continuity, rhythmic, graphic, and temporal editing principles. Students will work on feature film segments in addition to regularly scheduled classes.

MEDIA ST 4335 Seminar in Applied Media Studies Research (3)
Prerequisite: MEDIA ST 1135 or Consent of Instructor. This course explores the use of media concepts, theories, methods and designs in applied field settings with an emphasis on original research.

MEDIA ST 4357 Media Ethics (3)
Prerequisite: Same as PHIL 4457. Nine hours of philosophy, communication, or media studies, or Consent of Instructor. This course is concerned with some of the issues that arise from the intersection of ethics and modern media communications. Attention is given to some of the more specific concerns of media ethics, such as truth, honesty, fairness, objectivity and bias; personal privacy and the public interest; advertising; conflicts of interest; censorship and offensive or dangerous content (pornography, violence). Particular attention will be given to problems posed by the development of personal computer communications through bulletin boards on-line services and the Internet.

MEDIA ST 4392 Administration of Co-curricular Activities (3)
Prerequisite: Junior standing or consent of instructor. A survey of skills required to administer the various co-curricular activities associated with teachers in the secondary schools, such as theatre performances and mass media centers.

MEDIA ST 4400 Senior Project (3)
Prerequisites: Senior status, consent of instructor. The capstone experience requires seniors to produce an original research project, a representative portfolio, or an intrinsic case study, which exemplifies their undergraduate study. Students will present their work to the instructor supervising the course, as well as program related-faculty.
Faculty

Deborah B. Balser, Associate Professor of Public Policy Administration and Business Administration, Director of Public Policy Administration
Ph.D., Cornell University

Todd Swanstrom, E. Des Les Professor of Public Policy Administration, Professor of Political Science
Ph.D., Princeton University

Glen H. Cope, Professor of Public Policy Administration and Political Science, Provost and Vice Chancellor for Academic Affairs
Ph.D., Ohio State University

E. Terrence Jones, Professor of Public Policy Administration and Political Science
Ph.D., Georgetown University

Anne E. Winkler, Professor of Public Policy Administration and Economics
Ph.D., University of Illinois

Deborah B. Balser, Associate Professor of Public Policy Administration and Business Administration
Ph.D., Cornell University

Andrew D. Glassberg, Associate Professor of Public Policy Administration and Political Science
Ph.D., Yale University

Jean Germain Gros, Associate Professor of Public Policy Administration and Political Science
Ph.D., University of California Berkeley

Nancy T. Kinney, Associate Professor of Political Science and Public Policy Administration, Academic Director of Nonprofit Management & Leadership Program
Ph.D., University of Colorado at Denver

James M. Krueger, C.P.A., Assistant Professor of Public Policy Administration and Accounting, Vice Chancellor of Managerial and Technology Services
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General Information
The University of Missouri-St. Louis' Public Policy Administration (P P ADM) program has three components: the Master of Public Policy Administration (MPPA) degree program, the Nonprofit Management and Leadership Program, and the Local Government Partnership.

The Master of Public Policy Administration (MPPA) degree is an interdisciplinary program designed to prepare students for managerial and policy analysis positions in the public and nonprofit sectors or in organizations having substantial interaction with the public and nonprofit sectors. The program is a unit of the Graduate School and is accredited by the National Association of Schools of Public Affairs and Administration (NASPAA). Core faculty are on joint appointments in public policy administration and disciplines such as economics, political science, sociology, or business administration. The program includes courses in policy analysis, public administration, management, budgeting, and economics in the core curriculum. The University of Missouri-St. Louis' MPPA program differs from existing programs available in the Missouri-Illinois region in its interdisciplinary nature and emphasis on the development of analytic and administrative skills. It is designed to meet the needs of prospective full-time students, as well as those who wish to earn a degree part-time while continuing to work.

In addition to the distinguished doctoral level faculty in public policy administration, students have access to courses and faculty in business and other social sciences, to the Public Policy Research Center, and to the Center for International Studies. The P P ADM program serves as an editorial home of the American Review of Public Administration.

The full facilities of Campus Computing, and the Laboratory for Quantitative Analysis are available. UMSL is a member of the Inter-University Consortium for Political and Social Research, the Association for Public Policy & Management (APPAM), and NASPAA.

**Admission Requirements**

Applicants to the MPPA program must have a minimum GPA of 3.0 for admission to Graduate School as explained in the Graduate Study section of this Bulletin. Three letters of recommendation and a 2-3 page goal statement also are required. At least one of the letters needs to come from a current or former college-level instructor. Students entering the MPPA program may be required to demonstrate proficiency in college algebra.

**Degree Requirements**

The MPPA degree consists of 40 credit hours, 28 of which are taken as part of the core curriculum and 12 that are electives. Students who complete the degree must demonstrate the following:

- Design, research, write, and defend analyses of substantive public policy problems and/or potential solutions
- Use data and sophisticated analytic tools (qualitative and quantitative) to conduct research in public policy and administration
- Understand the policy and internal/external environments of public and nonprofit organizations
- Develop expertise in a substantive area of public policy administration

**Core Curriculum**

All candidates for the MPPA degree must complete 28 hours in the core curriculum sequence composed of the following public policy administration courses:

**Administration**

P P ADM 6400, Proseminar in Public Policy Administration
P P ADM 6600, Organizational Behavior and Administrative Processes

**Budgeting**

P P ADM 6180, Governmental Budgeting and Financial Control

**Economics**

P P ADM 6080, Microeconomics for Policy Analysis
P P ADM 6210, Public Sector Microeconomics

**Policy Analysis**

P P ADM 6000, Introduction to Policy Analysis
P P ADM 6900, Cases in Public Policy Administration

**Statistics, Research Methods, and Information Technology**

P P ADM 6010, Introduction to Policy Research
P P ADM 6750, Introduction to Evaluation Research Methods
P P ADM 6850, Information Technology and the Public and Nonprofit Sectors

A thesis is not required to complete the program. However, writing is an important component of the degree, and students will complete written analyses as part of their coursework and/or internship.

P P ADM 6000 should be taken at the beginning of the program. It is strongly recommended that P P ADM
Students may select one of four emphasis areas in which to concentrate their advanced studies: (1) managing human resources and organizations, (2) policy research and analysis, (3) local government management, (4) nonprofit organization management. Students may also select an individualized emphasis area in consultation with their advisor and with approval of the Director.

Prior to the completion of 15 hours in the MPPA program, students should identify an emphasis area. In each of the emphasis areas students may be able to substitute another course for a specified elective, with the MPPA Director’s approval. Specific requirements for each emphasis area are as follows:

1) Managing Human Resources and Organizations
   a. Required (3 hours)
      P P ADM 6490, Human Resources in the Public Sector
   b. Electives (9 hours) chosen from:
      MGMT 5611, Advanced Organizational Behavior and Administrative Processes
      MGMT 5624, Organizational Training
      ECON 5400, Labor Economics
      P P ADM 6680, Negotiating Workplace Conflict
      POL SCI 3470, Collective Bargaining
      P P ADM 6950, Internship – 3 hours (in assignment relevant to emphasis area)

2) Policy Research and Analysis
   a. Required (3 hours)
      POL SCI 6402, Intermediate Techniques in Policy Research OR ECON 4100, Introduction to Econometrics
   b. Electives (9 hours) chosen from:
      POL SCI 6403, Advanced Techniques in Policy Research or ECON 4500, Public Finance: State and Local
      ECON 4110, Applied Econometrics
      ECON 4160, Geospatial Economic Analysis
      ECON 4550, Natural Resource Economics
      ECON 5400, Labor Economics
      ECON 5760, Health Economics
      ECON 5900, Advanced Topics in Economic Analysis
      POL SCI 6404, Multi-Method Research
      POL SCI 6414, Topics in Public Policy Analysis
      POL SCI 6422, Law, Courts, and Public Policy
      SOC 4040, Survey Research Practicum
      P P ADM 6950, Internship (in assignment relevant to the emphasis area)

3) Local Government Management
   * a. Required (6 hours)
      P P ADM 6340, Seminar in City Administration or P P ADM 6350, Seminar in Urban Management
   AND EITHER
      POL SCI 6470, Proseminar in Urban Politics or POL SCI 6471, Seminar in Urban Politics
   b. Electives (6 hours) chosen from:
      P P ADM 6390, Leadership and Management in Nonprofit Organizations
      P P ADM 6680, Negotiating Workplace Conflict
      P P ADM 6490, Human Resources in the Public Sector
      P P ADM 6950, Internship (in assignment relevant to emphasis area)
      ECON 4500, Public Finance: State and Local
      ECON 5700, Regional and Urban Economics
      POL SCI 4460, Urban Planning and Politics
   * For Local Government Management specialization, a course not taken to fulfill the “required 6 hours” may be taken as an elective.

   NOTE: Students interested in careers in local government management are strongly encouraged to take P P ADM 6490, Human Resources in the Public Sector, as one of their electives.
4) Nonprofit Organization Management and Leadership

a. Required (9 hours)
   PP ADM 6300, Leadership and Management in Nonprofit Organizations
   PP ADM 6310, American Philanthropy and Nonprofit Resource Development
   PP ADM 6311, PP ADM 6312, PP ADM 6313, Staff management Issues; Legal Issues; Financial Issues in Nonprofit Organizations

b. Electives (3 hours) chosen from:
   ACCTNG 3451, Accounting for Governmental and Nonprofit Entities
   BUS AD 5100, Managerial Communication
   BUS AD 5900, Law, Ethics and Business
   MKTG 5700, Contemporary Marketing Concepts
   PP ADM 4990, Selected Topics in Nonprofit Management & Leadership
   PP ADM 6490, Human Resources in the Public Sector
   PP ADM 6501, Selected Topics in Nonprofit Management & Leadership
   PP ADM 6550, Strategic and Program Planning for Nonprofit Organizations
   PP ADM 6680, Negotiating Workplace Conflict
   PP ADM 6950, Internship (in assignment relevant to the emphasis area)
   PSYCH 7412, Social Psychology

Individualized Emphasis Area
Prior to the completion of 15 hours in the MPPA program, the student must present a proposal for 12 hours of specific coursework for approval by the MPPA faculty. The 12 hours must include PP ADM 6950, Internship (in assignment relevant to the emphasis area) unless the student has significant public or nonprofit sector experience.

Internships
There currently exists a need for well trained policy administrators and analysts. Frequent contact is maintained with public and nonprofit practitioners and public officials in the St. Louis metropolitan area, providing valuable input for program development, creation of a wide variety of internship possibilities, and assistance with a vigorous placement program for MPPA graduates. Interns may be placed in planning agencies, city managers' offices, administrative departments, or budgeting offices.

An internship is required for students without substantial experience in the public or nonprofit sectors. MPPA students employed in public agencies can receive three hours of credit for internships in those agencies. To do so, students must develop, in consultation with their advisors, special research projects outside the scope of their regular employment duties. Credit is granted after successful completion of the project and a written paper at the end of the semester. Students who have significant relevant experience in the public or nonprofit sector may be waived out of the internship requirement.

BSPPA/MPPA 2+3 Program in Public Policy Administration

The BSPPA / MPPA 2+3 program is an accelerated program that allows outstanding BSPPA students to complete a baccalaureate degree and Master of Public Policy Administration (MPPA) degree in five years. The program allows students to apply 12 of the MPPA credit hours towards the BS, reducing the overall required hours for the two degrees from the standard 160 – 120 for the BS plus 40 for the MPPA – to 148 hours.

Core Curriculum
All candidates for the MPPA degree must complete 28 hours in the core curriculum sequence composed of the following public policy administration courses:

Administration
   PP ADM 6400, Proseminar in Public Policy Administration
   PP ADM 6600, Organizational Behavior and Administrative Processes

Budgeting
   PP ADM 6180, Governmental Budgeting and Financial Control

Economics
   PP ADM 6080, Microeconomics for Policy Analysis
   PP ADM 6210, Public Sector Microeconomics

Policy Analysis
   PP ADM 6000, Introduction to Policy Analysis
   PP ADM 6900, Cases in Public Policy Administration

Statistics, Research Methods and Information Technology
   PP ADM 6010, Introduction to Policy Research
   PP ADM 6750, Introduction to Evaluation Research Methods
**P P ADM 6850, Information Technology and the Public and Nonprofit Sectors**

A thesis is not required to complete the program. However, writing is an important component of the degree, and students will complete written analyses as part of their coursework and/or internships.

**Electives**

Twelve credit hours are taken as electives based upon a student's interest. The electives are organized into emphasis areas, available at MPPA Emphasis Area on the PPA website.

For each student in this program, the MPPA Director and the BSPPA Advisor in the Department of Political Science, will jointly identify and approve four MPPA courses (totaling 12 credits) that cover, at a more advanced level, undergraduate courses that would otherwise be taken for the BSPPA degree. These courses will substitute for (and should not duplicate) BSPPA courses, and will count toward completion of both BSPPA and MPPA requirements.

Degree requirements remain the same for the two degrees, but students admitted into this accelerated program will be able to earn 12 graduate credits prior to completing their undergraduate degrees. Upon completion of 120 credit hours (including all other undergraduate degree requirements) the BSPPA degree will be awarded.

**Admission Requirements**

BSPPA majors must have completed between 60 and 108 credit hours before applying for admission into this dual degree program. It is recommended that applicants apply after completing 90 credit hours. Applicants must have a minimum 3.0 overall GPA as well as a minimum 3.0 GPA in the major. Applications will be submitted to the Master of Public Policy Administration program and decisions will be made by the director in consultation with the BSPPA advisor in the Department of Political Science. Students entering the MPPA program may be required to display proficiency in college algebra. The application must be accompanied by three letters of recommendation, including one from a current, full-time faculty member, and by a two to three page statement of the student’s individual goals and substantive areas of interest.

**Graduate Certificate Program in Nonprofit Organization Management and Leadership (NPML)**

Through the Public Policy Administration Program, the university offers the Graduate Certificate Program in Nonprofit Organization Management and Leadership for students who are current professional staff, board members, and other leaders of nonprofit and voluntary organizations, as well as those who plan to work in the field. UMSL’s NPML certificate is the only program in the St. Louis region recognized by the Nonprofit Academic Centers Council (NACC). The certificate can be taken by itself or in conjunction with the Master of Public Policy Administration or a graduate degree in another field. Course credits earned in the certificate program can be applied to the MPPA, but a separate application may be required.

**A. The graduate certificate in nonprofit management and leadership requires the completion of 18 credit hours. Nine of these are the following core courses (For Academic Year 2011-2012, the corresponding 4000-level core courses may be substituted):**

1. **P P ADM 6300**, same as SOC WK 6300, Leadership and Management in Nonprofit Organizations (3 hours)
2. **P P ADM 6310**, same as SOC WK 6310, American Philanthropy and Nonprofit Resource Development (3 hours)
3. **P P ADM 6311**, same as SOC WK 6311, Staff Management Issues in Nonprofit Organizations (1 hour)
4. **P P ADM 6312**, same as SOC WK 6312, Legal Issues in Managing Nonprofit Organizations (1 hour)
5. **P P ADM 6313**, same as SOC WK 6313, Financial Issues in Managing Nonprofit Organizations (1 hour)

**B. Six hours of electives are to be taken from approved courses in accounting, business administration, economics, management, marketing, political science, psychology, public policy administration, and sociology. A student may choose among these courses or other courses approved by the program director.**

**C. Three hours of internship are also required, or graduate students should demonstrate the equivalent professional field experience. Any request for an exemption from the internship requirement must be approved by the nonprofit program director after a review of the student’s professional or managerial field experience with appropriate documentation. Students who receive an exemption must take another 3 hours of electives from the selection in area B.**
The internship will include learning activities in management and governance processes in nonprofit organizations, as well as a seminar in which students will critically reflect on their field experience with a faculty supervisor.

Requirements of admission to the graduate certificate program are the same as those required for admission to the Graduate School: an undergraduate degree, and a GPA of 3.0 or better.

**Graduate Certificate Program in Local Government Management**

The Graduate Certificate in Local Government Management is designed for current professional staff, elected or non-elected local government officials, and those who are interested in pursuing a career in the local government sector. The certificate can be taken by itself or in conjunction with the Master of Public Policy Administration or other graduate degree. A separate application for the certificate program may be required when students in a degree program wish to incorporate the certificate program.

A. The graduate certificate in local government management requires the completion of 18 credit hours. Twelve of these are the following core courses:

1. **P P ADM 6340**, Seminar in City Administration or **P P ADM 6350**, Issues in Urban Management (3 hours) and
2. **POL SCI 6470**, Proseminar in Urban Politics or **POL SCI 6471**, Seminar in Urban Politics (3 hours) and
3. **P P ADM 6490**, Human Resources in the Public Sector (3 hours) and
4. **P P ADM 6180**, Government Budgeting and Financial Control (3 hours)

B. Three hours of electives are to be taken from selected courses in business administration, criminal justice, economics, political science, public policy administration, and sociology. A student may choose among these courses or other courses approved by the program director. Electives will be chosen from the following:

- **CRIMIN 6442**, Communities and Crime
- **ECON 4500**, Public Finance: State and Local
- **ECON 5700**, Regional and Urban Economics
- **ECON 5750**, Political Economy of Healthcare
- **POL SCI 4460**, Urban Planning and Politics
- **POL SCI 6433**, Elections, Public Opinion, and Public Policy
- **POL SCI 6470**, Proseminar in Urban Politics
- **POL SCI 6471**, Seminar in Urban Politics
- **P P ADM 6300/SOC WK 6300**, Leadership and Management of Nonprofit Organizations
- **P P ADM 6340**, Seminar in City Administration
- **P P ADM 6350**, Issues in Urban Management
- **P P ADM/POL SCI 6400**, Proseminar in Public Policy Administration
- **P P ADM 6510**, Urban and Regional Planning and Public Policy
- **P P ADM 6600**, Organizational Behavior and Administrative Processes
- **P P ADM 6680/MGMT 5612**, Negotiating Workplace Conflict
- **SOC 5430**, Policy Mediation Processes

*Other courses may be added as advisors deem appropriate for content.

C. Three hours of internship or equivalent professional experience are also required but may be waived. Any request for an exemption from the internship requirement must be approved by the local government program director after a review of the student's professional or managerial field experience with appropriate documentation. Students who receive an exemption must take another three hours of electives from Area B. The internship will include learning activities in management and governance processes in local government jurisdictions, as well as a seminar in which students will critically reflect on their field experience with a faculty supervisor.

Minimal requirements of admission to the graduate certificate program are the same as those required for admission to the Graduate School: an undergraduate degree, and a GPA of 2.75 or better.

**Nonprofit Organization Management and Leadership Certificate (Undergraduate)**

The university offers an undergraduate certificate program for students who want to become professional staff, board members, or other leaders of nonprofit and voluntary organizations, as well as those who are currently in the field.

The certificate requires the completion of 18 semester hours. Nine of these hours must be the following core courses:

- **P P ADM 4911**, same as POL SCI 4911, or SOC WK 4911 (1 hour) Staff Management Issues in Nonprofit
Organizations

P P ADM 4912, same as POL SCI 4912, or SOC WK 4912 (1 hour) Legal Issues in Managing Nonprofit Organizations

P P ADM 4913, same as POL SCI 4913, or SOC WK 4913 (1 hour) Financial Issues in Managing Nonprofit Organizations

P P ADM 4940, same as SOC 4940 or SOC WK 4940 (3 hours) Leadership and Management in Nonprofit Organizations

P P ADM 4960, same as POL SCI 4960, or SOC WK 4960 (1 hour) American Philanthropy and Nonprofit Resource Development

The remaining 9 hours of electives can be selected from the following courses:

**Communication**

COMM 2230, Small Group Communication
COMM 2231, Communication in the Organization
COMM 2240, Persuasive Communication
COMM 3358, Communication in Public Relations

**English**

ENGL 3120, Business Writing
ENGL 3130, Advanced Business and Technical Writing
ENGL 3280, Public Relations Writing (Same as MEDIA ST 2228)

**Management**

MGMT 3600, Management and Organizational Behavior
MGMT 3611, Advanced Management and Organizational Behavior
MGMT 3621, Human Resource Management

**Marketing**

MKTG 3700, Basic Marketing

**Media Studies**

MEDIA ST 2228, Public Relations Writing (Same as ENGL 3280)

**Political Science**

POL SCI 3420, Public Personnel Management
POL SCI 3440, Public Budgeting

**Psychology**

PSYCH 2222, Group Processes in Organization
PSYCH 3320, Personnel Assessment

**Social Work**

SOC WK 4300, Intervention Strategies for Social Work with Organizations and Communities

**Sociology**

SOC 4312, Sociology of Wealth and Poverty
SOC 4336, Organizations and Environments

**Career Outlook**

The current outlook for graduates of the interdisciplinary Master of Public Policy Administration Program is quite promising. Recent graduates of this program have found careers as budget analysts, personnel analysts, transportation planners, and human resources planners with local, regional, state, and federal agencies, and the nonprofit sector.

**Course Descriptions**

**P P ADM 4911 Staff Management Issues in Nonprofit Organizations (1)**
Same as POL SCI 4911 and SOC WK 4911. Prerequisite: Junior Standing. This course addresses issues involved in managing staff in nonprofit organizations. The course will cover the following topics: fundamentals of staff supervision; balancing supervisory processes with counseling and coaching; selecting, hiring, evaluating, and terminating staff; legal issues that affect these processes.

**P P ADM 4912 Legal Issues in Managing Nonprofit Organizations (1)**
Same as POL SCI 4912 and SOC WK 4912. Prerequisite: Junior standing. This course addresses legal issues involved in managing and governing nonprofit organizations. The course will cover the following topics: The Board as steward of the organization; Director and officer liability; tax laws concerning charitable giving; legal issues in managing staff and volunteers (e.g., hiring, evaluating, and terminating employees); Missouri nonprofit law.

**P P ADM 4913 Financial Issues in Managing Nonprofit Organizations (1)**
Same as POL SCI 4913 and SOC WK 4913. Prerequisite: Junior standing. This course addresses financial issues involved in governing and managing nonprofit organizations. The course will cover the following topics: Cash flow analysis; budgeting; fund accounting; cost accounting (determining costs for programs and services); understanding and using standard financial statements, including balance sheets, cash flow statements, statements of activity, and operating and capital budgets.

P ADM 4940 Leadership and Management in Nonprofit Organizations (3)
Same as POL SCI 4940, SOC WK 4940, and SOC 4940. Prerequisite: Junior standing. Addresses the role and scope of the independent sector in the United States, as well as the leadership and management of nonprofit organizations within that sector. Topics include the economic and political scope of the independent sector, the role of volunteerism in a democratic society, and the role and scope of philanthropy. Topics in voluntary organization management and leadership include the dynamics, functions and membership structure of NPOs, especially staff-board and other volunteer relations; governance and management of NPOs; resource mobilization; and program development management and evaluation.

P ADM 4960 American Philanthropy and Nonprofit Resources Development (3)
Same as POL SCI 4960 and SOC WK 4960. Prerequisite: Junior standing or consent of instructor. This course addresses the history, philosophy, roles and scope of philanthropy in the United States, including its role in the nonprofit, voluntary sector. It further examines the contemporary forces which impact philanthropy and charitable giving, both by institutions and individuals. The course examines the effective planning and management of development programs (e.g., annual giving), fund raising vehicles (e.g., mail solicitations) and the fund raising process, form planning through donor relations.

P ADM 4990 Selected Topics in Nonprofit Management and Leadership (3)
Prerequisites: Junior standing. Permission of instructor may be required. A seminar of selected issues and methods relating to nonprofit management and leadership. May be repeated for credit, provided the subject matter is different.

P ADM 6000 Introduction to Policy Analysis (3)
Same as POL SCI 6410. Systematic development of a critical/analytic base for dealing with public policy.

P ADM 6010 Introduction to Policy Research (3)
Same as POL SCI 6401. Procedures for testing explanations, including research design, principles of measurement, probability sampling, methods of data collection, and techniques for analyzing data.

P ADM 6080 Microeconomics for Policy Analysis (3)
Same as ECON 5010. Prerequisite: Graduate student standing. This course introduces microeconomic analysis of consumers, firms, and government, with an emphasis on policy applications. It assumes no prior training in economics and is appropriate for graduate students in public policy administration, nonprofit management, political science, gerontology, criminology and criminal justice, and other related fields.

P ADM 6150 Directed Reading and Research in Public Policy (1-10)
Same as POL SCI 6415. Prerequisite: Consent of Instructor. Independent study through readings, reports, research projects, and conferences. May be repeated for credit, provided the subject matter is different.

P ADM 6180 Governmental Budgeting and Financial Control (3)
Same as BUS AD 5450. Prerequisite: BUS AD 5400. A study of municipal and federal financial control and budgeting procedures with emphasis on public policy. The impact of financial control on top management decisions and the effect of budget strategies on the allocations of public funds.

P ADM 6210 Public Sector Microeconomics (3)
Same as ECON 5500. Prerequisites: ECON 3001, BUS AD 5001, or P ADM 6080. Application of tools of intermediate microeconomics to address public sector issues. Special emphasis is placed on critically analyzing current public policy debates using the models developed. Topics covered include: cases in which competitive market fails to allocate resources efficiently (e.g., externalities and public goods), importance of property rights, incentive effects of the tax and transfer system, and the fundamentals of cost-benefit analysis.

P ADM 6300 Leadership and Management in Nonprofit Organizations (3)
Same as SOC WK 6300. Prerequisite: Graduate standing required. Addresses the role and scope of the independent sector in the United States, as well as the leadership and management of nonprofit organizations within that sector. Topics include the economic and political scope of the independent sector, the role of volunteerism in a democratic society, and the role and scope of philanthropy. Topics in voluntary organization management and leadership include the dynamics, functions and membership structure of NPOs, especially staff-board and other volunteer relations; governance and management of NPOs; resource mobilization; and program development management and evaluation.

P ADM 6310 American Philanthropy and Nonprofit Resources Development
Same as SOC WK 6310. Prerequisite: Graduate standing required. This course addresses the history, philosophy, roles and scope of philanthropy in the United States, including its role in the nonprofit, voluntary sector. It further examines the contemporary forces which impact philanthropy and charitable giving, both by institutions and individuals. The course examines the effective planning and management of development
programs (e.g., annual giving), fund raising vehicles (e.g., mail solicitations) and the fund raising process, 
form planning through donor relations.

P P ADM 6311 Staff Management Issues in Nonprofit Organizations (1)
Same as SOC WK 6311. Prerequisite: Graduate standing required. This course addresses issues involved in 
managing staff in nonprofit organizations. The course will cover the following topics: fundamentals of staff 
supervision; balancing supervisory processes with counseling and coaching; selecting, hiring, evaluating, and 
terminating staff; legal issues that affect these processes.

P P ADM 6312 Legal Issues in Managing Nonprofit Organizations (1)
Same as SOC WK 6312. Prerequisite: Graduate standing required. This course addresses legal issues involved 
in managing and governing nonprofit organizations. The course will cover the following topics: The Board as 
steward of the organization; Director and officer liability; tax laws concerning charitable giving; legal issues in 
managing staff and volunteers (e.g., hiring, evaluating, and terminating employees); Missouri nonprofit law.

P P ADM 6313 Financial Issues in Managing Nonprofit Organizations (1)
Same as SOC WK 6313. Prerequisite: Graduate standing required. This course addresses financial issues 
involving in governing and managing nonprofit organizations. The course will cover the following topics: Cash 
flow analysis; budgeting; fund accounting; cost accounting (determining costs for programs and services); 
understanding and using standard financial statements, including balance sheets, cash flow statements, 
statements of activity, and operating and capital budgets.

P P ADM 6340 Seminar in City Administration (3)
This course provides an overview of the working environment of a city administrator and is jointly sponsored 
by the local city managers association. Professional city personnel make presentations to the students on six 
major topics: political structure, organizational structure, service delivery, finance, personnel policies and 
practices, and leadership. The course provides direct observation of city council meetings, visits to various 
city facilities, exposure to different philosophies and styles of city management, and provides students a 
chance to assemble facts, evaluate options, and present policy recommendations for real problems that local 
admirators face.

P P ADM 6350 Issues in Urban Management (3)
Designed to evaluate management issues that confront managers in local government from a political 
perspective. The format will include an intense review and discussion of original case studies from actual local 
government situations. The specific focus of this course will vary. Course may be repeated.

P P ADM 6400 Proseminar in Public Administration (3)
Same as POL SCI 6440. Examination of major approaches to analyzing public policies and their 
administration. Emphasis is on the effects of administrative organization and procedures on policy decisions 
and their impacts. Specific topics may include administrative accountability, intergovernmental relations, 
public/private interaction, implementation processes, bureaucratic expertise, the legal environment of public 
policy administration, and public service and merit issues.

P P ADM 6430 Health Care Policy (3)
Same as GERON 6443, POL SCI 6443, SOC 6443, and SOC WK 6443. (MSW students will normally take the 
social policy foundation course prior to enrolling in this course). Prerequisites: Graduate standing and consent 
of instructor. Survey course examining current issues in health policy that face the nation. Policies are placed 
in a historical context to show how issues have been influenced by different political and economic conditions. 
Secondary consequences and limitations of current trends in health policy are explored.

P P ADM 6444 Seminar in Public Policy and Aging (3)
Same as GERON 6444, POL SCI 6444, and SOC 6444. Prerequisite: Consent of instructor. The study of 
specialized issues and methods related to federal, state, and local policies that affect the elderly. Potential 
policy areas to be covered include housing, taxation, mental health, transportation, etc. May be repeated for 
credit, provided the subject matter is different.

P P ADM 6460 Selected Topics in Health Care Policy (3)
Same as POL SCI 6446 and SOC 6446. Prerequisite: Consent of instructor. The study of specialized issues 
and methods relating to health care policy. May be repeated for credit, provided the subject matter is 
different.

P P ADM 6490 Human Resources in the Public Sector (3)
Same as POL SCI 6449 and SOC WK 6449. Prerequisite: P P ADM 6600 or consent of instructor. Presents: an 
overview of personnel and labor relations in the public sector. Particular emphasis placed on issues which are 
unique to the public sector, such as the merit system, the questions of representative bureaucracy and the 
constraints of personnel in the nonprofit sector. The topics include personnel reforms in the federal sector, 
equal employment and affirmative action policies, testing, selection, hiring, comparable worth, job evaluation, 
and labor relations including grievance arbitration and collective bargaining.

P P ADM 6500 Selected Topics in Public Policy Administration (3)
Prerequisites: Graduate standing. Permission of instructor may be required. A seminar of selected issues and methods relating to public policy administration. May be repeated for credit, provided the subject matter is different.

**P P ADM 6501 Selected Topics in Nonprofit Management and Leadership (3)**
Prerequisites: Graduate standing. Permission of instructor may be required. A seminar of selected issues and methods relating to nonprofit management and leadership. May be repeated for credit, provided the subject matter is different.

**P P ADM 6510 Urban and Regional Planning and Public Policy (3)**
Prerequisite: Graduate standing or consent of instructor. Focuses on the interdependent processes of urbanization and public policy. Students will acquire an understanding of urban planning and public policy in North America.

**P P ADM 6550 Strategic and Program Planning for Nonprofit Organizations (3)**
Same as POL SCI 6490 and SOC WK 6491. Prerequisite: Graduate standing or consent of instructor. Strategic and program planning enable an organization to concentrate on efforts and set priorities guided by a mission, vision, and an understanding of its environment. Focus is on preparing a strategic plan and a program plan for a nonprofit organization and analyzing an organization's ability to deliver goods and/or services to its constituents in today's economic, social and political climate.

**P P ADM 6600 Organizational Behavior and Administrative Processes (3)**
Same as MGMT 5600. The theoretical and research contribution of the behavioral sciences to management and administration are examined and applied to selected organizational situations. Areas to be considered from the standpoint of both individual and organizational performance are communication, motivation, conflict, decision making, goal setting, leadership, organizational design, climate, development, and control. Utilizing a systems perspective, the course attempts to develop in each student an ability to analyze and solve organizational problems.

**P P ADM 6680 Negotiating Workplace Conflict (3)**
Same as MGMT 5612. Prerequisites: P P ADM/Management 5600, and Graduate Standing. Examines conflict and cooperation between individuals, groups, and organizations over the control of work. A central theme is how this conflict is expressed, controlled, and resolved. Students will participate in exercises to learn the basics of two-party negotiations.

**P P ADM 6750 Introduction to Evaluation Research Methods (3)**
Same as SOC 5475. Prerequisites: At least one course in Research Design and Statistics at the graduate level. A comparative study of research strategies with regard to data sources, data collection, and modes of analysis that are appropriate for program evaluation research. Attention is given to observational, survey, and quasi experimental designs.

**P P ADM 6800 Management Information Systems (3)**
Same as INFSYS 5800. This course provides an overview of the established and contemporary issues related to information systems within organizations. Topics include the practices and tools associated with topics such as the management of IS-based investment projects, the design and implementation of IS, the alignment of IS with organizational strategy, information security and privacy, and gaining a competitive advantage through IS.

**P P ADM 6850 Information Technology and the Public and Nonprofit Sectors (1)**
Prerequisite: Graduate standing. This course addresses information technology in the public sector from a managerial perspective. Course goals include an increase in student's knowledge and understanding of basic hardware, software, data, and information management issues from a managerial perspective. These topics include, but are not limited to: web portal design, geographic information systems, database management, e-government, strategic design, and the use of information technology to address public policy questions.

**P P ADM 6900 Cases in Public Policy Administration (3)**
Prerequisites: 24 hours of public policy administration courses, at least 15 of which are in core courses. This capstone course intensively analyzes public policy administration cases drawn from a variety of issues and settings.

**P P ADM 6950 Internship (3)**
Independent study involving work with an appropriate public, private, or nonprofit agency.
The Pierre Laclede Honors College mission is to enrich the educational experience of a select group of highly motivated and intelligent undergraduates. With this in mind, it enrolls students who are ready to accept academic challenges and become creatively involved in the learning process.

The college has a unique structure and identity. Unlike the university's other colleges, it has no academic departments and it grants no degrees. Instead, it brings together a cross section of students and teachers in a special curriculum, designed to meet a portion of the students' general education and various other requirements. Programs are available to four-year and transfer students.

- The four year program is open to entering freshmen and extends over a student's entire undergraduate career.
- The two year program is open to select third year students who are either continuing at or have transferred to the university, and a two-plus program is available for transferring sophomores.
- Honors College courses are generally taught seminar style, with a stress on reading, small group discussion, and writing.

Faculty
Honors College instructors are drawn from university faculty in all academic divisions but mainly from the "traditional disciplines" of the Arts, Humanities, Social Sciences, and Sciences. These teachers share a desire to work closely with intellectually curious, high-achieving students. Faculty design courses directed toward such an audience and based on small discussion seminars. Thus the honors faculty grows each year as new faculty join the honors project. Their talents add to the Honors College's rich instructional pool of more than 100 regular and full-time faculty, many of whose teaching and scholarship have been singled out for special awards.

In addition, the Honors College has seven full-time academic faculty members whose responsibilities (besides instruction) include admissions, student advising, and curricular design. These faculty are:

Robert M. Bliss, Associate Professor, Dean
Ph.D, University of Wisconsin-Madison

Nancy Gleason, Teaching Professor, Associate Dean, and Director of Writing.
M.A., University of Missouri-St. Louis

Kimberly Baldus, Teaching Professor.
Ph.D., Northwestern University

Birgit Noll, Associate Teaching Professor
M.A., Washington University in St. Louis

Daniel Gerth, Associate Teaching Professor
M.A., University of Missouri-Columbia

Chad Hankinson, Associate Teaching Professor
M.A., University at Buffalo, SUNY

Gerianne Friedline, Assistant Teaching Professor
M.A., University of Missouri-St. Louis

Honors College students are highly qualified and motivated individuals from a broad range of public and private secondary schools and colleges. They enter the college with diverse backgrounds and interests and remain part of it while simultaneously enrolling in classes and pursuing bachelor's degrees in other academic divisions of the university.

Most honor students major in traditional liberal arts disciplines spanning the humanities, social sciences, mathematics, and natural sciences, but well over a third use their undergraduate education to prepare for careers in business, education, nursing, or engineering. Most Honors college students plan to go on to
graduate study or professional schools, although a significant number successfully seek employment immediately after graduation. Honors faculty and staff provide advice and guidance in both course choice and career plans.

The Honors College Writing Program
Both two- and four-year programs include participation in the Honors College writing program, writing through the curriculum, which involves writing in most honors seminars, as well as formal courses in composition (including HONORS 1100 and HONORS 3100 or HONORS 3160). In the final year, this culminates in the compilation of a personal Honors College writing portfolio (HONORS 4100).

Independent Study Requirement
All Honors College students, whether in the four-year or the two-year program, must fulfill a 6-credit-hour independent study requirement. This can be met in several ways, including supervised research, guided reading, internships, and in many cases capstone courses in the major.

Honors College Certificate

Four Year Program (40 credit hours total):
Approximately one-third of the 120 hours honors students earn toward graduation are taken in the Honors College. Most of these credits are associated with a sequence of honors courses designed specifically for the college, the majority of which are taken during the first two years. During this period, these students fulfill virtually all of the university's general education requirements, usually in innovative ways. In their junior and senior years, honors students also may earn honors credit for work done within their major fields, work which includes the possibility of internships, independent study projects, and advanced undergraduate research.

First Year
Students take HONORS 1100, 1200, and 1201, and one course each from the Western Traditions and Non-Western Traditions seminar series. Students may take a seminar from the American Traditions series as an elective or in place of the Western Traditions seminar.

HONORS 1100, Freshman Composition
HONORS 1200, Freshman Symposium: Cultural Traditions I
HONORS 1201, Freshman Symposium: Cultural Traditions II
HONORS 1110-1130, The Western Traditions Series
HONORS 1230, The American Traditions Series (elective as an alternate to Western Traditions)
HONORS 1310, 1330, The Non-Western Traditions Series

Second Year
Students take two of the following Honors classes:
HONORS 2010, Inquiries in the Humanities
HONORS 2020, Inquiries in the Fine and Performing Arts
HONORS 2030, Inquiries in the Social and Behavioral Sciences
HONORS 2050, Inquiries in the Sciences Series
HONORS 2060, Inquiries in Business Series
HONORS 2070, Inquiries in Education
HONORS 2071, Inquiries in Education (four-hour course)
HONORS 2080, Inquiries in Nursing

Honors students in the four-year program who take HONORS 3100 ("Writing the City") or HONORS 3160 ("Writing in the Sciences") may present it for their honors certificate as one of their 3000-level seminars. They may also, depending on their major, present it to meet their graduation requirement for Junior-level composition.

During the first two years, honors students will take additional course work in other areas, such as mathematics, natural science, foreign language, and major prerequisite classes to satisfy various university, Honors College, and specific degree requirements.

Third and Fourth Years
Honors students in the four-year program take at least four seminars (12 credit hours) from the Advanced Seminar (3000 level series) and/or Research Seminar (HONORS 3530 or HONORS 3535). They may take more where this is compatible with their major and/or minor requirements. In addition, honors students do 6 credit hours in independent study projects, normally in or closely related to their major field. These independent study projects normally carry credit in the major, but can be done as Honors College independent study or research projects (HONORS 4900, 4910, 4915). During the final year, students also take HONORS 4100, a one-hour capstone for the Honors College writing program; HONORS 4100 may be taken for two hours.

Two year Program (22 credit hours total):
Students in this program will take a combination of Honors College seminars and honors independent study credit (usually for work done in their major fields). The 22 credit hours must include 6 credits of independent
study, as for the four-year program.

**Third Year**
During the first year of the two-year program, students take three honors seminars, including HONORS 3100, Writing the City or HONORS 3160, Writing in the Sciences; one course from the Inquiries series (2000 level); one course from either the Advanced Seminar (3000 level) or Research Seminar (HONORS 3530 or HONORS 3535). In addition, 3 credit hours of independent study may be taken during this year, normally in or closely related to their major.

**Fourth Year**
The final year of the two-year program involves three courses chosen from the 3000 and 4000 level options, including HONORS 4100, the honors writing portfolio, and at least one course chosen from the 3000 level or HONORS 3530 or HONORS 3535. In addition, students will complete their independent study requirements with 3 or 6 hours of project, internship, or research work.

**Honors and Nursing; Honors and Engineering**
Because of the extensive professional requirements for both Nursing and Engineering, the Honors College has, with the support of the relevant faculties, created special programs for Nursing and Engineering majors who wish to pursue the Honors College certificate. Both programs feature reduced Honors College credit hour requirements but retain the core of the Honors program and give students ample opportunities to experience interdisciplinary inquiry, seminar-based learning, and take part in the Honors College Writing Program.

**Honors and the Bachelor of Liberal Studies (BLS)**
Pierre Laclede Honors College students who wish to present the honors Certificate as a minor for the BLS must complete the Honors Capstone (HONORS 4100, one or two credit hours) and also direct three to six hours of their Honors independent study requirement as part of their BLS program. Students should consult the BLS faculty advisor in the Honors College about this requirement, as well as an Arts and Sciences advisor.

**Pierre Laclede Honors College Student Learning Outcomes.**
Both four- and two-year programs share the same learning agendas:

1. Through coursework comparing and contrasting diverse cultural viewpoints, academic disciplinary approaches and information, honors students will demonstrate the ability to synthesize knowledge from various perspectives.
2. Honors students will exhibit the ability to communicate effectively in speech and writing:
   - by speaking in groups to present, reflect on and evaluate information and perspectives. -by completing the written assignments required in all Honors courses that focus on various perspectives, audiences and disciplinary approaches(demonstrating effective writing that employs correct diction, syntax, usage, grammar and mechanics.
   - Honors students will demonstrate skills in higher-order thinking, valuing and managing information.
   - by exhibiting the ability to distinguish among opinions, facts and inferences; by identifying underlying or implicit assumptions; by making informed judgments; and by solving problems through applying evaluative standards.
   - by locating, accessing, synthesizing and annotating information from print, electronic, and other sources; by distinguishing between scholarly and non-scholarly sources in preparation for higher-order thinking.
   - by analyzing and synthesizing information from a variety of sources, applying the results to resolving complex situations and problems, and defending conclusions using relevant evidence and reasoned argument.
   - by utilizing cultural, behavioral, and historical knowledge to clarify and articulate a personal value system while recognizing the ramifications of personal value decisions on the self and others.
   - by identifying conflicts within and between multiple perspectives and value systems; by recognizing and analyzing ethical issues in a variety of contexts; and by employing standards of logic to formulate a reasonable position among multiple perspectives.
3. Honors students will select and participate in Honors courses in various disciplines and will demonstrate essential skills and approaches relevant to those disciplines:
   - Students participating in Honors courses in disciplines such as the social sciences, life and physical sciences that rely upon the understanding of fundamental mathematical concepts and their applications will develop a level of quantitative literacy that would enable them to understand and analyze quantitative data, draw conclusions, and solve problems.
   - Students participating in Honors courses in the social and behavioral sciences will exhibit understanding of themselves and the world around them through the study of the content and methodologies used by historians and social and behavioral scientists to discover, describe, explain, and predict human behavior and social systems; they will demonstrate understanding of the diversities and complexities of the cultural and social world, past and present, and come to an informed sense of self and others.
   - Students participating in Honors courses in the humanities and fine arts will exhibit
understanding and critical analysis of the ways in which people have addressed their condition through literature and art; they will demonstrate their understanding of these cultural works and their historical circumstances; they will formulate aesthetic judgments of these works.

- Students participating in Honors courses focusing on life and physical sciences will demonstrate knowledge of scientific principles, research procedures and empirical methods of scientific enquiry; they will display their understanding of how scientific discoveries affect and are affected by theoretical views of the world and human history.

4. Honors students will complete specific Honors requirements designed to develop their awareness of career and advanced study opportunities:

- by participating in internships, independent study and undergraduate research to develop and demonstrate advanced knowledge in a discipline, professional skills, and greater understanding of career and educational goals.
- by creating an Honors Writing Portfolio that demonstrates the ability to assess their writing skills and development; by devising and revising documents for employment searches or graduate school applications to enhance their ability to formulate and pursue specific career goals.

Other Academic Features and Requirements

Pass/Fail
The satisfactory/unsatisfactory option does not apply to any course work undertaken for Honors College credit.

Admission and Retention
To be considered for admission to either the two-year or four-year honors program, a candidate must file a special Honors College application, as well as a general university application. These application forms and additional information concerning scholarship awards, general eligibility guidelines, and the admissions process are available from the Honors College admissions office at (314) 516-7769 or from the University Admissions. See also the Honors College website.

Scholarships
Every new freshman or transfer student admitted in good standing to the Honors College receives academic scholarship support. Students continue to receive these awards as long as they meet the criteria associated with their particular scholarship.

Good academic standing
To remain in good standing, a student must maintain a cumulative GPA, in all his or her UMSL courses, of at least 3.2, and must continue to meet the requirements of the honors program for which he or she was initially admitted. Unless other arrangements have been made, Honors College students are also expected to be full time, that is, to register for and satisfactorily complete at least 12 credit hours per semester. Students wishing to enter the Honors College as part-time students or to change to part-time status must make prior arrangements with the Honors College dean or associate dean.

UMSL: an Urban Land Grant Institution
Given its location in St. Louis, and because it is part of an urban land grant university, Pierre Laclede Honors College seeks to encourage awareness of the manifold benefits of pursuing an undergraduate education in a dynamic and varied urban community. This is accomplished partly through the Honors Curriculum through facilitating cultural and other outings in the city, and by encouraging students to include in their academic program courses, research projects, and/or internships which exploit the university's manifold connections with city people and its partnerships with leading city institutions such as the Missouri Botanical Gardens, the Missouri Historical Society, and the Mercantile Library of St. Louis. Many honors students fulfill all or part of their independent study requirements working through such partnerships.

International Study and Other Exchange Programs
Honors students are encouraged to consider a semester's or a year's study at another institution. This can be done through the University's Center for International Studies, which administers exchanges with more than 70 universities in Europe, Africa, Asia, Australia, and South and Central America as well as the Missouri-in-London program. Students not wishing to go abroad may, through the National Student Exchange, which is administered for the university by the Honors College, attend any one of more than 100 universities in the United States, Puerto Rico, Guam, and Canada.

Please note that students in the Honors and International Business program are normally required to spend their exchange study through the Center for International Studies.

Course Descriptions
Please note that all honors courses are planned to fulfill UMSL graduation requirements, primarily in general education and the state requirement for American history and government. For further guidance on these requirements, please see the university general education matrix.

Selected Honors courses may also meet divisional area study requirements, for instance in international
studies or cultural diversity. Please note also that several Honors courses in the 2000, 3000 and 4000 levels, can be used to fulfill major, minor, and certificate requirements, where that has been agreed by other divisions or departments of the university.

Honors course lists and descriptions, published each semester before the beginning of the registration period, identify clearly which seminars fulfill these various requirements. When in doubt, students are urged to consult their Honors College advisor.

Important note: Unless otherwise indicated, all Honors seminars and courses require students to obtain the consent at the Honors College during registration. In practice, "consent of the Dean of the Honors College" means consent of the student's Honors advisor.

**HONORS 1100 Freshman Composition (3) [C]**
Prerequisite: Consent of the Dean of the Honors College. Theory and practice of writing expository prose. Emphasis on individual tutorial. Assignments will be linked with topics discussed in other courses in the Honors Freshman Year program.

**HONORS 1110-1150 Western Traditions (3)**
Prerequisite: Consent of the Dean of the Honors College. All Western Traditions seminars will be based on the reading and discussion of works of exceptional importance in the development of western culture and civilization. The works to be discussed in each seminar will follow a central theme (defined by its particular relevance to the traditional academic disciplinary areas of the humanities, arts, social sciences, mathematics, or sciences) but will relate that theme to wider developments in Western Traditions and to the American concept of a liberal education.

- **HONORS 1110 Western Traditions: Humanities**
- **HONORS 1130 Western Traditions: Social and Behavioral Sciences**
- **HONORS 1150 Western Traditions: the Sciences**

**Cultural Traditions I and II as 'core' seminars.**
These symposium seminars (1200 and 1201) are normal freshman year requirements. Each has its own academic agenda, but both are also related—in theme, problem, or subject matter—to Honors Composition (1100), Western Traditions (1110-1150), American Traditions 1230, and Non-Western Traditions (1310-1330) seminars.

**HONORS 1200 Freshman Symposium: Cultural Traditions I (3)**
Prerequisite: Consent of the Dean of the Honors College. This course surveys Western and Non-Western Cultural Traditions from their beginnings until 1800. It will introduce the intellectual traditions of a wide variety of cultures through major works of literature, religion and philosophy.

**HONORS 1201 Freshman Symposium: Cultural Traditions II (3)**
Prerequisite: Consent of the Dean of the Honors College. This course surveys Western and Non-Western cultural Traditions from the 1800's to current times. It will introduce intellectual traditions of a wide variety of cultures through major works of literature, religion and philosophy.

**HONORS 1230 American Traditions: Social and Behavioral Sciences (3)**
Prerequisite: Consent of the Dean of the Honors College. Honors seminars in the American Traditions series involve readings and discussion of major importance in the development of the culture, politics, ideologies, and values which are or have been characteristic of the United States of America. Every American Traditions seminar will cover a broad range of time, and each may include contemporary issues. American Traditions 1230 (Social Sciences) satisfies the American history and government requirement, and any course in the American Traditions sequence may be taken to satisfy one of the core requirements for the American Studies minor.

**HONORS 1310-1330 Non-Western Traditions (3)**
Prerequisite: Consent of the Dean of the Honors College. Study of Non-Western societies, "traditional" or "modern," offers a reminder that, however defined, "the West" does not encompass the full range of human potentiality whether in terms of culture, values, behavior or ideas. Based on reading of significant primary texts and/or important secondary works, these seminars remind us of the realities of human diversity and provide perspectives on our own world. Non-Western Traditions seminars may be used to satisfy cultural diversity general education requirements.

**HONORS 1310 Non-Western Traditions: Humanities**
**HONORS 1330 Non-Western Traditions: Social and Behavioral Sciences**

**HONORS 2010-2080 Honors Inquiries (3)**
Prerequisite: Consent of the Dean of the Honors College. Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate, laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General education requirements. Where special arrangements have been agreed,
they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different. Honors Inquiry course HONORS 2071 is a four-hour seminar offering.

**HONORS 2010 Inquiries in the Humanities**

**HONORS 2020 Inquiries in the Fine and Performing Arts**

**HONORS 2030 Inquiries in the Social and Behavioral Sciences**

**HONORS 2050 Inquiries in the Natural Sciences**

**HONORS 2051 Inquiries in the Sciences: Laboratory or Field Work (1)**  
Prerequisite: Consent of the Dean of the Honors College. This course develops students’ understanding of how the experimental procedures of the life and physical sciences are used to collect data and to develop and test scientific hypotheses. Honors 2051 is taken as a required companion course to specific sections of Honors 2050 (Inquiries in the Sciences) when laboratory or field work experience is essential to students’ understanding of and competence in the scientific subject matter of the companion section of HONORS 2050.

**HONORS 2060 Inquiries in Business**

**HONORS 2070 Inquiries in Education**

**HONORS 2071 Inquiries in Education (four-hour course)**

**HONORS 2080 Inquiries in Nursing**

**HONORS 2310 Cultural Diversity in the Humanities (3)**  
This seminar focuses upon cultural diversity themes, texts, and perspectives within the humanities and meets cultural diversity graduation requirements.

**HONORS 2330 Cultural Diversity in the Social Sciences (3)**  
This seminar focuses upon cultural diversity themes, texts, and perspectives within the social science meets cultural diversity graduation requirements.

**HONORS 3010-3070 Advanced Honors Seminar (3)**  
Prerequisite: Consent of the Dean of the Honors College. Open only to Honors College Students and not acceptable for graduate credit. Usually restricted to juniors and seniors, these advanced seminars focus on in-depth study of a significant body of subject matter. The perspective employed will normally be interdisciplinary or multi-disciplinary and will underscore the value of making connections between diverse areas of study. These courses will not usually require specific prerequisites, but may (with the consent of the appropriate department or division) be taken as major or minor courses. The course number may be repeated for credit whenever the topic is substantially different.

**HONORS 3010 Advanced Honors Seminar in the Humanities**

**HONORS 3020 Advanced Honors Seminar in the Fine and Performing Arts**

**HONORS 3030 Advanced Honors Seminar in the Social and Behavioral Sciences**

**HONORS 3060 Advanced Honors Seminar in Business**

**HONORS 3070 Advanced Honors Seminar in Education**

**HONORS 3075 Reflective Research in Education (2 or 3)**  
Prerequisite: Consent of the Dean of the Honors College. Students will explore issues and trends in educational research from the perspectives offered by their own classroom experiences (as students and/or as teaching interns). Through individual research projects, discussions, and periodic status reviews, students will gain in understanding how major educational research issues arise from and interact with curriculum design and classroom pedagogy. Students who have already taken HONORS 2071 (Foundations of Teaching in American Schools) will take the course for two (2) credits.

**HONORS 3100 Honors Advanced Composition: Writing the City (3)**  
Prerequisites: Junior standing and consent of the Dean of the Honors College. Enhances critical thinking, research, discussion, and writing skills by focusing on the city of St. Louis and on the specific fields of study of those enrolled in the course. Issues such as depth and development of content, voice, style, tone, correct expression, and research techniques are among the topics emphasized. Students maintain a Commonplace Book of journals, drafts, and creative writings; they also submit a minimum of four formal papers. This course is required for transfer students (two-year Honors Program) and an elective for students on the four-year program. For students on either program, HONORS 3100 meets the Advanced Composition requirement of the university.

**HONORS 3160 Honors Writing in the Sciences (3)**  
Prerequisites: Junior standing and consent of the Dean of the Honors College This honors course, designed to meet the needs for students in the science disciplines, will satisfy the campus junior-level writing requirement. This course will stress writing observation reports, academic journals, laboratory reports and a major project suited to the specific area of study of each student enrolled in the class. Instruction will include correct documentation of science sources, synthesis techniques of research information, technology-based research skills and effective laboratory reporting methods. Four formal papers, including one large project, and several informal papers will be required for this challenging course.
HONORS 3530 Research Seminar (3)
Prerequisite: Consent of the Dean of the Honors College. Open only to Honors College students and not acceptable for graduate credit. Modeled on and for some students affording a preview of the postgraduate or professional research seminar, Honors Research seminars bring students face to face with primary research, as appropriate in the library, the laboratory, and/or field work, utilizing appropriate disciplinary perspectives and secondary reading. These courses may be cross-listed with other advanced courses in appropriate departments/divisions of the university, and as such may carry specific course prerequisites and/or require the specific consent of the instructor.

HONORS 3535 Research Seminar in the Social and Behavioral Sciences (4)
Prerequisites: Consent of the Dean of the Honors College and consent of Instructor. Course material based on primate behavior, demographics and morphology. Research techniques for ethological and primatological studies, including the design of research protocols, development of data collection methodologies, analysis of morphological and behavioral data, and the scientific description of findings. Students are required to conduct observations of primates at the St. Louis Zoo and participate in the Undergraduate Research Symposium.

HONORS 4100 Independent Portfolio Writing (1 or 2)
Prerequisites: Consent of the Dean of the Honors College and senior status. Open only to Honors College students and not acceptable for graduate credit. Students in this course will meet on a regular basis with the director of writing and other appropriate Honors faculty to revise and polish samples in the Honors writing portfolio which the student has compiled during his or her Honors College enrollment. The student will write an in-depth analysis of his or her writing and will select the best examples of writing in his or her Honors Portfolio. During this independent study, the student may request help with research skills, writing issues, or application procedures for post-graduate courses or employment. All students must take one credit hour; the two-credit hour option is available to students.

HONORS 4900 Independent Study in Honors (1-6)
Prerequisite: Consent of the Dean of the Honors College. Open only to Honors College students and not acceptable for graduate credit. Most Honors students will fulfill their Honors independent study requirements in another department or division of the university. Where this is not possible, and where academic credit seems an appropriate reward for the independent study in question, the project may be undertaken as HONORS 4900, normally as a 3-credit course. This will involve substantial reading, research, and/or field work, and will be supervised by a permanent member of the Honors College academic staff. Completed proposal forms for this course must be submitted to the Honors College no later than the deadline for university registration.

HONORS 4910 Internship (1-6)
Prerequisites: Junior/Senior standing and consent of the Dean of the Honors College. This independent study course is designed for students who are participating in an approved, non-paid or paid internship. Often operating in conjunction with the student's major, the class requires an on-going journal and formal paper varying in length according to credit hours and hours of the internship work. Evaluation is based on the student's work, the completed form by supervisor of internship, and assigned papers and journal.

HONORS 4915 Honors Independent Off-Campus Internship (1-6)
Prerequisite: Same as for HONORS 4910. This course is designed for 1 to 6 hours for an outside internship approved by the Honors College. The student will not be on campus for the hours of this internship and most work for the internship will be submitted online to the Honors College internship supervisor.
College of Nursing

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Faculty

Juliann G. Sebastian, Dean and Professor  
Ph.D., University of Kentucky
Shirley A. Martin, Dean Emerita  
Ph.D., Saint Louis University
Margaret Barton-Burke, Mary Ann Lee Endowed Professor of Oncology Nursing, Ph.D.,  
University of Rhode Island
Robert K. Lee, Hubert C. Moog Endowed Professor of Nursing Emerita  
Dr. P.H., University of Texas-Houston
Jean Bachman, Associate Professor,  
D.S.N., University of Alabama-Birmingham
Anne Fish, Associate Professor  
Ph.D., University of Michigan-Ann Arbor
Ruth L. Jenkins, Associate Professor Emerita  
Ph.D., Saint Louis University
Wilma Calvert, Assistant Professor  
Ph.D., University of Missouri-St. Louis
Dawn Garzon, Teaching Professor and PNP Emphasis Area Coordinator  
Ph.D., PNP., University of Missouri-St. Louis
Shelly Hanko, Assistant Professor and Coordinator, MSN Program, Ph.D., FNP,  
St. Louis University
Kuei-Hsiang Hsueh, Assistant Professor  
Ph.D., University of Arizona
Deborah Kiel, Assistant Professor  
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Richard Yakimo, Assistant Professor, Ph.D., PMH-CNS,  
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Dottye Akerson, Teaching Professor  
Ph.D., Saint Louis University
Sandy Lindquist, Teaching Professor, Associate Dean for the Undergraduate Program  
Ph.D., Saint Louis University
Nancy Magnuson, Clinical Professor, Vice Provost for Student Affairs, University Health, Wellness, & Counseling, and Acting Associate Dean for Advanced Nursing Education, DNS, FNP,  
University of Alabama-Birmingham
Judith Maserang, Teaching Professor,  
Ph.D, Saint Louis University
Jean Nelson, Teaching Professor  
Ph.D., University of Missouri-St. Louis
Kimberly R. Allen, Associate Teaching Professor, Assistant Dean for Student & Faculty Affairs  
Ph.D., University of Missouri-St. Louis
Susann Farberman, Associate Teaching Professor, Coordinator, DNP Program,  
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Ph.D., FNP, Saint Louis University
Susan Kendig, Associate Teaching Professor, JD,  
MSN, PNP, University of Missouri-Columbia
Diane Saleska, Associate Teaching Professor and Coordinator, Nursing Skills and Simulation Center  
MSN, University of Missouri-St. Louis
Darlene Sredl, Associate Teaching Professor  
Ph.D., University of Missouri-St. Louis
Vicky Becherer, Assistant Teaching Professor,
The College of Nursing offers academic nursing programs at the undergraduate and graduate levels. Knowledge and skills needed to complete the professional licensure examination to become a registered nurse are available through the traditional baccalaureate option. A part-time evening and weekend scheduling option is available as an accelerated option for students with degrees in other fields or who meet the admission criteria for this intensive option. Nurses who have obtained their basic nursing education through associate degree or diploma nursing programs may fulfill the requirements for the B.S.N. completion option without repetition of previous nursing education. The Master of Science in nursing program, offers areas of emphasis in the roles of nurse educator and advanced practice nursing. The Ph.D. program in Nursing is offered in cooperation with the schools of nursing at the University of Missouri Columbia and the University of Missouri-Kansas City. Admission to the Ph.D. program is available at the post B.S.N. and M.S.N. levels. The Doctor of Nursing Practice program is offered in cooperation with the schools of nursing at the University of Missouri Columbia and the University of Missouri-Kansas City and prepares students for the highest level of advanced clinical nursing practice.

INTERNATIONAL STUDENTS
All students with International or Permanent Resident status are required to complete an English as a second language (ESL) assessment with the UMSL ESL office. Based upon this assessment students may be required to complete recommended ESL courses before enrolling in nursing courses.

CONTINUING EDUCATION-EXTENSION AND OUTREACH
Both credit and noncredit continuing education offerings in nursing are presented to provide nurses with new
information, techniques, and trends within the nursing profession. Some of these offerings are in outreach sites as part of the college's commitment to working in collaboration with community partners to provide higher education for nurses.

**Undergraduate Studies**

The College of Nursing provides course work leading to the Bachelor of Science in nursing (BSN). The program is accredited by the Commission on Collegiate Nursing Education and the prelicensure tracks are fully approved by the Missouri State Board of Nursing. The undergraduate program offers two means for achieving the bachelor's degree in nursing: studies that are preparatory for completion of the professional nurse licensure examination (pre-licensure track) and advanced placement for the professional registered nurse without repetition of fundamental nursing and clinical courses (RN/BSN track). An accelerated pre-licensure option is available for qualified persons who hold earned degrees in non-nursing fields, or outstanding students who have completed all prescribed general education and science course work. Baccalaureate students meeting admission criteria may participate in the Pierre Laclede Honors College. **Students who have been dismissed from another nursing program are not eligible for admission to the pre-licensure BSN program.**

**Bachelor's of Science Degree in Nursing (BSN) - Admission to Traditional Four-Year Track or Part-time Evening and Weekend Option (Pre-licensure)**

**BSN Traditional Admission Criteria**

**NURSING MAJOR (Pre-clinical)**

Students admitted to the nursing major begin by completing all nursing prerequisites and general education coursework. **Admission to the nursing major does not guarantee enrollment in clinical nursing courses unless a student is admitted into the Freshmen Guaranteed Clinical Major.** Program completion does not guarantee eligibility to take the nursing licensure exam (pursuant to the Missouri Nurse Practice Act, 20 CSR 2200-2.120 (3)(C).

In order to be considered for the nursing major students must meet the following criteria:

**Freshmen Guaranteed Clinical Major**

First-time freshmen and applicants each with fewer than 24 transferable college credit hours:

- Minimum cumulative G.P.A. of 2.75 on 4.0 scale
- Minimum ACT of 22.
- Must maintain 2.75 cumulative GPA at UMSL (all attempts at all courses calculated)
- Must maintain 2.75 science GPA in Chemistry, Anatomy and Physiology I and II and Microbiology (first attempts calculated only)
- Must maintain minimum full-time enrollment at UMSL

**Note:** Students admitted as Freshmen who are guaranteed a space in the clinical major courses must maintain full-time enrollment at UMSL.

**General Freshmen Admission Nursing Major (Pre-clinical) Admission Criteria**

First-time freshmen and applicants with fewer than 24 transferable college credit hours:

- Minimum cumulative G.P.A. of 2.5 on 4.0 scale
- Minimum 21 ACT or higher
- Must maintain 2.5 cumulative GPA at UMSL (all attempts at all courses calculated)
- Must maintain 2.5 science GPA at UMSL in Chemistry, Anatomy and Physiology I and II, and Microbiology (first attempts calculated only)

**Transfer Admission to Nursing Major (Pre-clinical) Criteria**

Applicants with 24 or more transferable college credit hours:

- Minimum 2.5 G.P.A. on 4.0 scale on 24 or more transferable credit hours from an accredited college or university.

**Clinical Major Admission Criteria for 4 Year Traditional Track**

Spaces for the clinical nursing major are assigned on a competitive and space available basis for each admission period. Applicants must meet the following criteria:

- Minimum 2.5 cumulative G.P.A. on 4.0 scale (all attempts of all transferable courses calculated)
- Completion of all prerequisite courses (minimum grade of C-)
- Minimum 2.5 cumulative G.P.A. in Chemistry, Anatomy and Physiology I & II, and Microbiology (first attempt calculated only)
Required science courses completed within 10 years prior to enrollment

BSN Traditional Application Procedure

To Apply For Nursing Major (Pre-clinical)

First-time freshmen and applicants with fewer than 24 transferable college credit hours, send the following:

- Completed University application
- Official high school transcripts or GED score
- Official ACT or SAT score
- Official college transcripts, if applicable

Applicants with 24 or more transferable college credit hours, send the following:

- Completed University application
- Official college transcripts

To Apply For Clinical Major in the 4 Year Traditional BSN Track

To be considered for the clinical major, students must file a separate clinical major application available through the College’s website or Office of Student Services and send it directly to the College of Nursing. Students must complete an application for the Clinical Major during their last semester of enrollment in prerequisite coursework and send the following:

- Completed University application
- Completed College of Nursing Clinical Major application
- Official college transcripts

Application deadlines for the clinical major

To be admitted to the clinical nursing major all material must be submitted to the College of Nursing, Office of Student services by the following dates:

- Fall admission – February 1st
- Spring admission – October 1st

BSN Accelerated Track (Pre-licensure)

Accelerated Track Admission Criteria

Degree or transfer pathway to accelerated option

- Baccalaureate or degree from a regionally accredited college or university or a minimum of 62 transferable credit hours from a regionally accredited college or university.
- Minimum grade point average of 3.0 on 4.0 scale for students with baccalaureate or higher degree or 3.2 on a 4.0 scale for students not holding a baccalaureate degree.
- Completion of all prerequisite general education and science courses for the major in nursing with grade of C or higher.
- Required science courses completed within 10 years prior to enrollment.
- Application deadlines for the Accelerated track.
- To be admitted to the accelerated track that begins in May of each year only, all materials must be submitted to the College of Nursing, Office of Student Services by the following dates:
  - Early acceptance deadline - September 15th
  - Regular acceptance - deadline - February 1st

For specific information regarding the B.S.N. degree program, contact Office of Student Services at: (314) 516-6066 or 1-888-NURSEUM or visit the College of Nursing website.

Credit by Transfer and Examination

Credit may be granted for selected general studies. See Admission and Application Procedure section in this Bulletin for credit information.

Degree Requirements for B.S.N.

The bachelor of science in nursing degree requires comprehensive course work in general education and nursing. Basic undergraduate nursing course work includes theory, on-campus laboratory and clinical activities. Clinical experiences require weekday, evening, and/or weekend commitments. Full-time study in the pre-licensure baccalaureate track can be completed in four academic years. Part-time study is available with nursing classes in the evenings and clinical on weekends. The nursing clinical
curriculum can be completed in three years following completion of general education courses. The pre-licensure accelerated track requires full-time study and can be completed in 15 months. The RN/BSN track is offered at selected metropolitan sites, on-campus, and by Internet. Clinical activities in the RN/BSN Program are community-based and may be completed in the student's home community.

Upon completion of the BSN program, students are expected to have achieved the following learning outcomes:

1. Integrate into practice theories and concepts from nursing, the arts, sciences and humanities to provide comprehensive nursing care in a variety of settings.
2. Integrate critical thinking and problem solving in professional practice.
3. Administer culturally competent, compassionate, holistic care to promote healthy outcomes for diverse clients (individuals, families, communities and populations) during all life phases.
4. Apply best evidence from nursing research and related professions to enhance care and guide professional practice.
5. Utilize interpersonal communication to enhance the nurse/client relationship and the nursing role in an interprofessional health care team.
6. Integrate principles of client education, management and leadership when organizing, coordinating, and directing outcome-based professional practice.
7. Assume responsibility and accountability for decisions and actions based on intrapersonal values, ethical and legal obligations, standards of practice, and economics.
8. Participate in professional and community organizations to effect societal change.
9. Exhibit motivation and self-direction in activities that contribute to lifelong personal, professional, and intellectual development.
10. Utilize technology to meet the health needs in a community competent manner within a global society

Satisfactory/Unsatisfactory (Pass/Fail) Grading
Undergraduate nursing majors may not take required prerequisite general education or nursing courses on a satisfactory/unsatisfactory basis.

Undergraduate Degree Requirements

General Education Requirements

Nursing majors must complete all general education requirements of the university as outlined in this Bulletin.

In addition to meeting the university's general education requirements, the following prerequisite courses must be completed prior to beginning the clinical major. See a curriculum planning guide for specific courses and proper sequencing.

1) Natural science course work
BIOL 1131, Human Physiology and Anatomy I
BIOL 1141, Human Physiology and Anatomy II
BIOL 1162, General Microbiology
CHEM 1052, Chemistry for Health Professions (or equivalent)

2) Behavioral and social science course work
PSYCH 1003, General Psychology
PSYCH 1268, Human Growth and Behavior
ECON 1000, Introduction to American Economy (or equivalent)
Social science elective

3) Humanities
Any Philosophy course (as part of the University's 3 humanities requirement)

4) Nursing
NURSE 1010, Orientation to Nursing
NURSE 2103, Nutrition and Health (or equivalent)
NURSE 2105, Communication in the Nursing Profession
NURSE 3799, Quantitative Analysis in the Health Sciences (or equivalent)

Nursing Course Work Requirements

PRE-LICENSEURE - 4 year traditional and accelerated tracks
NURSE 2101, Introduction to Nursing (first offering in Fall 2010; required for traditional track only)
NURSE 3101, Nursing and Health *
NURSE 3106, Assessment of Clients in Health and Illness *
NURSE 3110, Pathophysiological Bases of Nursing Practice
NURSE 3111, Pharmacotherapeutics in Nursing Practice
NURSE 3205, Adult Health Nursing I*
NURSE 3206, Adult Health Nursing II*
NURSE 3214, Psychiatric Mental Health Nursing*
NURSE 3215, Nursing of Women and Childbearing Families*
NURSE 3216, Child and Family Health Nursing*
NURSE 3804, Ethical and Legal Dimensions of Nursing Practice
NURSE 3807, Nursing Research
NURSE 3808, Management and Leadership in Nursing
NURSE 3817, Introduction to Nursing and Health Informatics
NURSE 4300, Community Health Nursing*
NURSE 4310, Senior Synthesis*
Nursing elective (required for 4 year traditional track students)
* Includes a laboratory and/or clinical component

Students are required to furnish their own transportation to and from campus and clinical agencies. Students must have automobile access for all community experiences through the program. Students are required to complete standardized assessment exams throughout the program and at completion as part of the program evaluation.

POST LICENSURE RN to BSN:
The RN to BSN curriculum is designed to be completed in six consecutive semesters and takes two years to complete. The innovative FLEX Program offers flexibility and accessibility in a part-time program. The FLEX Program allows students to choose to complete their BSN online, on campus, or at various outreach sites in the St. Louis area.

Admission Requirements RN to BSN include:
- Admission to the University.
- Graduate of either an accredited diploma or associate degree program in nursing.
- Evidence of current licensure as a registered nurse with eligibility for licensure in Missouri.
- Cumulative grade point average of 2.5 (4.0 scale) on a minimum of 30 transferable credit hours (excluding nursing course work).

RN to BSN FLEX required nursing courses
NURSE 3807, Nursing Research (or equivalent)
NURSE 3808, Management and Leadership in Nursing
NURSE 3817, Introduction to Nursing and Health Informatics
NURSE 3900, Dimensions of Professional Nursing
NURSE 3920, Health Assessment*
NURSE 4901, Family and Community Nursing*
NURSE 4905, Values in Professional Nursing
NURSE 4911, Synthesis in Nursing Practice*
* Includes a laboratory and/or clinical component

RN to BSN students are required to complete a standardized assessment exam during the final nursing course as part of the program evaluation.

Graduate Studies

Master of Science in Nursing
The College of Nursing offers master's degree nursing studies in two advanced practice roles: nurse educator, and nurse practitioner. Students with master's degrees in nursing who wish to pursue one of the nurse practitioner specializations may complete one of the Post-MSN graduate certificates. Our MSN programs are offered cooperatively with the University of Missouri-Kansas City and the University of Missouri-Columbia. All MSN students complete the MSN core curriculum and functional role required courses. The MSN program is accredited by the Commission on Collegiate Nursing Education.

This graduate program offers students two tracks of study: 1) nurse educators complete a minimum of 41 credit hours with emphasis in the role of the nurse educator; and nurse practitioner's advanced practice nurses (APN) complete a minimum of 43 credit hours with emphasis in . Graduates with advanced practice nurse practitioner functional roles will be eligible to complete national board certification examinations in their emphasis area functional roles. Current nurse practitioner emphasis areas include Adult Nurse Practitioner, Family Health Nurse Practitioner, Neonatal Nurse Practitioner, Pediatric Nurse Practitioner and Women's Health Nurse Practitioner. Graduates completing the nurse practitioner options are eligible for recognition as advanced practice nurses in Missouri. Graduates with the Educator functional role preparation will be eligible to sit for the certification exam by the National League for Nursing after completing the required two years of faculty experience. Upon completion of the MSN degree requirements, this degree is awarded by the UMSL Graduate School. Building on baccalaureate nursing education, and upon completion of the MSN program or post MSN graduate certificate options, students will be able to:

• Demonstrate integration of advanced knowledge and skills within the context of an advanced professional.
• Provide leadership with interprofessional colleagues engaging strategic partners to improve health care outcomes and patient safety.
• Integrate informatics in the design, implementation and evaluation of population-specific interventions.
• Evaluate research findings to implement and disseminate evidence based professional nursing practice.
• Provide ethically grounded, culturally competent health promotion with diverse populations.

**MSN and Post-MSN Program Requirements**

- B.S.N. or M.S.N. from a nationally accredited nursing program
- Minimum cumulative grade point average of 3.0 (4.0 scale)
- Current professional licensure with eligibility for Missouri license
- Successful completion of an undergraduate general statistics course
- Successful completion of an undergraduate health assessment course or equivalent
- Two letters of reference regarding the applicant's academic potential (NP or CNS option)
- Narrative outlining goals (NP or CNS functional role)
- Two years of clinical experience with chosen population are preferred prior to starting clinicals. (NP or CNS functional role)
- Computer literacy

**Neonatal Nurse Practitioner (NNP) students must also submit:**

- Evidence of 2 years of neonatal nursing experience within the last 5 years and a minimum of one year experience in a Level 3 NICU
- Evidence of Neonatal Resuscitation Program certification
- Must reside in the United States

Availability of clinical resources may limit the number of applicants accepted to the practitioner options. Students are required to suggest their own preceptors for the Nurse Practitioner Clinical Courses NURSE 6954 and NURSE 6955. Deadline for fall admission is February 15th.

**Degree Requirements**

**MSN Core Courses (required of all MSN students)**

- NURSE 6106, Policy, Organization, and Financing of Health Care
- NURSE 6111, Theoretical Foundations in Nursing
- NURSE 6120, Population-based Foundations of Health
- NURSE 6130, Research for Evidence-Based Practice

**Advanced Nursing Practice Nurse Educator Emphasis area**

- NURSE 6309, Role of the Nurse Educator
- NURSE 6320, Learning and Curriculum Development in Nursing
- NURSE 6321, Instructional Strategies in Nursing Education
- NURSE 6322, Evaluation Strategies in Nursing
- NURSE 6518, Pathophysiology for Advanced Nursing Practice
- NURSE 6739, Adult Primary Care 1 OR
- NURSE 6740, Adult Primary Care II Diagnosis & Management in ANP
- NURSE 6741, Family Health I Diagnosis & Management in ANP
- NURSE 6742, Family Health II Diagnosis & Management in ANP
- NURSE 6743, Child Health I Diagnosis & Management in ANP
- NURSE 6744, Child Health II Diagnosis & Management in ANP

**Advance Practice Nurse Practitioner Emphasis area**

(Emphasis areas for adult nurse practitioner, family nurse practitioner, pediatric nurse practitioner, and women's health nurse practitioner)

- NURSE 6509, Role of the Nurse Practitioner
- NURSE 6518, Pathophysiology for Advanced Nursing Practice (Pediatric Nurse Practitioner students take NURSE 6519 Advanced Pediatric Pathophysiology)
- NURSE 6520, Pharmacology for Advanced Nursing Practice (Pediatric Nurse Practitioner students take NURSE 6529, Advanced Pharmacology for Pediatric Practice)
- NURSE 6524, Health Assessment for Advanced Nursing Practice (Pediatric Nurse Practitioner students may take NURSE 6526, Advanced Pediatric Physical Assessment)
- NURSE 6530, Clinical Diagnostics
- NURSE 6739, Adult Primary Care I: Diagnosis & Management in ANP AND
- NURSE 6740, Adult Primary Care II: Diagnosis & Management in ANP OR
- NURSE 6741, Family Health I: Diagnosis & Management in ANP AND
- NURSE 6742, Family Health II Diagnosis & Management in ANP OR
- NURSE 6743, Child Health I: Diagnosis & Management in ANP AND
- NURSE 6744, Child Health II Diagnosis & Management in ANP OR

NURSE 6746, Women's Health I: Diagnosis & Management in ANP AND
NURSE 6747, Women's Health II: Diagnosis & Management in ANP AND
NURSE 6954, Advanced Practice Nursing: Internship I
NURSE 6955, Advanced Practice Nursing: Internship II

Advanced Practice Nurse Neonate Nurse Emphasis area
Students in this emphasis area complete the MSN Core Courses on the UMSL campus and the following neonatal specialty courses through UM-KC:
N5547N Neonatal Assessment AND
N5548N Neonatal Physiology/Pathophysiology AND
N5549N Neonatal Pharmacology AND
N5564N Neonatal Nursing I AND
N5566N Neonatal Nursing II AND
N5572NI Preceptorship I AND
N5574NI Preceptorship II AND

Post-MSN Graduate Certificate requirements are tailored to the individual student, depending on past academic work, experience, the student's goals, and specialty requirements. Upon completion of the post-MSN requirements, a graduate certificate is awarded by the College of Nursing and Graduate School. Graduates are eligible to apply to take board certification exams in the advanced practice role and population for which they have been prepared. Post-MSN emphasis areas available for study are:

Nurse educator, Adult Nurse Practitioner, Family Nurse Practitioner, Pediatric Nurse Practitioner and Women's Health Nurse Practitioner.

Students may be awarded credit for previous MSN core courses based upon successful completion of equivalent courses in their prior master's program, if these courses were completed less than 6 years ago.

A minimum of 18 graduate credit hours are required for the Post-MSN Graduate Certificate as stipulated in the Graduate School policies.

Post-MSN Adult Nurse Practitioner Certificate
NURSE 6509, Role of the Clinical Nurse Specialist/Nurse Practitioner (2)
NURSE 6518, Pathophysiology for Advanced Nursing Practice (3)
NURSE 6524, Health Assessment for Advanced Nursing Practice (3)
NURSE 6520, Pharmacology for Advanced Nursing Practice (3)
NURSE 6530, Clinical Diagnostics (2)
NURSE 6739, Adult Primary Care I (5)
NURSE 6740, Adult Primary Care II: Diagnosis & Management in Advanced Nursing Practice (5)
NURSE 6954, Advanced Practice Nursing: Internship I(4)
NURSE 6955, Advanced Practice Nursing: Internship II(4)

Post-MSN Family Nurse Practitioner Certificate
NURSE 6509, Role of the Clinical Nurse Specialist/Nurse Practitioner(2)
NURSE 6519, Advanced Pediatric Pathophysiology (3)
NURSE 6526, Advanced Health Assessment for Pediatric Nursing Practice (3)
NURSE 6529, Advanced Pharmacology for Pediatric Nursing Practice (3)
NURSE 6530, Clinical Diagnostics (2)
NURSE 6741, Family Health I (5)
NURSE 6742, Family Health II: Diagnosis & Management in Advanced Nursing Practice (5)
NURSE 6954, Advanced Practice Nursing: Internship I (4)
NURSE 6955, Advanced Practice Nursing: Internship II (4)

Post-MSN Pediatric Nurse Practitioner Certificate
NURSE 6509, Role of the Clinical Nurse Specialist/Nurse Practitioner(2)
NURSE 6519, Advanced Pediatric Pathophysiology(3)
NURSE 6526, Advanced Health Assessment for Pediatric Nursing Practice(3)
NURSE 6529, Advanced Pharmacology for Pediatric Nursing Practice(3)
NURSE 6530, Clinical Diagnostics (2)
NURSE 6743, Child Health I (5)
NURSE 6744, Child Health II: Diagnosis & Management in Advanced Nursing Practice((5)
NURSE 6954, Advanced Practice Nursing: Internship I(4)
NURSE 6955, Advanced Practice Nursing: Internship II(4)

Post-MSN Women's Health Nurse Practitioner Certificate
NURSE 6509, Role of the Clinical Nurse Specialist/Nurse Practitioner(2)
NURSE 6518, Pathophysiology for Advanced Nursing Practice(3)
NURSE 6524, Health Assessment for Advanced Nursing Practice(3)
NURSE 6520, Pharmacology for Advanced Nursing Practice(3)
NURSE 6530, Clinical Diagnostics (2)
NURSE 6746, Women’s Health I (5)
NURSE 6747, Women’s Health II: Diagnosis & Management in Advanced Nursing Practice (5)
NURSE 6954, Advanced Practice Nursing: Internship I (4)
NURSE 6955, Advanced Practice Nursing: Internship II (4)

Post-MSN Advanced Nursing Practice with Educator Functional Role
NURSE 6309, Role of the Nurse Educator
NURSE 6320, Learning and Curriculum Development in Nursing
NURSE 6321, Instructional Strategies in Nursing Education
NURSE 6322, Evaluation Strategies in Nursing
NURSE 6518, Pathophysiology for Advanced Nursing Practice
NURSE 6739, Adult Primary Care 1 or
NURSE 6743, Child Health 1 OR
NURSE 6746, Women’s Health 1
NURSE 6950, Advanced Nursing Practice
NURSE 6952, Synthesis Practicum
EDUC 6410, The Adult Learner

Doctor of Nursing Practice (DNP)

The focus of the DNP program is preparation, at the highest level, of leaders in clinical nursing who can improve quality of care for individuals and populations through advanced practice and through improving systems of care. The curriculum is based on national standards for DNP education. The DNP is offered cooperatively with the University of Missouri-Kansas City and the University of Missouri-Columbia and is based on the needs of each campus and their communities of interest. The DNP program is accredited by the Commission on Collegiate Nursing Education.

The DNP program is designed for graduates to attain the following program outcomes:

- Integrate nursing science, informatics, research and ethical and legal principles to provide excellence in advanced clinical nursing practice.
- Translate research science to improve healthcare delivery and health outcomes.
- Provide multidisciplinary leadership through analysis of critical indicators and/or health care delivery systems to optimize patience care and safety.
- Influence health policy-making to improve health outcomes, shape healthcare delivery, and remove barriers to healthcare.
- Develop and evaluate strategies to establish best practices in a specific setting.

Courses are designed to support nursing science, clinical research, leadership and a specialty area. Concepts woven throughout the courses include methodologies for translating research into practice, using culturally competent leadership techniques with diverse and underserved populations, advanced nursing science and clinical scholarship, clinical prevention, advanced nursing practice and clinical decision making, understanding organizational systems and change, and policy development. The DNP program is available for certification-eligible advanced practice nurses who have completed an accredited MSN degree or post-MSN certification program. This program is administered by the UMSL Graduate School.

Admission Requirements

The deadline for DNP applications for admission is April 1. Admission may be considered at a later date depending on space.

- Graduation from an MSN program or post-MSN APN certificate program with national nursing accreditation
- GPA of 3.0 or higher
- 2 Reference letters
- A proposed DNP project that matches faculty expertise
- Interview by invitation
- Evidence of eligibility for advanced practice certification or current certification in an advanced practice role
- Current or eligible for advanced practice nursing recognition in Missouri or eligible for recognition as an advanced practice nurse in Missouri.

The DNP curriculum is divided into 4 general categories:

- Leadership development and change
- Policy
- Practice-focused evaluation/translational research

Clinical excellence
A graduate level general statistics course completed within the previous five years is a prerequisite to NURSE 7230, Epidemiology and is required prior to the first fall semester. Such a course may be taken concurrently with NURSE 7402, Research Institute I during the first summer semester of the program.

Degree Requirements

Completion of the DNP program requires the following courses:
NURSE 7402, Research Institute 1 (2)
NURSE 7200, Nursing Science (3)
NURSE 7220, Leadership in Practice (3)
NURSE 7230, Epidemiology (3)
NURSE 7240, Health Informatics (3)
NURSE 7250, Frameworks for Health Care Delivery and Policy (3)
NURSE 7260, Program and Practice Evaluation (3)

NURSE 7291, Clinical Scholarship 1 (3)
NURSE 7292, Clinical Scholarship 2 (3)
NURSE 7293, Clinical Scholarship 3 (3)
NURSE 7299, DNP Seminar (1)

Near the end of the DNP program, students will complete a clinically focused project that satisfies the Graduate School dissertation requirements. This project is completed while the student is enrolled in NURSE 7291, NURSE 7292, NURSE 7293, NURSE 7299.

Total Minimum Graduate Credit Hours 30

Doctor of Philosophy in Nursing (Ph.D.)
The Ph.D. in nursing program at the University of Missouri - St. Louis affords students with academic, clinical, and research resources of the University of Missouri system through a cooperative arrangement with the schools of nursing at the University of Missouri-Kansas City and the University of Missouri-Columbia. Upon completion of all degree requirements, the Ph.D. degree is awarded by the UMSL Graduate School.

The Ph.D. in nursing curriculum is divided into these general categories: nursing science and theory, nursing research methods and statistics, cognates and dissertation. The Ph.D. program is designed for graduates to attain the following outcomes:

- Develop skills and knowledge to establish a program of research and scholarship.
- Design, conduct, and disseminate a dissertation that contributes to nursing knowledge.
- Translate nursing research into practice and policy.
- Assume leadership roles in health care by collaborations and partnerships with institutions in the greater St. Louis region.
- Improve the health care quality of life of individuals/families/communities regionally, nationally and internationally.

Admission Requirements
The deadline for Ph.D. applications for admission is April 1. Admission may be considered at a later date depending on space. Applicants are evaluated based on the following criteria:

- Graduation from a nationally accredited baccalaureate program with 3.2 minimum GPA (4.0 scale). (post-BSN track) OR from a nationally accredited master's program with a 3.5 minimum GPA (4.0) scale. (post-MSN track)
- Satisfactory Graduate Record Examination (GRE) scores
- Graduate level general statistics course within the last five years
- Two letters of reference
- Original essay on professional goals and research interests
- Interview by invitation

International applicants must meet minimum requirements on tests of written and spoken English (TOEFL, Minimum 550 or better is desired). International students must also apply through the International Student Services Office.

Degree Requirements
While each program of study is individualized, Post-BSN students complete a minimum of 72 hours of graduate-level course work. Post-MSN students complete 45 credit hours. A maximum of 30 M.S.N. hours, which support the program of study, are individually evaluated to determine eligibility for the application of candidacy. The overall Ph.D. in nursing program design includes nursing science and theory, research methods and statistics, cognates or support courses and dissertation.

Nursing Science and Theory: 9 or more nursing credits including:

- Nursing science
- Advanced nursing theory development and validation
  Nursing Research Methods: 18 or more nursing credits including:
  - Quantitative Methods in nursing
  - Qualitative Methods in nursing
  - Psychometric Methods
  - Biostatistics
Cognates: 9-12 credits outside of the discipline of nursing which support the selected dissertation topic.
Dissertation: Minimum is 12 credits.
Post BSN students must also complete the core courses in the MSN program as these are pre-requisites for the nursing Ph.D. courses. Students who anticipate becoming faculty members are also encouraged to complete the nurse educator functional role (see the MSN Program).

Professional Organizations

**Sigma Theta Tau International Honor Society for Nursing**
Nu Chi is the College of Nursing's official chapter of Sigma Theta Tau International Honor Society. Membership is offered by invitation to nursing students in the upper third of their class and to nurses recognized as outstanding community nursing leaders.

**Student Nurses' Association**
The College of Nursing is a constituent of the National Student Nurses' Association. The purpose of the organization is to provide baccalaureate students an opportunity to connect with the nursing profession through service and professional development activities. The organization is open to all nursing majors and clinical nursing majors.

**Black Student Nurses' Association**
The College of Nursing is a constituent of the Black Student Nurses' Association. The purpose of this organization is to provide black nursing students in the prelicensure baccalaureate program the opportunity to serve as a support group for African-American students, collaborate with other African-American groups to compile archives relevant to African-American nurses, and to promote participation in interdisciplinary activities.
College of Optometry Home Page

This section contains an abbreviated version of the College of Optometry Bulletin. Some information is omitted.

For the most complete and accurate information regarding the Optometry program at UMSL, please go to the College of Optometry Home Page.

The College of Optometry Bulletin

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O.D., Ph.D., The Ohio State University

Vinita A. Henry, Clinical Professor and Director, Clinical Operations; Director, Residency Programs; Co-Chief Contact Lens Service and Program Coordinator for Residency, Contact Lenses;
O.D., Residency, Contact Lenses, University of Missouri-St. Louis

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Edward Jarka, Assistant Clinical Professor; Coordinator, Eye Health Management Services
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Guoqiang Li, Assistant Professor
Ph.D., Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences

Linda Marks, Assistant Clinical Professor
O.D., Ferris State University: Residency, Pediatric Optometry, University of Missouri-St. Louis

Angel Novel, Assistant Clinical Professor
O.D., University of Missouri-St. Louis: Residency, Ocular Disease/Primary Care, Hudson Valley VA Health Care System, Montrose NY

Snyder, Pamela; Assistant Clinical Professor,
O.D., Michigan College of Optometry at Ferris State University

Erwin Wong, Assistant Professor
O.D., Southern California College of Optometry; Ph.D., University of Houston Postdoctoral Fellow, University of California, Berkeley, and Washington University

On-Campus Adjunct Faculty:

Jeffrey L. Weaver, Adjunct Professor
M.S., The Ohio State University, M.B.A., Drury College; O.D., Pennsylvania College of Optometry; Residency, Family Practice, The Ohio State University

Lee J. Browning, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis, Residency, Northeastern State University, Tahlequah, OK

Brian Brunig, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Raneat Cohen, Adjunct Assistant Professor
O.D., Indiana University; Residency, Ocular Disease, Dayton VA Medical Center

Jamal Fox, Adjunct Assistant Professor
O.D., Pennsylvania College of Optometry

Christine Gavett, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Chris Gilmartin, Adjunct Assistant Professor
O.D., Contact Lens Residency, University of Missouri-St. Louis

Beth A. Henderson, Adjunct Assistant Professor
O.D., The Ohio State University

Julie Hutchinson, Adjunct Assistant Professor
O.D., Pennsylvania College of Optometry; Primary Care/Geriatrics Residency

Chantel Jacques, Adjunct Assistant Professor
O.D., NOVA University

Eric Polk, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Mary Beth Rhomberg, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Joseph Venverloh, Adjunct Assistant Professor
O.D., University of Houston, M.S. University of Houston

Gary Vogel, Adjunct Assistant Professor
O.D., Ohio State University

Deborah Zadevito, Specialist
M.Ed., University of Missouri-St. Louis

Thomas LaRosa, Specialist
M.Ed., University of Missouri-St. Louis

Off-Campus Adjunct Faculty

Joseph H. Maino, Adjunct Professor
O.D., Illinois College of Optometry; Residency, Rehabilitative Optometry, VA Medical Center, Kansas City

Sean Mulqueeny, Adjunct Associate Professor
O.D., University of Missouri-St. Louis

Richard Wilson, Adjunct Associate Professor
O.D., University of Missouri-St. Louis

Paul Ajamian, Adjunct Assistant Professor
O.D., New England College of Optometry

Levent Akduman, Adjunct Assistant Professor
M.D., Hace Hepe, University of Turkey

Mary Bigelow, Adjunct Assistant Professor,
OD, Indiana University,
Residency in Hospital-Based Optometry Wilford Hall Medical Center, San Antonio, Texas

Janet Boschart, Adjunct Assistant Professor
O.D., Southern College of Optometry,
Residency, Primary Care, Northeastern State University

Shana Brafman, Adjunct Assistant Professor
O.D., Illinois College of Optometry,
Residency, Cornea and Contact Lens, Illinois College of Optometry

Robert Brusatti, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Carmen Castellano, Adjunct Assistant Professor
O.D., Illinois College of Optometry

Walter Choate, Adjunct Assistant Professor
O.D., Southern College of Optometry

Nicholas Colatrella, Adjunct Assistant Professor
Elsie Corgiat, Adjunct Assistant Professor
O.D., Illinois College of Optometry

Kara Crumblis, Adjunct Assistant Professor
O.D., Illinois College of Optometry,
Residency, Low vision Rehabilitation and Ocular Disease, Illinois College of Optometry

Sara Crussana, Adjunct Assistant Professor
O.D., New England College of Optometry

Michelle Dent, Adjunct Assistant Professor
O.D., V.A. Wichita, Kansas

Anthony Dewilde, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis, Residency, Hospital Based/Rehabilitative, Kansas City Veterans Affairs Medical Center

Daniel Dillinger, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Stephanie Erker, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Laura Evans, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Robert Feibel, Adjunct Assistant Professor
MD, Harvard Medical School, Resident in Ophthalmology Barnes Hospital St. Louis, MO

John Galanis, Adjunct Assistant Professor
M.D., St. Louis University

John M. Garber, Adjunct Assistant Professor
O.D., Southern College of Optometry

Kevin Greuloch, Adjunct Assistant Professor,
MD, University of Michigan Medical School, Ophthalmology
Residency University of Illinois at Chicago, Chicago IL

Kristin Ham, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Steven J. Grondalski, Adjunct Assistant Professor
O.D., Pennsylvania College of Optometry

Timothy Harkins, Adjunct Assistant Professor
O.D., Southern California College of Optometry

Steven Hill, Adjunct Assistant Professor
O.D., Illinois College of Optometry

James Hoekel, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

James Hollman, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Kristen Jaloszynski, Adjunct Assistant Professor
O.D., SUNY College of Optometry
Residency, Ocular Disease/Low Vision Rehabilitation, Kansas City Veteran’s Affairs Medical Center

Mark Johnson, Adjunct Assistant Professor
PHD Vision Sciences, The City University, London UK

Marla Kennard, Adjunct Assistant Professor
O.D., Southern College of Optometry

Kamey Kapp, Adjunct Assistant Professor
O.D., Pacific University College of Optometry

Deborah Kerber, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Sean Knaak, Adjunct Assistant Professor
O.D., Indiana University School of Optometry
Residency, Hospital Based Rehabilitative Optometry, Kansas City Veterans Affairs Medical Center

Harry Knopf, Adjunct Assistant Professor
M.D., Harvard Medical School
Dana Krause, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Allison LaFata, Adjunct Assistant Professor
O.D., SUNY State College of Optometry,
Residency, Ocular Disease, Omni Eye Services, NJ and Omni Eye Surgery, NY

Greg Leet, Adjunct Assistant Professor
O.D., UAB School of Optometry

Linda Lucas, Adjunct Assistant Professor
O.D., Indiana University School of Optometry

Michael Lachtrup, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Katherine Mastrata, Adjunct Assistant Professor
O.D., SUNY College of Optometry

Tracy Matchinski, Adjunct Assistant Professor
O.D., Illinois College of Optometry,
Residency, Vision Rehabilitation, Pennsylvania College of Optometry

Laura Mullen (Kitzhofer), Adjunct Assistant Professor
O.D., Pennsylvania college of Optometry,
Residency, Ocular Disease, Omni Eye Services

Jeffrey Newsom, Adjunct Assistant Professor
O.D., Southern College of Optometry

Arraya Paksin-Hall, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Residency, Ocular Disease, Harry S. Truman Veterans Affairs Medical Center, Columbia, MO; Residency,
Primary Care, University of Missouri-Columbia School of Medicine

Jay Pepose, Adjunct Assistant Professor
M.D., Ph.D., University of California Los Angeles School of Medicine

Carly Phillips, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Thomas I. Porter, Adjunct Assistant Professor
O.D., Southern College of Optometry

Mujtaba Qazi, Adjunct Assistant Professor
M.D. New York University School of Medicine

James Rieger, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Alfred Rosenbloom, Adjunct Assistant Professor
O.D., Illinois College of Optometry

Byron A. Santos, Adjunct Assistant Professor
M.D., University of San Carlos

Katherine Sanford, Adjunct Assistant Professor
O.D., Southern College of Optometry,
Residency in Primary Care, Veterans Affairs Medical Center, Memphis TN

Howard Short, Adjunct Assistant Professor
M.D., St. Louis University, Residency, Ophthalmology, Duke University

Craig Sorce, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Amy Sullivan, Adjunct Assistant Professor
O.D., Southern College of Optometry

John Sullivan, Adjunct Assistant Professor
O.D., Illinois College of Optometry

Kory Thoma, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Claude Valenti, Adjunct Assistant Professor
O.D. University of Pennsylvania

George Veliky, Adjunct Assistant Professor
O.D., New England College of Optometry,
Residency, Ocular Disease, Omni Eye Services

John Volosin, Adjunct Assistant Professor
O.D., Northeastern State University Oklahoma College of Optometry, Tahlequah, OK

Michael White, Adjunct Assistant Professor
O.D., Southern College of Optometry, Hospital Based Primary Care Residency, VA

Paul Whitten, Adjunct Assistant Professor
O.D., University of Missouri-St. Louis

Carrie Williams, Adjunct Assistant Professor
O.D., Southern College of Optometry

James Williamson, Adjunct Assistant Professor
O.D., Southern College of Optometry, Residency, Veterans Affairs Medical Center

Melissa Wisniewski, Adjunct Assistant Professor
O.D., Pennsylvania College of Optometry
General Information

The UMSL College of Optometry enrolled its first class in 1980, graduating 32 students in May 1984. The College is located on the South Campus complex of the University of Missouri-St Louis at 7800 Natural Bridge Road. A five-story building houses the College's classrooms, laboratories, research facilities, administrative offices, library, and the Center for Eye Care campus facility (the University Eye Center).

The College of Optometry is a member of the Association of Schools and Colleges of Optometry (ASCO) and is accredited by the Accreditation Council on Optometry Education (ACOE).

The Doctor of Optometry (O.D.) Degree

A student who satisfactorily completes all four years of the professional curriculum will be eligible to receive the Doctor of Optometry degree. The training and clinical experience optometry students receive at UMSL qualifies graduates to practice optometry in any state in the nation.

Center for Eye Care

The Center for Eye Care provides a patient care environment for upper level optometry students and post-doctoral residents. The Center for Eye Care includes four locations: the University Eye Center on the UMSL South Campus, the Optometric Center in the Central West End of the city of St. Louis, the East St. Louis Eye Center on the campus of East St. Louis Community College, and Harvester Eye Center in St. Charles, MO. These and other affiliated health centers in the St. Louis area provide an instructional setting where student interns are exposed to a wide variety of patients under the direct supervision of College of Optometry faculty. Equally important is that these Centers provide exemplary, comprehensive and state-of-the-art optometric care to their patients.

The Centers provide a full range of optometric services including adult primary eye care, contact lens, pediatrics, binocular vision, low vision, and eye health management. Specialized testing of color vision and electrophysiology are also available.

Situated in Missouri's largest metropolitan area, the College of Optometry enjoys the region's strong community and professional support. The urban setting offers many opportunities for outreach programs, expanding the scope of optometric education and making possible a highly diverse programs of clinical training. Another asset of the College is its proximity to the national headquarters of the American Optometric Association, located just a few miles from campus.

The curriculum leading to the doctor of optometry degree is a four year, full time program of study. The first year of the professional curriculum emphasizes basic and biomedical sciences and introduces students to optics of the visual system. The second year pertains to vision science and instruction in clinical examination techniques. The third year emphasizes patient care and introduces the student to specialty areas within optometry, such as contact lenses, pediatrics and geriatric vision care, binocular vision and vision therapy, and low vision rehabilitation. The second and third years also include course work and clinical instruction in ocular disease and pharmacology. The fourth year includes six rotations through the externship program, giving the student added experience in the management of eye diseases, as well as valuable experience in other optometric clinical specialties.

Fourth-Year Externship Program

In addition to the patient care experiences available through the University Eye Center, Optometric Center, the East St. Louis Center, and the Harvester Eye Center, the College of Optometry also has a diverse Externship Program. Students must receive approval from the faculty and the Director of Externships for assignments to each Externship site. This program allows fourth-year students to spend a portion of their final year of training in a variety of patient care environments (i.e., military bases, Veterans Administration Hospitals, Indian Health Services Hospitals, various specialty practices and private practices).

These eight (8) week externships are selected and scheduled with consideration given to the individual student's interest, needs and future practice intentions. Externship Rotations are located at a number of domestic and international sites. In this program, students leave the academic environment and begin working with selected eye care professionals while continuing to be monitored by the faculty through bi-weekly reports of patient encounters, therapies, and activities. The externship rotations are designed to give students exposure in the following areas:

Pediatric/Binocular Vision Patient Care
Contact Lens Patient Care
Low Vision Patient Care
Student Organizations & Activities

All optometry students enrolled in the University of Missouri-St. Louis College of Optometry are eligible for membership in the various student optometric associations, including The Missouri Optometric Student Association (MOSA) and The American Optometric Student Association (AOSA). Through these organizations, and many others, students become involved in local and national optometric activities. The organizations provide an environment for the cultivation of professional leadership skills, and members have organized and participated in a variety of community service activities, including community health screenings and vision care to residents of nursing homes, convalescent hospitals, and mental institutions. Furthermore, optometry students have formed local chapters of Student Volunteer Optometric Services to Humanity (SVOSH), an international organization of optometrists providing free vision care to people in impoverished nations, and the National Optometric Student Association (NOSA), which strives to recruit minority students into optometry and encourages retention of minority students.

In addition to the many activities through the College of Optometry, optometry students are able to take advantage of all the activities provided by the university to the entire university community. These include intramural sports, movies and cultural activities, a modern, fully equipped fitness center and gymnasium, and access to many social and cultural opportunities in St. Louis at reduced cost.

Pre-Optometry Programs

The University of Missouri-St. Louis offers a four-year program of study leading to the doctor of optometry degree; this professional degree is administered by the College of Optometry. It is one of only 20 currently accredited schools of optometry in the United States and the only one in the state of Missouri. This program, as a result, makes UMSL an ideal institution for pre-optometry education. Various programs are available for pre-optometry as noted below.

Students may pursue a traditional 4 + 4 program, which is a bachelor's degree followed by the four-year graduate optometry program. In this case, students may pursue any bachelor's degree, as long as the pre-optometry requirements are met in biology, chemistry, mathematics, physics, psychology and English.

Alternatively, the Department of Biology, the Department of Physics and Astronomy, and Department of Chemistry sponsor 3+4 Programs for the UMSL College of Optometry, for which a student may be admitted to the College of Optometry after completing three years (90 semester hours) of study in their respective majors and successful completion of the Optometry Admission Test (OAT). (See your specific department for undergraduate degree requirements.)

The Pierre Laclede Honors College and the College of Optometry also offer the Scholars Program, which allows a student to complete both the undergraduate and doctor of optometry degrees in seven years. To qualify for this program, a student must be a senior in high school; score a minimum composite of 27 on the ACT; and be accepted to the UMSL Pierre Laclede Honors College program. For more information about the Scholars Program, contact the Pierre Laclede Honors College, (314) 516-7769.

For the programs described above (Scholars or 3+4), the undergraduate degree is granted when the student satisfactorily completes the first year of the professional program and has met all of the conditions for the specific undergraduate degree for which the student has applied. 1) All general education requirements and all requirements for the biology or physics major, or other major, except electives, must be completed. 2) Any deficiency in required courses must be remedied with courses taken at UMSL within three years after entering the College of Optometry. 3) Up to 6 hours from the College of Optometry may be substituted for an undergraduate degree in Biology with approval of the Department of Biology. 4) Up to six hours is used to satisfy degree requirements in biology, and 14 hours in physics to complete the B.S. In Physics degree. For more information, contact the Department of Biology, (314) 516-6200 or the Department of Physics and Astronomy at (314) 516-5931. The Department of Chemistry offers a similar program, and may require summer research in order to complete the degree requirements for a B.A. or B.S. in Chemistry. For more information, please contact the Department of Chemistry and Biochemistry at (314) 516-5311.

In some cases, students are admitted to the optometry program without a degree.

Note: Math 1800, Analytical Geometry and Calculus I must be taken in the first semester for most 3+4 or Scholars Programs.

Admission Requirements

Semester:

English - 2
Biology (including laboratory)* - 3
Physics (including laboratory) - 2
Chemistry**
General (including laboratory) - 2
Organic (including laboratory) - 1
Mathematics ** *
Calculus - 1
Statistics - 1
Psychology - 2
Liberal Arts - 2

Quarter:
English - 3+
Biology (including laboratory)* - 4
Physics (including laboratory) - 3
Chemistry**
General (including laboratory) - 3
Organic (including laboratory) - 2
Mathematics ** *
Calculus - 1
Statistics - 1
Psychology - 2
Liberal Arts - 2+

*One semester (or one quarter) of Microbiology with laboratory is a requirement. One semester of Anatomy or Physiology is recommended.
+Courses may be taken and accepted for prerequisite course work AP (Advanced Placement) without a grade if the student receives a 320 or higher on the Reading Comprehensive section of the OAT examination (see below, Admission Test and has a GPA of 3.0.

**One semester of Biochemistry, Cell Biology or Human/Comparative Physiology is recommended.

***Trigonometry as a prerequisite course for Calculus must be completed, either in high school (official high school transcripts required as proof), or college.

The College of Optometry uses a rolling admissions process. All courses used to satisfy the admission requirements must have been taken at an institution fully accredited by one of the Department of Education regional accreditation bodies. Specific prerequisite courses must be taken for a letter grade; they cannot be taken as an audit or on a pass/fail or satisfactory/unsatisfactory basis. Applicants must have completed 90 semester or 135 quarter hours (the equivalent of three years of college education) before the start of classes. In order to process financial aid awards it is strongly recommended that students complete all prerequisite courses the spring prior to admission. The applicant cannot apply more than 60 semester hours or 90 quarter hours which were earned at a two year institution toward the credit hour requirement. Applicants holding a bachelor's degree will be given preference over applicants with similar academic credentials who do not have a degree. Applicants to the college come from a variety of undergraduate backgrounds, such as biological sciences, chemistry, psychology, education, and business.

Admission Test
Students should work with their undergraduate advisors as well as their academic advisor in optometry, to insure that all pre-requisite courses are taken prior to taking the Optometry Admission Test (OAT), which is required prior to being offered an interview for consideration for admission to the College of Optometry.

All applicants are required to take the Optometry Admission Test (OAT). The OAT is now offered through computer sites. As the computerized version may be scheduled at any time, please plan to take the OAT by June of the year you plan to apply in order to be considered for early admission. Official test scores are acceptable for up to three years from the testing date.

Applicants are encouraged to take the examination by June of the year of application to the College of Optometry. If applicants wish to enhance their scores, the examination may be repeated. For OAT information, contact:

Optometry Admission Testing Program
211 East Chicago Ave.
Suite 1846
Chicago, IL 60611
(312) 440 2693
http://www.opted.org
To apply to take the OAT, please click on the OAT link on www.opted.org (on right).

Application Procedures
The Admissions Committee begins to process applications on July 1 for the class entering the following year. An applicant's file will be considered complete and ready for consideration by the Admission Committee when the following material has been received:

*Asterisked items are processed by Centralized Application Service:

- Application through Centralized Application Service.
- Supplemental Application through UMSL with a $50.00 non-refundable application fee.

Please send directly to OptomCAS:

- Official high school and college transcripts, followed by updated transcripts as they become available. (Exception: graduates of international programs see deadline requirement for all transcripts).
- A composite evaluation prepared by the preprofessional advisory committee at the educational institution the applicant is attending. Those applicants not currently attending college or who are at an institution that does not offer a committee evaluation will be required to submit three letters of recommendation (which includes one letter of recommendation from an optometrist who is not related to you).

Students must release official Optometry Admission Test (OAT) results to UMSL.

Official transcripts must be mailed from every college attended, regardless of whether or not credit was earned, once an applicant has been offered admission and that applicant has accepted our offer of admission.

Letters of recommendation must be emailed or mailed directly to the Centralized Application Service center by the originator. It is the applicant's responsibility to ensure all application materials are received by the Centralized Application Service center by February 15 (International students: transcripts by December 15 year prior) to be considered for admission to the class entering in August of the same year. Facsimile (faxed) application material will be accepted or acknowledged. Application material received after February 15 will not be evaluated for the class entering in August of the same year. To be considered for merit scholarships, there is an early enrollment deadline. **All materials must be received by January 5 in order to be considered for the early application deadline.** Applications received after that time will still be considered for admission but not additional awards, e.g. merit scholarships, state seat contracts."

**International Students**

International students whose native language is not English and who have spent less than two of the last three years in an English-speaking country are required to submit scores from an internationally accepted standardized examination before a decision is made on admission.

To complete their credential file, applicants are required to furnish original and official transcripts **before December 15th the year prior to admission** from each school and college attended both in this country and abroad. The Educational Credentials Evaluators, Inc. or the World Education Services must evaluate all foreign school and college transcripts and their evaluation submitted as part of the application requirement. For information contact:

- Educational Credentials Evaluators, Inc.
  Post Office Box 514070
  Milwaukee, WI 53203-3470
  (414) 289-3400
  Fax: (414) 289-3411
  E-mail: eval@ece.org
  Web site: [http://www.ece.org](http://www.ece.org)

- World Education Services
  P.O. Box 5087
  New York, N.Y. 10274-5087
  (212) 966-6311
  Fax: (212) 939-6100
  Email: info@wes.org

The University of Missouri-St. Louis maintains an Office of International Student Services to assist applicants who have been offered admission. All new international students are required to attend a formal orientation program before matriculation. For more information, contact:

- University of Missouri-St. Louis
  Office of International Student Services
  One University Blvd.
  St. Louis, MO 63121-4499
  (314) 516-5229
  iss@umsl.edu

Selection Procedures
Applications are reviewed beginning in August with interviews scheduled and initiated starting in September. The college uses a ‘rolling admissions’ process that allows qualified applicants to be admitted on an ongoing basis until the class is filled. Therefore, applicants are encouraged to apply as early as possible to ensure full consideration for admission.

The Admissions Committee has the responsibility to review and evaluate all applicants and select the best qualified candidates. The committee considers: an applicant’s overall grade point average, the grade point achieved in the sciences, any grade trends over the years in college, and the scores on the OAT. Concurrently, candidates are evaluated on less quantitative measures such as extracurricular activities and interests, related or unrelated work experience, written narrative, and letters of recommendation.

Those applicants whom the committee feels to be most competitive will be invited for an on-campus interview. The on-campus interview facilitates an assessment of the applicant’s communication skills, interests, motivation, and personal characteristics. In addition, the on-campus interview allows the applicant to tour the facilities, meet with currently enrolled students, present questions regarding financial aid and housing, and learn more about the University of Missouri-St. Louis and the College of Optometry. From this group of interviewed applicants, the entering class of approximately 44 students will be selected.

The policies of the University of Missouri-St. Louis and the College of Optometry comply with the provisions under those laws that forbid discrimination on the basis of race, color, religion, sex, sexual orientation, national origin, age, disability or status as a Vietnam era veteran.

Admission Process
Notices of acceptance may be received as late as July of the year in which the students enter the program. If acceptance to the class is conditional, the terms of the condition must be completed prior to matriculation. Applicants who have indicated that degree requirements will be completed prior to matriculation, and who have been selected for admission, may receive a conditional offer of acceptance contingent upon completion of the degree.

Students offered admission have 15 days from the date on the offer of admission letter to make a required $200 acceptance deposit. The $200 deposit will be credited toward tuition when the student matriculates. The deposit is considered a non-refundable administration fee should the student not matriculate.

A certain number of applicants are placed on an alternate list. If an applicant who has been offered admission declines the offer, their position will be allocated to the next individual on the alternate list.

Notification of denial is sent by mail. Applicants who do not receive an offer of admission may reapply the following year through the Centralized Application Service.

Financial Aid
The University of Missouri-St. Louis maintains an Office of Student Financial Aid to assist students with the cost of their education.

Financial assistance is available in the form of loans, scholarships, and work-study. Funds for these programs are available from federal, private, state, and institutional resources. To apply for financial aid, students must complete a Free Application for Federal Student Aid (FAFSA). Preference will be given to those students who have completed the FAFSA by April 1. Preference means that the Student Financial Aid Office will begin awarding FWS (Federal College Work-Study), and maximum government allowable funding under subsidized loans. A completed financial aid application means that the Financial Aid Office has received an official Student Aid Report from the Federal Processing Center. Information about Federal loan programs and FAFSA are available at www.fafsa.ed.gov.

The Student Financial Aid Office maintains a Web site at www.umsl.edu/services/finaid, where students will find useful information along with the ability to contact the office electronically via e-mail. Also included is a scholarship directory that is updated annually.

To be considered for all university scholarships offered through the Financial Aid Office, a student must be accepted for admission.

Many state optometric associations and their auxiliaries offer scholarships and grants. Application is generally made directly to the state association or auxiliary and selection is generally made on the basis of state residence and other criteria. Information may be obtained by writing to the various state optometric associations and/or auxiliaries.

The College of Optometry will provide additional information about scholarships and the college’ Handbook of Loans, Scholarships, Grants, and Awards to applicants after being admitted. Many of the College’s scholarships are listed on the College Website.

Fees
Detailed information regarding current fees and residency regulations is furnished on the UMSL Cashier’s
The university reserves the right to change fees and other charges at any time without advance notice.

**Education Fees**

All students enrolled in the University must pay educational fees based on either the schedule for Missouri residents or the schedule for non-residents. All optometry students will be required to pay the non-resident educational fee if they do not meet the University of Missouri residency requirements at the time of enrollment.

For current fees and costs, please check the fee section of the Cashier's Website and be certain to select appropriately optometry resident / nonresident.

A **Summer Session is required between the third and fourth professional year.**

**Other Required Fees**

All students are required to pay the following fees each semester: Information Technology Fee; Student Facility, Activity, and Health Fee; and, if needed, Parking Fee. Please refer to the Fees Section of the Cashier's website for current fees and caps on fees.

**Student Health Insurance (optional)**

An Accident and Sickness Insurance plan is available to students and their dependents. Information concerning premiums and coverage is available upon request from University Health Services or call (314) 516-5671. For students registered at UMSL College of Optometry, health insurance is available through the American Optometric Student Association.

**Nonresident Students**

Optometry students who do not meet the residency requirements must pay the nonresident educational fee according to the schedule above. A definition of "residency" is outlined in Tuition and Residency Rules, available in the cashier's office. (314-516-5151) Students are responsible for registering under the proper residence and paying the proper educational fees.

Currently, twelve nonresident positions for all four years are allocated by state reciprocal agreements for residents of Kansas. Individuals who are admitted under these agreements will pay reduced non-resident fees. To apply for this award, applicants must be certified as a bona fide Kansas resident and meet financial need (FAFSA). Seats are not offered until after FAFSA data is available. Additionally, Kansas residents accepting a seat are required to return to Kansas to practice following graduation or completion of a residency program. For additional information, contact:

- Kansas Board of Regents
- Kansas Optometry Service Scholarship
- 1000 S.W. Jackson St., Suite 520
- Topeka, KS 66612-1368
- (785) 296-3518.
- Kansas Board of Regents Website

The College of Optometry currently has a State contract agreement for residents of Nebraska (this is supported by and is at the funding discretion of the Nebraska State Legislature). This contract permits the College of Optometry to admit one eligible Nebraska resident in each entering class to receive the award. For detailed information about the contract and to be certified as a bona fide Nebraska resident, contact:

- Dr. Richard Hoffman
- University of Nebraska
- 3835 Holdrege
- Lincoln, NE 68583
- (402) 472-7115
- University of Nebraska Website

**Four-Year Professional Degree (O.D.) Curriculum**

**Curricular Outcomes**

**Entry Level Standards**

Doctors of Optometry must have an established knowledge of the basic and clinical sciences in order to provide quality eye and vision care to their patients. The academic foundation must be broad and include the biological, medical, vision and optical sciences, as well as a basic understanding of the health care delivery system. A Doctor of Optometry must recognize the dynamic nature of knowledge and possess the commitment and skills needed to responsibly assess and apply new information and treatment strategies throughout their career.
The UMSL College of Optometry shall ensure that before graduation each student will effectively utilize and demonstrate a working knowledge in patient care within each of the following areas:

1. basic body systems, with special emphasis on the ocular and visual system and their interrelationships to the body as a whole;
2. the impact of genes and their interaction with behavior, diet and the environment on human health;
3. the various processes and causes that lead to dysfunction and disease and the effect that these processes can have on the body and its major organ systems, with special emphasis on the ocular and visual systems; the mechanisms of actions of the various classes of pharmaceutical agents, including injectable agents, their interactions, along with their safe and effective use for the treatment of disease and conditions affecting the eye and visual system;
4. the structures and processes contributing to the development of refractive error and other optical or perceptual abnormalities of the visual system;
5. the optics of the eye and ophthalmic lens systems (including spectacles, contact lenses, and low vision devices) used to correct refractive, oculomotor and other vision disorders;
6. visual development and vision function with respect to deviation and enhancement of conditions such as, but not limited to, strabismus, amblyopia, oculomotor, accommodation, and visual perception;
7. vision therapy and other rehabilitative methods used for the management of common visual disorders;
8. the psychosocial dynamics of the doctor/patient relationship and an understanding of the social, psychological, and economic forces affecting diverse patient populations;
9. the practice management structure and strategies as they pertain to various practice settings;
10. the critical elements of verbal and written communications and understanding of the need for clear and appropriate documentation of patient encounters;
11. the concepts of refractive surgery and its management;
12. the conscientious use of current best practices in patient care decision making;
13. a broad-based multidisciplinary understanding of patient care;
14. an appreciation for and a commitment to lifelong learning;
15. information management and technology in the delivery of eye and health care;
16. and an understanding of and commitment to uphold the ethical obligations imposed by the tenets of the Optometric Oath of Practice.

Grades
All courses taken for credit in the professional program must be passed with a "C-" or better in order for a student to qualify for graduation. The College of Optometry does not recognize a "D" grade for courses taken for degree credit; and for a student enrolled in a patient care course. Therefore, any grade lower than a "C-" will be recorded as an "F" and have "0" grade points. Furthermore, in order to qualify for graduation, a student must be in good academic standing and the cumulative professional Grade Point Average (GPA) must be 2.50 or higher. Students must submit evidence to the Office of Student Services that they have taken the 3 part NBEO examinations prior to graduation. Such evidence may include a copy of the score report received from NBEO.

To assure graduating at the end of a specific semester, all work for that semester and any delayed grades from previous semesters must be completed with the grades sent to the Office of Student Services no later than the official date for submission of final semester grades.

Time limitations
All of the required courses during the first six (6) semesters of first course enrollment and all required courses for the O.D. degree must be completed within six (6) years after the first course enrollment.

Graduate Studies

Vision Science
Vision science is a multidisciplinary area concerned with the study of normal and anomalous vision. The goal of this program is to train the next generation of researchers in clinical and basic vision science, to conduct research, and to educate faculty for schools and colleges of optometry. Students will be required to integrate basic skills in vision science with focal studies in an area of research emphasis.

This program will emphasize research aimed at new treatments and cures for vision disorders, as well as research in basic mechanisms of visual functions. The College of Optometry offers both an M.S. degree and a Ph.D. degree. Students may apply to the Graduate School for admission to either the M.S. or the Ph.D. program.

Admission Requirements
Students must have the appropriate background for graduate training in physiological optics and appropriate undergraduate courses for their anticipated research emphasis. Applicants must have a bachelor's degree from an accredited college or university within the United States or from an equivalent institution outside the United States. To be admitted as regular graduate students, applicants must have a grade point average of at least 3.0 in their overall undergraduate work, in their undergraduate major, and in any post baccalaureate academic work. Students must arrange for transcripts to be submitted from all postsecondary academic work and to have at least three letters of recommendation sent by faculty members at previously attended colleges.
and universities. Students must also submit GRE scores (verbal, quantitative, and analytic). Applicants to the M.S. program must have combined scores on the verbal and quantitative sections of at least 1000; applicants to the Ph.D. program must have combined scores of at least 1100. In addition, students from countries where English is not a primary language must submit TOEFL scores of 550 (paper based), 213 (computer based), or 80 (internet based) or better. All materials and scores must be submitted by March 1 if an applicant wishes to be considered for financial assistance for the Fall semester. Early applications are encouraged.

**Master of Science in Vision Science**

Curricular Outcomes

The graduate of the **Masters of Science in Vision Science degree program** will:

1. Demonstrate an understanding of concepts across a number of cores disciplines in Vision Science.
2. Show an ability to critically analyze the primary literature in Vision Science
3. Understand how to analyze and interpret scientific data in Vision Science
4. Conduct, analyze and defend a thesis project

For the Master's degree students must complete the 5 core courses (6400, 6401, 6402, 6403, 6404). Students must take 15 more credits and successfully defend their Master's Thesis. Students are expected to present their research both on campus (department seminars or Graduate Research Fair) (Outcome 2, 3). The capstone experience is a public defense of the thesis as well as a written and oral defense of the thesis from the thesis committee (Outcome 4).

**Degree Requirements**

The M.S. degree requires 30 semester hours of course work, including the core courses. At least 24 of these hours will normally be taken from courses offered by the College of Optometry, with no more than 10 of these in VIS SCI 6490, Graduate Research in Vision Science. Each M.S. student will be required to teach at least two semesters in areas determined by the Graduate Committee in Vision Science.

The **core courses** for this program are:

- VIS SCI 6400, Sensory Processes and Perception
- VIS SCI 6401, Visual Optics
- VIS SCI 6402, Ocular Anatomy and Physiology
- VIS SCI 6403, Psychophysical Methods and Experimental Design
- VIS SCI 6404, Sensory Neuroscience

Special Topics, Individual Studies, and Advanced Topics courses in Vision Science are also offered.

Each M.S. student must also complete a thesis based on research conducted during the program. The thesis must be approved by a committee of at least three members of the graduate faculty, at least two of whom must be from the graduate faculty in vision science.

**Ph.D. in Vision Science**

Curricular Outcomes

The graduate of the **PhD in Vision Science degree program** will;

1. Demonstrate an understanding of concepts across a number of cores disciplines in Vision Science;
2. Show an ability to critically analyze the primary literature in Vision Science
3. Understand how to analyze and interpret scientific data in Vision Science
4. Develop skills and knowledge to establish a program of research in vision science
5. Design, conduct and defend a dissertation that contributes to the vision science literature and shows independent creative thought.

Upon completing the core courses a PhD candidate must pass a Qualifying Exam covering topics in 4/5 core course areas: Visual Optics, Psychophysical Methods, Experimental Design Ocular Anatomy and Physiology, Sensory Neuroscience, and Sensory Processes and Perception. Members of the graduate committee who were involved with the core courses will submit questions to be answered and grade the exams. The successful completion of the Qualifying exam establishes the student's Ph.D. candidacy. Students are expected to present their research both on campus (department seminars or Graduate Research Fair) (Outcome 2, 3, 5). Students are also expected to present their work at a national meeting (e.g. ARVO, AAO, VSS, SFN). The capstone experience is a public defense of the dissertation as well as a written and oral defense of the dissertation from the dissertation committee (Outcome 6).

**Degree Requirements**

The doctoral degree requires 60 semester hours of course work, including the core courses. Each Ph.D. student will also be required to demonstrate proficiency in a foreign language, computer language, advanced statistical methods, or another acceptable tool skill. The tool skill and level of proficiency must be selected in
advance in consultation with the Graduate Committee in Vision Science. Students will be required to teach at least two semesters in areas determined by the Graduate Committee in Vision Science.

Written qualifying examinations will be offered each semester. Students must declare their intent to take the examinations at least one month prior to the beginning of that semester or summer session. Full-time students must attempt qualifying examinations before beginning their third year of study. Students must declare their intent to take the examinations at least one month prior to the beginning of that semester or summer session.

The preparation of the dissertation will be supervised by a dissertation committee which will be appointed by the Graduate Dean upon the recommendation of the Director of Graduate Programs in the College of Optometry. Input from the student's advisor will be solicited by the Director prior to finalization of the recommendation by vote of the Graduate Faculty. An oral examination of the written dissertation proposal will be conducted by the Committee. A public oral defense of the completed written dissertation is also required.

The core courses for this program are:
VIS SCI 6400, Sensory Processes and Perception
VIS SCI 6401, Visual Optics
VIS SCI 6402, Ocular Anatomy and Physiology
VIS SCI 6403, Psychophysical Methods and Experimental Design
VIS SCI 6404, Sensory Neuroscience
Special Topics, Individual Studies, and Advanced Topics courses in Vision Science are also offered.

Continuing Education
The College of Optometry offers continuing education programs for optometrists throughout the Midwest region as well as nationwide. Courses on nutrition, management of ocular diseases, ocular anomalies, and visual skills are held on a frequent basis. In addition to College of Optometry faculty, optometric specialists, medical educators, and researchers have input into course development as well as participation in course presentations. All CE courses offered by the school are accepted by those states requiring continuing education credit for relicensure.

Continuing Education course information may be obtained by contacting:
University of Missouri St. Louis College of Optometry
Office of Continuing Education
One University Blvd.
St. Louis, MO 63121 4499
(314) 516 5615

Career Outlook
Doctor of Optometry Degree
Doctors of Optometry are independent primary health care providers who examine, diagnose, treat and manage diseases and disorders of the visual system, the eye and associated structures as well as diagnose related systemic conditions. They examine the internal and external structure of the eyes to diagnose eye diseases like glaucoma, cataracts and retinal disorders; systemic diseases like hypertension and diabetes, and vision conditions like nearsightedness, farsightedness, astigmatism and presbyopia. Doctors of Optometry also do testing to determine the patient's ability to focus and coordinate the eyes, and to judge depth and see colors accurately. They prescribe eyeglasses and contact lenses, low vision aids, vision therapy and medicines to treat eye diseases.

As primary eye care providers, Doctors of Optometry are an integral part of the health care team and an entry point into the health care system. They are skilled in the co-management of care that affects the eye health and vision of their patients and an excellent source of referral to other health care professionals.

The scope of optometric practice requires an understanding of the development and maintenance of vision from infancy through adulthood, and the therapeutic and rehabilitative methods required to care for eye and vision abnormalities that affect people of any age.

Optometry is the largest eye care profession and one of the largest independent health care professions in the United States. Currently, some 34,000 Doctors of Optometry practice in America. They are widely distributed across the nation, practicing in more than 7,100 different municipalities. In more than 4,300 of these communities, they are the only primary care provider. As such, Doctors of Optometry provide the major portion of primary eye care services in the United States.

Studies have indicated that a ratio of one practicing Doctor of Optometry to every 7,000 people (a ratio of 14.3 practicing doctors of optometry per 100,000 population) is a reasonable average for the United States. Despite recent growth in the profession, few states meet this criterion.

As our society becomes more technically oriented, vision requirements become more exacting. The number of
persons needing professional help for reading and other near point visual tasks, and computer usage among all people including young children, is steadily growing. Increased demands for vision care result not only from population growth but also from increased understanding of how good vision relates to industrial production, student achievement, adjustments to aging, and other areas crucial to modern society.

As a result the patients have more varied and challenging needs. On any given day, a Doctor of Optometry could be involved in restoring functional vision to a partially sighted patient; fitting glasses for a child whose vision problem is affecting academic achievement; treating an eye infection with antibiotics; improving the function of a patient's eyes through vision training; helping an elderly patient in a nursing home cope with changing vision through critical eye health education; and performing comprehensive eye examinations for those who need glasses or contact lenses to correct astigmatism, nearsightedness, and numerous other vision problems.

The practice of optometry offers independence, flexibility, and diversity. Doctors of Optometry have a wide range of modes of practice. They may choose to practice in the inner cities, suburbs, and rural areas. Opportunities exist for solo practice, associateship, optometric or multidisciplinary group practice, government or military service, clinical or hospital practice, teaching, and research.

Optometry is a rewarding career, both economically and personally. Based on data from the Bureau of Labor Statistics and surveys by professional associations, optometry is one of the top 10 income earning professions in the country.

**Graduate Degrees**

The master of science program provides research oriented training beyond that offered in the professional program in optometry. Many optometry schools require that applicants for faculty positions hold an M.S. or Ph.D. degree as well as an O.D. degree. Additional employment possibilities for individuals with M.S. degrees are found in industry and in public and private research foundations.

The Ph.D. program prepares students as research professionals in vision science. Employment opportunities are available in college or university teaching and research, in research institutes, and in industry. Within academic optometry, individuals with both O.D. and Ph.D. degrees are in high demand as faculty members.
The School of Social Work at the University of Missouri-St. Louis includes the Social Work and Gerontology programs. The School's faculty are distinguished scholars committed to excellence in teaching and research in a wide range of specialties. These include child welfare, gerontology, community organization, addictions, social service policy, and international social work. The School's programs work closely with the agencies in the St. Louis region, and students are able to select internships from more than 400 area social service agencies.

Social work prepares students for professional practice in schools, juvenile and adult courts, hospitals, community development agencies, counseling agencies, agencies serving older adults, state social service agencies, and other organizations and agencies serving individuals, families, groups and communities.

Gerontology is an interdisciplinary program with faculty from anthropology, biology, economics, nursing, optometry, psychology, and social work. Students may also take courses in Business Administration or Nonprofit Management.

Degrees offered

Bachelor of Social Work (BSW)

Masters in Social Work (MSW) with concentrations in:
- Family Practice
- Social Work Leadership and Management
- Gerontology

Master of Science in Gerontology (MSG)

Undergraduate Certificate in Gerontological Studies
Graduate Certificates in Gerontology and Long-Term Care Administration

Courses may be completed through day or evening coursework (BSW) or through evening courses (MSW, MSG). Credit courses are also offered off-campus through University Outreach.
Faculty

Meuser, Thomas M., Associate Professor, Social Work and Gerontology and Director
Ph.D., University of Missouri-St. Louis

Tang-Martinez, Zuleyma, Professor, Biology *
Ph.D., University of California, Berkeley

Hurwicz, MargoLea, Associate Professor, Anthropology and Gerontology
Ph.D., University of California Los Angeles

Isaac-Savage, Paulette, Associate Professor, Education*
Ph.D., University of Georgia

Porterfield, Shirley L., Associate Professor, Social Work
Ph.D., University of Wisconsin-Madison

Steffen, Ann M., Associate Professor, Psychology and Gerontology*
Ph.D., Indiana University

Usui, Chikako, Associate Professor of Sociology*
Ph.D., Stanford University

Hsueh, Kuei-Hsiang (Grace), Associate Professor, Nursing *
Ph.D., University of Arizona

Pickard, Joseph G., Associate Professor, Social Work *
Ph.D., Washington University

Shen, Huei-Wern, Assistant Professor, Social Work
Ph.D., University of Michigan

Boland, Kathleen, Clinical Assistant Professor, Optometry *
O.D., University of Missouri-St. Louis

*Faculty affiliated with the Gerontology Program based on teaching and/or research interests in the field of aging.

Faculty from 11 departments, colleges and schools are involved in the undergraduate and graduate programs in gerontology.

Master of Science in Gerontology

The master of science degree in gerontology program is a multidisciplinary program designed to prepare students for program management or direct service positions working with the aged. The program of study includes courses from a variety of departments including Anthropology, nursing, psychology, sociology, social work, public policy administration, and optometry. Courses are offered primarily in the evening to accommodate part-time as well as full-time students.

Admission Requirements

Learning Outcomes

- A detailed appreciation for the aging process with respect to successful aging, health status, physical functioning, cognition and capacity, psychosocial involvement, diversity, cultural influences and competence, and public policy;
- An ability to integrate theoretical perspectives on aging with the practical needs and concerns of individuals in various living environments;
- An ability to interpret and appropriately utilize research findings to inform daily practice, especially with respect to screening, assessment, intervention, and referral activities;
- Professional competence in the areas of ethical practice, participation in multidisciplinary teams, communication with clients and families, assessment and intervention.

Program applicants must have the following:
Baccalaureate degree.
3.0 or B average (students with exceptions should contact the director of the gerontology program).
Official transcripts of all previous undergraduate/graduate work.
Three letters of recommendation
In addition, students must meet the other general requirements for admission to the Graduate School as explained in the Graduate Study section of the Bulletin.

Degree Requirements
The students are required to complete 30 credit hours, including 24 hours in gerontology courses, a 3-hour statistics course, and a 3-hour research methods course. The required courses are listed below.

Gerontology Distribution Requirements
A. Public Policy and Aging - 3 credits from the following:
GERON (P P ADM, POL SCI) 6443, Health Care Policy

B. Health and Physical Aspects of Aging - 3 credits from the following:
GERON 5610 (SOC WK 5610), Mechanics of Aging I: The Aging Body (1 credit hour)
GERON 5611 (SOC WK 5611), Mechanics of Aging II: The Aging Brain (1 credit hour)
GERON 5612 (SOC WK 5612), Mechanics of Aging III: Diseases of Aging (1 credit hour)
GERON 6441, Aging and Health Behavior

C. Psychosocial Aspects of Aging - 3 credits from the following:
GERON (SOC) 4361, Social Gerontology
GERON (PSYCH) 4376, Mental Health and Aging
GERON (PSYCH) 5376, Psychopathology of Aging
GERON (ANTHRO) 5440, Cultural Aspects of Aging
GERON (SOC) 5361, Advanced Social Gerontology
SOC WK 6120, Theory & Practice with Older Adults

D. Practica in Gerontology, 6 credits from the following:
GERON 6495, Practicum in Gerontology
GERON 6496, Advanced Practicum in Gerontology

E. Gerontology Electives - 9 credits (see Electives listed below)

F. Graduate-level statistics course - 3 credits and graduate level research methods course - 3 credits.
Students should consult Director of Gerontology for approved courses.

Graduate Certificate in Gerontology
The graduate certificate in gerontology is designed for students who wish to receive post-baccalaureate training in gerontology. The certificate can be taken by itself or in conjunction with pursuit of a graduate degree in another field. Eighteen credit hours are required.

Admission Requirements
Program applicants must have the following:

- Baccalaureate degree.
- 2.75 grade point average (students with exceptions should contact the director of the gerontology program).
- Official transcripts of all previous undergraduate/graduate work.
- Two letters of recommendation.

Distribution Requirements
A. Public Policy - 3 credits from the following:
GERON (P P ADM, POL SCI) 6443, Health Care Policy

B. Health and Physical Aspects of Aging - 3 credits selected from the following:
GERON 5610, SOC WK 5610, Mechanics of Aging I: The Aging Body (1 credit hour)
GERON 5611, SOC WK 5611, Mechanics of Aging II: The Aging Brain (1 credit hour)
GERON 5612, SOC WK 5612, Mechanics of Aging III: Diseases of Aging (1 credit hour)
GERON 6441, Aging and Health Behavior

C. Psychosocial Aspects of Aging - 3 credits selected from the following:
GERON (SOC) 4361, Sociology of Gerontology
GERON (PSYCH) 4376, Mental Health and Aging
GERON (PSYCH) 5376, Psychopathology of Aging
GERON (ANTHRO) 5440, Cultural Aspects of Aging
GERON (SOC) 5361, Advanced Social Gerontology
SOC WK 6120, Theory & Practice with Older Adults

D. GERON 6495, Practicum in Gerontology - 3 credits

E. Electives in Gerontology - 6 credits

Graduate Certificate in Long-Term Care Administration (18 credit hours)
The graduate certificate in long-term care administration is designed for individuals who either work in or wish to consider entering the field of long-term care administration. This field (home, community, and institutionally-based) is the fastest growing segment of the health care industry, and there is a critical need for professionally trained personnel with the knowledge and skills to address the complex issues in gerontology. This program can be applied towards meeting nursing home administration licensure requirements. (Missouri contact hour requirements vary with education and long-term care experience. Please check with the Missouri Board of Nursing Home Administration, Jefferson City, MO 573-751-3511 for a copy of licensure eligibility requirements.)

The graduate certificate can be earned by itself or in conjunction with the pursuit of the Master of Science in Gerontology, the Master's in Social Work, or a graduate degree in another field.

The graduate certificate in long-term care administration requires the completion of 18 graduate credit hours which will apply toward the Master of Science in Gerontology for students who elect to continue their graduate studies in gerontology at UMSL.

A. Six of these 18 hours are gerontology courses:
   - GERON 6441, Aging and Health Behavior (3 hours) or GERON 6443 Health Care Policy (3 hours) (same as SOC WK 6443, P P ADM 6430, or POL SCI 6443)
   - GERON 6498, Advanced Seminar in Gerontology: Long-term Care Administration (3 hours)

B. Nine of these hours are in management. Students must choose the selection of courses in either Business Administration (1) or Nonprofit Management (2).

1. 9 hours of coursework in Business Administration consisting of:
   1. MGMT 5600, Organizational Behavior and Administrative Process (3 hours) (same as P P ADM 6600)
   2. ACCTNG 5400, Financial Accounting: Theory and Practice (3 hours)
   3. MGMT 5621, Managing Human Resources (3 hours)
   or

2. 9 hours of coursework in Nonprofit Management, consisting of:
   A. P P ADM 4940, Leadership and Management in Nonprofit Organizations (3 hours)
   B. P P ADM 4960, American Philanthropy and Nonprofit Resource Development (3 hours)
   C. P P ADM 4911, Management Issues in Nonprofit Orgs.: Staff Management Issues (1 hour)
   D. P P ADM 4912, Management Issues in Nonprofit Orgs.: Legal Issues in Governing and Managing Nonprofit Orgs. (1 hour)
   E. P P ADM 4913, Management Issues in Nonprofit Orgs.: Financial Issues (1 hour)

Three hours of internship (Practicum in Gerontology, GERON 6495), are also required. Graduate students who already have professional field experience equivalent to the internship may request an exemption. Any request for an exemption from the internship requirement must be approved by the gerontology program director after a review of the student's professional or managerial field experience with appropriate documentation. Students who receive an exemption must take another 3 hours of elective coursework from the gerontology program offerings.

Requirements of admission to the graduate certificate program are the same as those required for admission to the Graduate School: an undergraduate degree, 2.75 or better GPA, and three letters of recommendation.

Undergraduate Certificate in Gerontological Studies
A certificate in gerontological studies, a multidisciplinary course of study, is available at the University of Missouri St. Louis. This program provides an opportunity for students to obtain a focused specialty in gerontology in addition to their majors. It utilizes offerings in the College of Arts and Sciences, College of Nursing, the College of Business, and the College of Education. It is appropriate for students in any of the colleges of the University.

Certificate Requirements
A student may earn the certificate in gerontological studies by completing a total of 15 hours. Courses must be chosen from at least two of the following four topic areas. No more than 3 credit hours from Research/Practicum Experience courses will be allowed. The student must have the approval of the
director of the gerontology program before enrolling in the course. Courses taken to fulfill the
requirements may not be taken on a satisfactory/unsatisfactory basis. New courses continually are
added, so it is advisable to check with the director each term. Many courses are cross-listed and also
have a gerontology designation.

Humanities
GERON (PHIL) 2256, Bioethics

Social Sciences
GERON (INTDSC) 1220, Special Topics in Gerontology
GERON (INTDSC) 2170, Aging in America: Concepts and Controversies
GERON (PSYCH) 2272, Developmental Psychology: Adulthood and Aging
GERON (ANTHRO) 3215, Growing Old in Other Cultures
GERON (SOC) 4361, Social Gerontology
GERON (PSYCH/SOC WK) 4376, Mental Health and Aging

Career Outlook
With our growing aging population, the career outlook for gerontology is strong and will continue to be
for decades to come. Professionals with specialized training in gerontology find meaningful work in a
variety of settings, including management and marketing positions in the senior housing and long-term
care industries, program coordination and direct service positions in nonprofit, government and for-
profit senior service organizations, in the growing field of Geriatric Care Management, as counselors
and support group leaders, and as members of multidisciplinary teams in hospice organizations and
other healthcare organizations.

Course Descriptions
GERON 1220 Special Topics in Gerontology (1-3)
Selected topics dealing with various aspects of gerontology. The specific contents of this course will
vary from semester to semester. The course may be repeated for credit with permission of the
Gerontology director.

GERON 2170 Aging in America: Concepts and Controversies (3)
Same as SOC 2170, SOC WK 2670, and INTDSC 2170. This course examines the major theoretical and
service issues connected to the study of older adults and their families, using multidisciplinary
perspectives. Students are provided with an introduction to the field of aging through an examination
of current social issues and controversies. This course emphasizes student involvement through class
discussion, and is appropriate for students in the arts and sciences, business, communication,
education, and nursing.

GERON 2256 Bioethics (3)
Same as PHIL 2256. An examination of ethical issues in health care practice and clinical research and in
public policies affecting health care. Topics include abortion, euthanasia, health care, experimentation,
informed consent, and the right to health care.

GERON 2272 Developmental Psychology: Adulthood and Aging (3)
Same as PSYCH 2272. Personality, social, and physiological development from the onset of early
adulthood through maturity and old age.

GERON 2280 Psychology of Death and Dying (3) [V, SS]
Same as PSYCH 2280. Prerequisite: PSYCH 1003. A beginning exploration of end-of-life issues
integrating the scholarly, social, and individual dimensions of death and dying. This course provides a
solid grounding in theory and research, as well as practical application to students’ lives.

GERON 4361 Social Gerontology (3)
Same as SOC 4361. Prerequisite: SOC 1010 and junior standing or consent of instructor. Topics
include sociological theories of aging, technological and social change and its effects on the
environment of older people, and prejudice and discrimination against the elderly.

GERON 4376 Mental Health and Aging (3)
Same as PSYCH 4376 and SOC WK 4376. Prerequisites: 9 hours of psychology, graduate standing or
consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this
course.) This course provides a survey of theory and research in mental health issues for older
populations, focusing on psychological and social aspects of mental health and impairment. The course
details approaches to understanding prevalence, etiology, assessment, and treatment of the
psychological disorders most commonly experienced by older adults, including anxiety, depression,
delirium, and dementia, among others.

GERON 4490 Directed Readings (1-3)
Prerequisite: Consent of instructor. Directed readings and research or field work. May be repeated for a
maximum of three hours.

**GERON 4680 Introduction to Gerontological Practice (3)**
Same as SOC WK 4680. Prerequisite: Advanced undergraduate or graduate standing. This course introduces key concepts and practices in the evaluation and care of older adults. It is intended for students considering aging-focused careers in the social service or healthcare fields. Topics include developmental and health related theories of aging, functional and psychosocial aspects of aging, working with older adults in various service settings, multi and inter-disciplinary team approaches, and basic standards of professional conduct that apply across professions.

**GERON 5361 Advanced Social Gerontology (3)**
Prerequisite: Graduate Standing. An advanced examination of sociological theories of aging, technological and social change and its effects on the environment of older adults. It includes the study of prejudice and discrimination against the elderly.

**GERON 5376 Psychopathology and Aging (3)**
Prerequisite: Graduate Standing. Recent theory and research in mental health issues for older populations. The primary focus is on major psychological disorders prevalent among older adults and in assessment and treatment approaches for aging populations.

**GERON 5440 Cultural Aspects of Aging (3)**
Same as ANTHRO 5440. Focuses on the variety of solutions encountered in different sociocultural contexts for dealing with the problems, challenges, and opportunities of growing old. It is organized around topics that are of concern to both anthropology and social gerontology: the status of the aged, intergenerational relations, aging in modernizing societies, ethnic dimensions of aging in complex societies, health in later life, death and dying. Both in depth case studies and cross-cultural comparisons are examined in an effort to arrive at a culturally informed assessment of factors affecting aging and the aged in the United States.

**GERON 5610 Mechanisms of Aging I: The Aging Body (1)**
Same as SOC WK 5610 and PSYCH 5610. Prerequisites: Graduate standing and BIOL 1102 or equivalent. (MSW students normally take all foundation courses prior to enrolling in this course.) Introduces students with a social sciences/humanities background to the normal changes in the biology and chemistry of the aging human body and how these changes affect behavior.

**GERON 5611 Mechanisms of Aging II: The Aging Brain (1)**
Same as SOC WK 5611 and PSYCH 5611. Prerequisites: GERON 5610 or SOC WK 5610 or PSYCH 5610 or equivalent or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background a basic introduction to the biology and chemistry of the aging human brain and nervous system and how these systems impact behavior.

**GERON 5612 Mechanisms of Aging III: Diseases of Aging (1)**
Same as SOC WK 5612 and PSYCH 5612. Prerequisites: GERON 5610 and GERON 5611 or SOC WK 5610 and 5611 or PSYCH 5610 and PSYCH 5611 or equivalents or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course) Provides students with a social sciences/humanities background with information on how diseases associated with aging exacerbate the effects of aging on the human body, mind, and behavior.

**GERON 5620 Dying, Grief & Death in Older Adulthood (3)**
Same as SOC WK 5620. Prerequisites: Six hours of graduate level gerontology, psychology, counseling and/or social work, or special approval from the instructor. Undergraduates in their senior year may also request approval for entry from the Director of Gerontology. For those planning to work with older adults in counseling, healthcare, hospices, and/or community support settings. Will examine trajectories to death in older age, the dying process, influences of medical and aging-related conditions, euthanasia and suicide, life extension and longevity, personal beliefs and existential responses, how individuals and families cope, ethical concerns, and strategies for supportive intervention. Topics are addressed from clinical, supportive care, and interdisciplinary perspectives.

**GERON 6130 Interviewing Older Adults & Life Review (3)**
Same as SOC WK 6130. Prerequisite: Graduate standing. This course combines training in interviewing techniques with video production. Students will learn how to conduct life review interviews with older adults, and then take these skills into the community by interviewing older adults living in various settings. Students will learn how to use a digital video camera and edit video clips on the computer. Student-conducted interviews will be viewed by the instructor and classmates, issues associated with aging will be discussed, and constructive feedback provided. Some of the video clips developed in the course will become part of an educational video clip library.

**GERON 6441 Aging and Health Behavior (3)**
Same as PSYCH 6441. Prerequisite: Graduate standing. This course examines sociocultural influences...
on health care practices of older adults. The role of social support and other social resources in the health behavior of older adults is emphasized. Topics include self-care decisions, formal service utilization, family caregiving, and planned interventions for older adults.

**GERON 6443 Health Care Policy (3)**
Same as POL SCI 6443, P P ADM 6430, SOC 6443, and SOC WK 6443. Prerequisites: Graduate standing and consent of instructor. (MSW students will normally take the social policy foundation course prior to enrolling in this course). Survey course examining current issues in health policy that face the nation. Policies are placed in a historical context to show how issues have been influenced by different political and economic conditions. Secondary consequences and limitations of current trends in health policy are explored.

**GERON 6444 Seminar in Public Policy and Aging (3)**
Same as PP ADM 6444, POL SCI 6444 and SOC 6444. Prerequisite: Consent of instructor. The study of specialized issues and methods related to federal, state, and local policies that affect the elderly. Potential policy areas to be covered include housing, taxation, mental health, transportation, etc. May be repeated for credit, provided the subject matter is different.

**GERON 6449 Issues in Retirement (3)**
Same as SOC 5449. Prerequisite: Graduate standing. This course examines macro and micro issues of retirement in the United States. It considers experiences of older persons in retirement: its processes, causes, and consequences in relation to economic market conditions, demographic changes, and programs and policies that are targeted to support the elderly (e.g., Social Security). It also examines issues relating to older women and retirement.

**GERON 6450 Gerontological Assessment (3)**
Same as SOC WK 6450. Prerequisite: Graduate Standing. This course provides an overview of psychosocial assessment with older adults and their family caregivers. Major areas of gerontological assessment practice are considered, including dementia, mood disorders, suicide, grief, alcoholism, elder abuse/neglect, family caregiving, and interdisciplinary team issues.

**GERON 6460 Long Term Care Administration (3)**
Prerequisite: Graduate Standing. This course provides an overview of long term care programs and services for older adults. Administrative issues are reviewed, including patient services, state licensure requirements, human resource management, and reimbursement practices. Characteristics of well-functioning facilities are addressed, as well as consultation with families during the placement decision process.

**GERON 6490 Directed Study (1-3)**
Prerequisite: Consent of instructor. Designed to give the student an opportunity to pursue a more in-depth study of a problem area in gerontology than is normally covered in more formal courses. May be repeated for a total of 6 credit hours.

**GERON 6495 Practicum in Gerontology (3)**
Prerequisite: Consent of instructor. Supervised work experience in an agency that serves older adults. Students are required to complete a minimum of 150 clock hours at the practicum site.

**GERON 6496 Advanced Practicum in Gerontology (3)**
Prerequisites: GERON 6495 and consent of instructor. Advanced practicum experience beyond Gerontology 6495. Students must complete a minimum of 150 clock hours of supervised fieldwork (service or research) with older adults.

**GERON 6497 Interdisciplinary Geriatric Care (2)**
Same as VIS SCI 6497. Prerequisite: Consent of instructor. Interdisciplinary approaches that address the medical and social needs of the elderly will be examined. Information about geriatric care and social issues affecting the well being of older adults will be provided. Clinical, theoretical, and educational perspectives will be presented.

**GERON 6498 Advanced Seminar in Gerontology (3)**
Prerequisite: Graduate standing. This course will provide in-depth analysis of specialized topics in gerontology, which are not covered in required courses. (Course may be repeated for a maximum of nine credits, assuming topics are different.)

**GERON 6499 Topics in Gerontology (1-2)**
Prerequisite: Graduate standing. Analysis of a current problem in gerontology. (Course may be repeated for maximum of five credits, assuming topics are different.)
UMSL Home

School of Social Work Home Page

Faculty

Lois Pierce, Professor, Director
Ph.D., Washington University

Uma Segal, Professor
Ph.D., Washington University

Margaret Sherraden, Professor
Ph.D., Washington University

Norman Flax, Associate Professor Emeritus
Ph.D., Saint Louis University

Joan Hashimi, Associate Professor Emeritus,
Ph.D., Washington University

Sharon Johnson, Associate Professor
Ph.D., Washington University

Thomas Meuser, Associate Professor
Ph.D., University of Missouri-St. Louis

Shirley Porterfield, Associate Professor
Ph.D., University of Wisconsin - Madison

Baorong Guo, Associate Professor
Ph.D., Washington University

Joseph Pickard, Associate Professor
Ph.D., Washington University

Patricia Saleeby, Assistant Professor
Ph.D., Washington University

Huei-Wern Shen, Assistant Professor
Ph.D., University of Michigan

Kristin Wagner, Assistant Professor
Ph.D., Washington University

Lori Curtis, Associate Teaching Professor
M.S.W., Washington University

Linda Wells-Glover, Associate Teaching Professor
M.S.W., Washington University

Patricia Rosenthal, Associate Clinical Professor
M.S.W., Washington University

Beverly Sporleder, Assistant Clinical Professor
M.S.W., Washington University

General Information

Degrees and Areas of Concentration
The Social Work program offers courses leading to a bachelor of social work (B.S.W.), a master of social work (M.S.W.), and a minor in social work. The B.S.W. and the M.S.W. programs are fully accredited by the Council on Social Work Education. The programs stress the critical, empirical, and applied aspects of social work, incorporating a liberal arts perspective throughout the curriculum. There is a strong accent on community and agency field work as an integral part of the program. Professional social work education enables students to integrate the knowledge, values, and skills of the profession into competent practice.

Students must apply for admission into the B.S.W. and the M.S.W. programs. After admission, undergraduate social work majors and Master's students should obtain a copy of the Student Handbook (available on the social work department's web page). Students in both programs must meet with a social work adviser for advisement each semester, and must set up an appointment with the practicum office and attend a series of pre-practicum orientation sessions one semester prior to enrolling in the practicum.
Undergraduate Studies

Objectives of the BSW Program

The BSW program has the following educational outcomes. Students who graduate with a BSW will be generalist practitioners who:

- Identify as a professional social worker and conduct oneself accordingly.
- Understand the values and ethics of the social work profession and the relationship between personal beliefs and values, professional values and ethics, and professional social work practice.
- Utilize critical thinking, capacity building, analytical and communication skills to synthesize and analyze information to inform social work practice.
- Understand the importance of diversity, difference, power, and privilege in shaping life experiences for diversity competent practice.
- Possess the knowledge and skills to fight effectively against human oppression, discrimination, and social inequity and to formulate and foster social change initiatives to advance social and economic justice.
- Engage in research-informed practice and practice-informed research to evaluate professional practice and/or the professional practice of others.
- Apply knowledge of human behavior and the social environment to guide assessment and intervention.
- Understand major social and welfare policies and analyze and formulate policies to advocate for social and economic justice.
- Use leadership skills to respond to the changing context of social work practice.
- Utilize skills of engagement, assessment, intervention and evaluation, including theory and practice skills, across all levels of practice.

General Education Requirements

Majors must satisfy the university and college general education requirements, although proficiency in a foreign language is recommended but not required.

Courses required for the B.S.W. degree may not be taken on a satisfactory/unsatisfactory basis except SOC WK 4800 and SOC WK 4850.

Admission Requirements

Students entering UMSL as freshman and as transfer students should indicate a pre-social work major. Students must apply to the program concurrently with SOC WK 3100. Admission to the program is conditional upon the successful completion of all necessary requirements.

Requirements for Admission to the Social Work program:

Junior standing
Submission of:

- Application for admission to the social work program.
- Two letters of reference: one from a college or university professor and one other from a work or volunteer experience supervisor.
- Completion of SOC WK 2000, 2001, and 2200 or their equivalents or completion of an A.A. in Human Services.
- Satisfactory completion of all courses listed as prerequisites for SOC WK 3100, 3210, and 3510.
- Applicants may be asked to meet with the social work Admissions Committee.

Bachelor of Social Work

Students must have a minimum GPA of 2.5 in social work and related-area requirement courses to enter field practicum. Candidates for this degree program must complete the core requirements including the following social work courses:

**SOC WK 2001**, Social Work and Social Issues Lab
**SOC WK 2200**, Social Welfare as a Social Institution
**SOC WK 3100**, Introduction to Strategies for Social Work Practices
**SOC WK 3210**, Social Issues and Social Policy Development
**SOC WK 3410**, Research Design in Social Work (or SOC 3230, PSYCH 2219, or CRIMIN 2210)
**SOC WK 3510**, Human Behavior in the Social Environment
**SOC WK 3700**, Diversity and Social Justice

SOC WK 4110, Social Work Practice with Individuals, Families, and Groups
SOC WK 4300, Social Work Practice with Communities
SOC WK 4350, Social Work Organizations
SOC WK 4800, and SOC WK 4850, Supervised Field Experience in Social Work I and II
SOC WK 4801 and SOC WK 4851, Integrative Field Experience Seminar I and II

A minimum of 43 hours or a maximum of 50 hours must be taken in social work. A minimum of 30 hours is required in related area departments.

Evaluation of social work transfer credits will be done by a social work adviser on an individual basis.

Related Area Requirements
The following courses, or their alternatives, are required:

**Biology**
One course from the following:

- BIOL 1102, Human Biology
- BIOL 1131, Human Physiology and Anatomy I
- BIOL 1141, Human Physiology and Anatomy II
- BIOL 1202, Environmental Biology

- ECON 1000, Introduction to the American Economy or ECON 1005, Family Economics and Household Development

- POL SCI 1100, Introduction to American Politics

- PSYCH 1003, General Psychology

**Sociology:**

- SOC 1010, Introduction to Sociology
- SOC 2160, Social Psychology
- SOC 3220, Sociological Statistics (or PSYCH 2201 or CRIMIN 2220 )

At least 9 additional hours must be taken in social work, sociology, political science, psychology, women’s and gender studies, anthropology, criminology and criminal justice, or economics at the 2000 level or above. Hours taken in social work will apply toward the maximum of 50 hours that may be taken in social work courses. The Social Work program may require students to pass a placement test to enroll in the next level course, provided this test or its equivalent is administered to all students seeking to enroll in that course.

Social work majors must have a grade of C or better and maintain a cumulative grade point average of 2.5 or better in all course work specifically required for the major, with satisfactory grades in practicum.

**Note:** Anthropology, biological sciences, economics, and Spanish courses are strongly recommended by graduate schools of social work.

**Requirements for the Minor in Social Work**
Candidates must complete the following social work courses:

- SOC WK 2000, Social Work and Social Issues
- SOC WK 2200, Social Welfare as a Social Institution
- SOC WK 3100, Introduction to Strategies in Social Work Practice
- SOC WK 3210, Social Issues and Social Policy Development
- and one additional social work course at the 3000 level or above.

**Graduate Studies**

**Goals of the Master of Social Work**

The goals of the M.S.W. program of the University of Missouri-St. Louis are consistent with the land-grant public service mission of the University, the MSW feasibility study, and the educational policy statement of CSWE and are to:

- Prepare students with the professional knowledge, skills, values and ethics for effective social work practice.
- Prepare students to utilize critical thinking and capacity building skills at all levels of social work practice.
- Prepare students to analyze and address dynamic issues and challenges facing diverse populations and to promote social justice and positive social change.
- Prepare students to conduct and utilize research to respond effectively to dynamic social contexts, issues and problems found in social work practice.
- Assist and support faculty in the advancement of social work knowledge, teaching and service.
- Develop and participate in collaborative activities with social agencies, communities, organizations, and governments that will enhance student learning, enrich faculty research and teaching, and promote...
Master of Social Work

Admission Requirements
Admission to the M.S.W. Program requires admission to the University of Missouri-St. Louis Graduate School and acceptance by the School of Social Work. Applicants to the program must meet the following requirements to be considered for admission:

1. Completion of a bachelor's degree from a college or university accredited by a recognized regional accrediting organization.
2. Completion of a liberal arts education including courses in the humanities, the social and behavioral sciences, and the physical sciences. These courses must include one in human biology and one in statistics.
3. Attainment of a cumulative grade point average of at least 3.0 on a 4.0 scale for all undergraduate course work and a grade point average of 3.0 on a 4.0 scale in the major field.

Submission of the following documents by the admission deadline:
- A completed application to the UMSL Graduate School and a completed M.S.W. supplemental application
- Three written essays.
- Three letters of reference. One from a professor in your major field of study, and one from a work or volunteer supervisor or other professional reference. Letters from employees/supervisees, friends, and family may not be used.
- Official transcripts from all colleges and university attended.
- Applicable fees.

Application Deadline
The deadline for application to the MSW program is February 15 for admission in the following fall semester. See School of Social Work's website for more details.

Admissions to the Advanced Standing Program
Applicants with a B.S.W., B.A.S.W., or B.S.S.W., from an accredited social work program may be given up to 24 credit hours of advanced standing for foundation social work courses. Admission to the advanced standing program is available to applicants who meet the general admission requirements and who: (1) have earned a bachelor's degree in social work from a program accredited by the Council on Social Work Education within five years of applying to the M.S.W. Program, and (2) have earned a grade point average of at least 3.0 on a 4.0 scale in the social work foundation curriculum, and no less than a B in all courses that are applicable.

Course Waivers
A student who does not have a bachelor's degree in social work but who can document successful completion (with at least a B) of foundation courses from an accredited B.S.W. program within the last five years will be given course waivers and be allowed to replace these courses with electives.

Students from non-accredited B.S.W. programs or students who have taken comparable course work in other undergraduate programs may take place-out examinations for select foundation courses; waivers will be given if students successfully pass place-out examinations. The waiver does not provide graduate credit; it is a mechanism for allowing elective courses to be substituted for required foundation courses.

Academic credit cannot be given for life experience and/or previous work experience, in whole or in part, in lieu of field practicum or foundation year courses.

Degree Requirements
The M.S.W. is a two-year program comprising a foundation year and a concentration year. All students are required to take the foundation year courses. These provide a common base of knowledge across all practice settings and populations. Beyond the general requirements of the Graduate School, the department requires a minimum of 60 semester hours of course work, of which 48 must be at the 5000 or 6000 level and 48 must be in social work or cross-listed with social work, including the following foundation courses:

SOC WK 5100, Generalist Social Work Practice
SOC WK 5200, Social Policy and Social Services
SOC WK 5300, Community Practice and Social Change
SOC WK 5350, Social Work and Human Service Organizations
SOC WK 5410, Research Methods and Analysis I
SOC WK 5450, Research Methods and Analysis II
SOC WK 5500, Foundations of Human Behavior in the Social Environment
SOC WK 5700, Diversity, Social Justice & Social Work Practice
SOC WK 5800, Graduate Field Practicum I
SOC WK 5801, Graduate Field Practicum Seminar

Upon completion of the 30 credits of foundation year requirements, students move into a year of specialization, called the concentration. The concentration year requires 30 hours of course work that includes up to 12 hours of elective graduate-level courses approved by the adviser. Students plan their degree program to reflect their career interests in the following concentration areas:

Family Practice
Social Work Leadership and Management
Gerontology

To remain in good standing, students must maintain a cumulative GPA of 3.0 or better.

The field practicum is an integral part of the concentration year. Students will complete 300 hours (20 hours of full-time work each week) of M.S.W. supervised practice in an agency during the second semester of the foundation year, and 600 hours total (20 hours of full-time work per week) in the concentration year. A student must receive a grade of B or better in the first-year field practicum course in order to be eligible to enter the second year field practicum. S/U grades are given for the concentration practicum.

Part Time Status
Students who enter the program as part-time students complete the foundation year in two years and the concentration course work in an additional two years.

All students must complete the M.S.W. in four years.

Career Outlook
The bachelor of social work program prepares persons for entry-level employment in social welfare agencies, schools, hospitals, correctional institutions, social action and community organizations, and day care, geriatric, or rehabilitation and residential centers. The master of social work program prepares professionals for advanced social work practice with individuals, families, groups, organizations, and communities. Individuals currently working in social welfare can develop skills and increase employment and job advancement opportunities with the B.S.W. and M.S.W. degrees.

Course Descriptions

SOC WK 2000 Social Work and Social Issues (3)
Prerequisite: SOC 1010 or PSYCH 1003. Examination of the network of social programs and services developed in response to social problems in modern urban communities and the various roles and functions performed by helping professions. Introduction to basic values, skills, and training involved in a helping relationship, as well as characteristics of clients seeking help and professional engaged in the helping process.

SOC WK 2001 Social Work and Social Issues Lab (1)
Simultaneous with SOC WK 2000. The lab session will be used for field trips to social agencies which will allow students to better understand the many roles social workers are involved in. This course is required for social work majors.

SOC WK 2102 Introduction to Women's and Gender Studies (3)
Same as HIST 2102, SOC 2102 and GS 2102. This core class is required for all Women's and Gender Studies Certificate earners. This class introduces students to cultural, political and historical issues that shape gender. Through a variety of disciplinary perspectives in the humanities, social sciences, and natural sciences, the course familiarizes students with diverse female and male experiences and gendered power relationships.

SOC WK 2200 Social Welfare as a Social Institution (3)
Prerequisite: SOC WK 2000 or consent of instructor. A study of the: 1) development of social welfare services and the philosophy underlying the present practices and systems; 2) present social welfare programs with particular emphasis given to public income-maintenance provisions; 3) special welfare needs of blacks, aged, women, Hispanics, and Native Americans; and 4) the development of social work as a profession. This course may be taken by non-social work majors.

SOC WK 2201 Social Welfare as a Social Institution Laboratory (1)
Prerequisite: Simultaneous with SOC WK 2200. The lab session will be used for field trips to social agencies. This course is required for all Social Work majors.

SOC WK 2330 Asians in Migration (3)
This course is a comparative analysis of the social and cultural diversity of the peoples of East, South, and Southeast Asia. Study focuses on their reasons for migration and the extent and quality of the social and cultural connections they maintain to their homelands. Implications of these cultures for students in a variety of disciplines are explored. This course satisfies the cultural diversity requirement.
SOC WK 2670 Aging in America: Concepts and Controversies (3)
Same as SOC 2170, INTDSC 2170, and GERON 2170. This course examines the major theoretical and service issues connected to the study of older adults and their families, using multidisciplinary perspectives. Students are provided with an introduction to the field of aging through an examination of current social issues and controversies. This course emphasizes student involvement through class discussion, and is appropriate for students in the arts and sciences, business, communication, education, and nursing.

SOC WK 3100 Introduction to Strategies for Social Work Practice (3)
Prerequisites: SOC WK 2200, SOC 1010 and PSYCH 1003, or permission of instructor. A presentation of basic knowledge, skills, and theory used for entry-level professional practice, such as problem assessment, interviewing skills, crisis intervention, and referral procedures. The course objectives also will be to teach students how to help clients negotiate systems effectively, and to use resources, services, and opportunities.

SOC WK 3210 Social Issues and Social Policy Development (3)
Prerequisites: SOC WK 2200, POL SCI 1100, and ECON 1000. The identification of issues concerning governmental provisions to meet contemporary social needs, with analysis of the principles and values underlying alternative solutions. A study of the processes by which citizen opinions and public policies evolve and are implemented in areas such as income maintenance, crime and delinquency, employment, family and child welfare, and public mental health.

SOC WK 3410 Research Design in Social Work (3)
Prerequisites: Satisfaction of Math Proficiency requirement and either SOC 3220, CRIMIN 2220, or PSYCH 2201. Students explore research concepts and procedures (hypothesis testing, sampling, measurement, and design) emphasizing issues in social work research. Students learn to collect, analyze and present data.

SOC WK 3510 Human Behavior in the Social Environment (3)
Prerequisites: BIOL 1012 and SOC 2160 or PSYCH 2160 or permission of instructor. This course will focus on the normative stages in the life span, specifically how human development is affected by the physical environment and social status characteristics. Empirical information and theoretical views on human development will be included. Human development will be viewed as a complex interaction of individual developmental stages with family, social, and community systems.

SOC WK 3700 Diversity and Social Justice (3)
Same as GS 3700. Prerequisite: SOC 1010 or equivalent. Analyzes the structure, dynamics, and consequences of social and economic injustice, and the impact on diverse groups in American society. Examines theoretical models and practice principles for work with diverse groups.

SOC WK 4110 Social Work Practice with Individuals, Families, and Groups (3)
Prerequisites: SOC WK 3100, and SOC WK 3510. This course continues the presentation of basic knowledge and practice skills for entry level professional practice begun in SOC WK 3100. It builds on the generalized helping model, incorporating specialized skills for working with specific groups of clients (e.g., children, aged, mentally ill, and physically handicapped), with families and small groups.

SOC WK 4300 Social Work Practice with Communities (3)
Prerequisites: SOC WK 3210 taken prior to or concurrently, senior standing. Continuation of basic practice skills with emphasis given to analysis and intervention at the community level. Includes assessment of community assets and needs and the development of community-level interventions. Emphasis is also placed on helping the practitioner evaluate the impact of intervention.

SOC WK 4350 Social Work Organizations (3)
Prerequisites: Junior standing. This course seeks to help develop knowledge of organizational functioning and an understanding of organizational history, principles and philosophy of effective administration. Students develop theoretical and empirical understanding of groups and organizations, including concepts such as power and authority, organizational structure, goals, membership, leadership, motivation, technology and organizational culture. They will learn to develop a budget and to submit proposals for grant funding. Using a systemic perspective with organizations as settings for practice students learn to function in and through organizations.

SOC WK 4376 Mental Health and Aging (3)
Same as GERON and PSYCH 4376. Prerequisites: 9 hours of psychology, graduate standing, or consent of instructor (MSW students normally take all foundation courses prior to enrolling in this course.) This course provides a survey of theory and research in mental health issues for older populations, focusing on psychological and social aspects of mental health and impairment. The course details approaches to understanding prevalence, etiology, assessment, and treatment of the psychological disorders most commonly experienced by older adults, including anxiety, depression, delirium, and dementia, among others.

SOC WK 4601 Abused and Neglected Children (3)
Prerequisite: SOC WK 3510 or equivalent. This course explores the major concepts necessary for understanding abused and neglected children and their families. Emphasis is placed on (1) defining the problem, including societal stresses which contribute to the abuse and neglect; (2) examining existing
practice methods; and (3) understanding the role of the social worker on interdisciplinary teams.

**SOC WK 4602 Child Welfare Practicum Seminar (3)**
Prerequisites: SOC WK 4800, and consent of instructor. This seminar allows students to integrate previous course work with their experience in child welfare agencies. Classroom discussion will emphasize core competencies needed for child welfare practice.

**SOC WK 4610 Domestic Violence: Theory, Problems & Practice (3)**
Same as GS 4610. Prerequisite: SOC WK 3510 Focuses on theoretical and empirical understanding of domestic violence in US society and social work practice with battered women and their families. This course addresses direct services, community organizing, and public policy changes to help end violence against women. Relationships between violence against women and other forms of oppression (e.g., racism, economic exploitation, heterosexism and social class) are explored.

**SOC WK 4620 Addictions: Assessment and Intervention in Social Work Practice (3)**
Prerequisites: SOC WK 4110 or SOC WK 5100 or equivalent (or are taking concurrently), or consent of instructor. This class examines the interface of psychological, physical, social, and spiritual aspects of addiction. This practice class is designed to deepen students' abilities to address clients' issues related to addiction and addictive behaviors, including: prevention, assessment, and intervention. It builds on the generalized helping model within systems perspective, and it introduces specialized skills for working with individuals, with specific groups of clients, with families, and with small groups.

**SOC WK 4630 Gender Issues in Social Work (3)**
Same as GS 4630. Prerequisite: SOC WK 3700, GS 2102, or graduate standing. This course will help students become more sensitive to the social and welfare concerns based on gender. Topics include work, education, family responsibilities, violence against women, and special health service needs. Emphasis will be placed on understanding how social action can be used to bring about positive change.

**SOC WK 4641 Crisis Intervention (1)**
Prerequisite: SOC WK 4110 or SOC WK 5100 or equivalent (or are taking concurrently), or consent of instructor. This course introduces students to the theoretical framework as well as the skills needed to understand and engage in effective crisis intervention. Students will learn a specialized model for assessment and intervention with people in crisis and will have an opportunity to apply this model to a variety of case situations.

**SOC WK 4642 Nonviolent Crisis Intervention (1)**
Prerequisite: Senior or Graduate Standing. Nonviolent Crisis Intervention is a nonharmful behavior management system designed to aid human service professionals in the management of disruptive and assaultive people. These techniques are used to reduce tension in agitated people, control anxiety during interventions, determine alternative approaches if a person becomes violent. Students will learn how to use nonverbal paraverbal, verbal and physical intervention skills to maintain the best care and safety for clients.

**SOC WK 4645 Social Work in Mental Health (3)**
Prerequisites: SOC WK 3510 and SOC WK 4110 or the equivalent. The role of social work in the field of behavioral health has evolved over the last thirty years as the setting for service activity has shifted from inpatient facilities to community-based care and treatment. This course will integrate the basic components of good social work practice with the contemporary role of the social worker in the field of behavioral health care. This course will focus on practical applications of social work in the context of working with individuals and families dealing with mental health and/or addiction disorders with an emphasis on consumer empowerment and recovery.

**SOC WK 4655 Health and Mental Health of Racial and Ethnic Minorities (3)**
Prerequisites: SOC WK 3700 or equivalent and graduate standing or approval of the instructor. This course explores the major health and mental health conditions that adversely affect the well-being and social functioning of racial and ethnic minorities. The course will explore the assessment of health and mental health conditions among varying minority groups, the availability of services to treat these conditions, the accessibility of services, and the quality of care provided to these groups. Traditional barriers to care will be explored including cost of care, societal stigma, client fears, and language differences. The course will also help students develop culturally competent approaches to working with racial and ethnic minorities that are individualized to a target population.

**SOC WK 4670 Cross Cultural Perspectives on Social Policy (3)**
Prerequisite: SOC WK 3210 or equivalent. This course examines social policies in different countries, which may include social insurance, social assistance, health care, and social services. Using a comparative framework, the course examines the nature of government involvement, and public and private sector relations. It examines adequacy, equity, inclusiveness, comprehensiveness, effectiveness, and efficiency of social policies in the countries being studied.

**SOC WK 4680 Introduction to Gerontological Practice (3)**
Same as GERON 4680. Prerequisite: Advanced undergraduate or graduate standing. This course introduces
key concepts and practices in the evaluation and care of older adults. It is intended for students considering aging-focused careers in the social service or healthcare fields. Topics include developmental and health-related theories of aging, functional and psychosocial aspects of aging, working with older adults in various service settings, multi and inter-disciplinary team approaches, and basic standards of professional conduct that apply across professions.

SOC WK 4800 Supervised Field Experience in Social Work I (4)
Prerequisites: SOC WK 4110 must be taken prior to or concurrently, SOC WK 4801 must be taken concurrently, consent of instructor. This course provides students practice experience in social service agencies. Students work at the agencies approximately 20 hours per week. The purpose of this experience is to familiarize students with agency operations. Selection of the agency is based on student education needs.

SOC WK 4801 Integrative Field Experience Seminar I (2)
Prerequisites: Consent of instructor and concurrent registration in SOC WK 4800. This seminar provides an opportunity for students to integrate previous course work with their experience in social work agencies. Classroom discussion will emphasize direct practice issues.

SOC WK 4850 Supervised Field Experience in Social Work II (4)
Prerequisites: SOC WK 4800, SOC WK 4801, and consent of instructor. This is a continuation of agency practice experience. Students work at the agency approximately 20 hours per week and may continue at the same agency as SOC WK 4801, or change agencies with the consent of the instructor.

SOC WK 4851 Integrative Field Experience Seminar II (2)
Prerequisites: Consent of instructor and concurrent registration in SOC WK 4850. This seminar is a continuation of SOC WK 4801. Classroom discussion will emphasize administration and community organization issues.

SOC WK 4900 Special Study (1-10)
Prerequisite: Consent of instructor. Independent study through advanced readings in method and philosophy on a topic of particular interest, or field research in an agency.

SOC WK 4911 Staff Management Issues in Nonprofit Organizations (1)
Same as POL SCI 4911 and P P ADM 4911. Prerequisite: Junior Standing. This course addresses issues involved in managing staff in nonprofit organizations. The course will cover the following topics: fundamentals of staff supervision; balancing supervisory processes with counseling and coaching; selecting, hiring, evaluating, and terminating staff; legal issues that affect these processes.

SOC WK 4912 Legal Issues in Managing Nonprofit Organizations (1)
Same as POL SCI 4912 and P P ADM 4912. Prerequisite: Junior Standing. This course addresses legal issues involved in managing and governing nonprofit organizations. The course will cover the following topics: The Board as steward of the organization; Director and officer liability; tax laws concerning charitable giving; legal issues in managing staff and volunteers (e.g., hiring, evaluating, and terminating employees); Missouri nonprofit law.

SOC WK 4913 Financial Issues in Managing Nonprofit Organizations (1)
Same as POL SCI 4913 and P P ADM 4913. Prerequisite: Junior Standing. This course addresses financial issues involved in governing and managing nonprofit organizations. The course will cover the following topics: Cash flow analysis; budgeting; fund accounting; cost accounting (determining costs for programs and services); understanding and using standard financial statements, including balance sheets, cash flow statements, statements of activity, and operating and capital budgets.

SOC WK 4940 Leadership and Management in Nonprofit Organizations (3)
Same as P P ADM 4940, POL SCI 4940, SOC 4940. Prerequisite: Junior standing. Addresses the role and scope of the independent sector in the United States, as well as the leadership and management of nonprofit organizations within that sector. Topics include the economic and political scope of the independent sector, the role of volunteerism in a democratic society, and the role and scope of philanthropy. Topics in voluntary organization management and leadership include: the dynamics, functions and membership structure of NPOs, especially staff-board and other volunteer relations; governance and management of NPOs; resource mobilization; and program development management and evaluation.

SOC WK 4950 Seminar in Social Work Issues (1-3)
Prerequisite: Consent of instructor. A variable-credit course examining current and future considerations in designing and implementing social work service and delivery arrangements. Issues will be selected according to interests of the class. Course may be taken more than once for credit as different topics are offered.

SOC WK 4960 American Philanthropy and Nonprofit Resources Development (3)
Same as POL SCI 4960 and P P ADM 4960. Prerequisite: Junior standing or consent of instructor. This course addresses the history, philosophy, roles and scope of philanthropy in the United States, including its role in the nonprofit, voluntary sector. It further examines the contemporary forces which impact philanthropy and charitable giving, both by institutions and individuals. The course examines the effective planning and management of development programs (e.g., annual giving), fund raising vehicles (e.g., mail solicitations).
SOC WK 5100 Generalist Social Work Practice (3)
Prerequisite: SOC WK 4110 or equivalent or admission to the MSW program. Using a problem-solving approach, students develop theoretical and empirical understanding and practical application of generalist social work methods. Students gain knowledge and skills that include interviewing, assessment, crisis and short-term intervention, contracting, resource development, and case documentation needed for competent direct practice with diverse populations.

SOC WK 5200 Social Policy and Social Services (3)
Prerequisite: SOC WK 3210 or POL SCI 2420 or POL SCI 3460 or equivalent or admission to the MSW program. Covers the history and development of social welfare policies, legislative processes, and existing social welfare programs. Examines frameworks for social policy analysis, analyzes how social and economic conditions impact the process of social policy development and implementation, and introduces policy practice in social work.

SOC WK 5300 Community Practice and Social Change (3)
Prerequisite: SOC WK 4300 or SOC 4344 or equivalent or admission to the MSW program. Focuses on economic, social, and political theory and research on communities and social change. Examines conceptual models of community practice within the generalist model and develops skills in organizing, advocacy, and planning.

SOC WK 5350 Social Work and Human Service Organizations (3)
Prerequisites: SOC WK 3510 and 4300 or PSYCH 3318 or 3611 or equivalent or admission to the MSW program. Students develop theoretical and empirical understanding of groups and organizations, including concepts such as power and authority, structure, goals, membership, leadership, motivation, technology and organizational culture. Using organizations as settings for social work practice and as targets for change, students learn strategies and skills for assessment and intervention.

SOC WK 5410 Social Work Research Methods and Analysis I (3)
Prerequisites: SOC WK 3410 or SOC 3230 and 3231 or equivalent and SOC 3220 or equivalent or admission to the MSW program. The first of a two-course sequence designed to provide students with the knowledge base and skills for using scientific method to advance social practice, knowledge and theory. Focuses on research methods at different levels (e.g., individual, group, organization, and community). Covers quantitative and qualitative methods, research design, sampling, measurement, use of results, impact of research, and ethical considerations.

SOC WK 5450 Social Work Research Methods and Analysis II (3)
Prerequisite: SOC WK 5410 or equivalent. Advanced course, focusing on analysis of qualitative and quantitative data to advance social work practice, knowledge and theory. Students learn to use and interpret various statistical procedures for analyzing quantitative data, including bivariate and multivariate analysis, and content and statistical analysis for qualitative data. Students apply these analytic techniques to social work case material using computer software applications.

SOC WK 5500 Foundations of Human Behavior in the Social Environment (3)
Same as GS 5500. Prerequisite: SOC WK 3150 or equivalent or admission to the MSW program. Focuses on theoretical and empirical understanding of human behavior in the social environment using a life-span perspective. Introduces biological, behavioral, cognitive, and sociocultural theories of individuals, families, and small groups, and their implications for the professional social worker's understanding of socioeconomic status, gender, disability, ethnicity, race, and sexual orientation.

SOC WK 5610 Mechanisms of Aging I: The Aging Body (1)
Same as GERON 5610 and PSYCH 5610. Prerequisites: Graduate standing and BIOL 1102 or equivalent. (MSW Students normally take all foundation courses prior to enrolling in this course.) Introduces students with a social sciences/humanities background to the normal changes in the biology and chemistry of the aging human body and how these changes affect behavior.

SOC WK 5611 Mechanisms of Aging II: The Aging Brain (1)
Same as GERON 5611 and PSYCH 5611. Prerequisites: SOC WK 5610, GERON 5610, PSYCH 5610 or equivalent or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background a basic introduction to the biology and chemistry of the aging human brain and nervous system and how these systems impact behavior.

SOC WK 5612 Mechanisms of Aging III: Diseases of Aging (1)
Same as GERON 5612 and PSYCH 5612. Prerequisites: SOC WK 5610 and SOC WK 5611 or GERON 5610 and GERON 5611 or PSYCH 5610 and PSYCH 5611 or equivalent or consent of instructor. (MSW students normally take all foundation courses prior to enrolling in this course.) Provides students with a social sciences/humanities background with information on how diseases associated with aging exacerbate the effects of aging on the human body, mind, and behavior.
Same as GERON 5620. Prerequisites: Six hours of graduate level gerontology, psychology, counseling and/or social work coursework, or special approval from the instructor. Undergraduates in their senior year may also request approval for entry from the Director of Gerontology. For those planning to work with older adults in counseling, healthcare, hospice, and/or community support settings. Will examine trajectories to death in older age, the dying process, influences of medical and aging-related conditions, euthanasia and suicide, life extension and longevity, personal beliefs and existential responses, how individuals and families cope, ethical concerns, strategies for supportive intervention. Topics are addressed from clinical, supportive care, and interdisciplinary perspectives.

SOC WK 5700 Diversity, Social Justice & Social Work Practice (3)
Same as GS 5700. Prerequisite: Graduate standing. Examines theoretical models and practice principles for work with diverse groups.

SOC WK 5800 Graduate Field Practicum I (2-4)
Prerequisites: Graduate standing and consent of instructor. Provides integrative field experience in generalist social work practice. May be taken for 2 or 4 credit hours depending on time in agency during semester; 75 contact hours = 1 credit hour. May be repeated once. A maximum of 4 credit hours will apply to the M.S.W. degree.

SOC WK 5801 Foundation Field Practicum Seminar (2)
Prerequisites: Graduate standing and consent of instructor. Integrates academic content from foundation course work and experiential learning in field placements. Goals are to conceptualize the problem solving process in field practice, synthesize theory into a social work approach that encourages creative use of self, and underscore ethics and service to diverse groups in practice.

SOC WK 6100 Theory and Practice with Children and Youth (3)
Prerequisites: SOC WK 5100 or equivalent or consent of instructor and graduate standing. Examines theory and empirically-based assessment and intervention models for work with children and adolescents. The effects of family, peers, and societal context (e.g., poverty, racism) will be stressed in understanding youth problems such as drug abuse, academic failure, delinquency, adolescent pregnancy, and gang participation. The course will emphasize a multi-disciplinary approach using inter-agency collaboration and negotiation skills.

SOC WK 6120 Theory and Practice with Older Adults (3)
Prerequisite: SOC WK 5410 or equivalent. (MSW students normally take all foundation courses prior to enrolling in this course.) Examines theory and empirically-based assessment and intervention models for work with the elderly. It includes the life circumstances of older adults and how that differs from younger adult populations; how ethnicity, gender, social class, and sexual orientation interact with age and create special intervention issues; discussion of ethical and value issues (e.g., client autonomy, rationing of health care); examination of family and community resources in providing care, and interventions with physically or mentally disabled elders and elders in residential settings.

SOC WK 6130 Interviewing Older Adults & Life Review (3)
Same as GERON 6130. Prerequisite: Graduate standing. This course combines training in interviewing techniques with video production. Students will learn how to conduct life review interviews with older adults, and then take these skills into the community by interviewing older adults living in various settings. Students will learn how to use a digital video camera and edit video clips on the computer. Student-conducted interviews will be viewed by the instructor and classmates, issues associated with aging will be discussed, and constructive feedback provided. Some of the video clips developed in the course will become part of an educational video clip library.

SOC WK 6150 Theory and Practice with Families (3)
Prerequisites: SOC WK 5100 or equivalent, graduate standing and departmental approval. Examines theoretical approaches to social work with families, including the impact of the social environment. Skills will include assessment, and multidisciplinary intervention with multi-problem families. Special emphasis will be given to poverty, chemical dependency, intra-familial violence, physical and mental illnesses, and working with family members of diverse cultures, socioeconomic backgrounds, races, sexual orientation, and ability. Values and ethics will be emphasized.

SOC WK 6160 Advanced Social Work Practice Across the Life Span (3)
Prerequisite: SOC WK 5100 or equivalent or consent of instructor. Examines theory and empirically-based assessment and intervention strategies for diverse populations across the life span. Students will gain basic mastery of behavioral, cognitive-behavioral, brief therapeutic and supportive psychotherapeutic techniques and their appropriate use with children, adolescents, and young, middle, and older adults. The course will also consider the effects of family, peers and societal context (e.g., poverty, racism, and ageism) in understanding psycho-social stressors particular to each life era, including academic failure and delinquency, substance abuse, physical and mental illness, family disruption and instability, and grief and loss issues.

SOC WK 6200 Family Policy (3)
Prerequisites: SOC WK 5200 or equivalent or consent of instructor and graduate standing. Examines policy development, implementation and impact of social policies on children, youth, and families. International, national, and state policies that affect basic family needs will be the care, child care and protection, and child and youth development. Intended and unintended consequences of existing policies on the family will be examined as well as future policy directions.

**SOC WK 6250 Social and Economic Development Policy (3)**
Prerequisites: SOC WK 5200 or equivalent or consent of instructor and graduate standing. Examines major trends and alternatives in social and economic development policy and practice in state, national, and international perspectives. Students will develop skills in policy analysis and development.

**SOC WK 6300 Leadership and Management in Nonprofit Organizations (3)**
Same as P P ADM 6300. Prerequisite: Graduate standing required. Addresses the role and scope of the independent sector in the United States, as well as the leadership and management of nonprofit organizations within that sector. Topics include the economic and political scope of the independent sector, the role of volunteerism in a democratic society, and the role and scope of philanthropy. Topics in voluntary organization management and leadership include the dynamics, functions and membership structure of NPOs, especially staff-board and other volunteer relations; governance and management and evaluation.

**SOC WK 6310 Advanced Philanthropy and Nonprofit Resources Development (3)**
Same as P P ADM 6310. Prerequisite: Graduate standing required. This course addresses the history, philosophy, roles and scope of philanthropy in the United States, including its role in the nonprofit, voluntary sector. It further examines the contemporary forces which impact philanthropy and charitable giving, both by institutions and individuals. The course examines the effective planning and management of development programs (e.g., annual giving), fund raising vehicles (e.g., mail solicitations) and fund raising process, form planning through donor relations.

**SOC WK 6311 Staff Management Issues in Nonprofit Organizations (1)**
Same as P P ADM 6311. Prerequisite: Graduate standing required. This course addresses issues involved in managing staff in nonprofit organizations. The course will cover the following topics: fundamentals of staff supervision; balancing supervisory processes with counseling and coaching; selecting, hiring, evaluating, and terminating staff; legal issues that affect these processes.

**SOC WK 6312 Legal Issues in Managing Nonprofit Organizations (1)**
Same as P P ADM 6312. Prerequisite: Graduate standing required. This course addresses legal issues involved in managing and governing nonprofit organizations. The course will cover the following topics: The Board as steward of the organization; Director and officer liability; tax laws concerning charitable giving; legal issues in managing staff and volunteers (e.g., hiring, evaluating, and terminating employees); Missouri nonprofit law.

**SOC WK 6313 Financial Issues in Managing Nonprofit Organizations (1)**
Same as P P ADM 6313. Prerequisite: Graduate standing required. This course addresses financial issues involved in governing and managing nonprofit organizations. The course will cover the following topics: Cash flow analysis; budgeting; fund accounting; cost accounting (determining costs for programs and services); understanding and using standard financial statements, including balance sheets, cash flow statements, statements of activity, and operating and capital budgets.

**SOC WK 6400 Practice and Program Evaluation (3)**
Prerequisites: SOC WK 5410 and 5450 or equivalent or consent of instructor and graduate standing. Provides specialized knowledge in the use of qualitative and quantitative research skills to evaluate the effectiveness of social work practice. Topics will include single system design, group designs, and program evaluation. Students will design and conduct a research project associated with their advanced social work practicum. Results will be presented to the class and the agency. Value and ethical issues, particularly those relevant to client race and gender, will be emphasized as students develop and conduct their research.

**SOC WK 6443 Health Care Policy (3)**
Same as POL SCI 6443, GERON 6443 and P P ADM 6430. Prerequisite: Graduate standing or consent of instructor. This course will examine current health care policy issues and the policy process. Survey course examining current issues in health policy that face the nation. Policies are placed in a historical context to show how issues have been influenced by different political and economic conditions. Secondary consequences and limitations of current trends in health policy are explored.

**SOC WK 6449 Human Resources in the Public Sector (3)**
Same as POL SCI 6449 and P P ADM 6490. Prerequisite: P P ADM 6600 or consent of instructor. Presents an overview of personnel and labor relations in the public sector. Particular emphasis placed on issues which are unique to the public sector, such as the merit system, the questions of representative bureaucracy and the constraints of personnel in the nonprofit sector. The topics include personnel reforms in the federal sector, equal employment and affirmative action policies, testing, selection, hiring, comparable worth, job evaluation, and labor relations including grievance arbitration and collective bargaining.

**SOC WK 6491 Strategic and Program Planning for Nonprofit Organizations (3)**
Same as POL SCI 6490 and P P ADM 6550. Prerequisite: Graduate standing or consent of instructor. Strategic and program planning enable an organization to concentrate on efforts and set priorities guided by a mission, vision, and an understanding of its environment. Focus is on preparing a strategic plan and a program plan for a nonprofit organization and analyzing an organization's ability to deliver goods and/or services to its constituents in today's economic, social and political climate.

**SOC WK 6601 Evidence Based Approaches in Direct Social Work Practice: Cognitive Behavioral and Rational Emotive Behavioral Therapy Models (1)**
Prerequisites: SOC WK 5100 and 6160 or consent of instructor and graduate standing. This course examines theory and evidence based practices through use of the Cognitive Behavioral and Rational Emotive Behavioral therapy models. Students will utilize these theories to conduct hands on intervention practices of assessment, treatment planning, interventive strategies, and termination when working within a family or direct practice setting. Student-conducted interventions through the use of role-plays will be videotaped and viewed by the instructor and classmates at each stage of the therapeutic process. This course will include integration and application of the Diagnostic and Statistical Manual of Mental Disorders through the psychotherapeutic process.

**SOC WK 6602 Evidence Based Approaches in Direct Social Work Practice: Solution Focused Therapy Model (1)**
Prerequisites: SW5100 and 6160 or consent of instructor and graduate standing. This course examines theory and evidence based practices through use of the Solution Focus therapy model. Students will utilize this theory to conduct hands on intervention practices of assessment, treatment planning, interventive strategies, and termination when working within a family or direct practice setting. Student-conducted interventions through the use of role-plays will be videotaped and viewed by the instructor and classmates at each stage of the therapeutic process. This course will include integration and application of the Diagnostic and Statistical Manual of Mental Disorders through the psychotherapeutic process.

**SOC WK 6603 Evidence Based Approaches in Direct Social Work Practice: Play and Interactive Therapy Models (1)**
Prerequisites: SOC WK 5100 and SOC WK 6160 or consent of instructor and graduate standing. This course examines theory and evidence based practices through use of the Play and Interactive therapy models. Students will utilize these theories to conduct hands on intervention practices of assessment, treatment planning, interventive strategies, and termination when working within a family or direct practice setting. Student-conducted interventions through the use of role-plays will be videotaped and viewed by the instructor and classmates at each stage of the therapeutic process. The course will include integration and application of the Diagnostic and Statistical Manual of Mental Disorders through the psychotherapeutic process.

**SOC WK 6604 Introduction to Motivational Interviewing (1)**
Prerequisites: SOC WK 5100 and SOC WK 6160 or consent of instructor and graduate standing. This course focuses on skill development in Motivational Interviewing (MI), a specific style of interaction used to help clients/patients increase internal motivation to change behavior. The course will include theoretical underpinnings of MI, including a review of establishing MI as an evidence-based intervention for a number of behavior areas. The course will also review a model of learning MI and provide specific opportunities for students to practice the skill. The broad objective of this course is to provide social work students an overview of Motivational Interviewing and its application to various domains of social work.

**SOC WK 6630 Diagnosis and Related Pharmacology for Social Work Practice (3)**
Prerequisites: SOC WK 5100 or equivalent or consent of instructor. Designed for social work students, course will provide overview of development and treatment of selected mental health disorders classified by the Diagnostic and Statistical Manual of Mental Disorders. In particular, course will examine, from a systems perspective, psychological and neuropsychological etiologies of mood, psychotic, personality, and other disorders and their preferred pharmacological treatment.

**SOC WK 6640 School Social Work Practice in Public Schools (3)**
Prerequisites: SOC WK 5100 or equivalent or graduate standing and consent of instructor. Examines role of social worker in school settings and includes work with youth, families, and communities in relation to the child or adolescent's functioning in school.

**SOC WK 6800 Graduate Field Practicum II (2-6)**
Prerequisites: SOC WK 5801 and SOC WK 5800. Provides integrative field experience in students' graduate social work practice concentration. May be taken for 2 to 6 hours' credit depending on time in agency during semester; 55 contact hours=1 credit hour. May be repeated once and/or taken concurrently with SOC WK 6850.

**SOC WK 6850 Graduate Field Practicum III (2-6)**
Prerequisite: SOC WK 6800. Provides advanced integrative field experience in students' graduate social work practice concentration. May be taken for 2 to 6 hours' credit depending on time in agency during semester; 55 contact hours=1 credit hour. May be repeated once and/or taken concurrently with SOC WK 6800.

**SOC WK 6900 Directed Study in Professional Social Work (1-10)**
Prerequisites: Graduate standing and consent of instructor. Independent graduate-level study on a topic of particular interest through readings, reports, and field work under faculty supervision.
UMSL/Washington University Joint Undergraduate Engineering Program

Administration

Joseph A. O'Sullivan, Dean
Ph.D., University of Notre Dame

Bernard J. Feldman, Associate Dean
Ph.D., Harvard University

Mary McManus, Assistant Director of Student Services
M.Ed., University of Missouri-St. Louis

Faculty

Kurt C. Amuedo, Adjunct Professor
M.E., Washington University

Carl A. Baggett, Adjunct Professor and Advisor
M.S., University of Missouri-Rolla

Stephen W. Bannes, Adjunct Professor
M.S., Southwest Baptist University

Philip V. Bayly, Professor
Ph.D., Duke University

Philip J. Beck, Adjunct Professor
M.S., Washington University

Warren Bergquist, Adjunct Professor
M.S., Washington University

Kenneth Berry, Adjunct Professor
M.S., Virginia Tech

Thomas L. Bever, Adjunct Professor
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D.Sc., Washington University

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D.Sc., University of Kansas

Ying Xia Cai, Adjunct Professor
Ph.D., Washington University

Thomas P. Collins, Adjunct Professor
M.S., Washington University

Gary Crawford, Adjunct Professor
M.S., Fontbonne University

William K. Dick, Adjunct Professor
M.E.E., University of Missouri - Columbia

Issam M. El Naga, Adjunct Professor
Ph.D., Illinois Institute of Technology

Phillip L. Gould, Professor
Ph.D., Northwestern University

Paul Groszewski, Professor and Advisor
M.S., Washington University

Raimo J. Hakkinen, Professor
Ph.D., California Institute of Technology

Thomas G. Harmon, Professor
Ph.D., Massachusetts Institute of Technology
General Information

The Joint Undergraduate Engineering Program of UMSL and Washington University was approved in 1993 by the University of Missouri and the Coordinating Board for Higher Education. The program is designed to offer
course work beyond the pre-engineering courses at UMSL and the area community colleges. Pre-engineering and general education courses are offered at UMSL, and upper-level engineering courses are offered in the evenings and on Saturdays on the Washington University campus: this schedule permits students to co-op during the day at local engineering firms. Students will be admitted to the upper-division program only after they have completed an acceptable pre-engineering program. They can earn a bachelor of science in civil engineering (B.S.C.E.), a bachelor of science in electrical engineering (B.S.E.E.), or a bachelor of science in mechanical engineering (B.S.M.E.).

Mission Statement

The mission of the UMSL/WU Joint Undergraduate Engineering Program is consistent with the mission of UMSL which is to provide a high quality education leading to a well-trained, sophisticated work force primarily for the St. Louis region. The program strives to excite and nurture the intellectual, technical, professional and personal development of the students through a partnership which provides a mechanism for Washington University to share its campus, resources and personnel with the UM-St Louis students, many of whom are place-bound individuals, The Joint Program reflects the eagerness of the institutions to work in unison to serve the needs of the St. Louis community.

Educational Objectives

The aspirations of the UMSL/WU Joint Undergraduate Engineering Program are to make positive, substantive and lasting contributions to the lives of our students. In this manner, the students should be able to apply their comprehensive education within the engineering profession or an alternatively related field.

The objectives of the program are structured to impart an education that constitutes the essential ingredients for Civil, Electrical and Mechanical Engineering practice. The alumni of these programs are expected to develop professional skills that facilitate their continued career growth well beyond their graduation. The objectives also build on the fact that the typical nontraditional and traditional students in these programs often have work experience in or related to engineering practice.

The principal objectives of the UMSL/WU Joint Undergraduate Engineering Program are:

To impart an education in the Civil, Electrical and Mechanical Engineering disciplines that inspires the graduates to constantly share their knowledge with others, to continually improve their knowledge and understanding, and to persistently adapt to change in technology and world needs.

Specifically, the goals of the programs are:

1. To have the ability to apply fundamental knowledge in mathematics and science in the solution of technical problems;
2. To have the ability to investigate, carry out and perform all elements of the design process in the respective engineering practice;
3. To understand the need for lifelong learning to remain at the forefront of technology;
4. To understand the societal, health, environmental and human impact on their actions and to act in an ethical and legally responsible manner; and
5. To have an appreciation for and to assimilate the qualities of professional leaders and team players such as communication, networking, and integrity.

The B.S.C.E., the B.S.E.E., and the B.S.M.E. are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – telephone: (410) 347-7700.

Admission

Admission to candidacy for these degrees is granted jointly by the University of Missouri-St. Louis and Washington University.

Normally admission is granted to persons who have completed the pre-engineering program with a minimum grade point average of 2.75 over all mathematics, chemistry, physics, and introductory engineering courses (statics and dynamics). Students with less than a 2.75 grade point average, but at least a C in all their science and math courses, may be admitted on a probationary basis. These students must pass an Engineering Math Workshop with a grade of B or better, and then pass J E MATH 3170 Engineering Mathematics in the first year with a C- or better, in order to continue in the program.

Degree Requirements

Bachelor of Science in Civil Engineering
Bachelor of Science in Electrical Engineering
Bachelor of Science in Mechanical Engineering

A program of 137 semester hours is required for the Bachelor of Science in Civil Engineering, a program of 127 semester hours is required for the Bachelor of Science in Electrical Engineering, and a program of 139
semester hours is required for the Bachelor of Science in Mechanical Engineering, as shown below:

All majors must complete the University General Education requirements, the Pre-Engineering Requirements and the Core Engineering Requirements.

All students must first complete J E MATH 3170, Engineering Mathematics, with a minimum grade of C-. Mechanical and Electrical Engineering majors must also complete J E ENGR 2300, Introduction to Electrical Networks with a minimum grade of C-. Civil engineering majors must complete either J E ENGR 2300, Introduction to Electrical Networks, or J M ENGR 3200 Thermodynamics, with a minimum grade of C-.

A minimum grade of C- is necessary to meet the prerequisite requirement for any course.

### Pre-Engineering Requirements
- **MATH 1800**, Analytic Geometry/Calculus I
- **MATH 1900**, Analytic Geometry/Calculus II
- **MATH 2000**, Analytic Geometry/Calculus III
- **MATH 2020**, Differential Equations
- **CHEM 1111**, Introductory Chemistry I
- **CHEM 1121**, Introductory Chemistry II
- **PHYSICS 2111**, Physics: Mechanics and Heat
- **PHYSICS 2112**, Physics: Electricity, Magnetism and Optics
- **ENGR 2310**, Statics
- **ENGR 2320**, Dynamics
- **ENGL 1100**, Composition

### Humanities and Social Sciences Electives
The student's choice of humanities and social sciences electives must meet both the UMSL General Education Requirements and the Humanities and Social Sciences Requirements of the Joint Undergraduate Engineering Program. Check with your adviser for details. In particular:

- Three courses in the humanities and 3 courses in social sciences must be taken
- One of the social sciences must be a course in American history or government or in Missouri history or government
- One of the humanities or social science courses must be at the junior level or above
- The cultural diversity requirement must be fulfilled.
- Some courses that fulfill the humanities [H] or social sciences [SS] breadth of study requirement do not count as Humanities or Social Sciences Electives; an example would be a statistics course taught in economics or psychology. See the Office of the Joint Undergraduate Engineering Program for a listing of courses that do not count as Humanities or Social Sciences Electives in this program, or check with your advisor.

### Engineering Core Requirements
- **J CMP SCI 1002**, Introduction to Computing Skills: MATLAB Skills
- **CMP SCI 1250**, Introduction to Computing
- **J E MATH 3170**, Engineering Mathematics
- **ENGL 3130**, Technical Writing
- **J M ENGR 3200**, Thermodynamics*
- **J M ENGR 4310/J E ENGR 4410**, Control Systems I*
- **J E ENGR 2300**, Introduction to Electrical Networks*
- **J E ENGR 2330**, Electrical and Electronic Circuits Laboratory *

*Required for electrical and mechanical engineering majors only.

### Civil Engineering Major Requirements
- **J C ENGR 2160**, Surveying
- **J C ENGR 3410**, Structural Analysis
- **J C ENGR 3420**, Structural Design
- **J C ENGR 3520**, Water and Wastewater treatment
- **J C ENGR 3360**, Civil Engineering Materials Lab
- **J C ENGR 3760**, Open Channel Hydraulics
- **J C ENGR 4190**, Soil Mechanics
- **J C ENGR 4200**, Soil Exploration and Testing
- **J C ENGR 4740**, Economic Decisions in Engineering
- **J C ENGR 4760**, Site Planning and Engineering OR
- **J C ENGR 4670**, Structural Design Projects or
- **J C ENGR 4820**, Design of Water Quality Control Facilities
- **J C ENGR 4840**, Probabilistic Methods in Civil Engineering Design
- **J C ENGR, 4950**, Fundamentals of Engineering Review
- **J C ENGR 4990**, Senior Civil Engineering Seminar
- **J M ENGR 1413**, Introduction to Engineering Design: CAD
J M ENGR 2410, Mechanics of Deformable Bodies
J M ENGR 3360, Material Science
J M ENGR 3700, Fluid Mechanics
J M ENGR 3721, Fluid Mechanics Laboratory

Civil Engineering Electives
J M ENGR 3200, Thermodynamics OR
J E ENGR 2300, Introduction to Electrical Networks
J C ENGR 3460, Transportation Engineering
J C ENGR 4600, Transportation Planning
J C ENGR 4640, Foundation Engineering

Electrical Engineering Major Requirements
J E MATH 3260, Probability and Statistics for Engineering
J E ENGR 2320, Introduction to Electronic Circuits
J E ENGR 2600, Introduction to Digital Logic and Computer Design
J E ENGR 3300, Engineering Electromagnetic Principles
J E ENGR 3320, Power, Energy, and Polyphase Circuits
J E ENGR 3510, Signals and Systems
J E ENGR 4350, Electrical Energy Laboratory
J E ENGR 4650, Digital Systems Laboratory
J E ENGR 4980, Electrical Engineering Design Projects
Electrical Engineering Electives 3000-4990

Mechanical Engineering Major Requirements
J C ENGR 4950, Fundamentals of Engineering
J E MATH 3260, Probability and Statistics for Engineering
J M ENGR 1413, Introduction to Engineering Design: CAD
J M ENGR 1414, Introduction to Engineering Design: Project
J M ENGR 2410, Mechanics of Deformable Bodies
J M ENGR 3221, Mechanical Design and Machine Elements
J M ENGR 3250, Materials Science
J M ENGR 3700, Fluid Mechanics
J M ENGR 3710, Principles of Heat Transfer
J M ENGR 3721, Fluid Mechanics Laboratory
J M ENGR 3722, Heat Transfer Laboratory
J M ENGR 4041, Current Topics in Mechanical Engineering Design Mechanical Engineering Electives
J M ENGR 4120, Design of Thermal Systems
J M ENGR 4170, Dynamic Response of Physical Systems
J M ENGR 4180, Dynamic Response Laboratory
J M ENGR 4110, Mechanical Engineering Design Project
Mechanical Engineering Electives

Graduation Requirements
In addition to the requirements of the University of Missouri-St. Louis that apply to all candidates for undergraduate degrees, the student must earn a minimum campus grade point average of 2.0 and a minimum grade point average of 2.0 for all engineering courses attempted at the University of Missouri-St. Louis.

Engineering Design and Engineering Science Requirements
The number of semester hours assigned to each engineering course in the Joint Undergraduate Engineering Program is further divided into hours of engineering design, engineering science, and basic science content. Engineering topics is the sum of engineering science hours and engineering design hours. The following table shows the design hours and engineering science hours for courses in the engineering programs.

Each engineering student must complete a curriculum that contains at least 48 hours of engineering topics semester hours, including all courses: pre-engineering requirements, engineering core requirements, major requirements, and electives. Civil, electrical, and mechanical engineering majors should consult with their advisers to select electives at the 3000 and 4000 level that include sufficient engineering design and engineering science content to produce the required totals. Transfer courses from other institutions do not necessarily have the same engineering science and engineering design content as their equivalents in the UMSL/Washington University Joint Undergraduate Engineering Program. Students who include transfer courses in their curricula should consult with their advisers to be sure that these requirements are met.

Fees
Students register on the UMSL campus and pay UMSL fees plus an engineering fee for both pre-engineering and engineering courses. Limits on enrollments are determined by the availability of resources.

Career Outlook
Engineering is one of the few careers in which the bachelor's degree is a professional degree. Students earning a bachelor of science degree in one of the engineering disciplines are well qualified for entry-level engineering positions in a variety of businesses, industries, consulting firms, and government agencies. As society becomes increasingly dependent on technology, the outlook for all engineering disciplines becomes increasingly bright. Engineering careers typically rank at, or very near, the top of virtually any published rating of promising jobs for the 21st Century. Besides tackling challenging technical problems, roughly two-thirds of all engineers will have some level of management responsibility within ten years of receiving their bachelor's degrees. Many practicing engineers will eventually continue their education by pursuing graduate degrees on a part-time basis. Typical areas of graduate study include all advanced technical and scientific fields and management.

For Further Information
For information about enrolling in this program, please contact the UMSL/Washington University Joint Undergraduate Engineering Program at 314-516-6800.
By registering for a class at any University of Missouri campus, students agree to abide by the Code of Student Conduct below. For more information about student conduct contact Student Conduct and Community Standards in the Office of Student Affairs (301 Woods Hall; 314-516-5211).

Code of Student Conduct

200.010 Standard of Conduct Amended March 20, 1981; August 3, 1990; May 19, 1994; May 24, 2001
A student enrolling in the university assumes an obligation to behave in a manner compatible with the university’s function as an educational institution.

A. JURISDICTION OF THE UNIVERSITY OF MISSOURI generally shall be limited to conduct which occurs on the University of Missouri premises or at university sponsored or university supervised functions. However, nothing restrains the administration of the University of Missouri from taking appropriate action, including, but not limited to, the imposition of sanctions under Section 200.020(C), against students for conduct on or off university premises in order to protect the physical safety of students, faculty, staff and visitors.

B. CONDUCT for which students are subject to sanctions falls into the following categories:

1. Academic dishonesty, such as cheating, plagiarism or sabotage. The Board of Curators recognizes that academic honesty is essential for the intellectual life of the university. Faculty members have a special obligation to expect high standards of academic honesty in all student work. Students have a special obligation to adhere to such standards. In all cases of academic dishonesty, the instructor shall make an academic judgment about the student’s grade on that work and in that course. The instructor shall report the alleged academic dishonesty to the Primary Administrative Officer.
   a. The term cheating includes but is not limited to: (I) use of any unauthorized assistance in taking quizzes, tests, or examinations; (II) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (iii) acquisition or possession without permission of tests, or other academic material belonging to a member of the university faculty or staff; or (iv) knowingly providing any unauthorized assistance to another student on quizzes, tests, or examinations.
   b. The term plagiarism includes, but is not limited to: (I) use by paraphrase or direct quotation of the published or unpublished work of another person without fully and properly crediting the author with footnotes, citations or bibliographical reference; (II) unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials; or (III) unacknowledged use of original work/material that has been produced through collaboration with others without release in writing from collaborators.
   c. The term sabotage includes, but is not limited to, the unauthorized interference with, modification of, or destruction of the work or intellectual property of another member of the university community.

2. Forgery, alteration, or misuse of university documents, records or identification, or knowingly furnishing false information to the university.

3. Obstruction or disruption of teaching, research, administration, conduct proceedings, or other university activities, including its public service functions on or off campus.

4. Physical abuse or other conduct which threatens or endangers the health or safety of any person.

5. Attempted or actual theft of, damage to, or possession without permission of property of the university or of a member of the university community or of a campus visitor.

6. Unauthorized possession, duplication or use of keys to any university facilities or unauthorized entry to or use of university facilities.

7. Violation of university policies, rules or regulations or of campus regulations including, but not limited to, those governing residence in university provided housing, or the use of university facilities, or the time, place, and manner of use of such facilities.
and manner of public expression.

8. Manufacture, use, possession, sale or distribution of alcoholic beverages or any controlled substance without proper prescription or required license or as expressly permitted by law or university regulations.

9. Disruptive or disorderly conduct or lewd, indecent, or obscene conduct or expression.

10. Failure to comply with directions of university officials acting in the performance of their duties.

11. Illegal or unauthorized possession of firearms, explosives, other weapons, or dangerous chemicals.

12. Actual or attempted theft or other abuse of computer time, including but not limited to:
   a. Unauthorized entry into a file to use, read, or change the contents, or for any other purpose.
   b. Unauthorized transfer of a file.
   c. Unauthorized use of another individual's identification and password.
   d. Use of computing facilities to interfere with the work of another student, faculty member or university official.
   e. Use of computing facilities to interfere with normal operation of the university computing system.
   f. Knowingly causing a computer virus to become installed in a computer system or file.

Student Disciplinary Matters

Rules of Procedures in Student Disciplinary Matters Adopted November 8, 1968, Amended March 20, 1981; December 8, 1989; and May 18, 1994; May 24, 2001

RULES OF PROCEDURES IN STUDENT CONDUCT MATTERS
Bd. Min. 11-8-68, Amended Bd. Min. 3-20-81; Bd. Min. 12-8-89, Amended 5-19-94; Bd. Min. 5-24-01.

200.020 RULES OF PROCEDURES IN STUDENT CONDUCT MATTERS

A. PREAMBLE. The following rules of procedure in student conduct matters are hereby adopted in order to insure insofar as possible and practicable (a) that the requirements of procedural due process in student conduct proceedings will be fulfilled by the University, (b) that the immediate effectiveness of Section 10.330, which is Article V of the Bylaws of the Board of Curators relating to student conduct and sanctions may be secured for all students in the University of Missouri, and (c) that procedures shall be definite and determinable within the University of Missouri.

B. DEFINITIONS. As used in these rules, the following definitions shall apply:

1. Primary Administrative Officers. As used in these procedures, the Chief Student Affairs Administrator on each campus is the Primary Administrative Officer except in cases of academic dishonesty, where the Chief Academic Administrator is the Primary Administrative Officer. Each Primary Administrative Officer may appoint designee(s) who are responsible for the administration of these conduct procedures, provided all such appointments must be in writing, filed with the Chancellor of the campus, and the office of General Counsel. The Primary Administrator's Office will certify in writing that the given designee has been trained in the administration of student conduct matters.

2. Student Panel. A panel of students appointed by the Chancellor, from which shall be selected by the Chair, upon the request of a student charged before the Student Conduct Committee, not more than three students to serve with the Student Conduct Committee.

3. Student. A person having once been admitted to the University who has not completed a course of study and who intends to or does continue a course of study in or through one of the campuses of the University. For the purpose of these rules, student status continues whether or not the University's academic programs are in session.

4. Student Conduct Committee. As used in these procedures, "Student Conduct Committee," hereinafter referred to as the Committee, is that body on each campus which is authorized to conduct hearings and to make dispositions under these procedures or a Hearing Panel of such body as herein defined.

C. SANCTIONS.

1. The following sanctions may be imposed upon any student found to have violated the Student Conduct Code; more than one of the sanctions may be imposed for any single violation:
   a. Warning. A notice in writing to the student that the student is violating or has violated institutional regulations.
   b. Probation. A written reprimand for violation of specified regulations. Probation is for a designated period of time and includes the probability of more severe sanctions if the student is found to be violating any institutional regulation(s) during the probationary period.
   c. Loss of Privileges. Denial of specified privileges for a designated period of time.
d. Restitution. Compensation for loss, damage, or injury to the University or University property. This may take the form of appropriate service and/or monetary or material replacement.

e. Discretionary Sanctions. Work assignments, service to the University, or other related discretionary assignments.

f. Residence Hall Suspension. Separation of the student from the residence halls for a definite period of time, after which the student is eligible to return. Conditions for readmission may be specified.

g. Residence Hall Expulsion. Permanent separation of the student from the residence halls.

h. University Dismissal. An involuntary separation of the student from the institution for misconduct apart from academic requirements. It does not imply or state a minimum separation time.

i. University Suspension. Separation of the student from the University for a definite period of time, after which the student is eligible to return. Conditions for readmission may be specified.

j. University Expulsion. Permanent separation of the student from the University.

2. Temporary Suspension. The Chancellor or Designee may at any time temporarily suspend or deny readmission to a student from the University pending formal procedures when the Chancellor or Designee finds and believes from available information that the presence of a student on campus would seriously disrupt the University or constitute a danger to the health, safety, or welfare of members of the University community. The appropriate procedure to determine the future status of the student will be initiated within seven calendar days.

D. RECORDS RETENTION. Student conduct records shall be maintained for five years after University action is completed.

F. POLICY AND PROCEDURES.

1. Preliminary Procedures.
The Primary Administrative Officer/Designee(s) shall investigate any reported student misconduct before initiating formal conduct procedures and give the student the opportunity to present a personal version of the incident or occurrence. The Primary Administrative Officer/Designee(s) may discuss with any student such alleged misconduct and the student shall attend such consultation as requested by the Primary Administrative Officer/Designee(s). The Primary Administrative Officer/Designee(s), in making an investigation and disposition, may utilize student courts and boards and/or divisional deans to make recommendations.

2. Informal Dispositions.
The Primary Administrative Officer/Designee(s) shall have the authority to make a determination and to impose appropriate sanctions and shall fix a reasonable time within which the student shall accept or reject a proposed informal disposition. A failure of the student either to accept or reject within the time fixed may be deemed by the University to be an acceptance of the determination, provided the student has received written notice of the proposed determination and the result of the student's failure to formally reject, in such event, the proposed disposition shall become final upon expiration of such time. If the student rejects informal disposition it must be in writing and shall be forwarded to the Committee. The Primary Administrative Officer/Designee(s) may refer cases to the Committee without first offering informal disposition.

3. Formal Procedure and Disposition.
a. Student Conduct Committee:

   (1) The Committee shall be appointed by the Chancellor and shall have the authority to impose appropriate sanctions upon any student or students appearing before it.

   (2) The Committee, when appropriate or convenient, may be divided by the Chair of the Committee into Hearing Panels, each panel to be composed of at least five Committee members, which may include a maximum of two students, present at the hearing, including a designated chair. A Hearing Panel has the authority of the whole Committee in those cases assigned to it. The Chair of the Committee or of a Hearing Panel shall count as one member of the Committee or Hearing Panel and have the same rights as other members.

   (3) Each Chancellor shall appoint a panel of students, to be known as the Student Panel. Upon written request of a student charged before the Committee, made at least seventy-two (72) hours prior to the hearing, the Chair of the Committee or Hearing Panel shall appoint from the Student Panel not more than three students to sit with the Committee or two students to sit with the Hearing Panel (as stated in 4.a.(2) for that particular case. When students from the Student Panel serve at the request of a student charged, they shall have the same rights as other members of the Committee or Hearing Panel.

b. General Statement of Procedures. A student charged with a breach of the Student Conduct Code is entitled to a written notice and a formal hearing unless the matter is disposed of under the rules for informal disposition. Student conduct proceedings are not to be construed as judicial trials and need not wait for legal action before proceeding; but care shall be taken to comply as fully as possible with the spirit and intent of the procedural safeguards set forth herein. The Office of the General Counsel shall be legal adviser to the Committee and the Primary Administrative Officer/Designee(s).

c. Notice. The Primary Administrative Officer/Designee(s) shall initiate student conduct proceedings by arranging with the Chair to call a meeting of the Committee and by giving written notice by certified mail or personal delivery to the student charged with misconduct. The notice shall set forth the date, time, and place of the alleged violation and the date, time, and place of the hearing before the Committee. Notice by certified
mail may be addressed to the last address currently on record with the University. Failure by the student to have a current correct local address on record with the University shall not be construed to invalidate such notice. The notice shall be given at least seven (7) consecutive days prior to the hearing, unless a shorter time be fixed by the Chair for good cause. Any request for continuance shall be made in writing to the Chair, who shall have the authority to continue the hearing if the request is timely and made for good cause. The Chair shall notify the Primary Administrative Officer/Designee(s) and the student of the new date for the hearing. If the student fails to appear at the scheduled time, the Committee may hear and determine the matter.

4. Right to Petition for Review:
(other than University expulsion, University dismissal, or University suspension).
4a. In all cases where the sanction imposed by the Committee is other than University expulsion, University dismissal, or University suspension, the Primary Administrative Officer/Designee(s) or the student may petition the Chancellor or Designee in writing for a review of the decision within five (5) calendar days after written notification. A copy of the Petition for Review must also be served upon the nonappealing party within such time. The Petition for Review shall state the grounds or reasons for review, and the nonappealing party may answer the petition within five (5) calendar days.
4b. The Chancellor or Designee may grant or refuse the right of review. In all cases where the Petition for Review is refused, the action of the Committee shall be final. If the Chancellor or Designee reviews the decision, the action of the Chancellor shall be final unless it is to remand the matter for further proceedings.

5. Right of Appeal
(University expulsion, University dismissal, or University suspension only).
5a. When a student is expelled, dismissed, or suspended from the University by the Committee, the Primary Administrative Officer/Designee(s), or the student may appeal such decision to the Chancellor or Designee by filing written notice of appeal with the Chancellor within ten (10) calendar days after notification of the decision of the Committee. A copy of the Notice of Appeal will contemporaneously be given by the student to the Primary Administrative Officer/Designee(s) or by the Primary Administrative Officer/Designee(s) to the student. The appealing party may file a written memorandum for consideration by the Chancellor with the Notice of Appeal, and the Chancellor may request a reply to such memorandum by the appropriate party.
5b. The Chancellor or Designee shall review the record of the case and the appeal documents and may affirm, reverse, or remand the case for further proceedings and shall notify each party in writing of the decision on the appeal. The action of the Chancellor shall be final unless it is to remand the matter for further proceedings.

In cases of suspension, dismissal, or expulsion where a Notice of Appeal is filed within the required time, a student may petition the Chancellor in writing for permission to attend classes pending final determination of appeal. The Chancellor may permit a student to continue in school under such conditions as may be designated pending completion of appellate procedures, provided such continuance will not seriously disrupt the University or constitute a danger to the health, safety, or welfare of members of the University community. In such event, however, any final sanctions imposed shall be effective from the date of the action of the Committee.

7. Student Honor System.
Forums under the student honor systems established for investigating facts, holding hearings, and recommending and imposing sanctions are authorized when the student honor code or other regulations containing well defined jurisdictional statements and satisfying the requirements of Section 10.030, which is Article V of the Bylaws of the Board of Curators, have been reduced to writing and have been approved by the Chancellor and the Board of Curators and notice thereof in writing has been furnished to students subject thereto. Though the student honor system has jurisdiction, together with procedures set forth therein, instead of the Primary Administrative Officer/Designee(s), the standard of conduct called for in any such student honor system shall be deemed to contain at a minimum the same standards set forth in Section 200.010 entitled Standards of Conduct. Procedures shall satisfy the requirements of the Board of Curators' Bylaws, Section 10.030, which is Article V, and shall contain procedures herein before stated insofar as appropriate and adaptable to the particular situation and shall be approved by the Chancellor and the General Counsel. Students subject to student honor systems shall have the rights of appeal as set forth in Section 200.02C E.6 and 7.

F. HEARING PROCEDURES.

1. Conduct of Hearing. The Chair shall preside at the hearing, call the hearing to order, call the roll of the Committee in attendance, ascertain the presence or absence of the student charged with misconduct, read the notice of hearing and charges and verify the receipt of notices of charges by the student, report any continuances requested or granted, establish the presence of any adviser or counselor of the student, and call to the attention of the student charged and the adviser any special or extraordinary procedures to be employed during the hearing and permit the student to make suggestions regarding or objections to any procedures for the Conduct Committee to consider.
1a. Opening Statements.
(1) The Primary Administrative Officer/Designee(s) shall make opening remarks outlining the general nature
of the case and testify to any facts the investigation has revealed.
(2) The student may make a statement to the Committee about the charge at this time or at the conclusion of the University's presentation.

b. University Evidence.
(1) University witnesses are to be called and identified or written reports of evidence introduced as appropriate.
(2) The Committee may question witnesses at any time.
(3) The student or, with permission of the Committee, the adviser or counselor may question witnesses or examine evidence at the conclusion of the University's presentation.

c. Student Evidence.
(1) If the student has not elected to make a statement earlier under a.(2) above, the student shall have the opportunity to make a statement to the Committee about the charge.
(2) The student may present evidence through witnesses or in the form of written memoranda.
(3) The Committee may question the student or witnesses at any time. The Primary Administrative Officer/Designee(s) may question the student or witnesses.

d. Rebuttal Evidence. The Committee may permit the University or the student to offer a rebuttal of the other's presentation.

e. Rights of Student Conduct Committee. The Committee shall have the right to:
(1) Hear together cases involving more than one student which arise out of the same transaction or occurrence, but in that event shall make separate findings and determinations for each student;
(2) Permit a stipulation of facts by the Primary Administrative Officer/Designee(s) and the student involved;
(3) Permit the incorporation in the record by reference of any documentation, produced and desired in the record by the University or the student charged;
(4) Question witnesses or challenge other evidence introduced by either the University or the student at any time;
(5) Hear from the Primary Administrative Officer/Designee(s) about dispositions made in similar cases and any dispositions offered to the student appearing before the Committee;
(6) Call additional witnesses or to require additional investigation;
(7) Dismiss any action at any time or permit informal disposition as otherwise provided;
(8) Permit or require at any time amendment of the Notice of Hearing to include new or additional matters which may come to the attention of the Committee before final determination of the case; provided, however, that in such event the Committee shall grant to the student or Primary Administrative Officer/Designee(s) such time as the Committee may determine reasonable under the circumstances to answer or explain such additional matters;
(9) Dismiss any person from the hearing who interferes with or obstructs the hearing or fails to abide by the rulings of the Chair of the Committee;
(10) Suspend summarily students from the University who, during the hearing, obstruct or interfere with the course of the hearing or fail to abide by the ruling of the Chair of the Committee on any procedural question or request of the Chair for order.

2. Rights of Students Upon Hearing. A student appearing before a Committee shall have the right to:
 a. Be present at the hearing;
 b. Have an adviser or counselor and to consult with such adviser or counselor during the hearing;
 c. Have students from the Student Panel sit with the Committee or Hearing Panel;
 d. Hear or examine evidence presented to the Committee;
 e. Question witnesses present and testifying;
 f. Present evidence by witnesses or affidavit;
 g. Make any statement to the Committee in mitigation or explanation of the conduct in question;
 h. Be informed in writing of the findings of the Committee and any sanctions it imposes; and
 i. Request review or appeal to the Chancellor as herein provided.

3. Determination by the Student Conduct Committee. The Committee shall then make its findings and determinations in executive session out of the presence of the Primary Administrative Officer/Designee(s) and the student charged. Separate findings are to be made:
 a. As to the conduct of the student, and
 b. On the sanctions, if any, to be imposed. No sanctions shall be imposed on the student unless a majority of the Committee present is reasonably convinced by the evidence that the student has committed the violation charged.

4. Official Report of Findings and Determinations. The Committee shall promptly consider the case on the merits and make its findings and determination and transmit them to the Primary Administrative Officer/Designee(s) and the student charged forthwith.

5. Other Procedural Questions. Procedural questions which arise during the hearing not covered by these general rules shall be determined by the Chair, whose ruling shall be final unless the Chair shall present the question to the Committee at the request of a member of the Committee, in which event the ruling of the Committee by majority vote shall be final.
6. General Rules of Decorum. The following general rules of decorum shall be adhered to:
   a. All requests to address the Committee shall be addressed to the Chair.
   b. The Chair will rule on all requests and points of order and may consult with Committee's legal adviser prior to any ruling. The Chair's ruling shall be final and all participants shall abide thereby, unless the Chair shall present the question to the Committee at the request of a member of the Committee, in which event the ruling of the Committee by majority vote shall be final.
   c. Rules of common courtesy and decency shall be observed at all times.
   d. An adviser or counselor may be permitted to address the Committee at the discretion of the Committee. An adviser or counselor may request clarification of a procedural matter or object on the basis of procedure at any time by addressing the Chair after recognition.

7. Record of Hearing. A taped or stenographic record of the hearing shall be maintained. The notice, exhibits, hearing record, and the findings and determination of the Committee shall become the "Record of the Case" and shall be filed in the Office of the Primary Administrative Officer/Designee(s) and for the purpose of review or appeal be accessible at reasonable times and places to both the University and the student.

8. Crimes of Violence and Non-Forcible Sex Offenses. In cases of alleged crimes of violence and non-forcible sex offenses:
   a. The alleged victim is entitled to have an advisor or counselor present during his or her participation in the hearing.
   b. The alleged victim and the accused shall be informed of the outcome of any campus disciplinary proceeding brought alleging a crime of violence or non-forcible sexual assault.

Policy on Hazing

Hazing, defined by the Fraternity Executive Association and accepted by the University of Missouri St. Louis, is any intentional action taken or situation created, whether on or off university premises, that produces mental or physical discomfort, embarrassment, harassment, or ridicule. This includes but is not limited to: paddling in any form, creation of excessive fatigue, physical or psychological shocks, wearing apparel publicly which is conspicuous and not normally in good taste, engaging in public stunts and buffoonery, morally degrading or humiliating games and activities, involuntary labor, or any activity not consistent with the University of Missouri Board of Curators Standard of Student Conduct. The University of Missouri St. Louis does not condone or tolerate hazing of any type by an organization, or by an individual against another individual.

The Office of Student Activities will investigate any incident in which a charge of hazing has been made. University recognition may be temporarily withdrawn pending hearings and due process procedures.

Should it be determined that a student organization or any of its members is guilty of hazing as previously defined, sanctions may include but are not limited to:

A. Automatic and indefinite suspension of campus recognition or registration with an accompanying loss of all campus privileges (i.e. use of facilities, student services, etc.);

B. Disciplinary action against those members involved in the incident(s) including suspension or expulsion from the university.

Implementation: Each organizational president (or equivalent officer) is required to read and sign the university’s Policy on Hazing at the first regular meeting at which he or she presides. This policy, signed by the incoming president (or equivalent officer), must accompany any notification of a change in officers submitted to the Office of Student Activities. Failure to do so will result in the automatic imposition of inactive status on the organization with an accompanying loss of all university privileges until such time as the signed policy is submitted.

The following equal opportunity policies have been established by the University of Missouri Board of Curators to govern the academic and administrative functions of the four campuses and are available on the UM System website.

320.010 EQUAL EMPLOYMENT OPPORTUNITY PROGRAM

330.060 SEXUAL HARASSMENT

240.040 POLICY RELATED TO STUDENTS WITH DISABILITIES

330.070 AFFIRMATIVE ACTION ON COMMITTEE APPOINTMENTS

Should a student feel that the campus has not followed these policies, they have access to the University of Missouri Discrimination Grievance Procedure for Students.

Students may contact the Student Advocate in Academic Affairs to lodge complaints or seek information about these procedures.
ACADEMIC POLICIES

ADMISSION PROCEDURES

ADVISING

ART AND ART HISTORY, DEPARTMENT OF

ART GALLERY (GALLERY 210)

ARTS AND SCIENCES, COLLEGE OF

ATHLETICS

ATTENDANCE

BACHELOR OF INTERDISCIPLINARY STUDIES

BACHELOR OF LIBERAL STUDIES

BIOCHEMISTRY AND BIOTECHNOLOGY PROGRAM

BIOLOGY, DEPARTMENT OF

BIOTECHNOLOGY PROGRAM

BUSINESS ADMINISTRATION, COLLEGE OF

CAREER SERVICES

CERTIFICATE PROGRAMS

CHEMISTRY AND BIOCHEMISTRY, DEPARTMENT OF

CODE OF STUDENT CONDUCT

COLLEGE OF ARTS AND SCIENCES

COLLEGE OF BUSINESS ADMINISTRATION

COLLEGE OF EDUCATION

COLLEGE OF FINE ARTS AND COMMUNICATION

COLLEGE OF NURSING

HEALTH SERVICES

HISTORY, DEPARTMENT OF

HONOR SOCIETIES

HONORS COLLEGE

HOUSING

INFORMATION TECHNOLOGY SERVICES

INSTITUTIONAL SAFETY

INSTRUCTIONAL AREAS

INSURANCE

INTERNATIONAL STUDENTS

INTERDISCIPLINARY STUDIES, BACHELOR OF

INTERDISCIPLINARY MINORS

INTERNATIONAL STUDENT AND SCHOLAR SERVICES

INTERNSHIPS

INTRODUCTION TO UMSL

LANGUAGES AND CULTURES

LATIN HONORS

LIBRARIES

LOCAL GOVERNMENT MANAGEMENT PROGRAM

MASTER'S DEGREE REQUIREMENTS

MATHEMATICS AND COMPUTER SCIENCE, DEPARTMENT OF

MATH LAB

MEDIA STUDIES

MILITARY SERVICE, CREDIT FOR

MINORS IN INTERDISCIPLINARY STUDIES

MISSION STATEMENT

MISSOURI STATE TRANSFER AGREEMENT

MULTICULTURAL RELATIONS

MUSIC, DEPARTMENT OF

NATIONAL SCHOLARSHIP INFORMATION, OFFICE OF

NON-PROFIT MANAGEMENT AND LEADERSHIP PROGRAM

GRADUATE

UNDERGRADUATE

NURSING, COLLEGE OF

COURSE DESCRIPTIONS

UNDERGRADUATE STUDIES

GRADUATE STUDIES

PROFESSIONAL ORGANIZATIONS

OPTOMETRY, COLLEGE OF

CENTER FOR EYE CARE

COURSE DESCRIPTIONS